



Annual
and Sustainability Report
2016

A circular fisheye aerial photograph of a city, likely Manila, Philippines, showing a mix of high-rise buildings, residential areas, and green spaces. The city is surrounded by a blue sky with scattered white clouds.

RESOURCING
THE WORLD

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Natural resources are becoming increasingly scarce while the planet's needs are growing.

The world must come up with a new economic growth model.

The switch has been made from a resource consumption rationale to a use-and-recover approach, thereby contributing to a more circular economy.

For all those reasons, Veolia designs and implements solutions aimed at improving access to resources while at the same time protecting and renewing those same resources.

We are loyal to our mission of

**RESOURCING
THE WORLD**



**We will accentuate
our lead in environmental businesses
through disciplined expenditure,
creative growth actions and
operational excellence.**

**Antoine Frérot,
Chairman and Chief Executive Officer
of Veolia**

Performance

Following on from Veolia's transformation, which placed the company on a fresh trajectory, 2016 was the first year of our new plan for growth. The 2016 financial statements reflect the ongoing improvement in our operational performance and profitability, with EBITDA exceeding €3 billion, current net income up 11% at constant exchange rates, and net free cash flow of almost €1 billion. Our savings have outstripped the target we had set, proving both the credibility of our cost-cutting plan and the quality of its implementation. Additionally, we have made good headway in rebalancing our contract portfolio, as industry now accounts for 45% of our business while local government authorities account for 55%. Virtually unchanged, only our revenue is below our expectations, but this is attributable to the unfavorable economic climate. Nonetheless, revenue did improve significantly in the fourth quarter of 2016, by 1.9% at constant exchange rates.

Commercial successes

We recorded numerous successes throughout 2016, in both our longstanding markets and those that we have developed more recently. They include industrial water treatment for Sinopec, China's leading oil group, with a 25-year contract worth a cumulative €3.3 billion in revenue; the £1 billion, 30-year contract to operate waste recycling centers for Hampshire County Council in the United Kingdom; the extension for 10 years of our wastewater partnership with the city of Milwaukee, United States, worth \$500 million; the largest energy refit project in the Middle East, in Dubai, with Etihad ESCO; management of the left bank district heating network in Prague, Czech Republic; and, in France, the construction and operation for 25 years of an energy recovery facility in the Aube department. What do these various successes have in common? They all show that our strategic positioning is right and demonstrate our commercial vitality, the competitiveness of our service offerings and the attractiveness of our expertise. They will bolster our revenue in the months and years ahead, especially since many of these contracts have been signed in the world's most vigorous regions and will enable us to share in their growth.

New areas of expertises

In addition to our commercial efforts, we made several targeted acquisitions. They will consolidate our presence in high-potential sectors or broaden the scope of our expertise. Two of these transactions are of particular interest: the takeover of Chemours' Sulfur Products division in the United States, which extends our know-how in recycling and regeneration, a key link in the energy transition chain; and the acquisition of Kurion, which provides Veolia with a comprehensive suite of expertise for the treatment of low- or very low-level radioactive waste and nuclear cleanup activities. These acquisitions help us build unparalleled clusters of expertise, which will eventually provide us with new areas of growth for our company. Now as in the past, Veolia is expanding and reinventing its businesses, placing itself at the very source of future growth.

“Our savings have outstripped the target we had set, proving both the credibility of our cost-cutting plan and the quality of its implementation.”



45%
of Veolia's business
is now with
the industry sector.

2017-2018

Our strategy has not changed; it is based on the dual dynamic of growth and efficiency. However, we need to take account of the fact that the economic environment is tighter than ever and that international relations are increasingly uncertain.

Our focus on growth aims to amplify our organic expansion, following on from the upturn identified at the end of 2016. Our healthy reservoir of projects in the pipeline – along with the contracts signed in 2016 but not yet fully reflected in our results – provide us with solid hope for year-on-year revenue growth. We laid good groundwork for future growth in 2016. In 2017, we will already see the payback from this work and we will continue to build on these foundations in preparing for the following years. To this end, we will be strengthening our salesforce.

With regard to efficiency, we will continue to implement our operational performance improvement and cost-containment programs to finance our growth and protect our profitability. To offset the increasingly unpredictable economic environment, we have decided to raise our cost savings target from €600 million to €800 million over three years, of which €250 million in 2017. We will accentuate our lead in environmental businesses through disciplined expenditure, creative growth actions and operational excellence.

Digital innovation

The digital revolution is delivering a step change in the potential for our company's action. Our innovation teams are highly active in this area, and their work is reflected in proposals for differentiating services with high value added. Last year, we opened Vig'ileo, the control center for the Greater Lille (France) water supply system. All data from our facilities and distribution network is fed to this center in real time, which enables us to improve the network performance and ensure greater water supply security. This innovation – now included in several other contracts in France and other countries – represents a quantum leap in the day-to-day operation of large urban services, while also improving their resilience in the event of a crisis.

In 2016, we opened two new Hubgrade platforms in Madrid and Aubervilliers, near Paris. Our 15 energy-efficiency centers use a digital network and expert systems to operate several thousand facilities remotely and in real time. For buildings, these “hypervision” platforms can deliver significant energy savings that benefit municipalities, businesses and residents.

A global company the size of Veolia provides each local government authority or industrial concern, wherever they are located, with the opportunity to benefit from the most recent advances from research. For Veolia, it is an additional advantage when confronting international competition and a way of creating and capturing value.

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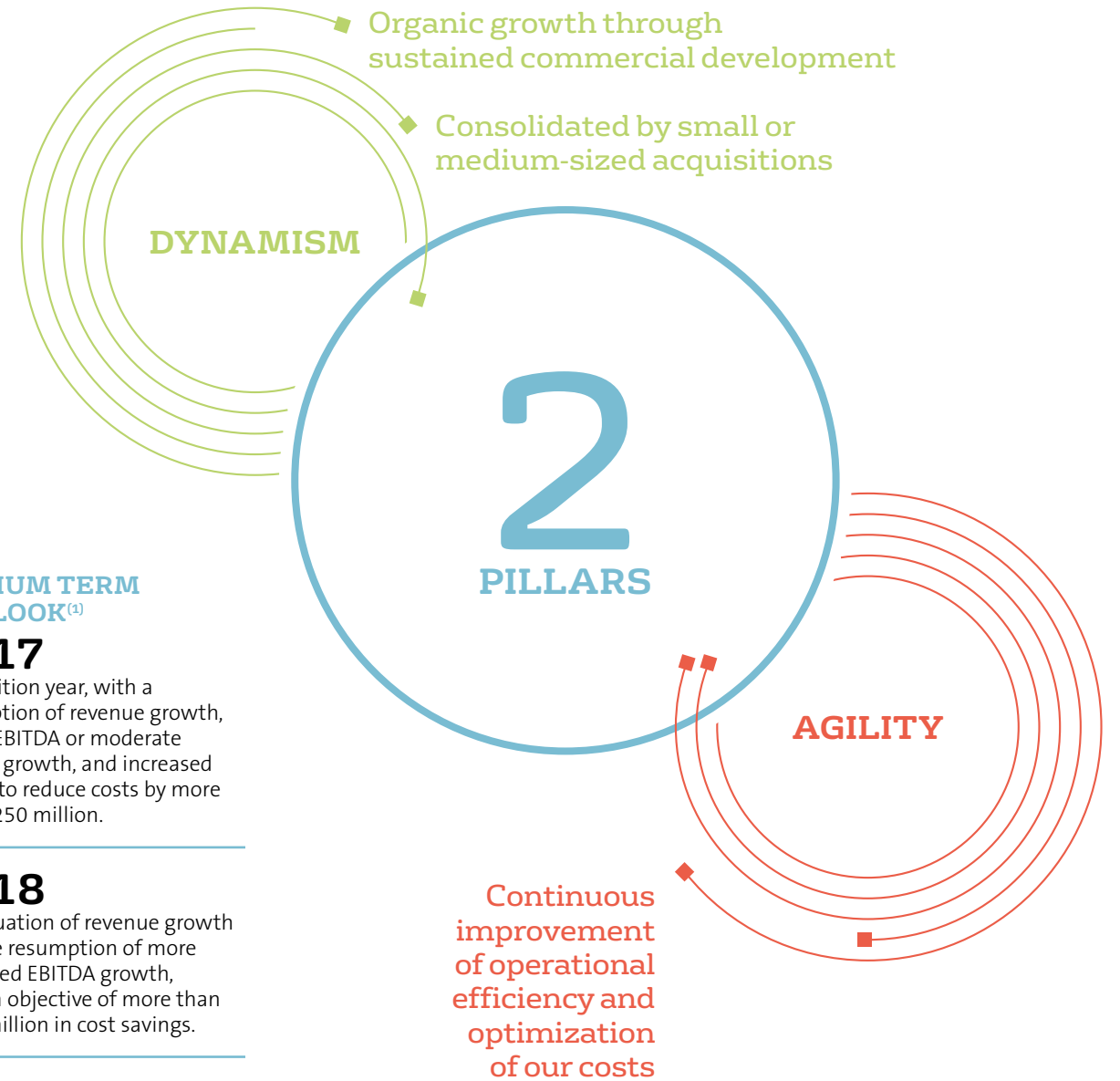
Outlook

We are in the vanguard of businesses that are preparing the world to come: we know how to make the economy circular, we know how to replace carbon-based energy with renewables, we know how to treat even the most highly polluted effluent, and more.

But what will really pay off for us in the future is the synergy between our three areas of business: water, energy and waste. It is at the crossroads between the three that the greatest source of growth will be found. We use waste to produce secondary raw materials, biofuels, biogas and fertilizer. We use wastewater to produce clean water, bioplastics, heat and electricity. In other words, our solutions transform something that is a nuisance – municipal or industrial pollution – into something useful. Inventing economic models that “recycle everything and waste nothing” is one of the priority areas of our research. Building on the areas of excellence we have developed over the years, we now intend to derive maximum benefit from the links between the water, waste and energy markets to take our company into the future with an even greater degree of vigor.

Antoine Frérot,
Chairman and Chief Executive Officer

“Building on the areas of excellence we have developed over the years, we now intend to derive maximum benefit from the links between the water, waste and energy markets to take our company into the future with an even greater degree of vigor.”



MEDIUM TERM OUTLOOK⁽¹⁾

2017

A transition year, with a resumption of revenue growth, stable EBITDA or moderate EBITDA growth, and increased efforts to reduce costs by more than €250 million.

2018

Continuation of revenue growth and the resumption of more sustained EBITDA growth, with an objective of more than €300 million in cost savings.

2019

Continuation of revenue growth and full impact of cost savings. EBITDA expected between €3.3 billion and €3.5 billion⁽²⁾ (excluding IFRIC 12).

(1) At constant exchange rates.

(2) Equivalent to €3.4 billion to €3.6 billion (excluding IFRIC 12) and before taking into account the unfavorable exchange rate impacts recorded in 2016.

Governance

In 2016, changes were made to the governance bodies, which continued to be widely consulted in a period of profound transformation for the company. The year was decisive both in terms of the decisions made by these bodies and of their implementation at the operational level.

● The Board of Directors

The Board of Directors met seven times in 2016, with an average attendance rate of 91.6%. Throughout the year, the main matters dealt with by the Board were the review of the financial statements for 2015 and the first half of 2016; information about the 2016 first and third quarter accounts and the associated financial disclosures; review of the 2016 budget and long-term plan; and a review of nonfinancial ratings and the extent to which Veolia has delivered on its sustainable development commitments. The review of the 2015 financial statements paid particular attention to the dividend policy and the proposed allocation of earnings. In addition, the Board members attended a company strategy seminar spread over two half-days to examine and discuss strategic issues presented by the management. In accordance with the AFEP-MEDEF code of governance for listed companies in France, article 11 of the company's articles of association stipulates a four-year term of office for its Board directors and the annual renewal of one-quarter of the members.

On April 21, 2016, the annual ordinary and extraordinary shareholders' meeting renewed the terms of office of Jacques Aschenbroich and Nathalie Rachou, and appointed Isabelle Courville and Guillaume Texier as Board members for a four-year term that will end at the annual

meeting of shareholders in 2020 called to approve the financial statements for the year ended December 31, 2019.

In accordance with the annual renewal of one-quarter of its members, the Board noted at its March 7, 2017 meeting that the terms of three directors (Caisse des dépôts et consignations represented by Olivier Mareuse, Marion Guillou and Paolo Scaroni) end with the annual meeting of shareholders on April 20, 2017. On a recommendation of the Nominations Committee, the Board decided to put to the annual ordinary and extraordinary shareholders' meeting of April 20, 2017, a proposal to renew the terms of these three Board members, for a period of four years that will end at the annual meeting of shareholders in 2021 called to approve the financial statements for the year ended December 31, 2020. After these changes, the Board of Directors would still be composed of 17 members, six (40%) of whom are women, two of whom represent employees, and two nonvoting members.

