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How the report is organized For 2008, Veolia Environnement has made two major changes in its reporting procedures. First, the company decided to take its policy of basing its business on sustainable development to its logical conclusion and bring together its annual, sustainable development and human resources reports into a single document. Second, to provide more in-depth information on how the various programs undertaken are progressing, the content of the printed report is coordinated with an Internet platform. Supplements are available at www.report2008.veolia.com. They include reports on the work carried out by the company to meet the principles of the United Nations' Global Compact, to which it signed up in 2003; the table listing the corresponding indicators of the Global Reporting Initiative, the guidelines of which have served in the preparation of this report; and the full report of the Sustainable Development Visiting Committee.

The 2008 Report presents Veolia Environnement's strategy and business model, and explains the main thrusts of its approach to environmental and social responsibility. It is organized into four sections:

- **"ANTICIPATE"** sets out the company's strategy, based on an ambitious vision of its businesses, an original partnership model, the value of its human capital and its technological expertise;
- **"CONTRIBUTE"** underlines the added value that Veolia Environnement brings to all its business activities;
- "ORGANIZE" presents the company's approach to corporate responsibility;
- **"2008 PERFORMANCE"** brings together all of the company's 2008 results, whether economic, financial, social or environmental.

Veolia Environnement chose the *gingko biloba* tree in 2003 to represent the continuity of its sustainable development approach. This tree is the last descendant of a group of trees that covered the planet over 200 million years ago.

#### One core business

## Contribute to sustainable urbar

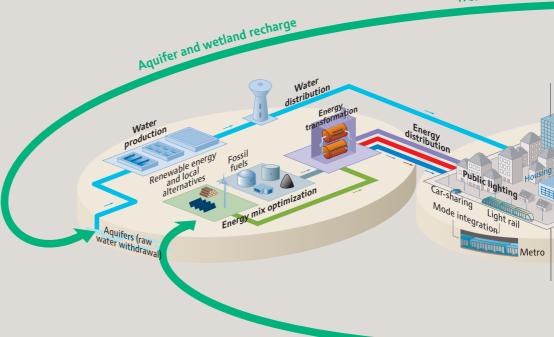
**5.9 billion m³** of wastewater collected and treated in 2008

More than

80 million
people supplied with
water

**VEOLIA WATER.** The global benchmark for the operation of water services, Veolia Water manages water and wastewater services on behalf of public authorities and companies. It also designs and builds the technological solutions and facilities needed to provide those services. With the aim of saving and protecting water resources, its activities cover all the water cycles, from water withdrawal to distribution, and from wastewater collection to treatment to enable it to be recycled or returned to ecosystems. In 2008, the water division generated revenue of €12.5 billion. At December 31, 2008, it employed 93,433 people in 64 countries.

**Treated wastewat** 



Energy r

7.4%

of the fuel used by Veolia Energy-Dalkia is from renewable energy sources

14.8 million

people were heated by Veolia Energy-Dalkia in 2008 **VEOLIA ENERGY-DALKIA.** A major player in energy and environmental management for public authorities and companies, Veolia Energy-Dalkia ensures the energy efficiency of the infrastructure it operates under performance guarantees. It also designs high efficiency facilities and deploys various types of renewable energy. Veolia Energy-Dalkia works closely with its clients and plays a vital role in their efforts to keep control over their energy consumption and greenhouse gas emissions. In 2008, the energy division generated revenue of €7.4 billion. At December 31, 2008, it worked with 52,800 people in 41 countries.

## n and regional development

2.63 billion trips

**4.1** million metric tons of equivalent CO<sub>2</sub> avoided in comparison with making the same trips by private vehicle

**VEOLIA TRANSPORT.** The standard-setter for the management of safe and sustainable mobility solutions, Veolia Transport assists transit authorities with the design and operation of their mobility services under public service management contracts. It also provides passengers with information services and assistance in planning their trips. Veolia Transport is inventing the mobility solutions of the future to help cities and regions grow sustainably. In 2008, the division generated revenue of €6 billion. At December 31, 2008, it employed 83,654 people in 28 countries.

er recycling



ecovery



+23%
of materials recovered in 2008 compared with 2007

**66.6** million metric tons of waste treated in 2008

**VEOLIA ENVIRONMENTAL SERVICES.** The benchmark in the global waste management and recovery market, Veolia Environmental Services is the only operator to cover the entire range of activities in solid and liquid, non-hazardous and hazardous wastes. Its activities cover waste collection, pipe system maintenance, cleaning services, and waste treatment and recovery. They play a part in improving the environment by providing services to industrial and public authority clients with innovative, effective solutions for waste management. In 2008, the waste management division generated revenue of €10.1 billion. At December 31, 2008, it employed 105,267 people in 32 countries.

## The global benchmark in environmental solutions

Veolia Environnement operates in 72 countries and on every continent. The Company offers its clients—local public authorities and industrial companies—expertise in four complementary segments: water cycle management, waste management and resource recovery, energy management, passenger transportation and mobility services. The Company designs and implements tailored solutions for its clients that combine economic efficiency with control over environmental impacts, thereby helping to combat climate change, save natural resources and preserve ecosystems.

#### **REVENUE BREAKDOWN BY DIVISION**

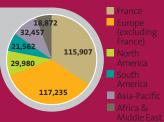
(in millions of euros in 2008)



Total of €36.2 billion

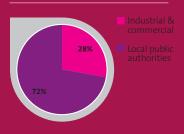
#### **EMPLOYEE BREAKDOWN** BY GEOGRAPHIC AREA

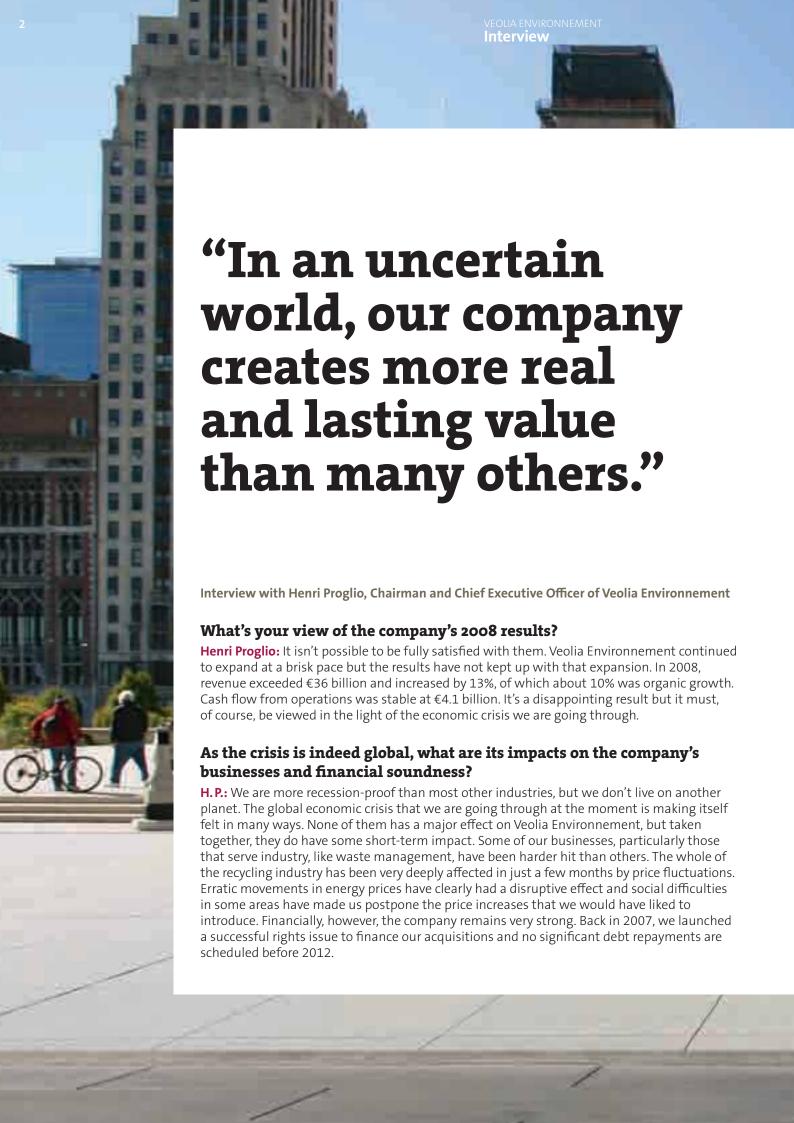
(At December 31, 2008)



Total of 336,013 employees

#### **REVENUE BREAKDOWN** BY TYPE OF CLIENT







## Markets have marked the share price down sharply in 2008. What do you believe are the reasons for that?

H.P.: Current stock market valuations no longer reflect even the break-up value of companies in terms of assets, cash flows and profits. Markets have been knocked off course by the bursting of the speculative bubble and have lost their bearings. The stability of Veolia Environnement's business model is ignored. So what we have to do now is to prove to everyone that in an uncertain world, our company creates more real and lasting value than many others. The company was founded in France more than 150 years ago, at the same time as the textile industry, the iron and steel industry and the coal mining industry. How well are our contemporaries of 150 years ago doing today? Not only are we still around, but we have been a world leader for many years and will remain a world leader for many years to come. We are a thriving company that creates jobs and drives innovation.

You often say that Veolia has a resilient business model. How do you justify such confidence?

