

#### Resourcing the world

Corporate Brochure

## The O-point proof

The new Veolia is here. We have everything it takes to deal with your challenges in terms of environment, growth and access to resources. We're armed with new goals, a new strategy, a new brand, and a new organization that's unified across all.

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There are already more than seven billion people on the planet. In the near future, there will be nine billion. The world is growing; it needs new resources. This means we need to be more inventive, more responsible and more efficient. Today, we recover water, waste and energy. What is discarded by some becomes a resource for others. Being attentive and more respectful of our planet and its people is how we view our business, our foot print and our contribution. We are creating new businesses, and a new economic and social dynamic. We are contributing to the world movement and people's lives. Develop access to resources, preserve resources, replenish resources: **RESOURCING THE WORLD IS OUR GOAL.** 

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#### 2 customer segments

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**Our solutions.** A historic partner of cities for more than 160 years, Veolia is reinventing how it approaches traditional markets with an increased focus on linking our compensation to transparent performance metrics. As the operators of complex services in the field, we are developing technological, financial and social solutions to improve inhabitants' quality of life, save and replenish resources, and reduce the ecological footprint of regions.

**A working example.** In France, we work with Greater Lyon. We have carried out extensive research and developed innovation to test new projects in the areas of green energy, intelligent data management and urban modeling, health, waste treatment and resource preservation. **Our solutions.** Non-hazardous and hazardous waste recovery, soil remediation, dismantling sensitive facilities, water recycling, energy management, to name just a few: Veolia is the partner of industrial companies' growth. We offer a wide range of tailored solutions covering all companies' needs in all areas of business.

#### A working example. Since 2001,

Veolia has been working with Novartis to improve the operational, economic and environmental excellence performance at the company's industrial facility in Basel (Switzerland), the global showcase for this pharmaceutical giant. Veolia provides and maximizes the management of all Novartis' utilities (water, energy and waste), and has implemented a unique solution for the recovery of hazardous waste.

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#### 3 areas of benchmark expertise

#### ENERGY

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An expert in energy services, Veolia supports the economic growth of its local authority and industry clients, while also reducing their ecological footprint. Energy efficiency, effective management of cooling and heating networks, production of green energy: just some of our unique expertise for a sustainable world.

> 53,700,000 MWh produced

> > 2,400,000 multi-family housing units managed

> > > 2,000 industrial facilities managed

450 heating and cooling networks managed



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#### WASTE

Veolia specializes in liquid and solid, non-hazardous and hazardous waste management. Our expertise covers the entire waste life cycle from collection to recycling, leading to the final recovery of waste as materials or energy.

51,000,000 people provided with collection services

on behalf of local authorities

38,000,000 metric tons of waste recovered as materials or energy

**570,000** business customers

(excluding industrial maintenance)

719 treatment plants operated

#### WATER

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Veolia treats and monitors water quality at each stage in the water cycle from extraction of the natural resource through to its discharge back into the natural environment. We innovate to reduce the amount of resource extracted and to encourage cities and industry to recycle and reuse water.

> 94,000,000 people supplied with drinking water

> > 62,000,000 people connected to wastewater systems

> > > 4,532 drinking water production plants managed

> > > > 3,442 wastewater treatment plants managed



#### 4 challenges to embrace

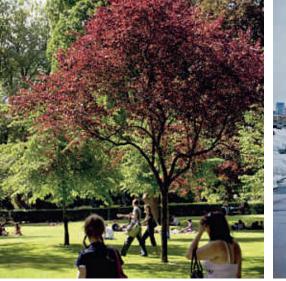
#### THE SUSTAINABLE development of cities

Almost half the world's population lives in cities. By the end of the century, urbanization will have intensified to a level never seen before in human history. While cities enable economies of scale and more efficient services, they also need to be cleaner and more efficient, and consume less energy. Veolia has unique expertise in the management of large, complex public services including drinking water, wastewater, waste collection and recovery, and heating and cooling networks. As the manager of services in many megacities around the world, we are rethinking our relationship with local government authorities in order to **become a consulting partner to help them improve their performance.** 