17
BOARD MEMBERS
including 13 independent directors⁽¹⁾

40%
OF BOARD MEMBERS
ARE WOMEN⁽¹⁾

9 men
6 women



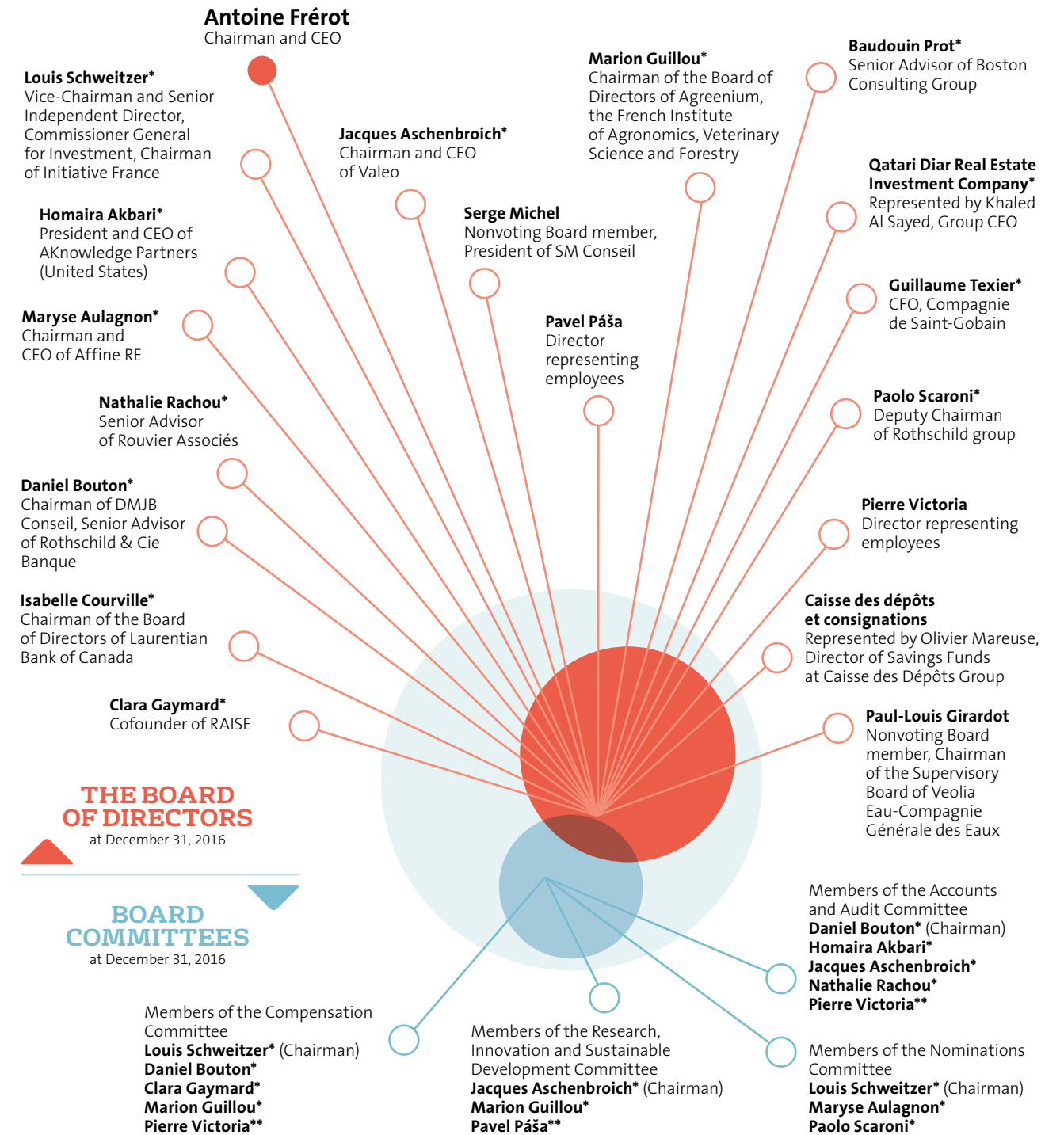
6
NATIONALITIES
France, United States,
Czech Republic, Qatar,
Italy and Canada



(1) Excluding the Board members representing employees.

THE BOARD OF DIRECTORS

at December 31, 2016



* Independent director.

** Director representing employees.

At its March 7, 2017 meeting, the Board of Directors decided that, following the shareholders meeting on April 20, 2017, the make-up of its committees will be modified.

The company's Board of Directors is assisted by the following four committees:

The Accounts and Audit Committee oversees all matters dealing with the preparation and monitoring of the company's accounting and financial information. It meets to examine annual and quarterly accounts before they are presented to the Board of Directors. In 2016, this Committee met six times, with an average attendance rate of 88%.

The Nominations Committee is mainly responsible for assisting the Board of Directors in changes to the composition of the Board, the appointment and reappointment of members, launching the formal evaluation of the operation of the Board and its committees, and reviewing the independence of directors. In 2016, this Committee met four times, with an average attendance rate of 100%.

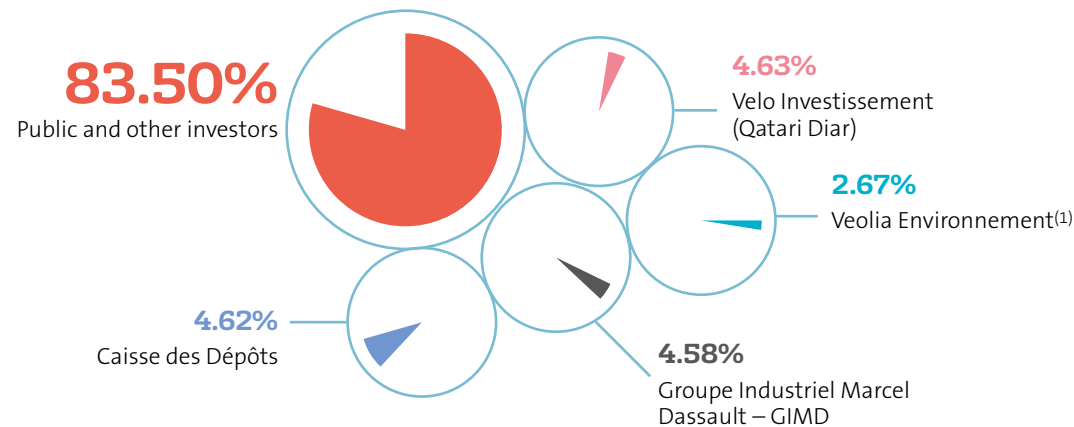
The Compensation Committee is mainly responsible for assisting the Board of Directors with regards to the remuneration of the Chairman and CEO (deciding the 2016 variable component for the 2015 year and the 2016 remuneration targets), the remuneration policy for the Executive Committee members, the employee stock purchase plan policy, and examining the total amount allocated for directors' fees and its distribution. This Committee met seven times in 2016, with an average attendance rate of 97%.

The Research, Innovation and Sustainable Development Committee reviews and evaluates the company's strategy and policies in these areas and advises the Board of Directors. This Committee met three times in 2016, with an average attendance rate of 100%.

The Executive Committee Chaired by Antoine Frérot, the Executive Committee is responsible for considering, consulting and deciding on the overall direction of the company. It also authorizes important projects for the company, including contracts, investments, divestments and asset sales that exceed a certain monetary value. The Executive Committee meets once a month.

The Ethics Committee's role is to make recommendations that concern the company's fundamental values. It may be contacted by any employee or decide itself to address any matter relating to ethics. The Committee may make "ethics visits" to the company's operational entities, in particular to assess the employees' level of ethical maturity, their understanding of the company's values, any ethical issues they may encounter and ethics training.

VEOLIA SHARE OWNERSHIP
at December 31, 2016



(1) Veolia Environnement treasury shares without voting rights.



1 Antoine Frérot
Chairman and CEO

2 Laurent Auguste
Senior Executive Vice President, Development, Innovation and Markets

3 Estelle Brachlianoff
Senior Executive Vice President, UK and Ireland

4 Patrick Labat
Senior Executive Vice President, Northern Europe

5 Helman le Pas de Sécheval
General Counsel

6 Claude Laruelle
Director of Global Enterprises

7 Philippe Capron
Chief Financial Officer

8 François Bertreau
Chief Operating Officer

9 Jean-Marie Lambert
Senior Executive Vice President, Human Resources

10 Régis Calmels
Senior Executive Vice President, Asia

11 Philippe Guitard
Senior Executive Vice President, Central and Eastern Europe



the V

Lease costs halved

The V's annual lease costs come to **€16.5 million** . By comparison, Veolia was paying more than **€34 million** for its 10 former sites. The savings generated are estimated to total **€25 million a year.**

Welcome to Veolia's new flagship headquarters, the V.

The new headquarters complete Veolia's transformation into a single company bringing together its three businesses: water, waste and energy. The teams now work together in a more contemporary way in the V, which is located in Aubervilliers, northern Paris. Within an interior bathed in natural light, the V is equipped with state-of-the-art digital technology and tools to encourage modern working methods and mobility. As a showcase for Veolia's mission of "Resourcing the world," the building is HQE and BREEAM⁽¹⁾ certified, meaning it complies with the highest energy and environmental certifications. The V is also the reflection of a company that supports regional development. Veolia is involved in local life through the many ties it has formed with the city's stakeholders, employment integration non-profits and other structures that promote the economy of the wider Plaine Commune area where the V is located.

(1) HQE: Haute Qualité Environnementale (High Environmental Quality) is a French green building standard. BREEAM (Building Research Establishment Environmental Assessment Method) is the world's most widely used and recognized certification standard.

10.14.2014

The foundation stone is laid for Veolia's new headquarters in Aubervilliers, northern Paris.


10.18.2016

Around 2,200 people, previously scattered across various sites in Paris and its region, move into Veolia's new headquarters.






Timber made in France

15,000 m²

of oak parquet and linden and cherry-wood ceilings 

45,000 m²

-  2,200 workstations
-  3 reception areas
-  5 staff canteens
- 7 levels
- 1 auditorium that seats 200 people



ServO
FRANCE

Vig'iléo
FRANCE

Sydney
AUSTRALIA

Milwaukee
UNITED STATES

Arras
FRANCE

Transdev
FRANCE

INAUGURATIONS

RENEWALS

FINALIZATION

10.2016

With **Vig'iléo**, its new smart water management center, the European Metropolis of Lille aims to make its water distribution service one of the most proficient in the world in terms of transparency and efficiency. It will provide real-time access to all network information and reduce network water loss by 25%.

10.2016

SEDIF, the Île-de-France water authority, supplies water to 4.5 million people and produces 250 billion liters of drinking water a year. The authority inaugurated its new integrated control center called **ServO**. This €6.3 million investment designed by Veolia centralizes and processes all operation data, monitors and plans service management from resource to tap, and suggests strategies for the operators to help reduce energy consumption, environmental impact and operating costs.

12.2016

Caisse des Dépôts and Veolia finalized the shareholder reorganization agreement and Veolia's withdrawal from the **Transdev** Group (Transdev). As a result of this operation, Caisse des Dépôts, having acquired 20% of Transdev's capital for €220 million, now owns 70% of the capital and takes exclusive control. Veolia retains, on a transitional basis, 30% of Transdev's capital.

01.2016

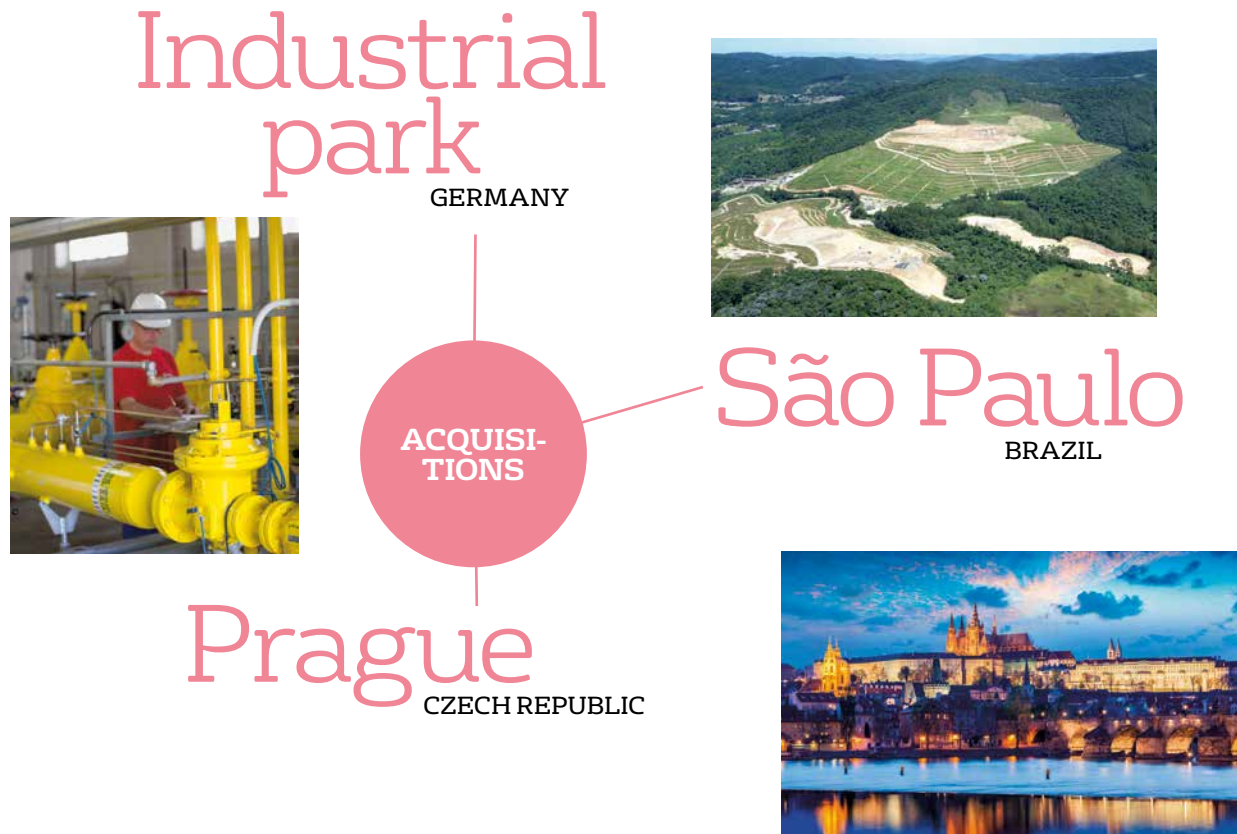
After 20 years of working together, **Sydney** Water Corporation renewed its trust in Veolia for the operation and maintenance of the two water treatment plants on the outskirts of the city with a new 15-year contract worth €250 million. With a combined production capacity of 370,000 cubic meters of water a day, these plants supply drinking water to more than 500,000 people.