**H.P.:** A very large proportion of our business is done on the basis of long-term contracts with public sector clients and delivers basic services, the demand for which can only increase in the future. It should not be forgotten either that the markets for environmental services are at the heart of the economic stimulus packages that governments all over the world are launching or preparing. The economy that will emerge from the current crisis will be greener than before and this company has very strong positions in those markets. Veolia is the global leader in its businesses. Veolia is the only company that can offer a complete range of environmental services to meet all the needs of its clients, be they municipal, industrial or commercial. The efforts we are making to adapt the businesses that are most exposed to the current downturn will enable us to do even better when recovery starts. I have no reason whatsoever to be pessimistic.

## Veolia Environnement does business in 72 countries. Is this geographic spread a strength, or are you planning to concentrate on a number of key countries?

**H. P.:** Well, in fact, the concentration that you refer to has already happened. Almost 60% of the business Veolia Environnement does outside France is located in six

countries — Germany, the United States, the United Kingdom, Australia, the Czech Republic and Italy—and almost 90% in about 15 countries or regions with similar characteristics. But these countries are indeed in different parts of the world, which is a decisive comparative advantage in terms of experience and best practices. It means that we are running the same businesses in very different economic and social conditions, environments, climates and administrative and regulatory systems. That gives us precious insights and the capacity to detect and disseminate innovation. In 2008, we introduced a new geographic organization and we are confident that it will enable us to strengthen and streamline our international footprint and, at the same time, more strongly assert our identity as Veolia Environnement rather than that of individual business units. This will allow us to manage our business development strategy more effectively and give us a sturdier organization in a small number of strongholds.

Veolia Environnement is the only company that can offer a complete range of environmental services to meet all the needs of its clients, be they municipal, industrial or commercial.

## What about sustainable development? Is it still a priority, even in the recession?

H. P.: Of course it is—because the current crisis is nothing less than the collapse of the artificial and the unsustainable. Sustainable development is not just an option, nor is it just a nice phrase that is often considered the opposite of economic development. In our businesses, we realize every day that economic efficiency and environmental performance are far more closely linked than people tend to think. Wasted resources and poorly controlled impacts have a cost. Lower energy consumption is not just good for the environment, it is first and foremost a way for companies to cut their production

costs, governments their public spending and households their outgoings. Promoting public transportation has a social value, not just an economic or environmental one. This year we have decided to merge our annual report with the sustainable development report rather than publishing them separately. This is quite simply because we realized that once we have described our strategy and our sustainable development policy, we have covered almost everything we want to say to our stakeholders.

We realize every day that economic efficiency and environmental performance are far more closely linked than people tend to think.

In 2008, particularly in France, there was a heated debate about the relative merits of public sector versus private sector management. What advantages does a private company have over the public sector?

H.P.: Our model of outsourced management is the only one that allows for real competition, by definition absent from the public sector—but also from privatized companies that, all too often, remain private monopolies. Our diversified experience and ability to pool research capabilities means that we are able to come up with solutions to every specific situation, even the most difficult. Private sector operators must always prove their worth and in all areas. Which makes them accountable and ties their payment to the achievement of targets for quality of service, savings of scarce resources and the reduction of environmental impacts. The private sector operator is also constantly looking to the future. For 2008 and 2009, for instance, Veolia Environnement will invest about €1.4 billion in France, which puts us among the leading private sector investors in the country. So, there is no confrontation between public and private management, but there is definitely a choice. When a client decides to revert to public management or chooses another private sector operator, it's always a disappointment for us, but the very essence of our model is that the client

always has that choice. That being said, let's not forget that we are successful in renewing more than 95% of our contracts and that we are constantly winning new clients who are attracted by our expertise. It is simply wrong to claim that private sector management is in decline. The fact is that in the face of rising needs and increasing technical challenges, our particular type of public-private partnership is gaining ground all over the world.

## Veolia Environnement is a very big employer. Will the company's hiring and, more broadly, its human resources policy, be impacted by the recession?

H.P.: In the businesses the most hard hit by the recession, we are adjusting our manning levels by natural turnover and reducing temporary employment. That being said, the recession is also a good opportunity to speed up our efficiency measures and extract more synergies between our divisions and business units. Veolia will, however, continue to create jobs to keep pace with our expansion and the increasing demands for our services. Our model, which involves taking over public infrastructure and gradually introducing private sector management methods, puts us in a particularly good position to reconcile the quest for productivity improvement with responsible human resources management. We are very committed to training and skills development, focusing everywhere we operate on the promotion of locally hired labor. The company also plays its part in upward social mobility by promoting employees from low-skilled jobs to supervisory and even management functions. And lastly, we have a targeted policy of enriching job quality, for example in the area of recycling, by promoting greater automation and focusing on safety as a priority. This has enabled us to reduce the frequency of work-related accidents by more than 11% in two years.

#### Interview

## More than half of the world's population lives in cities. What solutions can Veolia Environnement come up with for the urban environment?

H. P.: Sustainable solutions, in other words, solutions that strike the right balance between environmental requirements, population mix and economic efficiency. The sustainable management of cities—and more generally territories, because it's sometimes at a regional or provincial level that these issues must be managed—is a major challenge to which we have a lot of experience to contribute. The essential point is to adapt to local circumstances, as requirements, resources, aspirations, constraints and budgets are not the same everywhere. Providing everyone with access to basic services and

the need to reduce greenhouse gas emissions to slow the pace of climate change require huge environmental investments. Those investments and the related environmental management must be effective and that requires increasing levels of expertise. The right decisions have to be taken and the right policy levers pulled. In addition, new solutions have to be found to respond to the needs of the major cities in emerging and developing nations, where a large part of future urban growth will be concentrated. And there, expertise must go hand in hand with modesty. We must not simply assume that all we have to do is to import our Western solutions. We must be able to spot good practices that originate in the developing world, and respect social and economic specificities.

Through its businesses,
Veolia Environnement
contributes in every country
in which it operates to
improvements in the quality
of urban living, to the invention
of sustainable solutions,
to the combat against climate
change and to the preservation
of ecosystems—with respect
for local conditions but also
with high standards of social
responsibility.



IN IRELAND, the customer-focused organization introduced by Veolia Transport has boosted ridership on the two lines of the Dublin light rail system and improved customer satisfaction, with 5.4 million more riders between 2005 and 2008 and a satisfaction rate up 10%.



IN FRANCE, the high-performance materials recovery facility operated by Veolia Environmental Services in Ludres represents a breakthrough in recycling and recovery technology. A recovery rate of more than 50% can be achieved from a mixture of various types of industrial waste.



## How do you see the outlook and commitments for Veolia Environnement in 2009?

H. P.: We are more determined than ever to continue implementing our strategy. First of all by adapting the scope of our operations to the changes in our businesses and by focusing increasingly on the high value and high tech markets. But also by speeding up our efforts to reduce costs, by focusing more closely on the synergies between our business units. Obviously, given the economic uncertainties ahead, 2009 will be a year of vigilant and disciplined management. We will stabilize or reduce our debt by looking first and foremost for business

development opportunities that are less capital intensive. We have one clear commitment, and that is to generate positive cash flow of at least €2 billion after capital expenditures and disposals. On the basis of market conditions we will act on the relevant policy levers to meet this objective. But vigilance must also be the watchword in terms of understanding the changes we will be witnessing as the crisis recedes, in terms of peoples' priorities and new paradigms. We must not allow ourselves to turn inward, nor must we yield to the tyranny of short-termism. If there is one thing that the current situation is telling us, it is that the world is in need of sustainable development.







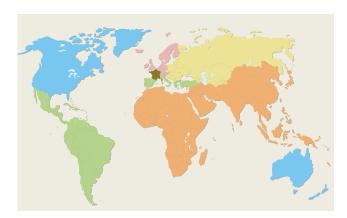
IN HUNGARY, the policy of reducing energy consumption and developing the use of renewable energy sources implemented by Veolia Energy-Dalkia at the Pécs cogeneration plant has contributed to a reduction in the city's emissions of 337,000 metric tons equivalent CO<sub>2</sub>.

IN AUSTRALIA, advanced treatment techniques, particularly in Gerringong-Gerroa, have enabled Veolia Water to recycle wastewater and release it back into the environment, thus contributing to the preservation of a number of animal and plant species that are unique in the world.

IN BANGLADESH, Grameen-Veolia Water Ltd, a subsidiary set up by the Grameen Bank and Veolia Water, has started building five water production plants. The aim of the project is to provide water that is compliant with WHO standards for 100,000 people living in some 10 villages at prices they can afford.

## Governance

2008 saw a major change in the governance and management of Veolia Environnement. Outside France, the world has been divided into five large regions: Western and Northern Europe, Eastern and Central Europe, Southern Europe and Latin America, North America and the Pacific, and Asia, the Middle East and Africa.



Each of these regions brings together about 15 business units under the supervision of a Regional Chief Executive, whose mission it is to coordinate business operations throughout the region and strengthen the image of Veolia Environnement as an integrated company. The aim of this new organization is to give fresh impetus to the international expansion of the company, create synergies and reduce costs. To ensure consistency between regional coordination and operational efficiency, the regions are supervised, in four out of five cases, by Divisional Chief Executives who are also Executive Vice-Presidents of Veolia Environnement. France will continue to be the responsibility of the Chairman and CEO.