#### INCREASINGLY SCARCE resources

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The United Nations estimates that the equivalent of two planets will be needed to meet our needs by 2050 if we continue at the current rate. We therefore urgently need to reinvent our relationship with resources and raw materials, the cost of which tripled between 2000 and 2013. Each day, Veolia acts to preserve and replenish resources. We recover water, energy and waste. What is discarded by some becomes a resource for others. Water and waste produce cooling, heat, steam, energy, bioplastics, biofertilizer, biofuels and secondary raw materials. These new materials are then used, recovered and reused again and again. **That is the principle behind the circular economy.** 





#### CLIMATE change

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Limiting average warming of the planet to 2 °C by 2100 is a target that must be shared by all actors. This climate change is largely due to greenhouse gas emissions. Fortunately, there are solutions to promote a carbon-free economy. Veolia is investing massively in research to produce renewable and alternative energies, and to improve energy efficiency. Attentive to the impact of our own facilities, we offer our customers diagnostic tools and clean, game-changing solutions.

#### FRAGILITY of ecosystems and biodiversity

According to the "Millennium Ecosystem Assessment," the rate of species' extinction is one thousand times greater than it would be naturally. Through our CSR commitments, Veolia undertakes to preserve natural resources and diversity. In particular, this commitment is evident in the **rigorous analysis toward redirecting the impact of our facilities and activities.** The Veolia Foundation also supports many associations and scientific and citizen-initiated actions to protect biodiversity.

## 5 continents where we are present

€14,441 million revenue

WESTERN EUROPE

95,800 employees

CENTRAL AND EASTERN EUROPE

€3,330 million revenue 29.100

employees

Present on five continents, Veolia works with industrial companies and local government authorities and their populations to ensure the optimum use of resources. In order to work even more closely with our customers, pool our best practices and improve our knowledge of national markets, we have adopted a new organizational structure based on a single Veolia and a single head office for each country. Today, our priority is to strengthen our position in the world's high-growth-rate regions.

**€23.4** billion revenue in 2013

**187,000** employees worldwide

2013 pro-forma unaudited figures, including Dalkia International (100%) and excluding Dalkia France. Excluding Transdev employees and revenue currently under divestment.



#### AFRICA AND MIDDLE EAST

€1,012 million revenue 12,400 employees

ASIA €1,260 million revenue 21,700 employees

#### For further information:

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employees

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SOUTH AMERICA

€438

million revenue

16.000

employees

## 6 breakthrough innovations



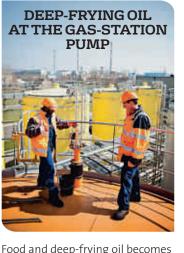
In France, the city of Chantilly and Veolia have successfully trialed a volume-based invoicing system for solid household waste. Equipped with an electronic microchip, the non-recyclable waste bins are identified by the collection truck on each round. The invoice is adjusted to reflect the number of times the bin is emptied. As a result, the volume of waste has fallen by 20%. While the benefits are financial for both the authority and the users, they are also good for the environment.

20% less waste volume



In Belgium, Veolia has developed a landmark prototype. Stimulated by the volatile fatty acids from sludge fermentation and then put on a diet by Veolia researchers, bacteria produce chemically refined bioplastics. This product is then fed back into plastic manufacturers' production lines. It is used, for example, to manufacture pens, vehicle bumpers and even farm tarpaulins.

**1,500** metric tons of bioplastics is the potential annual output from this site



Food and deep-frying oil becomes waste that is difficult to manage. It is now being given a second life. After an initial filtration stage to remove waste and water, the oil is recovered as a biodiesel at our plant in Limay, the only facility of its kind in France. Its annual production capacity can be as high as 80,000 metric tons per year.

**3,000** collections a month from 27,000 customers



The Move2Chem project aims to develop a recovery system for the byproducts, effluent and waste from the food and beverage industry by converting them into chemical molecules. These molecules are then used by the chemicals industry as precursors for numerous products (dyes, solvents, polymers, etc.), or reinjected directly into wastewater treatment processes. In April 2014, Veolia was named the winner of France's 2030 Worldwide Innovation Challenge for the "Plant Proteins and Plant Chemistry" strategic goal with its partners SAS Pivert and Sofiprotéol.