06.2016

The **Milwaukee** Metropolitan Sewerage District has extended its agreement with Veolia North America to continue managing and operating its collection and wastewater treatment system under a 10-year, \$500 million contract. It's one of the Nation's largest waste water public private partnerships.

12.2016

Veolia won two public service management contracts for water and wastewater services for Greater **Arras** (France), for 9 years and revenue of €130 million.



01.2016

Nuon Energie und Service GmbH joined Veolia. Specializing in the operation of utilities for **industrial parks** in Germany, the company owns and operates the utilities at two parks in North Rhine-Westphalia. Veolia will supply both parks with electricity, gas, water, steam management services and waste management brokering. This acquisition, along with that of IPKW in the Netherlands, strengthens Veolia's position in the industrial services market.

05.2016

The Pedreira landfill, acquired in 2016, generates annual revenue of about €40 million. Some 130 employees handle 5,500 metric tons of solid waste a day at the landfill: 60% from the city of **São Paulo**, 25% from the region's industrial and service-sector businesses and 15% from other cities in the urban area.

06.2016

By acquiring the assets of Pražská Teplárenská LPZ SA for €71.3 million, Veolia strengthened its position in the energy services market in the Czech Republic, raising its share from 14% to 19%. Veolia now operates the district heating networks of much of the left bank of the city of **Prague** – where it already manages water and wastewater services – providing heating to 55,000 homes as well as to municipal and service-sector buildings, for annual revenue of about €50 million.

10.2016

Veolia is to build an effluent treatment facility for the Brucejack mine in British Columbia. Starting in 2017, this mine will produce 2,700 metric tons of high-grade gold ore. Veolia will treat up to 10,000 cubic meters per day of process effluent. To ensure compliance with the very stringent environmental discharge limits, exhaustive tests have been conducted since 2014. The system put in place by Veolia has given the company **Pretium** confidence that its industrial water discharge rates will comply with quality standards.

05.2016

Rancagua, one of Chile's largest urban communities with a population of 250,000, has chosen Veolia to collect its 7,800 metric tons of household and bulky waste each month, and to clean the city's streets and markets. This 5-year contract also includes the gradual installation of 500 waste containers and special equipment for the markets.

12.2016

Veolia, "**France's favorite company**", has topped the list of 11 companies in the Construction and Environment sector that French people would most like to work for. The company is in 21st position in the overall ranking of 295 companies. This poll was carried out by the Toluna Institute for the magazine *Challenges*.

Contracts p. 20

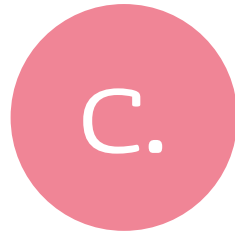
CREATING SUSTAIN- ABLE SOLUTIONS

Partnerships p. 42

Expertise p. 34



SUSTAINABLE SOLUTIONS



SINOPEC ^{CHINA}

Asia's largest refiner has chosen Veolia to operate the entire water cycle at its Yanshan petrochemicals complex. This 25-year contract will generate accumulated revenue of €3.27 billion and is fine recognition of Veolia's oil and gas industry expertise.



Make Yanshan a reference in China

Yanshan Petrochemical, a wholly owned subsidiary of Sinopec, is one of China's largest bases for the production of oil-derived products such as synthetic rubber and resin, phenol, acetone and high-quality refined oil products. Each year, it processes over 10 million metric tons of crude oil and produces 800,000 metric tons of ethylene. The complex can produce 94 varieties of petrochemical products, which requires considerable quantities of water. Veolia's main aim is to optimize water consumption at the site and increase the recycling rate. The two companies have decided to extend their partnership to cover the entire water cycle at the site, including cooling water, demineralized water, industrial water, drinking water, chilled water, wastewater and firefighting water. The joint company formed by Yanshan

Petrochemical and Veolia, will employ more than 800 employees. Applicable from January 1, 2016, China introduced draconian new industrial water discharge standards and Yanshan Petrochemical called on Veolia's expertise to achieve the level of pollution abatement required. Veolia has therefore been tasked with upgrading the wastewater treatment plant to bring it into compliance with the most stringent standards in this field in the Beijing region. The contract also includes the implementation of a comprehensive energy optimization program covering all on-site water production facilities. This will reduce the energy consumed per cubic meter of water produced, thereby contributing to the efforts made by Beijing Yanshan Petrochemical to reduce its carbon footprint. This contract provides renewed impetus for Veolia's high ambitions in China, where it hopes to double its consolidated revenue by 2018 compared to 2015.

VEOLIA IN CHINA

Veolia has 14,200 employees in China (including joint venture companies employees), where it has been present since 2003. The company supplies drinking water to 44 million Chinese and has been awarded the contract for nine hazardous waste treatment centers. Veolia has been working with Beijing Yanshan Petrochemical since 2006, when the first partnership contract was signed for the management of the wastewater treatment and reclaim facilities.

THE PARTNERSHIP CHALLENGES



Lower fresh water consumption.



Reduce Beijing Yanshan Petrochemical's water footprint.

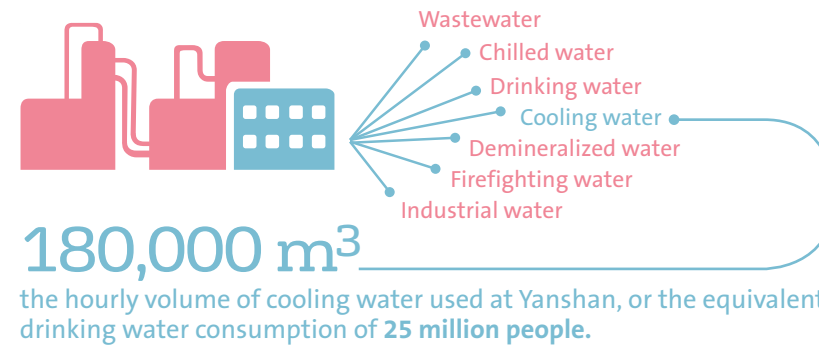


Upgrade wastewater treatment to comply with the most stringent standards.



Implement a comprehensive energy optimization program for all on-site water facilities.

THE YANSHAN COMPLEX





SDEDA ^{FRANCE}

The Aube department waste authority, SDEDA, has contracted Veolia to build and operate for 25 years a new energy recovery facility for the city of Troyes and its surrounding area. The contract is worth a cumulative €240 million.



All the energy from waste

There was only one call for tenders in France in 2016 for the construction and operation of an energy recovery facility – and it was awarded to Veolia. The Valaubia project, in La Chapelle-Saint-Luc, eastern France, has a processing capacity of 60,000 metric tons a year and will produce local, sustainable energy for the residents of France’s Aube department. The facility is certified ISO 50001 and meets stringent technical and environmental standards. Equipped with an ultra-efficient treatment process (double-filtration technology and maturation unit, etc.), it will extract the full energy potential from the waste to produce 41 GWh of electricity and 60 GWh of heat.

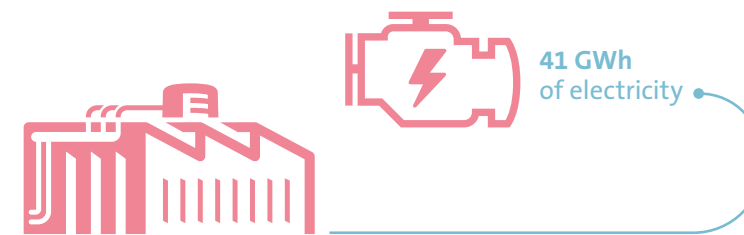
That adds up to the equivalent electricity consumption of 50,000 people and of heating for about 8,900 people. The heat produced will be fed into the Greater Troyes district heating network and used by the neighboring Michelin plant that manufactures tires for farm machinery. The Valaubia project falls within the remit of France’s energy transition for green growth legislation, which provides for an increase of 32% in renewable energy by 2030 and a 50% reduction in the volume of waste sent to landfill by 2025. With its visitor trail for the general public and an educational hothouse, this energy recovery facility will also serve to raise the awareness of the need for waste management.

Source: www.ville-la-chapelle-st-luc.fr.

THE VALAUBIA PROJECT

The new energy recovery facility reflects Veolia’s commitment to sustainable development, in particular through the production of renewable and recovered energy. The solution ties in perfectly with France’s energy transition for green growth legislation. Veolia has signed a partnership agreement with the Troyes University of Technology and its researchers to explore topics of shared interest, for example, modeling and monitoring safety systems (control, data, traceability, etc.). The ESC Troyes business school is also involved in the project through the study of bottom ash recovery solutions and the creation of an agricultural hothouse linked to the site’s activity.

CONTRACT SCOPE



Of the annual **120,000** metric tons of household waste, **60,000** will be diverted to the new facility instead of being delivered to the Saint-Aubin and Montreuil-sur-Barse landfills in the Aube department.

€240 M

Cumulative revenue for the construction and 20-year operation of the energy recovery facility.

20

Jobs created when the plant enters service around 2020.

€78 M

Initial investment to build the energy recovery facility.



DJUR ^{ARMENIA}

Following an international call for tenders, the Armenian government selected Veolia for the affermage contract for all the country's water and wastewater services. The 15-year contract is worth €800 million.



Water management for an entire country

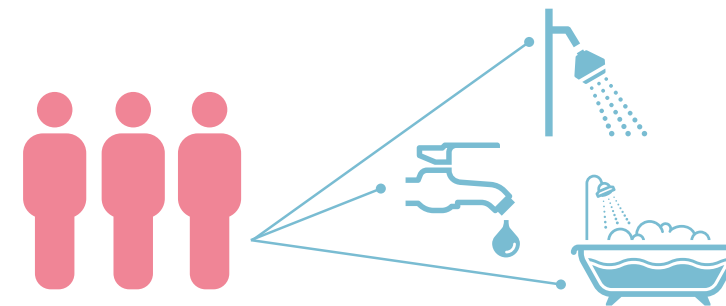
Under this contract, which came into force on January 1, 2017, Veolia is entrusted with managing water production and distribution and wastewater treatment, as well as developing and improving the performance of the country's water distribution network. Veolia will manage five water distribution companies: Yerevan Djur; the national Armenian water and wastewater company; the Shirak water and wastewater company; Lori Water and Sewage; and Nor Akunk. Veolia has undertaken to apply a single price for water and wastewater services throughout the country. The current price paid by households in the capital,

Yerevan, is 170.20 drams (about €0.33⁽¹⁾) per cubic meter. This contract will enable Armenia to apply a consistent water management policy by having a single operator rather than the previous five. Drinking water production, distribution and invoicing will amount to almost 174 million cubic meters a year by the end of the contract. Veolia will be extending to the entire Armenian population of 3 million the service quality and continuity that it already provides to the 1 million residents of Yerevan. For Veolia, Armenia is a springboard for growth in the southern Caucasus. In the municipal market, Veolia is targeting affermage contracts, under which the company leases rather than owns the assets.

VEOLIA IN ARMENIA

Veolia has managed the water service to the 1 million residents of Armenia's capital, Yerevan, for more than 10 years. It already employs 1,200 people in Armenia and with this new contract will become one of the country's largest employers.

CONTRACT SCOPE



3 million
Armenian citizens will be supplied with water 24/24 by 2030.

€200 M

The investment required for the coming 4 years and provided by the European Bank for Reconstruction and Development (EBRD), Germany's KfW Development Bank and the European Investment Bank (EIB).



UNITED KINGDOM & IRELAND

A RECORD YEAR OF CONTRACTS

The United Kingdom and Ireland account for a significant part of Veolia's sales and over three-quarters of its revenue is from waste and recycling. In 2015, revenue amounted to €2.4 billion, making the UK and Ireland the second most important region for Veolia after France. Added to which, annual business growth there comes in at between 2% and 3%. In the coming 5 years, Veolia plans to invest more than €890 million in the business.



COUNTY COUNCIL Hertfordshire

A **£1 billion** 30-year contract to build and operate an energy recovery facility. The facility will treat an annual 350,000 metric tons of waste that cannot be reused, recycled or composted to generate enough electricity to power the equivalent of 69,000 homes.