#### The Board of Directors(1)

#### Henri Proglio

First appointment: April 30, 2003 Term of office expires: 2009 AGM

#### Jean Azema

First appointment: April 30, 2003 Term of office expires: 2009 AGM

#### Daniel Bouton

First appointment: April 30, 2003 Term of office expires: 2012 AGM(2)

#### Jean-François Dehecq

First appointment: May 11, 2006 Term of office expires: 2012 AGM(2)

#### Augustin de Romanet de Beaune

First appointment: March 29, 2007 Term of office expires: 2009 AGM

#### Jean-Marc Espalioux

First appointment: April 30, 2003 Term of office expires: 2012 AGM(2)

## Paul-Louis Girardot

First appointment: April 30, 2003 Term of office expires: 2012 AGM(2)

#### Philippe Kourilsky

First appointment: April 30, 2003 Term of office expires: 2009 AGM

#### Serge Michel

First appointment: April 30, 2003 Term of office expires: 2012 AGM<sup>(2)</sup>

#### Baudouin Prot

57 First appointment: April 30, 2003 Term of office expires: 2009 AGM

#### Georges Ralli

First appointment: April 30, 2003 Term of office expires: 2012 AGM<sup>(2)</sup>

#### Paolo Scaroni

First appointment: December 12, 2006 Term of office expires: 2009 AGM

#### Louis Schweitzer

66 First appointment: April 30, 2003 Term of office expires: 2009 AGM

#### **Murray Stuart**

First appointment: April 30, 2003 Term of office expires: 2012 AGM<sup>(2)</sup>

- (1) The Annual General Meeting of Shareholders (AGM), to be held on May 7, 2009, will be asked to approve the appointment as Director of Pierre-André de Chalendar, CEO of La Compagnie Saint-Gobain.
- (2) Unless the AGM of May 7, 2009 adopts the resolution aiming to reduce Directors' term of office to four years.

CHAIRED BY HENRI PROGLIO, the Board of Directors is responsible for setting the company's strategy and overseeing its implementation. Eleven of the 14 Board members are independent directors. The Board met seven times in 2008 with an average attendance rate of 80.6%. The Board has set up three committees to help prepare its decisions: the Accounts and Audit Committee, the Nominations and Compensation Committee and the Research, Innovation and Sustainable Development Strategy Committee. The Executive Committee, under the chairmanship of Henri Proglio, supervises the consistent implementation of the company's strategy and meets every two weeks to consult and decide on its broad strategic options. Listed in the United States and in France, Veolia Environnement

complies with the French Financial Security Act of 2003 (Loi de sécurité financière) and the 2002 Sarbanes-Oxley Act in the United States. In matters of corporate governance, the company refers to the Afep-Medef Code of corporate governance of December 2008. For further information on the company's corporate governance policy, the reader is referred to the Form 20-F annual report.





→ www.report2008.veolia.com

**Evaluation of the governance criteria** of Veolia Environnement

#### Members of the Executive Committee





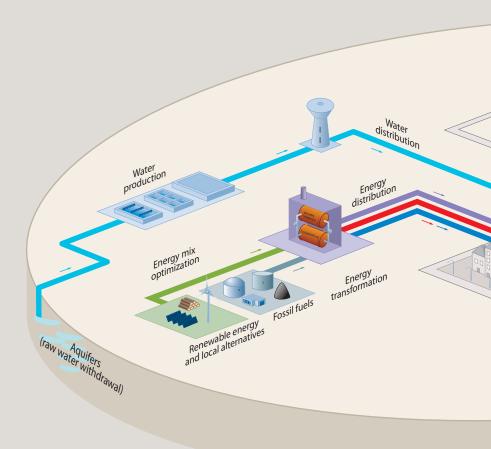


## > 1

## UNDERSTAND NEEDS AND PROVIDE SOLUTIONS

For over 150 years, Veolia Environnement has been inventing and implementing sustainable solutions for municipalities and industry by providing environmental services (water and wastewater, waste management, heating and electrical power, and public transportation). We also build and maintain the infrastructure required for these services. Given the scope of our activities, we share the concerns of public decision-makers and understand all the challenges of urban planning, especially those of finding solutions that are environmentally friendly, economically efficient and socially balanced. Our presence in similar activities all over the world enriches our expertise, increases our capacity for innovation and enables us to spread best practices.

World trends indicate that the major concepts of sustainable development are becoming increasingly important in urban planning for today's expanding towns and cities. Growing urbanization, higher environmental and public health standards, awareness of the scarcity and depletion of our planet's natural resources and the challenges of combating climate change are the principle concerns. Veolia Environnement's wideranging expertise gives it a comprehensive understanding of all these needs. It provides solutions to them through an original business model based on efficiency, innovation, partnership, transparency and balance.



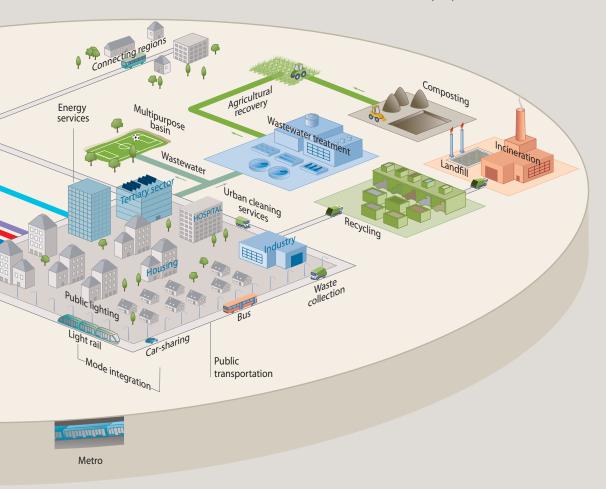
## >

## A PARTNERSHIP MODEL THAT FOSTERS SUSTAINABLE DEVELOPMENT

Under Veolia Environnement's public-private partnership business model, public authorities retain ownership of the service infrastructure and remain the decision-makers as far as tariffs and user policies are concerned. In essence, this business model leaves to the public authority the option of reverting to public management. However, the lengthy contract periods establish the private-sector company as a potential long-term partner. This gives it the time to foster and maintain customer satisfaction as well as to transform the service to meet the quality objectives set by the public authority. Managing all aspects of a public service empowers the operator, giving it full responsibility for meeting these objectives.

## THE VALUE OF OUR PEOPLE

The efficiency of a service depends principally on the quality of the personnel providing it. At the end of 2008, Veolia Environnement employed 336,013 men and women worldwide in very different economic and social conditions. The transformation of public entities into private-sector companies calls for a precise, dynamic human resources policy that aims above all at preserving jobs while improving staff skills and empowering employees. In all the countries where we are present, we do this largely through the training and promotion of locally hired staff—we have no more than 845 expatriates worldwide out of a total international work force of 218,000 people.





## AT THE FOREFRONT OF TECHNOLOGY AND INNOVATION

We use all available modern technologies in our businesses to improve our operating performance. As we are not tied to any equipment manufacturers, we can ensure that the solutions we implement are adapted to the real needs of each situation. Our solutions incorporate the latest environmental, information, communication and industrial management technologies to improve overall efficiency and customer service. However, to maintain and increase our innovation skills, we develop our own technologies in the most vital fields.





## DECENTRALIZED ENERGY MANAGEMENT

In many countries, tighter regulations,

new technologies and the drive to combat climate change have increased the need for decentralized energy management within a defined geographical area. Veolia Environnement offers a new model for the decentralized management of energy systems. Our business model is based on the management of district heating and cooling networks, energy efficient buildings (especially public-sector buildings), public lighting, industrial energy systems and, in some cases, of local energy distribution networks. We provide public authorities with a wide range of converging solutions in order to offer maximum energy quality, while minimizing consumption and also reducing greenhouse gas emissions.

# Understand needs and provide solutions

Across the world, in developing, emerging and developed nations, growing urbanization poses increasing challenges to those responsible for the management of urban communities.

In developing nations where cities lack basic services, rapid urban demographic growth poses public health problems that can be life-threatening. In emerging nations, like China or the countries of Central and Eastern Europe, infrastructure needs modernizing and management on a massive scale.

In developed countries, rising pressure on natural resources has made reducing pollution, waste, greenhouse gas emissions and other environmental concerns growing priorities. Not surprisingly, sustainable development concepts have taken front stage in urban areas as residents and elected representatives are aware of the huge and daily need for solutions that strike the right balance between economic efficiency, environmental requirements and social issues.

#### Six major advantages

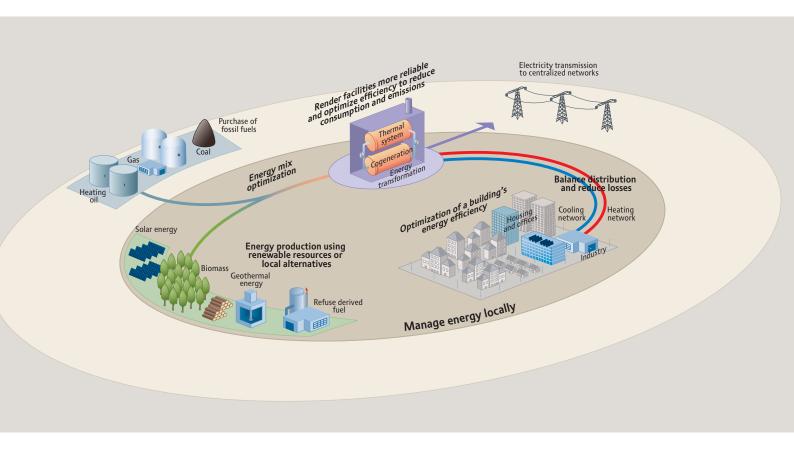
Given such huge aspirations and objectives, the need for expertise is great.