**2014** Winner of the 2030 Worldwide Innovation Challenge

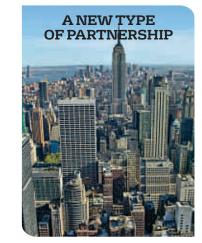


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The economic capital of Ecuador. Guayaquil has a population of 2.5 million, many of whom live in a situation of financial insecurity. Proactiva, Veolia's South American subsidiary, manages all the city's drinking water and wastewater services. To ensure that the entire population has access to these basic services that condition their health and quality of life, Proactiva has implemented an ingenious subsidized pricing, debt reduction and mediation system. For its citizen outreach activities. the company relies on a network of 1,000 volunteers and four mobile agencies.

#### 97%

of the population has access to the high quality drinking water service



Veolia and New York City have signed a new type of contract. Under this contract. Veolia's compensation is based in part on the savings the performance diagnosis and advice it produces. The City directly manages the drinking water and wastewater services with its own personnel and relies on Veolia's experience and expertise. The city spends \$1.2 billion each year on managing and maintaining its public drinking water and wastewater services; the expected annual savings are estimated at around \$130 to \$200 million

\$130 million annual savings

## 7 promising sectors to explore

#### DISMANTLING INDUSTRIAL FACILITIES

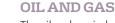
Passenger liners, aircraft, trains, production plants, oil platforms, etc.: **Veolia provides complete solutions** for complex situations while guaranteeing the market's highest standards. In the coming 10 years, 600 offshore oil and gas platforms will need to be dismantled in the North Sea. **We have developed excellence** in this highly specialized field. Located in Scotland, our Greenhead base safely **dismantles platforms** onshore and **recovers around 99% of the waste**.

#### DIFFICULT-TO-MANAGE MATERIALS

Low-level radioactive waste, chemical products and hydrocarbon derivatives, etc.: as certain types of waste are hazardous for human health and the environment, high level expertise and non-standard equipment are needed for their treatment. In Ellesmere Port (United Kingdom), Veolia is helping destroy Syria's chemical weapons: 150 metric tons of chemical agents will be neutralized at this facility. Each year, 100,000 metric tons of hazardous products are treated at this site.

#### FOOD AND BEVERAGE INDUSTRY

The world's leading industrial sector, the food and beverage industry encompasses a great diversity of stakeholders and situations. The rapid growth in food needs and consumers' growing demands are placing pressure on the industry. **Veolia works with them to reduce their environmental footprint and contain their costs**. In the Netherlands, for the Mars group, **Veolia is transforming into bioenergy** the wastewater from the world's biggest confectionary production plant and **reducing the plant's energy bill by 10%**.



The oil and gas industries sit at the crossroads between major regulatory, societal, economic and operational challenges. Veolia helps ensure extraction is handled in an environmentally friendly manner. In particular, we are working with Shell at its Carmon Creek (Canada) site to **extract non-conventional oil deposits without impacting on the local water resources.** Our plant manufactures the steam needed for the extraction process and ensures **a recycling rate of 99%.** 

#### INNOVATIVE SOLUTIONS FOR CITIES

Constantly growing in size and under financial stress, cities must optimize the management of their public services. As a partner of cities, **we are inventing new, more efficient models.** In Rialto, California (United States), we developed a **new distribution** of roles between the city, the Rialto Water Services company and ourselves. **As a result, the city's financial situation has improved.** 

#### **CIRCULAR ECONOMY**

A sustainable alternative to the current production and consumption approach, the circular economy is already a reality. Industrial companies and local government authorities are starting to produce alternative resources and local supply loops are emerging. In Plessis-Gassot in the Paris region (France), we recover 950,000 metric tons of non-recycled waste. By capturing the biogas it releases, we produce enough electricity to power the equivalent of more than 41,000 households, excluding heating.