LONDON BOROUGH OF Camden

An 8-year renewable contract to continue to serve Camden's 235,000 residents. The contract covers recycling, waste collection and street cleansing services, along with commercial waste collection and winter maintenance. Veolia will also provide public engagement programs and customer services, as well as marketing commercial waste services.

CITY OF Westminster

Three contracts worth a total of **£71 million** for domestic and business waste treatment and recycling management to help the City Council achieve its target of zero waste to landfill. Veolia will be in charge of dry, mixed and source-segregated recycling and food waste treatment for 3.5 years, and the treatment of residual waste, bulky waste and street sweepings for 6.5 years starting from September 2017.

COUNTY COUNCIL Hampshire

A 15-year contract to manage 250,000 metric tons a year of materials at 26 household waste recycling centers across the county, including Portsmouth and Southampton.

CITIES OF Nottingham and Sheffield

Two long-term contracts from investment fund Equitix ESI CHP for 24/7 operation and maintenance of two biomass combined heat and power plants, currently under construction in Widmerpool, Nottinghamshire and Holbrook, Yorkshire. Each plant will generate around 6.5 MWe of electricity to power more than 10,000 homes, with the Nottingham plant also supplying 4.5 MWth of heat for local industrial use. Veolia will also be responsible for water treatment and ash disposal from both plants.

COUNTY Donegal (Ireland)

A 20-year contract with Irish Water to design, build and operate wastewater infrastructure. Veolia will build three new facilities in Killybegs, Bundoran and Glencolumbkille, and upgrade the Convoy facility. Accompanied by pumping station upgrades and improved sewage networks, the new facilities will be able to treat around 21,000 person equivalents of wastewater.



ESTELLE BRACHLIANOFF

Senior Executive Vice President, UK and Ireland

“As Business in the Community's Responsible Business of the Year 2016, we will support a more sustainable future for everyone in the years ahead.”

€100/ metric ton

the amount of the landfill tax introduced in the United Kingdom as a deterrent and to encourage municipalities and businesses to develop recycling. As a result, the waste to landfill rate has dropped in the past 20 years from 80% to below 40%.



FRANCE

TARKETT & MARIONNAUD

Veolia has been chosen by Marionnaud, the European leader for the selective distribution of fragrances and cosmetics, and by Tarkett, a global leader in flooring and sports surface solutions, to develop a closed loop circular economy at the sector level in France for both these businesses.



Tarkett, a step ahead of European regulations

French company Tarkett wants to accelerate the deployment of its ReStart® program for the collection and recovery of floor coverings, which it introduced in 2010. As part of this program, Veolia will collect flexible flooring offcuts from Tarkett's building industry customers. The materials will be recycled at a Tarkett production site in Luxembourg (Clervaux), Italy (Narni) or Sweden (Ronneby) to manufacture quality new floor coverings.

The key steps in Tarkett's ReStart® program

- 1 Collection of vinyl and linoleum flooring offcuts from installation projects or from all building industry stakeholders by Veolia's network of agencies.
- 2 Sorting in a Veolia center in order to guarantee the quality of the offcuts before they are integrated into the manufacturing process for new flooring.
- 3 Recycling and reuse of materials at Tarkett's own production sites. Tarkett and Veolia ensure the traceability of the offcuts collected and sorted for all building industry professionals participating in the ReStart® program. Tarkett goes beyond the requirements of European regulations, which require the building industry to recycle 70% of its waste by 2020.

x5
Tarkett aims to multiply by 5 the volume of flooring offcuts collected and recycled by 2020 under its ReStart® program.

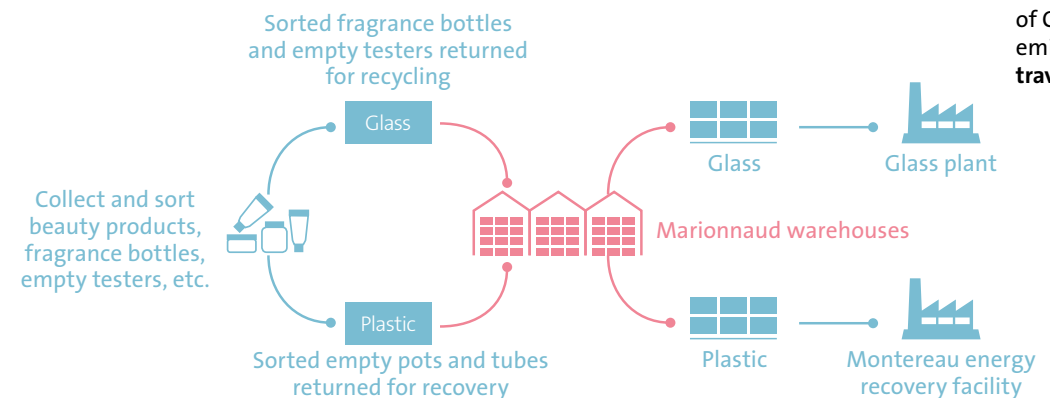
Marionnaud gives second life to beauty products

Since April 2016, Veolia has been working with Marionnaud under its operation to collect and recover used beauty products, such as fragrance and nail polish bottles, cream tubes, and so on, whether or

not purchased in one of the brand's 515 stores in France. When customers return the used product, they are given discounts and loyalty points. In the first year, Veolia will collect and recycle 160 metric tons of used bottles and packaging. Glass containers will be recycled into new jars and bottles. Pots and empty tubes will be recovered as thermal energy at Veolia's Montereau (France) facility.

150,000
fragrance bottles and 6 metric tons of other packaging returned by 120,000 customers between April and December 2016.

1,000
fragrance bottles recycled avoids the emission of 104 kg of CO₂, equivalent to the emissions produced by a car traveling 650 kilometers.



Source: Marionnaud.



SULTANATE OF OMAN

PETROFAC

Petrofac, a British oil and gas industry services company, manages the Rabab Harweel Integrated Project for Petroleum Development Oman (PDO) and has contracted Veolia to supply the industrial water treatment systems for this site.



Local oil and gas alliance

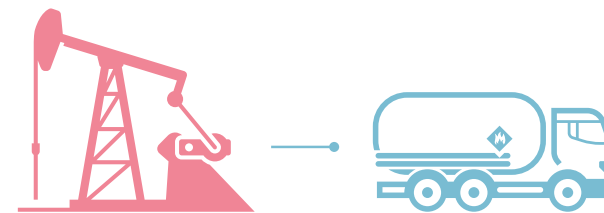
Veolia's assignment, through its subsidiary Veolia Water Technologies Gulf, will involve supplying treated water for various applications, including boiler feed water, drinking water and service water. The Rabab Harweel Integrated Project includes sulfur gas treatment units and the associated collection of waste, injection systems and export pipelines. It manages the oil and gas production at the Harweel site through the injection of miscible gas, and the production of gas and condensates at the Rabab site through the partial recycling of sulfur gas.

Veolia has built up the trust of the oil and gas industry in Oman, where it has already supplied industrial water treatment solutions to other major oil companies. Chosen by Petrofac, Veolia brings its international expertise and knowledge of the region. The Rabab Harweel Integrated Project is crucial to Petrofac for supporting its strategy of boosting its capacity to provide services in Oman. The oil and gas industry is one of Veolia's target growth areas. The company, which works with most of the industry players worldwide, is targeting revenue of €3.5 billion by 2020 in a market that is estimated to be worth €20 billion by then.

VEOLIA IN THE SULTANATE OF OMAN

Present since 2006 in Oman, Veolia won its first municipal waste management contract in the country's northwest, home to 250,000 people, in 2016. Veolia is also finalizing its project to extend the Sur desalination plant, located 160 km southwest of Muscat. Once completed, this facility will supply drinking water to a population of around 600,000.

CONTRACT SCOPE



Over 70%

of the country's crude oil production and almost 100% of its natural gas output is supplied by Petroleum Development Oman (PDO).

PDO is

60%

owned by the Oman government, 34% by Royal Dutch Shell, 4% by Total and 2% by Partex.



NESTLÉ SOUTH AFRICA

Food and beverage giant Nestlé selected Veolia to design and build its new wastewater treatment plant in Mossel Bay, South Africa. The Zer'Eau project contract is worth almost €3.4 million.



In line with “zero water discharge” strategy

Output from the Mossel Bay factory in the Western Cape is largely for the domestic market. It produces two flagship products: milk powder and sweetened evaporated milk. Designed and built by Veolia Water Technologies, the new wastewater treatment and recovery plant ties in with Nestlé’s zero water discharge strategy being rolled out at its plants worldwide. The aim is to reuse the treated water for non-food production applications, such as cooling, garden watering and cleaning. Nestlé is seeking the best opportunities to reduce, reuse and recycle water in all its businesses. This is especially true in the Food and Beverage segment, which must meet strict targets for water conservation, natural resource savings, biodiversity protection, reduced greenhouse gas emissions and lower volumes of waste. Veolia has therefore incorporated several technologies aimed at lowering the plant’s impact – energy produced from biogas makes Mossel Bay energy neutral – and comply with all Nestlé’s targets.

Technology for zero water consumption

Veolia Water Technologies is preparing to deliver a complete facility including an acidification tank, anaerobic digester, ultrafiltration and reverse osmosis skids, a biogas boiler and ancillary equipment. All pumps, valves, pipes, chemical reagent dosing tanks, electrical and automation equipment have, for the most part, been sourced locally. Only the membranes and modular steel tanks had to be imported. Most of the assembly took place in South Africa. As the Nestlé factory is located upstream from the treatment unit, the wastewater will be delivered under gravity flow, i.e., simply using the difference in altitude, like a water tower. The wastewater comes from the production units, wash stations and cleaning areas.

Source: <http://mosselbaychamber.co.za>

600 m³
by day: industrial wastewater treatment capacity at Mossel Bay

CONTRACT SCOPE



The plant’s steam production is **700 kg/hour** for a 150 kg/h consumption. The excess of 550 kg/h is used in Nestlé’s production process for powdered milk.

€3.4 million
value of the Zer'Eau project contract



CHINA

HONG KONG A UNIQUE FACILITY

In Hong Kong, the future of wastewater treatment plants is already in view. Designed by Veolia, the world's largest sludge treatment and recovery plant was officially opened in May 2016. Far more than just an industrial plant, it is an ecological complex that is self-sufficient in water and energy, and complies with the increasingly stringent environmental standards required by Hong Kong.

DESIGN, CONSTRUCTION AND OPERATION BY VEOLIA

Located away from the city, the plant was built on a site with no sewer connection and electricity supply. Veolia presented a particularly innovative architectural concept⁽¹⁾ and used the most advanced technology for this 7-hectare complex. Additionally, Veolia has been contracted to operate the plant for 15 years.

ARCHITECTURAL CHALLENGE

Set between the sea and mountains, the building is inspired by the local landscape and blends perfectly with its environment. Measuring 360 meters in length, it is surrounded by landscaped areas that cover a large portion of the site. Four 70-meter-high chimneys are invisible as they are hidden inside the administrative tower.

TECHNICAL FEATS

Incinerating the sludge reduces its volume by 90% and T-Park has the capacity to generate up to 14 MW of electricity during the treatment process. Electricity generated that exceeds T-Park's energy needs is fed into the public grid. No waste water is discharged into the sea as all the dirty water is treated and recycled through the plant. Fully energy autonomous, it is also water self-sufficient. The site's reverse osmosis seawater desalination unit produces 600 cubic meters of water a day, which is enough to cover the ecological complex's needs.

DAY TO DAY

Each day, some 110 trucks transport 1,200 metric tons of sludge to be incinerated at the new facility. The sludge comes from the 11 sewage treatment plants in the territory that treat the wastewater for a population of 7.3 million⁽²⁾.

"GREEN" AND EDUCATIONAL SPECIFICATIONS

The Hong Kong government included in its specification documents the creation of an environmental education center and a visitor circuit. This ecological complex also includes a wetland habitat for birds and a garden where the emphasis is on local biodiversity.

OPEN TO THE PUBLIC

The plant is also the only one in the world to include a visitor discovery gallery, a café, spa pools, 100-seat conference room and even a rooftop observation deck – all with a panoramic view over the sea and the city of Shenzhen from behind an immense picture window.

(1) Veolia contracted French architectural firm Claude Vasconi.
(2) populationdata.net/pays/hong-kong.



"T-Park is proof that a city's technical functions do not need to be hidden from view; they can be ecological and sustainable and allow for new ways of addressing urban architecture."

ANTOINE FRÉROT





CHEMOURS AND KURION, TWO NEW AREAS OF EXPERTISE FOR VEOLIA

Veolia is continuing to expand in the industrial resource recovery and regeneration business, focusing on the most hazardous or difficult to treat materials. Our acquisition of Chemours' Sulfur Products business has strengthened the company's industrial circular economy platform by adding sulfuric acid regeneration capabilities and expertise. With the acquisition of Kurion, Veolia completes a critical part of its strategy in the high-value-added nuclear clean-up business. Veolia's new Nuclear Solutions entity now has all the expertise needed to treat low- and intermediate-level nuclear waste.