Veolia Environnement strives to provide solutions to these issues and boasts six major advantages:

- our distinct but complementary businesses make us the only company in the world to offer the full range of urban services;
- our long-standing experience of these businesses (we have been working in urban services since they were first developed in the 19th century) gives us the requisite technical skills, as well as vital expertise in financing, regulations and acceptance by local populations;
- we manage the same businesses in different

economic, social, climatic, environmental and political circumstances and can therefore identify, incorporate and transmit the most innovative and efficient managerial, organizational and regulatory practices; • we have no ties with equipment manufacturers

- we have no ties with equipment manufacturers and can therefore use all available modern technologies to provide the best tailor-made solutions for our clients;
- our business model of long-term partnerships with our clients enables us to constantly improve services, create value and ultimately maintain lasting win-win situations;



• lastly, our decentralized organizational structure and policy of adapting to local circumstances empowers our managers and reassures our clients.

## Providing services that are more coherent and better planned

Veolia Environnement's divisions provide solutions to the major challenges posed by the sustainable management of territories. Two of them, Veolia Water and Veolia Environmental Services, manage clearly identified cycles. The challenge is to anticipate developments in these cycles in order to design new tailored solutions that are economically viable, environmentally respectful, accessible and accepted by local populations. Our water division's key concerns are managing water resources wisely and ensuring access to water and

wastewater services, both of which depend to a great extent on local factors, notably the abundance or scarcity of water resources, and local economic and social circumstances. In waste management, the key challenge is defining an economically viable recycling economy together with public authorities, as recycling and materials recovery are gradually taking over from landfill and incineration as the principle waste management services. In our two other activities, energy and transportation, awareness of today's changing concerns and circumstances has incited us to offer and implement services that are more coherent and better planned. In energy, we take into account the growing preference for decentralized energy and carbon emissions management. Veolia Environnement helps public

authorities design and then operate these systems. In transportation, to provide coherent intermodal urban transit systems, inventing the job of mobility manager is needed. This involves reworking the traditional allocation of tasks between the private-sector operator and the public-sector transit authority.

## Increasing our competitive edge

Given these developments, all our activities converge increasingly around a business model that fosters environmentally respectful urban system management. Our objective is not to be everywhere at once doing everything, but rather to increase the competitive edge we have gained through our ability to understand needs and provide solutions for all our clients.

Moreover, our wide-ranging expertise means we can work

upstream to design comprehensive sustainable urban management solutions with control over greenhouse gas emissions as a key objective. Here, our expertise in energy services based on efficiency and energy-saving, our innovative position in public transportation, and our extensive experience in materials recovery and waste-to-energy all give us a coherent and original corporate identity.

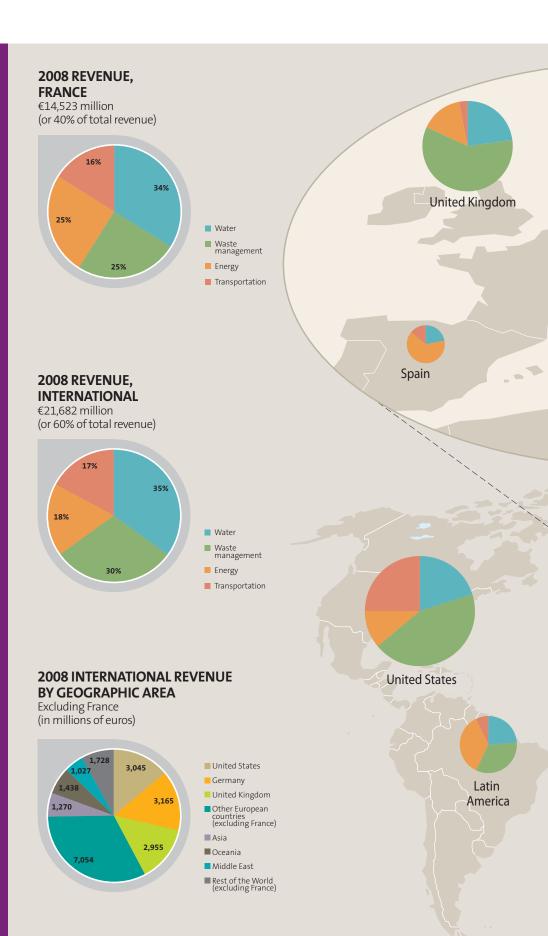
## STEADY INTERNATIONAL GROWTH

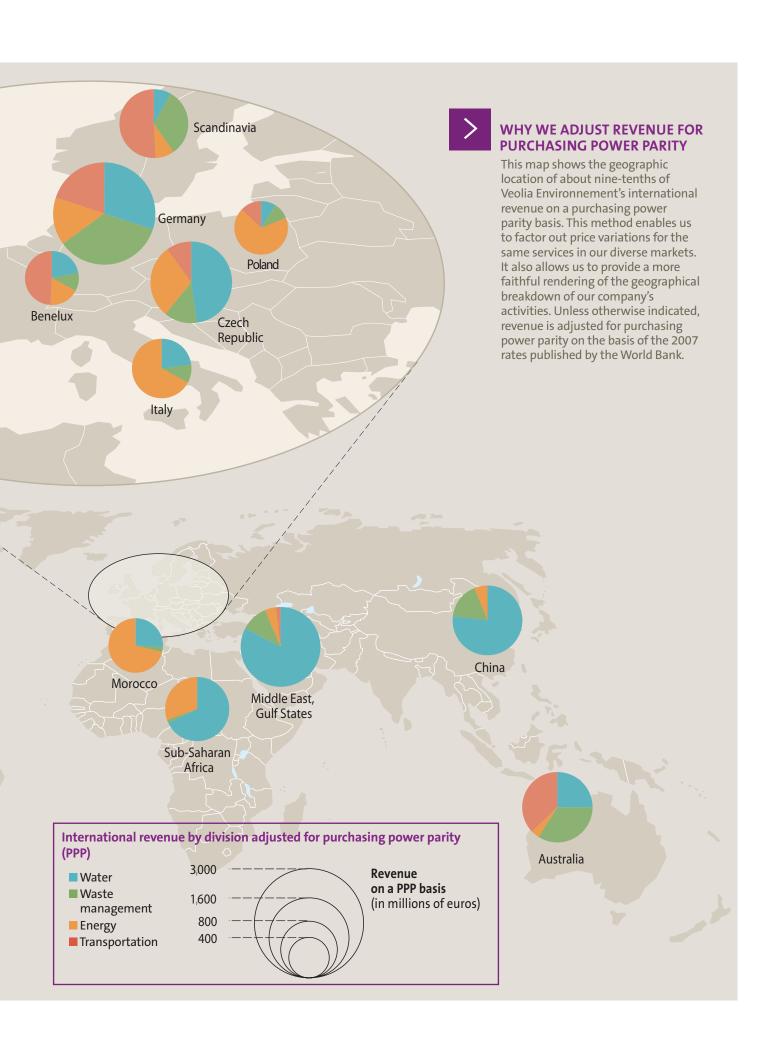
Veolia Environnement generates about two-thirds of its business outside France, with international activities contributing 60% of total revenue. Adjusted for purchasing power parity, revenue outside France accounts for 66% of total revenue.

International operations account for 65% of our worldwide work force, but also 72% of the greenhouse gas emissions managed by the company. Our international activities are both highly concentrated and very diverse. Veolia Environnement generates 60% of its international revenue in six countries (Germany, United States, United Kingdom, Australia, Czech Republic and Italy).

On a slightly broader scale, about 15 countries or regions with similar characteristics contribute nearly 90% of our international revenue. They serve as a base for our steady growth policy and strengthen our organizational structure. Though a large share of our business is generated by secure markets in OECD countries, we are also present in all the major emerging markets where urban restructuring and expansion have opened up massive demand for environmental solutions.

We believe that our wideranging experience of the same businesses in very different economic, social and environmental conditions gives us a vital competitive edge. Indeed, it increases our capacity for innovation and enables us to contribute a wealth of expertise to current contracts.









This diagram illustrates the dynamics of the creation and sharing of value within the company's businesses. According to the contract's initial terms, the private-sector operator implements economic and technical measures to boost productivity. Part of the value created is reinvested in the project in various ways—technical investments, staff training, technological innovations—and therefore contributes to improving the operating performance. In addition, during contract revisions or renegotiations, the transparency of the operating conditions leads us to return another portion of the savings to our client. The client in turn uses these savings on basic services to finance improvements in quality and introduce innovative services that comply with tougher environmental and social standards. In this way it reinserts funds into a new cycle, which will in turn create more value.