#### **MINING INDUSTRY**

For economic, regulatory and environmental reasons, mining effluent treatment is a major challenge. For Iberpotash, a potash producer, we have significantly reduced water consumption at its mine in Spain's arid Suria area and we recover residual minerals from the solid waste.



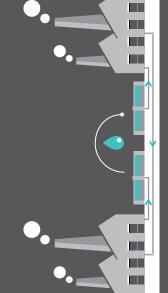
# С С 8 ways to resour the wor

## GIVE WATER SEVERAL LIVES

Reintroducing wastewater into agricultural and industrial production cycles, and even domestic consumption, is one solution for overcoming water shortages and the growing cost of treatment. Worldwide, Veolia provides tailored solutions for each need and each resource typology. In Qatar and Canada, we have installed closed loops for oil group Shell enabling almost 100% of the wastewater produced to be reused.

0 **00%** 5

of wastewater is reused



# GENERATE AWARENESS OF SCARCITY

Water is a precious commodity. Saving it, conserving it, multiplying its uses and sharing it better are becoming crucial. However, no sustainable and rational action is possible without solid knowledge of the state of the resource. For this reason, Veolia has developed three tools to help states, cities and industry measure resources and help with their decision-making: Growing Blue Tool, Water Impact Index and True Cost of Water are designed to improve the assessment of footprints and help take more appropriate action (www.growingblue.com).





## ADVANCED RECYCLING

Waste Electrical and Electronic Equipment (WEEE) is increasing three times faster than household waste. Poorly treated, it is becoming a real scourge. In Angers (France), Veolia has a high-performance plant for dismantling WEEE and recovering the plastics extracted from this waste. It has created a closed loop for the recovery of plastics in order to meet the needs of French manufacturers.

# FROM LANDFILL TO RECOVERY

Make everything a source of materials recovery. For Veolia, landfilling waste is not the end of the story. After extracting the best of each type of material in the waste, the fraction that is no longer recyclable can still serve a purpose. At Woodlawn (Australia), a former copper mine has been converted into a landfill and is now equipped with the latest technology for organic and energy recovery from waste.

of waste will be reused and recycled by 2015

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of this water is salty

# MULTIPLE USES FOR WASTEWATER SLUDGE

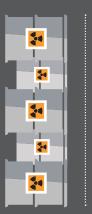
For Veolia, wastewater sludge is no longer a waste product; it can be used in a real circular economy. In Denmark, the wastewater treatment plant of the future, the Billund BioRefinery, will convert wastewater sludge and organic waste into biogas for local consumption, organic soil improvers for agriculture, and bioplastics.

## SEAWATER DESALINATION

Seawater desalination provides a precious alternative resource. The world leader for desalination, we have extensive expertise in the very latest filtration technology and are working actively on limiting its ecological footprint, in particular through the use of renewable energy. In Jubail (Saudi Arabia), we have built and manage the country's largest ultrafiltration and reverse osmosis desalination plant that supplies the Sadara petrochemicals complex.

# NEUTRALIZING HAZARDOUS PRODUCTS

Certain types of hazardous and toxic waste pose a serious and lasting threat for human health and the environment. Veolia has developed unique expertise for recovering and reusing hazardous waste. In Berne (Switzerland), we built the world's first plant to isolate the mercury contained in industrial catalyzers and spent activated carbon, recovering it in a **99..9%** pure liquid form. With all traces of mercury removed, the catalyzers and active carbon can be reused.



Pollution removed from

metric tons of catalyzers a yea

6.0

of electricity generated each year at the plant MWh

Veolia





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# 9 commitments to ensuring sustainable development



**TO LEARN MORE** 

www.veolia.com

Veolia

38, avenue Kléber – 75116 Paris Cedex – France – Tel.: + 33 (0)1 71 75 00 00 www.veolia.com

This document was prepared by Veolia's Communications Department.

Chief Communications Officer: Laurent Obadia.

Editing: Marine Boulot.

Translation: Alto International.

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Veolia 38, avenue Kléber • 75116 Paris Cedex, France Tel.: +33 (0)1 71 75 00 00 www.veolia.com