Contracts — Expertise — Partnerships

UNITED STATES

Veolia adds sulfuric acid regeneration to its oil and gas services portfolio

Veolia has acquired US chemical group Chemours' Sulfur Products division for \$325 million (€290 million). The division specializes in the regeneration of spent sulfuric acid catalyst from US refineries with alkylation units, a market segment that Veolia believes has a promising future. This acquisition includes three sulfuric acid regeneration plants at refineries in Delaware, New Jersey and Texas; a hybrid sulfuric acid regeneration and sulfuric acid production plant in Louisiana; three high-value sulfur derivative production facilities in the Midwest and East Coast; and the Acid Technology Center, a knowledge center and home to the team of the world's leading experts in sulfuric acid management. The Chemours' Sulfur Products division reported revenue of approximately \$262 million in 2015. Its 250 employees in North America are now part of the Veolia group.



TECHNOLOGY CONTRIBUTION

For refiners with alkylation units, sulfuric acid is one of two catalyst options required in the production of alkylate, the preferred gasoline additive used to meet octane ratings and achieve higher fuel efficiency standards. The other is hydrofluoric acid, which Veolia's existing potassium hydroxide (KOH) service already plays a regenerative role. By acquiring Chemours' Sulfur Products business, Veolia can offer a regeneration solution to every refinery with an alkylation unit. North America is the largest alkylation market in the world.

CIRCULAR ECONOMY

Sulfuric acid is one of the most important compounds made by the chemical industry, produced and consumed more than any other chemical globally by a wide range of industries. By regenerating spent sulfuric acid, Veolia is contributing to a more circular industrial economy and delivering significant financial benefits to its customers.



...

LESS POLLUTING FUEL

As refinery feedstocks have trended toward heavier, more sour crudes, high-value alkylate production has increased to enable refiners to meet regulatory requirements for cleaner gasoline. By regenerating spent sulfuric acid catalyst and producing sulfuric acid from refinery wastes, we're supporting the production of cleaner gasoline from the "refinery outlet to the tailpipe".

STRATEGIC TARGET

With the acquisition of Chemours' sulfuric acid business, Veolia is moving closer to its strategic target of raising its revenue from the oil and gas industry from €1.5 billion to €3.5 billion. "In 2017, we will exceed €2.5 billion," says Antoine Frérot.



UNITED STATES

**With Kurion,
Veolia expands its unique expertise in managing nuclear waste at sensitive sites**

With the acquisition of Californian company Kurion, which specializes in nuclear clean-up technology, Veolia has rounded out its strategy in this business segment.

Veolia announced its intention to provide services for the nuclear industry in 2013, when it signed a general collaboration agreement with the French Alternative Energies and Atomic Energy Commission (CEA) and created Asteralis. This subsidiary specializes in solutions and expertise applicable to the needs of French sensitive sites. It participates in all stages from the characterization of a site's initial state through to monitoring its final state, along with the development of several clean-up, dismantling and radioactive waste management solutions. However, at Veolia, there are other subsidiaries specializing in water and waste treatment and soil remediation – Veolia Water Technologies, SARP Industries and GRS Valtech – that have state-of-the-art technology which can serve the nuclear industry.

By adding Kurion's expertise and technology to this ecosystem, Veolia is now broadening its offer for the global nuclear industry. It now has a comprehensive range of clean-up solutions and expertise for nuclear facilities and for low- and intermediate-level radioactive waste in multiple markets.

EXPERTISE UNIQUE IN THE WORLD

All Veolia's nuclear clean-up businesses – Asteralis, Alaron and Kurion – have now been brought together in the new Nuclear Solutions entity. By addressing pollution in its most complex form when decommissioning nuclear facilities, Nuclear Solutions helps to conserve resources through avoiding and containing health hazards and unwanted impact on the environment.



OPENING UP MARKETS

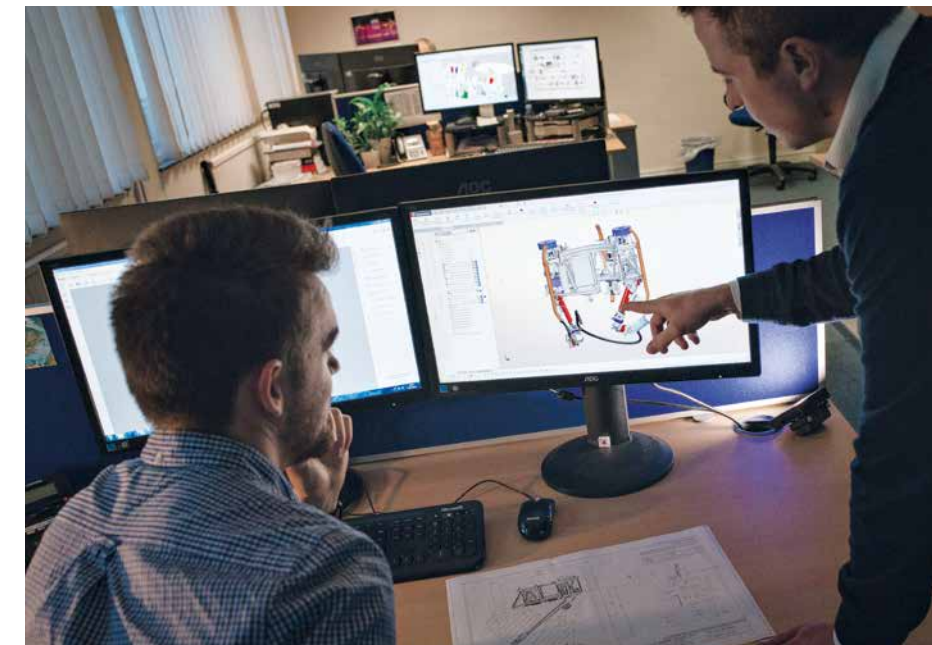
Veolia is in a position to leverage synergies in the medium term to provide an integrated offer for facility clean-up, and to treat solid and liquid waste. This offer specifically targets the nuclear industry (facilities and research centers in service or in the process of being decommissioned), together with the oil and gas industry.

KURION AND ITS THREE AREAS OF EXPERTISE

Created in 2008, Kurion has developed three areas of expertise: removal of radioactive elements from water (contaminated water treatment, for example), radioactive waste stabilization (using waste vitrification processes) and robotic solutions for access to sensitive areas. Kurion has operations in the United States, the United Kingdom and Japan. It is one of the few international operators to have worked at Fukushima on behalf of Japanese nuclear operator Tepco, following the tsunami.

WORLD-CLASS INDUSTRIAL OFFER

By combining its technology with that of Kurion in radioactive waste separation and stabilization, and robotics for access to sensitive areas, Veolia has developed a world-class industrial offer for nuclear facility clean-up and the treatment of low- and intermediate-level radioactive waste.





URBAN X ECOSYSTEM FOR SMART CITIES

Smart cities use digital technology to improve citizens' day-to-day lives, solve problems more efficiently and benefit from the economic development opportunities that this technology brings. To help local government authorities pull off this challenge, Veolia provides them with a comprehensive range of digital solutions: Urban X.

Urban Pulse

Urban Pulse guides citizens in real time to make city living easier. Users of this smartphone app have instant access at all times to the information provided by more than 200 project partners. They can find out about events, services and leisure activities. Residents can get involved by sharing information about private parking spaces, ride sharing, thrift stores, sorted waste collection, taking waste directly to waste centers, reporting leaks, and so on. Urban Pulse puts city dwellers at the heart of a new urban experience. They play an active role in their own comfort, and help the city operate efficiently and protect their environment.



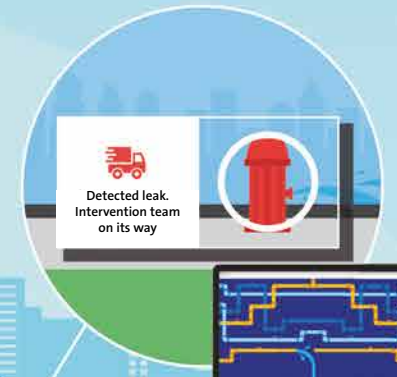
Urban Board

Urban Board is a smart city dashboard for elected officials and city managers. It brings together technical information and social network flows with one goal: to put the performance of urban services into perspective and link them to residents' impressions in four areas – mobility, security, cleanliness and the environment. The data for Urban Board is supplied by partners and urban service operators.



Urban Namics

Urban Namics is the generic name for solutions that leverage the digital revolution to modernize urban services. Aimed at service managers, it has two parts: Waternamics for water and wastewater services, and Heatnamics for district heating networks. Designed jointly with IBM, Urban Namics collates, contextualizes and cross-references data from operational information systems and the growing number of sensors produced by innovative companies (such as for leak detection and location). Urban Namics allows for in-depth data analysis that can improve responsiveness to events detected in real time, enhance service performance, manage crises more efficiently and act as a medium for exchanging increasingly precise information about services with the local government authority or citizens.



Veolia is a facilitator of the urban Internet of Things (IoT) and one of the leaders in smart metering, with more than 4.5 million smart meters/sensors installed worldwide. The Urban X range currently has three products that illustrate Veolia's ability to improve the performance of cities by making them more inclusive and contributing to their citizens' improved quality of life.



RESILIENCE

SMART
CITIES

ENVIRONMENTAL
FOOTPRINT

FOCUS ON CITIZENS

CO- CONSTRUCTION

the Veolia way

Co-construction brings the advantages of a wider pool of ideas, lower costs, the ability to take products to market faster, and less risky processes. But with which partners should we develop co-construction? Veolia leaves all doors open and works with a broad spectrum of profiles ranging from partners with complementary expertise, competitors, customers, and even stakeholders who are remote from the corporate environment, such as NGOs.



Resilience

with Swiss Re

In an increasingly densely populated and urbanized world that is confronted with violent weather events, more and more pressure is being placed on cities and their infrastructure. Strengthening their resilience mainly involves foreseeing risks and building a long-term strategic vision. Prevention is at the heart of the partnership between Veolia and the Swiss Rereinsurance company. Both companies are working on the practical implementation of their partnership in conjunction with the 100 Resilient Cities (100RC) program of the Rockefeller Foundation and its member cities.

Veolia, Swiss Re and 100RC are uniting their efforts to come up with a completely new initiative to strengthen cities' infrastructure and support city managers and their operators.

The goal is to enable cities to get their economic activity back on track more quickly after a disaster and draw up a long-term strategic resilience plan.

The partnership aims to help cities adapt to the effects of climate change, reduce their exposure to the risk of disasters, strengthen and refurbish infrastructure, and achieve operational excellence, especially through digital technology.

Repairing the city

At present, few cities have a financial program in place to protect their critical assets in the event of a disaster. In most cases, municipalities assess the extent of the damage after the disaster has happened, take decisions about repairs needed and then think about how to finance the work. The whole process can take months, or even years. So the Veolia and Swiss Re initiative, completely unique since it rationalizes the existing process, is a major step forward.

(cont. p. 46) ...

MITCHELL J. LANDRIEU

Mayor of New Orleans

“There are things that you can't control and bad things will happen, but you can prepare yourself for them. When they do happen, then you can make yourself strong enough to respond. The reason why we are so excited about the partnership that the City of New Orleans and the Sewerage and Water Board have with Swiss Re and Veolia, is that you have the private sector and the public sector bringing their intelligence, bringing their capability, bringing their resources, so that people can be happy and healthy and respond when difficult things occur in their lives.”



A PILOT IN NEW ORLEANS

Veolia and Swiss Re have developed a pilot project in New Orleans, one of the 100RC member cities. This project focuses on strategic municipal infrastructure, in particular drinking water, sanitation and rainwater evacuation systems and their energy supply. The aim of the partnership is to help cities understand better the vulnerability of their critical infrastructure to the risk of disasters, protect this infrastructure better and enable it to be brought back into service quickly after a crisis. In December 2016, Veolia and Swiss Re presented their report to the Mayor of New Orleans and the Director of the Sewerage & Water Board. The partners are now working on implementing the report's strategic recommendations on supply reliability, investment to strengthen infrastructure, and operational and organizational excellence.





Managing resilience

Under their partnership agreement, Swiss Re and Veolia are working with municipal authorities to assess the level of exposure to the risk of current and future climate events of the municipalities' critical assets. Cities can then use these assessments to develop resilience plans that limit and anticipate the risk of seeing their assets affected, and at the same time reduce their exposure over time. By anticipating major crises, the municipalities are taking steps to strengthen the resilience of their vital infrastructure, and also limiting the effect of such crises on their economy. Such measures ensure the city will get back to normal faster, and in turn reassure residents and businesses. The partnership provides cities with a new tool to deal with the constantly changing risks they face, and also means they can protect their viability and reputation as a dynamic place to live and work. Providing cities with the ability to organize their economic and physical resilience in turn boosts their attractiveness.