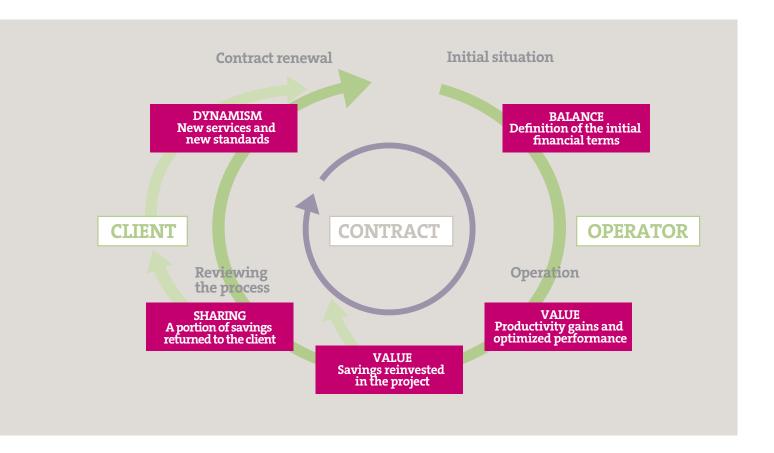
# A partnership model that fosters sustainable development

Among the different ways of managing public services, **Veolia Environnement's** public-private partnership model is the only one that allows for lasting competition. It is, and has always been, based on achieving the right balance between public-sector responsibility and privatesector efficiency and innovation capacity. We also draw on our extensive experience of partnerships with public authorities to offer tailormade solutions for our industrial clients.

Our contractual model fulfils two major goals. First, we seek long-term partnerships. All too often, contract duration is determined solely by the time needed to amortize the infrastructure provided. However, we believe that it should be determined by many other factors. For example, we need time to acquire in-depth knowledge of local circumstances, apply best practices gained from our other activities and transform the industrial systems and tools on which our service is based. Second, as far as possible, we seek to provide an integrated management service in each of our four areas of expertise. In integrated management, one clearly identified operator

is in charge and this is essential to ensure control and efficiency. This operator is responsible for managing the system as well as guaranteeing, within a verifiable framework, the fulfilment of the public authority's objectives. Integrated management enables resource-saving strategies and, more generally, the public authority's quality objectives to be incorporated into the management systems. These objectives become a way of assessing the success of the partnership and the chances of contract renewal. They are increasingly used as a way of linking the operator's payment to performance. The need to incorporate

sustainable development concerns and a long-term vision into environmental service management gives all the more importance to contract duration and integrated management. Rather than reinforcing the public authorities' possibility of maintaining control over operators, shorter contract periods and responsibility being allocated to several players results in the operators' accountability and efficiency being reduced. Sustainable development issues are now an integral part of the major challenges faced by urban managers (combating climate change, maintaining biodiversity, etc.). Tackling them requires a more structured partnership



in which the interests of the operator, the public authority and the end-user are all united in a win-win situation.

#### Allowing for competition

Public-private partnerships are the best way of allowing competition in public service management contracts. By definition, competition is absent when services are under public management. It is only short-lived in the case of privatization, which entails the definitive transfer of infrastructure ownership to the private sector and creates a virtually irreversible situation.

In many countries, local public-sector companies have a virtual monopoly in their traditional market, but can compete with private-sector companies outside this area. Public-private partnership contracts are renewable and therefore leave the public authority the option of either choosing another private-sector operator or reverting to public management at the end of the contract. The fact that this seldom occurs indicates stakeholder satisfaction.

#### Creating and sharing value

Our win-win logic is based on the principles of a fairly simple circular economy. Obviously, the private-sector operator is constantly looking for productivity gains to boost profitability. However, these improvements often also have a beneficial environmental impact, like repairing leaks in water networks, for example. When the contract comes up for renegotiation or renewal, a portion of these savings is returned to the public authority. This system is based on the growing need for environmental services and the allocation of bigger budgets to improve efficiency, accessibility, health and environmental standards, customer service and resource protection. This is why even in developed countries like France our activities continue to grow steadily. Our partnership model is sometimes criticized for prejudiced and even controversial reasons. However, throughout the

world, on condition it is adapted to suit local aspirations, this business model is a solution that reconciles both private-sector and public-sector objectives in a fair and dynamic manner.

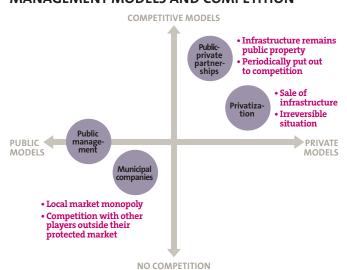
### Serving development with acknowledged efficiency

International funding institutions and public-sector development agencies are increasingly interested in developing closer alliances with our company in their particular fields. This proves that our partnership model is both appropriate and efficient. Over the last few years these institutions have taken traditional aid in the funding of infrastructure

#### Anticipate



#### MANAGEMENT MODELS AND COMPETITION



projects a step further and have acquired direct stakes in our subsidiaries. For example, the International Finance Corporation, part of the World Bank Group, and Proparco, a subsidiary of the French Development Agency (Agence française de développement), acquired a 19.45% stake in Veolia Water Africa, Middle East and India. In Central and Eastern Europe, the European Bank for Reconstruction and Development (EBRD) acquired a 35% stake in Veolia Transport Central Europe, which operates in the Czech Republic, Poland, Slovenia and Slovakia. The EBRD also acquired a stake in Dalkia Polska, Veolia Energy's Polish subsidiary. In 2008, Veolia

Environnement increased cooperation with the EBRD, which acquired 10% of Veolia Voda, a subsidiary of Veolia Water active in the Czech Republic, Slovakia, Hungary and Poland and in charge of future expansion in Russia and the Ukraine. These stake acquisitions illustrate a new dimension of the public-private partnership. They contribute additional funds to improve basic services in countries in great need of modernization and optimal environmental infrastructure management. They also demand even tighter corporate governance and social responsibility, which will dynamize our company's drive for improvement and also further secure its growth.

#### **Extracting synergy** for industrial clients

Veolia Environnement draws on its experience of publicsector management to offer tailor-made solutions to companies in the industrial and tertiary sectors. These markets generated revenue of about €10 billion in 2008. Thanks to our ability to

generate synergies between our four divisions, we offer a wide range of integrated management solutions. These "multiservice contracts" offer a combination of services provided by several divisions, enabling us to cater for the needs of clients who want to outsource a wide range of tasks to a single service provider. This market is growing by over 10% a year, bolstered mostly by the trend for outsourcing. With a view to optimizing their performance, industrial companies are looking to outsource the management of some of their activities to multinational firms that can ensure the same quality of service the world over. Operating relationships with the client are obviously different. Exchanges are conducted with a single partner and together client and service provider look for solutions that serve both their interests. This business model generates maximum savings thanks to technical synergies and economies of scale and therefore contributes to boosting the client's competitiveness.

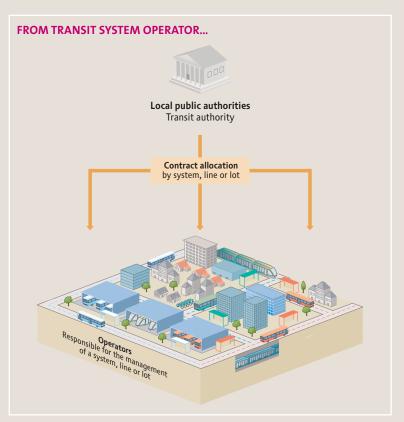


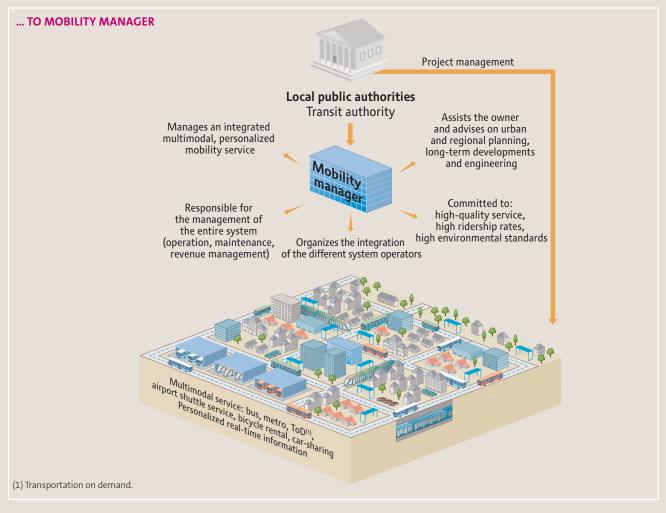
## FROM TRANSPORTATION TO MOBILITY

Organizing urban and suburban transportation is often a top priority for local governments all over the world. These services have to incorporate sustainable development concerns and must be economically efficient, environmentally respectful and socially acceptable.

The development of public transportation relies on the fulfilment of standard objectives: improving service quality, on-time performance and safety.

It also includes providing new solutions like shared rides, which borrows features from both private and public transportation. For Veolia Environnement, the overall efficiency of a transit system implies delegating a significant share of the responsibilities currently held by transit authorities to a single public or private operator, in order to improve the coherence, accessibility and mode integration of urban or regional transit systems.







**527,979** training programs

**6,526,100** hours of training dispensed

**2.4%** of the payroll invested in training

# Incorporate the value of our people into our expertise

At end 2008, Veolia **Environnement employed** 336,013 people, with nearly two-thirds outside France. Our people work in close contact with the populations we serve in the countries where we operate. It follows that taking into account local circumstances and existing personnel is at the heart of our human resources policy. In the current economic situation, we are endeavoring to strengthen our founding values and continue to work on the human resources priorities launched in 2008. These aim at attracting talent and developing skills, enriching labor relations, protecting employees and fostering respect for diversity and equal opportunity.

### ATTRACTING TALENT AND DEVELOPING SKILLS

Veolia Environnement strives to recruit and train the best employees at all levels in all the geographical areas where it is present. Jobs in our business evolve permanently and require increasing technical know-how, so we constantly strive to develop our employees' skills.

#### A proactive recruitment policy

Given current difficulties in its employment market, Veolia Environnement has adopted a proactive recruitment policy, associating training and job offering. For example, as a result of the "Veolia compétences" recruitment campaign that was initiated in France in

2005, nearly 14,000 people have joined the company. The campaign is open to internal and external applications from candidates of all ages and qualification levels. External candidates are offered apprenticeships or professional training as part of a work-study program.

In this way, they obtain a professional qualification that can range from a vocational training certificate to a Masters degree, as well as an unlimited-term employment contract. In 2008, Veolia Environnement stepped up collaboration with local elected representatives, employment organizations and training partners. In a bid

to improve both the general public's and public authorities' understanding of environmental professions, information campaigns will be organized in 2009.

#### **Spotting talent**

We endeavor to offer all our staff the possibility of developing their skills throughout their careers. Each employee's training needs and potential job moves are determined in the annual assessment interviews. We also rely on management reviews and succession planning for the key positions in each business unit. We devote particular care to managing senior executives. It is crucial for us to spot skills



## SHARED SERVICE CENTERS: MANAGING ORGANIZATIONAL CHANGE WHILE REMAINING ATTENTIVE TO EMPLOYEE ASPIRATIONS

Veolia Environnement has set up Shared Service Centers to extract more synergies and improve the competitiveness of its business units. Some of the support functions required by all the four divisions are provided by these centers. After conclusive trials in Germany and Poland, the project is now gradually being deployed in France in a bid to implement change within the company while respecting Veolia Environnement's human resources model. Supplier account management activities have already been grouped together in France.

To make it easier for employees to move to their new jobs, four sites were selected to serve the whole of France, located in the areas of the country where the company employs the most people. A pilot site was launched in Lyon in the spring of 2008. After consultation with the 120 staff representative bodies concerned by these new centers, the three other sites should be opened. We need to remain attentive to the needs of our employees and consult with their representatives well before implementation in order to manage the many challenges posed by this project: developing skills, providing support for job moves and negotiating a new employee status for all the workers concerned by the project. We set up national and local committees to accompany the project and serve as forums for employee-employer negotiations. This led to the signing of an initial agreement on method with all the trade unions, prior to negotiating a collective bargaining agreement. Management and trade unions set up five working groups involving 70 personnel representatives to facilitate employee-employer negotiations. The project's aim is also to increase professional skills through training in new computer processes and tools. This will remove repetitive data entry tasks and allow employees to focus on higher value added tasks. An employee support system to assist their integration in the new Shared Service Centers is gradually being set up. It includes individual interviews to discuss job mobility and an introduction to the new position as well as mobility assistance.

early on and anticipate replacement needs by regularly adding to our talent pools and ensuring that they reflect our international footprint and diversity.

#### **Encouraging job mobility**

For several years now, Veolia Environnement has encouraged job mobility within the company and in 2008, 16,675 employees moved to new positions.

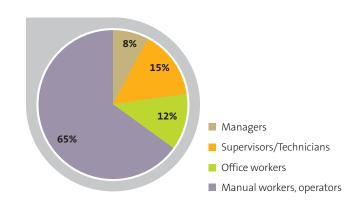
Mobility is also encouraged through devices such as the Veolia Environnement recruitment and internal mobility Web site. This on-line careers portal is designed for external applicants interested in job vacancies or internships, as well as employees seeking new positions.

increased 19% compared with 2007 and we now have 845 managers abroad as well as 163 recruited as part of the International Corporate Volunteers program.

International job mobility

For international assignments, we expatriate experts and managers to start up new operations, particularly in Asia, the Middle East and Africa, and thus promote the sharing of expertise with local employees. We also arrange exchanges of senior executive expatriates in our major markets (United States, United Kingdom, Germany and Australia) where they contribute their rich experience and significant expertise. In 2008, 44 expatriate managers joined our activities in France.

#### 2008 WORK FORCE BREAKDOWN BY SOCIO-PROFESSIONAL CATEGORY



## Campus Veolia: a training center of reference

Training costs per employee increased by nearly 7% in 2008. Campus Veolia is the means of implementing an ambitious training policy

that serves five main purposes: developing employee skills, transmitting expertise, accompanying career paths, disseminating corporate values and promoting synergy. All the company's training departments are grouped together at Campus Veolia, which also coordinates our policy in this field. At the Campus, employees and apprentices acquire the special skills needed in each of our four business activities. They are offered work-study programs or on-going training throughout their careers. The programs lead to an accredited diploma or job title. Training courses take place under "real operating conditions" to foster a sound understanding of the job, awareness of our high quality of service requirements and employee autonomy. Some 450 professionals within the company are involved in dispensing work-study programs.



## CAMPUS VEOLIA IN BRIEF

A budget of €44.8 M

More than **18,000** participants

#### 100

trainers and more than 450 contributors

**17** diploma courses

94% success rate

In 2008, five regional Campus Veolia centers were opened in France to offer a network covering the whole country.

### An international training network

Our international training network is coordinated by Campus Veolia and already comprises 18 campuses in 11 countries. In 2008, campuses were opened in the Czech Republic, Morocco, the United Kingdom, the United States, Germany, Israel and the Middle East.

This international network enables us to adapt our training programs and actions to specific local needs and to forge partnerships with universities, graduate schools and local research centers.

Campus Veolia's educational quality standards are applied throughout this international training network to ensure consistency and unity.

## FORGING STRONGER LABOR RELATIONS

Veolia Environnement bases its growth on taking over existing organizations, mostly in the public sector (public service management contracts signed with local public authorities), but also in the private sector (acquisitions and industrial contracts). To ensure the success of these operations and this growth model, we strive to maintain sound labor relations through on-going dialogue and attentiveness.

## Successful employee integration

The successful integration of existing staff is key to the success of our ventures and involves issues like employee status, training, capitalizing on expertise, transferring skills, pay and fringe benefits. Every new organization is constructed on the basis of Veolia Environnement's corporate values while taking into account local circumstances and the existing teams.

#### Forums for dialogue

At Veolia Environnement, labor relations are conducted within the business units of each of our four divisions in a bid to be as close as possible to conditions on the ground. Within this framework it is easier for employee and management representatives to find the most appropriate solutions for workplace organization and conditions, skills development and compensation. In Europe, Labor relations can be conducted at three levels: within the business unit,

be conducted at three levels: within the business unit, which is the most logical forum for discussion; at a national level, through the joint authorities in charge of information and relations pertaining to national issues; and lastly, at the European level for information and consultation regarding transnational issues. The French Works Council, set up in 2003, and the European Works Council, which was created in 2005,

met regularly in 2008 to debate cross-divisional issues such as the economic challenges facing the company, health and safety, assistance to the most vulnerable employees and national forums for dialogue.

### PRIORITY TO EMPLOYEE PROTECTION

Our employees work on public highways, face rudeness and incivility on public transportation, and sometimes carry out difficult or dangerous tasks. Their health and safety are therefore sometimes at risk. However, our concept of employee protection also encompasses ensuring that our staff and their families lead dignified lives and are not harmed by tough economic or structural circumstances. Each of our business units constantly takes measures to improve the safety of its employees. In 2008, one-fourth of the training courses taken by employees were devoted to health and safety. Particular

#### ASSESSING LABOR RELATIONS

In 2008, as part of a continuous improvement plan, the quality of labor relations was evaluated by our European personnel representatives in 21 countries employing nearly 230,000 people. Based on the assessment by representatives in each country, we formed three categories: countries with best practices, countries where existing structures need improving, and countries experiencing difficulties. Our European trade union and personnel representatives also set up joint action plans involving management from each country.

#### THE SIX MAIN OBJECTIVES OF THE FRAMEWORK AGREEMENT ON WORKPLACE RISK PREVENTION, **HEALTH AND SAFETY**

This agreement, signed by Henri Proglio and all the French trade unions on December 9, 2008, sets out the following key priorities for our business units worldwide:

- workplace risk prevention, health and safety measures should be defined jointly, after consultation and with the involvement of the appropriate legal structures (for example, France's Health, Safety and Workplace Conditions Council, the CHS-CT);
- the risk identification process should be improved to enable better risk assessment and control;
- occupational health and safety issues should be included in training and discussed in job interviews for all employees:
- access to health care should be facilitated and all employees should be encouraged to take responsibility for their own health and safety;
- employees should be encouraged to follow career paths so as to avoid the development of incapacity situations;
- a better work-life balance should be encouraged.

focus was given to risks related to the use of chemicals within the framework of REACH. the European regulation on this subject. Lastly, we implemented a series of measures to support employees on sick leave due to workplace accidents both during their absence and on their return to work.

2008, World Safety Year The Executive Committee declared 2008 "World

Safety Year" for Veolia Environnement and there has been a drive across all our activities to step up workplace risk prevention, health and safety measures.

The following four key initiatives were introduced:

- performance target and action plan road maps for managers;
- company-wide standards for occupational health and safety, self-assessment and audit requirements;
- a shared on-line accident information and consolidation system (Acciline software), which employees can use to improve their analysis of the causes and assessment of the risks:
- employee skills training in safety: on the job initiation and mentoring, and a cross-divisional Health and Safety core syllabus in training courses.

In 2008, workplace accident frequency and severity rates dropped 9.1% and 5.6% respectively. In 2008, we also continued our health action plan for sanitary crisis situations like the flu pandemic with a view to protecting our employees and ensuring that business continues. Measures include stocking protective equipment, an information campaign on behavior and procedures in the event of a pandemic, and simulation exercises.