Expanding the offer

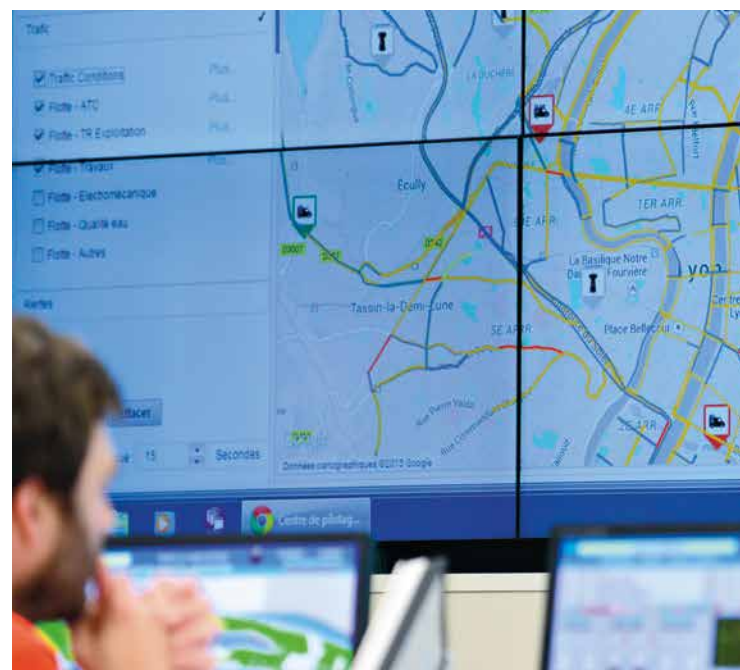
Veolia and Swiss Re are building on their expertise in the economic impact of disasters or more chronic threats weighing on cities to seek opportunities to provide comprehensive, integrated resilience solutions to cities that are already open to the question, like New Orleans following Hurricane Katrina (see box). The approach is based on a three-way partnership between the two companies and mayors who are now ready to use risk management tools. In the short term, the aim is to concentrate on the developments arising out of the New Orleans pilot project in order to make the relationship more reliable and arrive at a complete collaboration model that goes beyond diagnosing vulnerabilities.

Smart cities with IBM and Huawei

Developing smarter cities presupposes combining several areas of expertise spread across several stakeholders. It requires the use of information technology, communicating objects and big data, but also the construction of conventional infrastructure and the deployment of local and renewable energy production systems.

SPINOFFS FROM WATERNAMICS

Waternamics, the generic name for the network hypervision solution designed in partnership with IBM and initially introduced in Lyon, then in Lille (France) and Tidworth (UK), had been rolled out to some 10 additional sites in France by the end of 2016. Its introduction at operations centers in France will continue through 2017. A similar approach has now been adopted to assist with Veolia's contracts outside France. Veolia or IBM are also approaching municipal or private water companies seeking to digitize their services. The platform integrates a wide range of data from several systems to extract added value. To take the approach a step further, Veolia, in partnership with IBM in particular, is working on including an additional layer of intelligence. A joint team of engineers will develop more advanced algorithms to optimize systems or plan ahead in order to help decision-making.



With partners, including IBM and Huawei, Veolia helps improve citizens' living conditions and make the city more efficient in the management of urban services, more attractive for investors and less costly for the public purse. Urban X (see p. 40-41), the range of digital solutions designed by Veolia, helps organize partners' ecosystems right from the design phase, all of which enriches the value proposal of each. The approach ties in perfectly with the principles of the digital economy.

Speed up the Internet of Things

Veolia and Huawei are committed to designing more efficient services, in particular through the integrated management of the value chain, from on-board technology in communicating objects through to meeting customers' service expectations. The two partners will bring smart cities and their citizens the excellence of the services managed by Veolia and its ecosystem, boosted by the technology developed by Huawei.

Enable the digital revolution for municipal services

Veolia has joined forces with IBM to co-construct platforms that will collect and analyze data, and transform the way municipal services are managed by placing data at the heart of services. Partners since 2012, Veolia and IBM have stepped up their cooperation to develop and industrialize new solutions aimed at integrating powerful and intuitive technologies into urban services. Veolia contributes its knowledge of its business sectors and customers, and IBM contributes its digital expertise and marketing capacity. These new digital solutions are designed to improve the performance of Veolia's existing customers and to generate new solutions for municipal service companies. The digital shift is paving the way to more efficient, more fluid and more economic operation of local services, and to a higher quality of life and regional attraction. The platform has been deliberately future-proofed so that many new functions can be added locally or under partnerships. The first product made available is Waternamics (see box) for managing water and wastewater services. Veolia and IBM have no intention of stopping here: their partnership has turned its attention to district heating networks with the Heatnamics project.



BRAD GAMMONS

General Manager, IBM Energy and Utilities Industry

"By combining Veolia's expertise in resource management with IBM's Digital Solutions approach focused on data analysis by analytical and cognitive solutions, both companies offer the most advanced business solutions on the market, and make them immediately available to the cities and concerned services."





Environmental footprint with SEB and Philips


Using recycled materials, especially regenerated plastics, is a major new challenge that some manufacturers are taking very seriously. Veolia is a producer of recycled plastic materials and is developing a supply business, in particular for the household appliances industry.

Closed loop for WEEE

After 3 years of R&D, an unprecedented partnership was formed in France in 2016, focused on recycling small household appliances. Under a completely closed-loop circular economy, the waste electrical and electronic equipment (WEEE) collected by Éco-systèmes (an organization that represents household appliance manufacturers) is recovered as recycled raw materials by Veolia, which is then used by SEB to produce new appliances sold in stores. This tripartite approach has led to the closed-loop recycling of WEEE plastics, in particular through the sale of a range of Rowenta brand (SEB group) steam generator irons, which use approved recycled polypropylene.

The waste collected is delivered to Veolia's Angers (France) site, where 45,000 metric tons of small appliances are processed each year. It is then sorted and recovered in the form of recycled raw materials. Part of the recycled plastic material is returned to SEB's Saint-Jean-de-Bourneay plastics plant. There, it is fed into the production circuit for steam generator irons to produce the case, which is entirely made out of recycled material.

The two companies' R&D teams have pooled their expertise to achieve a material quality similar to that of the virgin material and comply with SEB's requirements. Veolia also optimizes the flow of the recycled raw material supplied to the production plant in order to guarantee regular and durable infeed for the appliance manufacturing circuit.

130,000 to 140,000 metric tons, — 
of which 30% is plastic components: volume collected by Éco-systèmes from small appliances in 2015.

 **45,000 metric tons,**
volume of small appliances processed each year at Veolia's Angers (France) site.



Co-design based on polypropylene

To reduce its environmental footprint, Dutch manufacturer Philips decided to increase the amount of recycled materials in its household appliances. These products are entirely designed with the assistance of Veolia, the European leader for recycling and manufacturing polypropylene, one of the key plastics in the manufacture of this type of product. Collaboration between Veolia and Philips began back in 2010. The first appliance concerned was a vacuum cleaner, for which Veolia developed a material based on recycled battery casings. Initial tests proved a success. Since then, three generations of vacuum cleaners containing recycled plastic have been produced and the fourth is arriving on the market. Tests are currently being carried out on a coffee machine, but only for materials that do not come into contact with water or coffee, as it is difficult to obtain the specific authorization required for recycled plastic used for materials that come into contact with food.

Focus on citizens with social entrepreneurs

Veolia is stepping up the pace at which it forms social and solidarity economy partnerships by working more closely with start-ups, incorporating a local organic loop, applying the example of the short-circuit circular economy, and by leading social entrepreneur incubators.

As a partner of the economic, social and environmental growth of regions, Veolia is contributing worldwide to the emergence of a strong entrepreneurial dynamic around its businesses.

Stop food waste!

That is what is behind Veolia and Eqosphere, a social startup that has been granted France's public benefit solidarity company certification (ESUS). The idea is to make tackling food waste a link in the overall management of waste. The two



REEECYC'LAB: INTERACTIVE RECYCLING

Producers who are members of France's Eco-systèmes WEEE recycling network now have a new eco-design tool called Reecyc'Lab. This online simulator is used to enter precise details about the raw materials used in appliances and their assembly method. After analysis, the tool assesses the product's "theoretical recyclability rate." It then suggests potential areas for improvements, based on existing recycling technology, in order to increase the recyclability of appliances in terms of their initial design.

...



...

partners will convince large- and medium-size food retailers to adopt its solution to reduce waste and also to recover surpluses. In this way, Veolia is developing a comprehensive business solution for major retailers, including the treatment of their biowaste and, from now on, the recovery of unsold product for delivery to nonprofits as donations or for reuse. Eqosphere handles the logistics and relations with the recipient nonprofits.


In another initiative, Veolia has joined together with Restau'Co, a network of public catering companies in France, and Elior, the leading company for contract and concession catering, to implement organic loops at the regional level to recover biowaste as agricultural fertilizer. Veolia collects the catering waste and recovers it as compost, which is then processed into very high-quality fertilizer that meets organic farming standards. So waste becomes a sustainable resource, enabling local farmers to supply caterers with quality organic or nonorganic food products.

Thumbs up for sorting


Yoyo is an urban collaborative platform for collecting waste plastics in which Veolia is one of the partners. It is unique for collecting just one type of plastic (transparent PET) and rewards those citizens who sort more and better. This is a mini-revolution in the waste management sector. Rather than condemning people for poor sorting, the idea is to thank them for good sorting and their good-citizen behavior. Trials are under way in Bordeaux and Lyon (France).

Biogas to ripen tomatoes


The Les Paysans de Rougeline company, in the Gironde area of southwestern France, and Veolia harvested 2,500 metric tons of tomatoes in 2016. These were the first results of a partnership aimed at market-garden production using heat from waste. To explain, household waste is placed in cells at Veolia's Lapouyade nonhazardous waste landfill. The electricity recovered is fed directly into the national grid. The heat from the [water used to cool the] turbines is used to heat the greenhouses. No fewer than 56 jobs will be created locally for future harvests.

Eqosphere 


A one-year collaboration with 100 supermarkets could result in the distribution of around 14 million meals (Eqosphere projection – Source: *La Tribune*, Dec. 18, 2016).

 **Restau'Co**

In the trial area, the partner network restaurants feed 400 people a year and 250 junior high school students during term time. (Source: *La Tribune*, April 13, 2016).

SenseCube Agua Urbana in Mexico 

Three calls for project proposals published since 2015 and 15 start-ups incubated.

 **Paysans de Rougeline**

2,500 metric tons of tomatoes harvested in 2016 in Gironde, southwestern France; 56 local jobs expected to be created for future harvests.

Entrepreneurial coaching in Mexico

The POP UP platform created by Veolia is creating incubators worldwide to launch social start-ups related to Veolia's businesses and the regions where it operates. This social and solidarity economy approach aims to co-construct innovative, efficient solutions that have a social impact, with the support of recognized partners such as Ashoka (the world's leading network of social entrepreneurs), Ticket For Change, and the Essec business school's IIES. In Mexico, for example, the SenseCube Agua Urbana incubator was created with the focus on urban water issues as a result of a partnership developed by Veolia with social entrepreneur networks MakeSense, Ashoka and Co-, as well as Mexico City's water authority (Sacmex) and the Laboratorio Para la Ciudad. Since 2015, this incubator has launched three calls for project proposals and incubated 15 start-ups, including Indigo Impacto, which is involved in developing access to water in vulnerable communities in the urban fringe. Veolia is working with them to develop solutions that better meet the municipal authorities' expectations. POP UP by Veolia now has four partnerships with social incubators that are supporting 35 start-ups.





ENGAGE YOUR RESPON- SIBILITY

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development
targets p. 58

Climate p. 60

Gender balance
EMPLOYMENT

Biodiversity
GUIDE

Human rights
COMMITTEE



02.2016

Veolia adopted a human rights policy approved by the Executive Committee. The policy defines a framework for action and identifies the eight priority issues for the company in this field, whether respect for the rights of the communities concerned by its businesses or fundamental labor rights. A Veolia Human Rights Committee will now be in charge of rolling out this policy and the action plans to supervise, monitor and improve practices where necessary.

03.2016

Veolia has undertaken to improve the gender balance in its businesses and increase the number of women managers. In 2016, the company introduced a gender balance network. Its task is to promote, share and strengthen coordination between actions implemented in all countries. Its sponsors: Estelle Brachlianoff, Senior Executive Vice President UK and Ireland, and Régis Calmels, Senior Executive Vice President for Asia, are both members of the Executive Committee. The network now has more than 2,000 members of whom 50% are men. That's equality at work!

05.2016

On the International Day for Biodiversity, Veolia provided everyone with a guide to best practices on its website. Compiled with the International Union for Conservation of Nature (IUCN), it aims to encourage more respectful management of natural spaces. Protecting biodiversity is one of the nine CSR commitments of Veolia, which works worldwide to reduce the environmental footprint of its own and its customers' businesses.

Plastics
PROGRAM

SROI IMPACT

Environment plan
OBJECTIVES



06.2016

Veolia's new 2016-2018 Environmental Objectives Plan follows in the footsteps of its nine sustainable development commitments. It sets precise targets under six main topic headings: reducing greenhouse gas emissions, recycling materials and energy, managing water resources, energy efficiency, water and air quality, and managing ecosystems. Its implementation is supported by each country's Environmental Management System, which takes into account the environmental specificities and provides the most appropriate responses to customer needs.

06.2016

Veolia has joined the New Plastics Economy initiative, which is led by the Ellen MacArthur Foundation, as a Core Partner. The 3-year program proposes an original approach to the plastics system based on the principles of the circular economy. The aim is to rethink and redesign the future of plastics, starting with packaging. The initiative brings together leading companies, cities, philanthropists, policymakers, academics, students, NGOs and citizens.

07.2016

Veolia is finalizing the introduction of a tool to measure its businesses' social contribution to society. Directly based on the Social Return On Investment (SROI) method, it measures the social, environmental and economic value of a project in comparison with the investment made. The method is already used for several contracts including Southwark (UK), SEDIF (France) and the New Delhi water contract (India).

Habitat III
CONFERENCE

List A
RANKING

Health and safety
MOBILIZATION



09.2016

For Veolia's International Health and Safety Work Week, 105 actions were implemented at company sites in more than 40 countries. The shared target is zero accidents. In 2016, the focus was on high-risk activities: traffic management, working in confined spaces, excavations and trenching, hot work, and handling hazardous goods or chemical agents. To mark the event, Veolia ran a hard-hitting communication campaign to mobilize all employees.

10.2016

Veolia took part in the United Nations Habitat III Conference in Quito, Ecuador, held to define a new Urban Agenda for the next 20 years. Together with several of its partners in UN Habitat's "The City We Need," the company organized a roundtable that was included in the official program. Veolia led the debate on the potential solutions and initiatives for building a more resilient and caring city.

11.2016

In a first, CDP (formerly Carbon Disclosure Project) placed Veolia on its A List for fiscal year 2015, for its commitment to fighting climate change. Only 163 companies in the world, including 13 French, were added to the list. Veolia was also included in the Euronext Low Carbon 100 Europe index, which honors the top 100 Stoxx 300 companies that contribute the most to the low-carbon transition.



HAITI

Hurricane
Matthew

FOUNDATION

10.2016

On the night of October 3 to 4, 2016, a category 4 storm, Hurricane Matthew, killed several hundred people in Haiti and left 750,000 people without access to clean drinking water. Several days later, the Veolia Foundation dispatched 2 metric tons of equipment: six Aquaforce 500 mobile water treatment systems, six 3-cubic-meter storage tanks and pumping equipment. This material is able to supply drinking water for 12,000 people a day. It is crucial for making water potable but also for helping prevent the spread of cholera, which has affected the country since the devastating 2010 earthquake. On the ground, permanent Foundation staff and Veoliaforce volunteers provide technical support to the ACTED NGO and UNICEF teams in charge of installing the mobile units in collaboration with local authorities. Several thousand people are provided with drinking water between Les Chardonnières on the island's south coast, where the first Aquaforce unit was installed, and Port-à-Piment, where the two other units were sited. The remaining three units were installed in Dame-Marie, in the island's extreme west.



CONTRIBUTE TO THE NEW GLOBAL AGENDA

On September 25, 2015, the United Nations adopted 17 sustainable development goals (SDGs) for 2030. These new universal and global goals have led Veolia to review its contribution to the international community's sustainable development agenda.



Universal and inclusive SDGs

The SDGs came into force on January 1, 2016. They concern all countries and aim to build open and peaceful societies, create better jobs and take up the environmental challenges facing us, especially fighting climate change. They are an invitation for everyone – public and private stakeholders, civil society organizations and citizens – to become engaged by providing a shared frame of reference for sustainable development issues at the planetary level. Today, companies are seen as key partners whose skills, capacity for innovation and expertise are leveraged to build a more sustainable and prosperous world (see box). The 17 SDGs replace the Millennium Development Goals (MDGs) that mobilized the entire world between 2000 and 2015 behind a common program for developing countries. Under the MDGs, Veolia contributed to improving access to drinking water for 6.5 million people in developing and emerging countries and connected more than 3 million people to sanitation systems.

Veolia's involvement

In 2015, Veolia confirmed its position as a socially responsible stakeholder through its 2020 commitments to sustainable development. One of the company's nine commitments directly concerns its involvement in the SDGs: "Provide and maintain services essential for health and human development" with the 2020 aim of "contributing to the sustainable development goals as defined by the United Nations General Assembly in September 2015." An analysis has been conducted to determine Veolia's contribution to the SDGs by comparing them to the company's sustainable development commitments and to the revenue generated by all its businesses and in all its markets, and by collecting the opinions of a panel of internal and external experts. This work shows that the company is concerned by all the SDGs, which fits in with its own commitments. It confirms Veolia's position as a stakeholder in the sustainable city (SDG 11), in particular through its management of basic services such as water and sanitation (SDG 6), energy (SDG 7) and cleanliness. In the view of Veolia's partners and the various survey groups, Veolia's relations with its stakeholders (SDG 17) and its capacity for innovation (SDG 9) are fundamental aspects of its contribution to the Sustainable Development Goals.

Find out more:
<http://www.un.org/sustainabledevelopment/sustainable-development-goals>.



3 QUESTIONS FOR TERESA RIBERA

Director of the Institute for Sustainable Development and International Relations (IDDRI)

The 17 SDGs are particularly ambitious. Do you think they can be achieved by 2030?

The SDGs are transformational goals that aim for inclusive prosperity. It is difficult to break out of inertia and learn how to decide and act differently, but we must. One year on from their adoption, each of us can ask ourselves how we can change in an environment where we all depend on each other. Having said that, there are already some interesting approaches: Finland and Sierra Leone are using the SDGs to track their priorities, and Norway and Germany are using them to improve how they integrate sustainable development. We need to think about what mark we want to leave and about the most effective drivers. Reducing inequality, good governance and recognition of the environment's limits are particularly relevant in the French and European contexts.

Companies have a role to play in achieving the SDGs. What can economic stakeholders contribute to the international agenda?

That's a question that needs to be put to companies! Where would you like to make a difference? Are you ready to assess your

contribution to people, the planet, prosperity and participation? Can you do this using your current business model or do you have to change? Which stakeholders would you work with? Companies have been quick to adopt the SDGs. But now they have to be actively involved in their implementation. In 2016, half of all multinationals had plans to commit, but... Time will tell. For a company, the SDGs are a real opportunity to assess their contribution to sustainable development based on a definition agreed by all heads of state, together with criteria shared with subsidiaries, suppliers, unions and so forth.

Have you noticed any new partnership relations between companies, governments, academia and civil society?

Yes, the trend is very clear. It was particularly evident during COP21, where companies and cities set climate targets in partnership with NGOs, and investors made heavy R&D commitments alongside governments. Internationally, these new alliances have gained considerable weight that now needs to be confirmed through greater transparency around the real impact. Such coalitions need to be developed for all of the SDGs.

ONGOING MOBILIZATION FOR THE CLIMATE

Throughout 2016, Veolia maintained its focus on its three main priorities to help implement the Paris climate agreement: promote the circular economy more widely to avoid using fossil fuels for energy; capture and recover methane, a gas with a short life but high global warming potential; and lobby for the introduction of a robust and stable carbon price to enable low-carbon solutions to be rolled out.



Task force

Veolia has set up a Strategy & Climate task force reporting to Patrick Labat, a member of the Executive Committee. Its role is to define the company's long-term strategy for contributing to the low-carbon transition and adapting to climate change.

Three priorities

Plastics recycling and recovery are at the heart of the circular economy and are one answer to protecting the climate and resources, and also ecosystems such as the oceans. A basic everyday material, plastic requires a lot of energy for its manufacture and is mainly produced from oil. Additionally, 32% of plastics escape all collection systems and end up in the natural environment. Recycling plastic reduces GHG emissions compared with the use of virgin plastic: manufacturing a plastic bottle from waste bottles releases 70% less CO₂. Veolia promoted this topic at COP22 and underscored new collaborative approaches, such as "The New Plastics Economy: Rethinking the future of plastics", an initiative coordinated by the Ellen MacArthur Foundation, and Veolia's alliance with Danone. Methane is another major issue. Scientists warn us about its short-term (15 to 20 years) impact and its limited consideration in climate policies (see box). Veolia has adopted the most recent recommendations of the Intergovernmental Panel on Climate Change (IPCC) when assessing the real contribution of this gas to the emissions from its facilities.

Recognized commitment

Lastly, the issue of carbon pricing is still a hot topic. While no multilateral decision has been reached, Veolia is one of the companies that are voluntarily adopting an exemplary approach by setting an internal carbon price. The company has adopted a price of around €30 per metric ton of CO₂ by 2030. It is already being used as one of the assessment criteria for all projects and as one of the aspects taken into consideration when choosing between investments. This method has been used for various acquisitions considered in Latin America and is now being tested in Central and Eastern Europe, where Veolia manages heat and electricity generation plants. Veolia's ongoing commitment to taking action against climate change has already earned recognition from several organizations, in particular the CDP, which has included Veolia in its A list of global companies that have invested most heavily in fighting climate change.



METHANE ACTION AT COP22

The Veolia Institute has NGO observer status granted by the United Nations Climate Convention, which enabled the Institute to organize a discussion workshop on methane in the official area at COP22, in partnership with the Climate and Clean Air Coalition. Scientific and institutional experts pointed out that reducing methane emissions would be an additional lever with a significant short-, medium- and long-term impact on climate change. The workshop was a continuation of the approach implemented by the Institute at COP21 to provide enlightened, forward thinking about climate change issues.



32%
OF PLASTICS
escape all collection
systems and end up
in the natural environment.



Human resources data p. 66

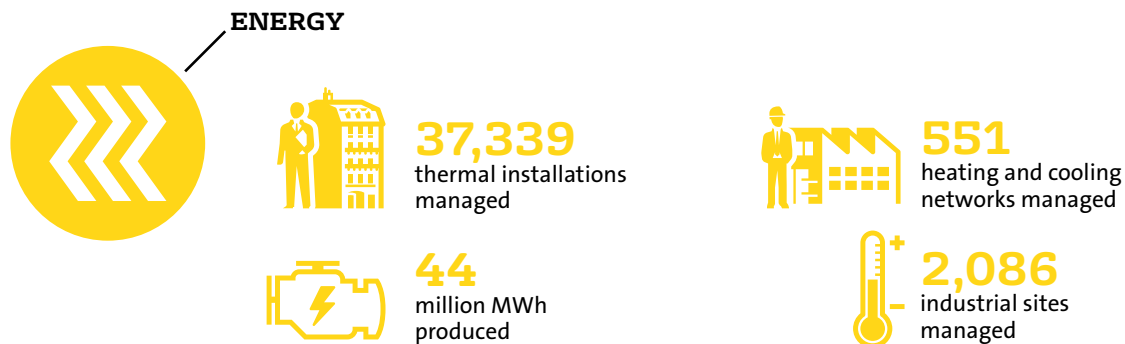
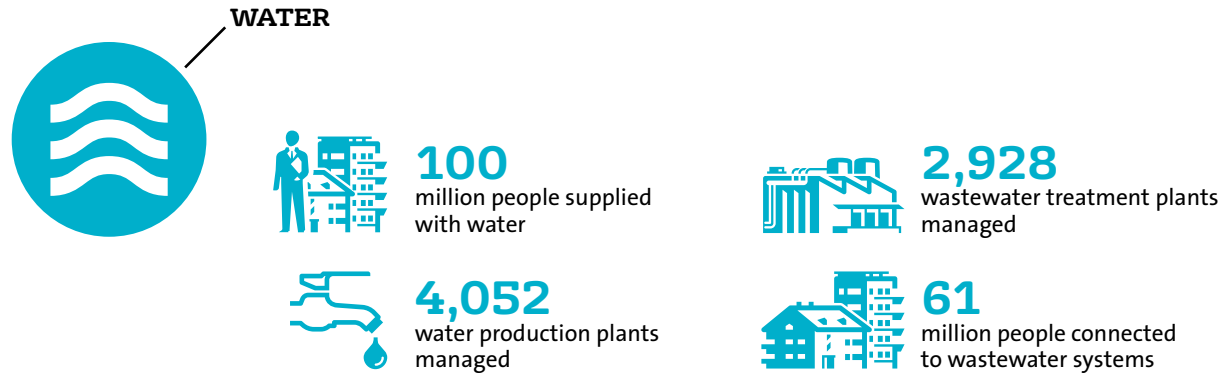
Economic data p. 64

MANAGING PERFOR- MANCE

Environmental data p. 68

Societal data p. 71

2016 PERFORMANCE



€24,390 million

in revenue

REVENUE BY SEGMENT IN € M (EXCLUDING IFRIC 12)

At December 31, 2016

| | |
|------------------------------|---------|
| ● France | 5,417.7 |
| ● Europe excluding France | 8,286.3 |
| ● Rest of the world | 6,028.4 |
| ● Global business activities | 4,626.2 |
| ● Other | 31.6 |

REVENUE BY BUSINESS ACTIVITY IN € M (EXCLUDING IFRIC 12)

At December 31, 2016

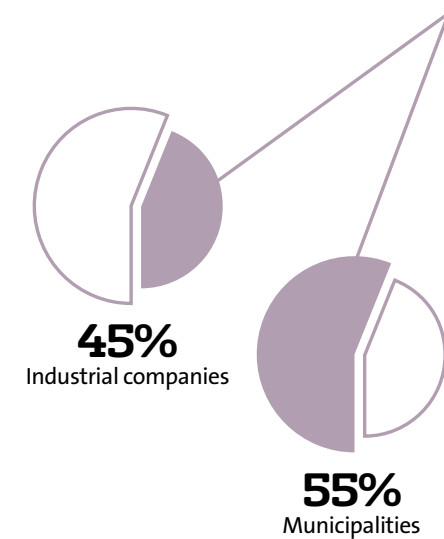


€3,056 M
EBITDA
(up 4.3%⁽¹⁾)

€1,384 M
Current EBIT
(up 8.5%⁽¹⁾)

€610 M
Current net income
(up 10.8%⁽¹⁾)

VEOLIA'S CUSTOMERS



(1) At constant exchange rates.