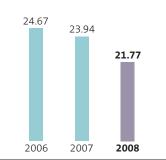
#### WORKPLACE ACCIDENTS

## representatives

1,606 collective bargaining agreements signed

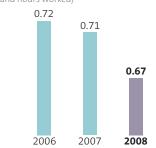
#### **CHANGE IN FREQUENCY RATE**





#### **CHANGE IN SEVERITY RATE**

(Number of days lost due to workplace accidents per thousand hours worked)



#### Anticipate

#### SAFE STAYS IN HIGH-RISK ZONES

Veolia Environnement applies a policy to ensure its employees safety when on trips to potentially dangerous or politically unstable countries. This policy focuses on four lines of action:

- the regular update and distribution of a list of high-risk countries;
- a risk assessment and list of preventive measures for each potentially risky stay. In 2008, for example, over 1,300 assignments were authorized in 11 high-risk countries after the risks were assessed and safety plans devised;
- training for employees on how to handle dangerous situations;
- intervention to ensure the safety of employees and their families in crisis situations.



€26,107 is the average gross annual salary worldwide

186,787 in safety training programs

> 1,812,271 hours of safety training

3,068 bodies devoted to health and safety

#### Fair and equitable compensation policy

Veolia Environnement's compensation policy serves the same objectives in all the countries where it operates. It aims to ensure attractive compensation packages relative to local standards; offer fair remuneration that rewards individual efforts; and increase health and insurance cover, notably through additional guarantees on existing pension schemes. A total of 846 compensation agreements were signed in the countries where we operate. Since 2002, we have compared our average employee wages with the local average minimum wage in 19 countries. In 2008, Veolia Environnement's average wage was 2.2 times higher than the legal average minimal wage in these countries.

#### Active solidarity with our employees

In France, in conjunction with the French Works Council,

we started a solidarity plan to support employees hit by the current economic crisis. A series of common initiatives were taken to facilitate access to decent housing, help individual difficulties caused by the rise in transportation costs, improve welfare protection for the most vulnerable and lastly, implement a "Social hotline" information service for individual emergencies. In addition, our temporary workers will be the first to be offered full-time jobs when vacancies arise. This solidarity plan will be implemented in our international business units along the same principles.

#### PROMOTING DIVERSITY AND **EOUAL OPPORTUNITY**

Veolia Environnement is clearly a symbol of diversity. Its employees represent over a hundred different nationalities, and it has very diversified activities and business units located all

around the world. In 2007, a widespread campaign to promote diversity and equal opportunity was launched, involving a wide range of stakeholders (senior executives, human resources directors, operators, labor and management representatives, the Ethics Committee, experts, clients and customers). Starting with a shared analysis of situations and practices within the company, the goal was to define an active diversity management policy that would enrich our traditional human resources model, which is itself pioneering in terms of insertion, integration and career progress.

#### A "Diversity and Equal Opportunity" plan for 2008-2011

This project led to preparation for the company's diversity certification, which is due to be awarded in France in 2009 and focuses on three key issues:



#### TOOLS FOR FAIRER RECRUITMENT OF OPERATIVES

In 2008, Veolia Environmental Services implemented a decision-making aid tool in France to make the recruitment of operatives more rational and objective and provide candidates with the best career advice.

The Proveo recruitment kit was distributed to 700 operating managers. It uses a series of procedures to assess differently and fairly both literate candidates and candidates with literacy deficiencies.

- the minimal social standards, key elements for socially responsible growth.

  These standards go beyond the basic rights defined by the ILO and the OECD and will be applied and adapted in all the countries where we are present in a bid to guarantee genuine equal opportunity for all;

   equal treatment, which guarantees non-discriminatory access to employment, career moves
- consistent daily management of diversity, which implies respecting differences, combating prejudices and using training programs to raise awareness of these issues within the company.

and skills training;

Veolia Environnement continues to recruit through work-study programs with the aim of facilitating the insertion of people who are not used to a working environment, such as unqualified young people and

the long-term unemployed. These programs also now target priority publics, for example, women (giving them access to jobs traditionally held by men and to key management positions), older workers (maintaining them in employment) and workers from different ethnic origins. Two areas for improvement have been identified: access for women to managerial positions in operations and more nationalities to be represented in senior management positions. Concerning the career paths of union stewards, the company has committed to giving them the option of returning to their job or acquiring new skills at the end of the union mandate. Lastly, Veolia Environnement is committed to providing jobs for disabled or incapacitated people. In 2008, the company employed 5,366 disabled people, 38% more than in 2005.

#### COMMITTED TO WORKPLACE EQUALITY

In 2008, the average salary of women in the company was 17% lower than that of male employees. Interpreting this pay gap is not easy given the diversity of local contexts and the nature of jobs within the company, as well as differences in age, seniority and qualifications. However, the increase in comparison with 2007, when the pay gap was only 15%, has led us to study this development more in depth. If necessary, we will take measures to rectify the situation.



A budget of €153.5 M

100 research pilot units

200 scientific partners (industrial companies, universities, public and private research organizations)



# At the forefront of technology and innovation

Innovation is indispensible to provide our public authority and industrial clients with the best possible solutions for the management of their environmental services. The mission of our Research and Development Department is therefore to closely follow developments in new, innovative technologies very closely and to integrate them into our services in the most cost-effective way.

Veolia Environnement's Research and Development draws on the wealth of 150 years' experience in environmental issues. Thanks to increases in our human and financial resources and above all our innovative business model, our R&D has been able to implement tested, reliable and operational technologies. Research and Development is a pillar of the Veolia Environnement business model because it contributes to the development and integration of innovative technologies in all our services. Our research teams provide new and concrete solutions to the major challenges identified by the company. The main focuses of their work are

managing and preserving natural resources, limiting environmental impacts, protecting public health and living environments, and developing alternative energy sources.

#### **Vital projects**

Currently, 70% of the

company's research programs focus on reducing greenhouse gases. Veolia Environnement's researchers work on vital projects like seawater desalination, large-scale waste sorting, CO<sub>2</sub> capture and storage, and optimizing mass transit.

R&D efforts aim at improving our technical and environmental efficiency and reducing costs so that new technologies can be

adapted to different economic and social conditions. The aim is also to tip the balance in favor of the most environmentally beneficial options and processes, for example, waste recycling, biomass use, wastewater reuse and so on. The success of Veolia Environnement's R&D programs is based on a business model where developing expertise in the best technologies for our businesses is a top priority. Our expertise is the fruit of three crucial strategic choices: · an extensive focus on technology intelligence all over the world, so that the best existing or upcoming technologies of interest to our businesses can be identified:

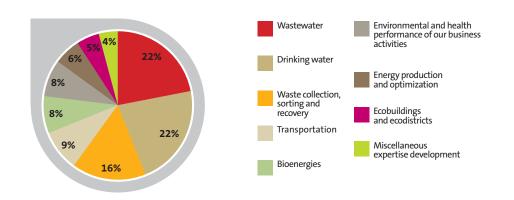


#### **BOOSTING THE EFFICIENCY OF WATER TREATMENT SYSTEMS**

In 2004, a membrane expertise unit was created to improve membrane processes and reduce operating costs. Water treatment systems must be made more efficient given the deterioration of aquatic environments, the emergence of new health risks and tougher regulations. Veolia Environnement uses membrane technology increasingly to produce drinking water and treat and recycle industrial and municipal wastewater. The membranes act like filters and retain microscopic elements. They are much more effective than traditional processes—particularly when it comes to treatment reliability—for clarification, disinfection and the removal of organic matter, nitrogen and phosphorus. They are also effective when coupled with traditional processes. However, the membrane processes still have to be improved in order to reduce investment and operating costs. In particular, clogging problems have to be solved and energy consumption reduced. The expertise center's mission is to develop tools that will enable an independent appraisal of the performance characteristics of membranes on the market, help develop ways of coupling membrane treatment with other processes with a view to improving water quality and, lastly, track the features and performance of the membranes throughout the period of operation with a view to achieving maximum efficiency.

#### **R&D BUDGET BREAKDOWN BY PROGRAM**

- incorporating these technologies into Veolia Environnement's activities to improve technological, environmental, health and economic performance;
- developing technologies specifically for our own businesses when they are unavailable elsewhere. In this way, Veolia Environnement is able to guarantee total objectivity when it comes to the choice of technology offered to its clients.



#### INSTITUT VEOLIA ENVIRONNEMENT FOCUSES ON FUTURE ENVIRONMENTAL TRENDS

Institut Veolia Environnement is widening its network of partners and extending its expertise so that it can enlighten the company on the changes affecting society. It shares its knowledge and analyzes emerging needs through two new publications:

- FACTS Reports, an original means of disseminating best practices among development organizations;
- SAPIENS, a scientific journal about interaction between society and the environment.



→ www.institut.veolia.org

#### Anticipate



#### IMPROVING AND INCORPORATING **SUSTAINABLE TECHNOLOGIES**

Sorting is a strategic stage in waste management and essential for recycling operations that in turn provide solutions to a host of issues, for example, raw materials savings, saving energy and water in industrial processes and reducing greenhouse gas emissions. Research and Development has focused on automating materials recovery facilities, whether for the treatment of source-separated household waste or mixed industrial waste. The TSA2 automated sequential sorting technology patented by Veolia Environmental Services enables the separation of several categories of objects and materials on a looped flow of waste using one software-controlled optical sorting machine. Productivity gains generated by this system optimize the cost of the sorting line. Cost is fundamental for the development of new recycling and recovery processes that have a competitive edge over traditional processes. Our research also strives to provide solutions with a social and human dimension. Automated waste sorting technology, for example, is one of the main ways of improving working and health and safety conditions for our operatives. What is more, the advent of new waste recovery processes as a result of improved sorting is likely to lead to the creation of many new jobs in the recycling sector.