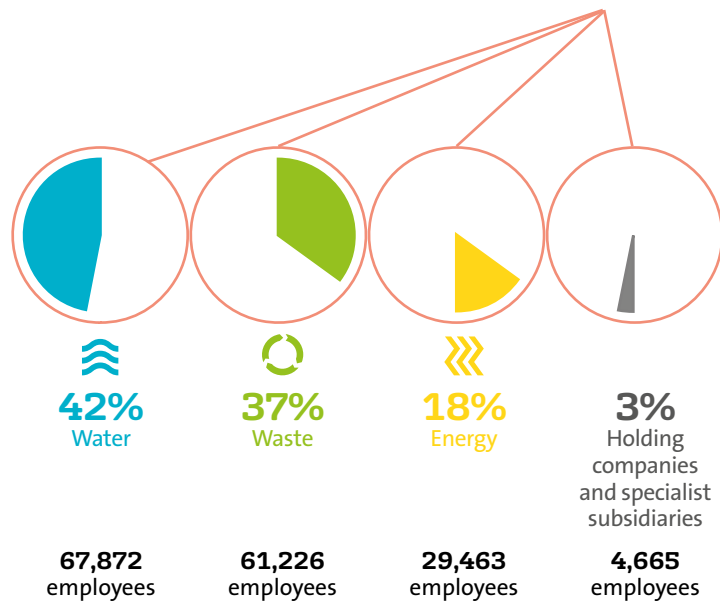
HUMAN RESOURCES DATA

163,226
employees

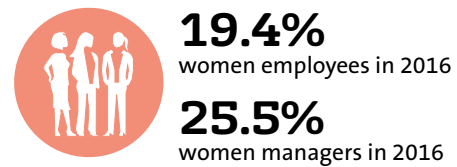
WORKFORCE BY GEOGRAPHIC REGION

| | | |
|---------------------------|-----|------------------|
| Africa and Middle East | 8% | 12,710 employees |
| North America | 5% | 8,841 employees |
| Latin America | 7% | 12,275 employees |
| Asia and Oceania | 10% | 15,760 employees |
| France | 31% | 50,480 employees |
| Europe (excluding France) | 39% | 63,160 employees |

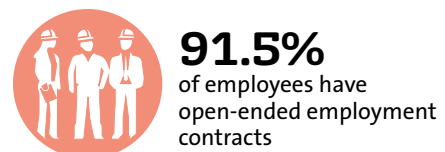
WORKFORCE BY BUSINESS ACTIVITY



PERCENTAGE OF WOMEN EMPLOYEES OR MANAGERS



OPEN-ENDED EMPLOYMENT CONTRACTS



Sustainable development commitments

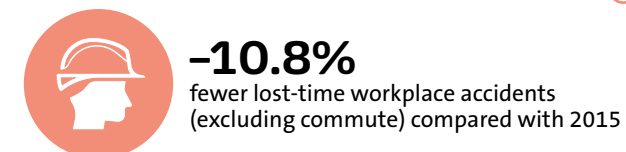
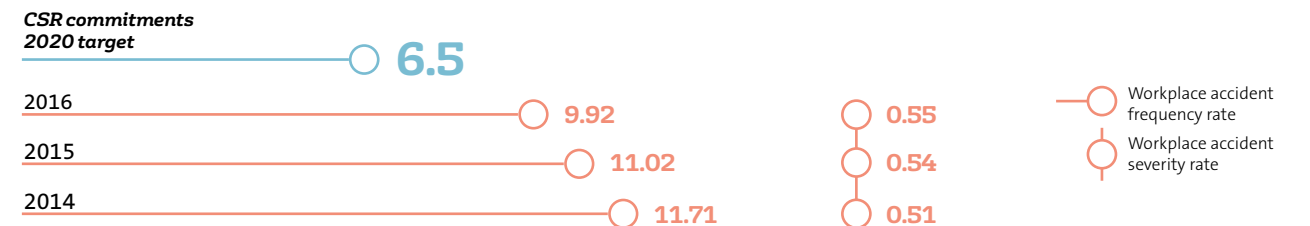
PERCENTAGE OF EMPLOYEES ATTENDING AT LEAST ONE TRAINING SESSION IN THE YEAR



2015 MANAGERS COMMITMENT SURVEY

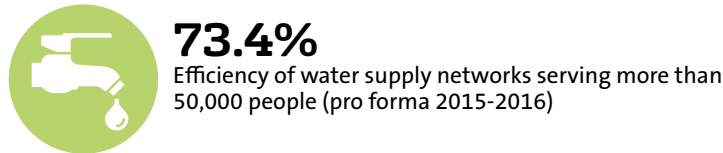


CHANGE IN WORKPLACE ACCIDENT FREQUENCY AND SEVERITY RATES



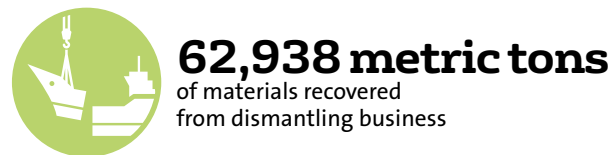
ENVIRONMENTAL DATA

Sustainably manage natural resources by supporting the circular economy

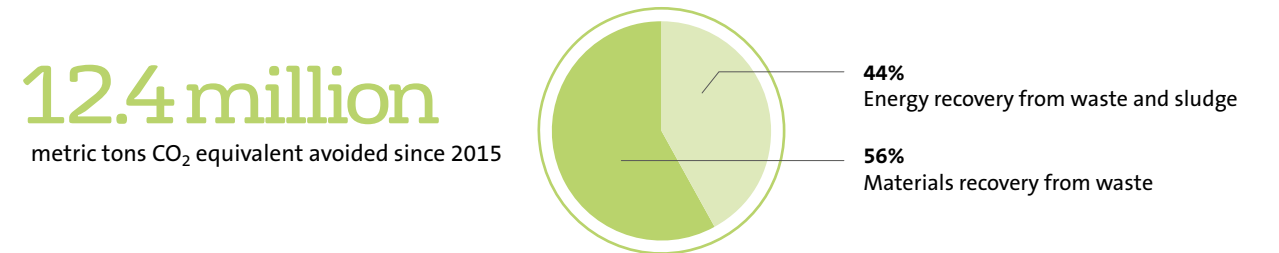
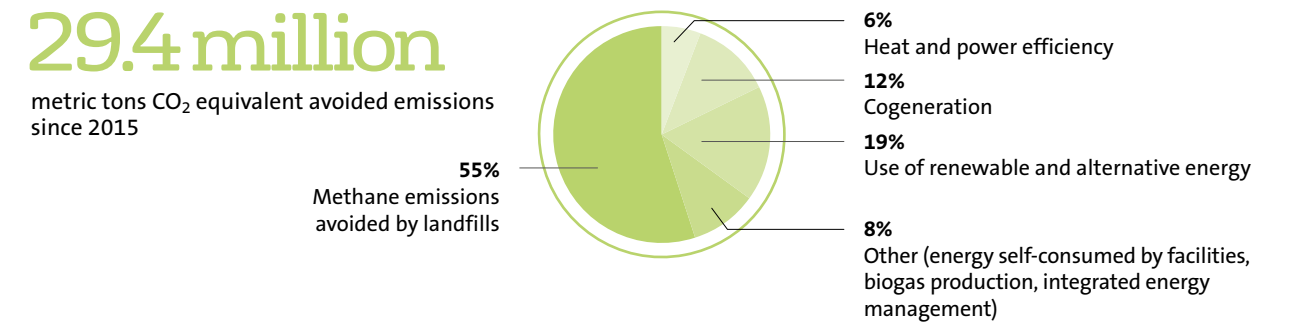
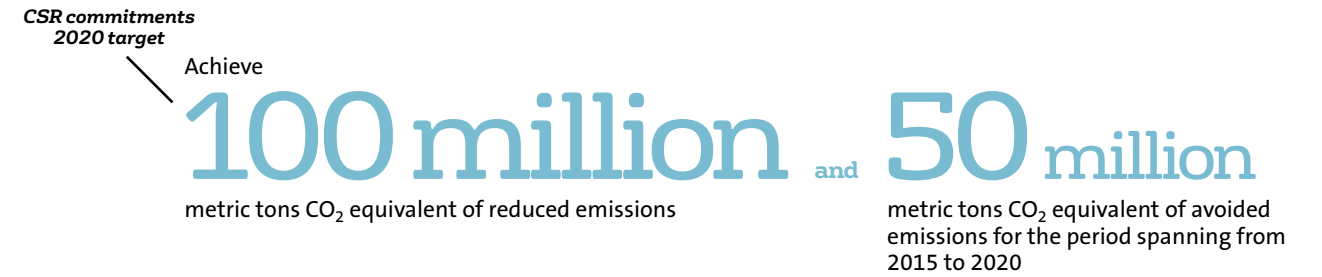


VOLUME OF TREATED WASTEWATER RECYCLED

millions of m³



Contribute to combating climate change



ENVIRONMENTAL DATA

Contribute to combating climate change

CSR commitments
2020 target

Capture more than
60%

of the methane at the waste landfills we manage

53%

of the methane captured

16.3 million MWh

of renewable and alternative energy produced, which is 30% of the energy Veolia produces

Conserve and restore biodiversity

CSR commitments
2020 target

Carry out a diagnosis and deploy an action plan in

100%

of sites with significant biodiversity potential

Diagnosis and action plan rolled out at

40%

of identified sites (pro forma 2015-2016)

Steering environmental performance

CSR commitments
2020 target

Deploy our internal EMS in

100%

of our operational activities

40%

of Veolia's operational revenue covered

68%

of revenue certified ISO 14001 for its environmental management

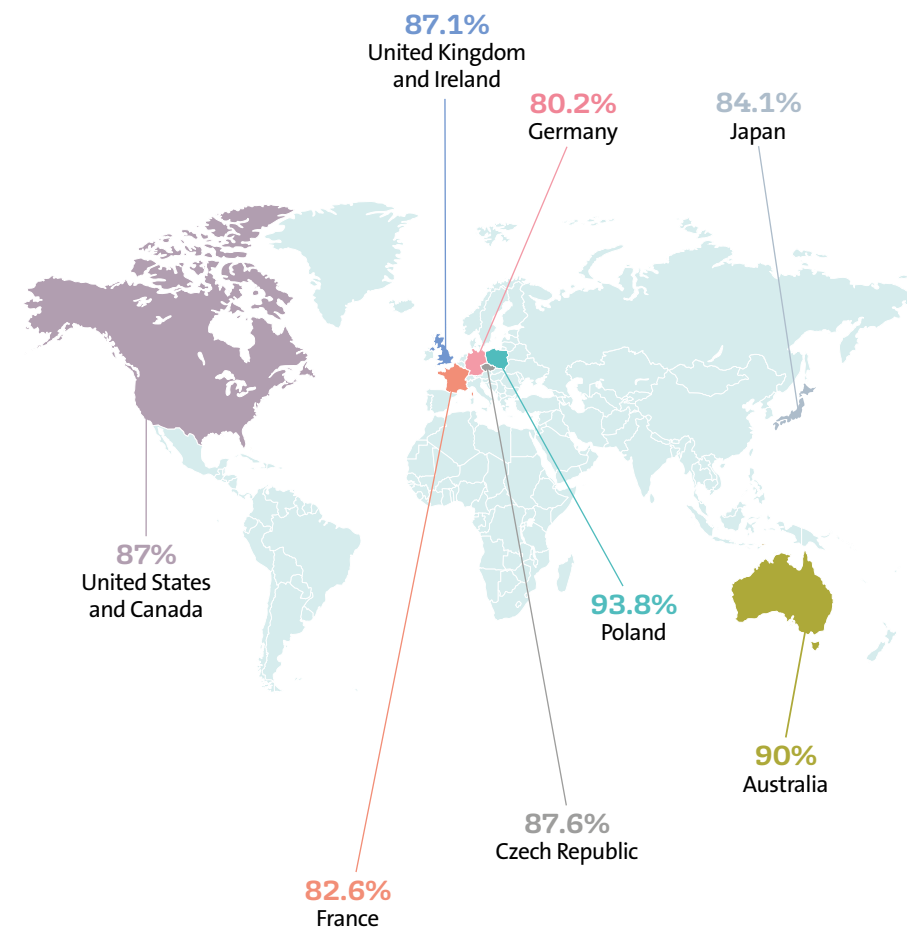
SOCIETAL DATA

Expenditure reinvested in the regions:

84.8%

Average calculated for the main geographic regions representing 68% of Veolia's revenue in 2016

EXPENDITURE REINVESTED IN THE REGIONS



7.2 million people connected to a drinking water supply and more than 3.3 million to a sanitation service in countries with an access deficit.

42 new projects supported by the Veolia Foundation in 2016 for a total of €2.982 million.

49% of strategic suppliers assessed for their CSR performance since 2014.

58.9% of Veolia's active contract portfolio includes a sustainable development clause.

€7.3 million worth of purchases from the sheltered and supported employment sector in France.

99.7% rate of regulation compliance for distributed water.

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Resourcing the world  **VEOLIA**

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