An integrated business model

Veolia Environnement's divisions and subsidiaries are closely involved in each Research and Development program that concerns them in a bid to foster knowledgesharing and expertise transmission. Actiflo®, for example, is a good illustration of our capacity to develop new technologies and integrate them in the services we offer our clients. Veolia Water's Technical Department began working on a way of accelerating clarification, which is an essential stage of water treatment. R&D took over the project and, after a hydraulic modeling phase, implemented a pilot research project. An international working group was created with partner companies to pool

expertise. The project also benefited from the participation of

Veolia Water's subsidiary

Veolia Water Solutions & Technologies. After two years of joint research, Veolia Environnement's teams patented the Actiflo® Turbo system, which enables surface water treatment that is four times faster than previous processes and consumes less energy.

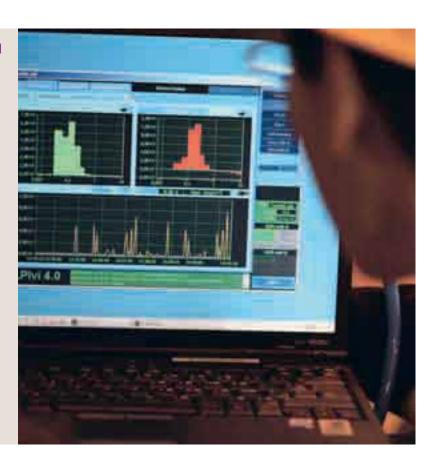
A results-driven culture

In order to make rapid progress and produce as cost-effectively as possible reliable, profitable, efficient industrial applications that enable management of technological risks, we rationalize our research and development process into several stages: identification of the future need, launch of the research program, laboratory or in-the-field trials, realisation of a pilot project, on-site construction and operation of a pre-industrial unit, assessment of the results, process improvements and then, the final development stage.

## HYDROGEN DOPING, FROM CONCEPTION TO INDUSTRIAL PROCESS

Hydrogen doping enables the local production of hydrogen from natural gas by catalytic reaction. The hydrogen is then reinserted into the natural gas, significantly improving the combustion efficiency of gas engines.

- 2006: technical feasibility study.
- 2007: first lab tests.
- 2008: construction of a pilot unit at the Energy Research Center in Limay (France).
- End 2008: construction of a pre-industrial unit run jointly with the École des mines de Nantes (Nantes engineering institute).
- 2009: industrial application scheduled at seven Veolia Energy-Dalkia sites.



## The value of a research network that actively seeks outside contributions

Our R&D policy encourages the pooling of talent and openness to ideas from outside the company, for example meetings between fundamental researchers and experts in our business activities, upstream work with Institut Veolia Environnement, taking into account on-the-ground needs, and sharing and collaborating with the international scientific community. In 2008, Veolia Environnement was the hub of a unique international network based on over 200 partnerships with top scientific experts (public and private institutions, university professors, etc.). We are able to optimize our investment through synergy between our own research departments and complementarity with public

and private research programs. The strength of our research lies in the pooling of skills and constant networking. "Aquisafe," an international program to reduce the risk of surface water contamination, illustrates this partnership approach well. The alliance involves Veolia Environnement's Water Competency Center in Berlin (KWB), which initiated the project, Germany's Federal Environment Agency (UBA) and Indianapolis University (IUPUI). Joint experiments are currently being carried out in Berlin, the United States and France to assess the efficiency of natural environments in mitigating the transfer of contaminants to watersheds.

#### RESTRUCTURING RESEARCH AND DEVELOPMENT

In 2009, Veolia Environnement's Research and Development will be restructured to enhance efficiency in providing solutions to the challenges faced by the company. The main objective is to bolster our scientific expertise and the way our French and international research programs are decided. We also aim to increase scientific cooperation. Lastly, we intend to boost technological and scientific intelligence so that innovative technologies that can be integrated into Veolia Environnement's services are systematically identified and selected.





# Contribute to the quality of urban living



Growing urbanization, changing lifestyles and an increasing awareness of environmental issues are all placing new demands on urban services both from public authorities and consumers. Drawing on the synergies in its activities, Veolia Environnement applies its expertise and understanding of urban issues to roll out integrated services that take into account the complex, interacting challenges affecting an entire metropolitan area. Ease of mobility, comfortable and clean public spaces, and quality water together define urban well-being; these are the very criteria that we are intent on meeting. Our ability to put together service offers that incorporate city dwellers' expectations has made us a partner of choice for cities and a major player in improving the quality of urban living.

#### Mobility makes life easier

Clogged and polluted by traffic, cities need to rethink urban mobility. Fast and fluid travel is an essential criterion in the definition of "quality of life" for city dwellers. This explains why developing transit mode integration is at the heart of Veolia Transport's strategy. The company works with transit authorities to design and manage transit systems, and strives to make public transportation more attractive and well integrated into its region. It is ambitiously committed to new forms of mobility. Veolia Transport has many strengths: experience in operating all major transit modes (bus, train, metro, light rail and ferry), a wide variety of contracts involving mode integration, and its knowledge of passengers' expectations on information, mobility, comfort and ease of use. 2008 was marked by further development of activities such as self-service bicycles, car-sharing, self-service electric cars and other shared travel modes (airport shuttles and transportation on demand).

Thanks to its dedicated information technology subsidiary, Veolia Transport offers services to simplify the mobility requirements of each person: single ticketing systems that cover all transportation modes, ticket sales and multimodal trip planning on the Internet, and personalized information by text messaging.

#### Quieter and less polluting waste collection

For many years, Veolia Environmental Services has been working to reduce the air pollution and noise generated during waste collection by introducing innovative equipment. The company now uses electric bin lifts that are quieter than conventional technology as well as robotized waste collection vehicles with an articulated arm to grab and empty bins, thereby avoiding the noise generated by their handling on the sidewalk. Other vehicles run on natural gas to limit pollution and CO<sub>2</sub> emissions. To avoid the use of trucks, Veolia Environmental Services has developed

its exclusive electrically enhanced Cyclotruck®. This new ecological collection and cleaning vehicle used for public spaces consumes no fuel and generates no noise. It is particularly suitable for use in downtown pedestrian areas. The Cyclotruck® is currently used in France, including in Lyons and during festivals such as Paris Plage and Fêtes de la Loire in Orléans. Veolia Environmental Services is exploring other new avenues such as hybrid engine waste collection trucks and an automated collection system allowing for underground collection in certain situations.

#### Reviving the taste of water

Tap water is subject to very stringent controls from the moment it is withdrawn from the natural environment through to the consumer's tap, to make sure it complies with national and international health standards. The quality of Veolia Water's services is backed by state-of-the-art technical expertise and permanent monitoring.

# Looking ahead to respond better to urban challenges



THE VEOLIA OBSERVATORY OF URBAN LIFESTYLES was set up by Veolia Environnement to gain a better understanding of city dwellers' changing lifestyles and to form the basis of the company's and public authorities' thinking on the services that tomorrow's cities will require. The Observatory published its first study in 2008. Performed jointly with the international research firm Ipsos, the study researched a sample of 8,500 people in 14 cities: Alexandria, Berlin, Chicago, London, Los Angeles, Lyons, Mexico, New York, Paris, Beijing, Prague, Shanghai, Sydney and Tokyo. In each of these cities, the study revealed that residents believe the quality of their lifestyle depends above all on the cost of living, safety, the environment and the organization of transportation. www.observatoire.veolia.com/en/

The company performs more than 3 million drinking water analyses a year worldwide. Regular tap water taste quality tests are also performed by a panel of water tasters in various cities. In Toulouse, France, for example, tests are carried out every two to three months and 76% of the city's residents now say they are satisfied with the taste of their tap water.

#### Bringing water back into the city

Through its many functions, water is at the heart of city dwellers' well-being. Growing urbanization and its transformation of the landscape, such as impermeable surface cover, raises the issue of the place of water in the urban environment. For Veolia Water, the challenge is to develop operational solutions that reconcile all uses of water and to restore its positive role in the city. Water can, for example, be used to make the city more relaxing and attractive by creating lakes and ponds, uncovering canals and installing fountains and mist sprays. Other aspects include managing the risk of flooding and ensuring city dwellers' safety by storing stormwater. In 2008, in partnership with the engineering firm Éco-Environnement Ingénierie, a Setude subsidiary, Veolia Water was awarded a contract to provide assistance with drawing up the stormwater management strategy for the new Clichy-Batignolles eco-district in Paris, France.

#### Cheaper and cleaner energy

Cities are seeking to optimize energy use in public buildings and housing. Through a broad range of technical solutions, including the management of heating and cooling systems, Veolia Energy-Dalkia contributes to ensuring essential levels of comfort while respecting the environment: the division provides heating, hot water, air conditioning, and management of the technical and electrical systems in buildings. The division is committed to optimizing prices and seeking the best possible energy efficiency wherever possible. For example, in Jiamusi, China, Dalkia has upgraded and extended the city's heating network. One of the main improvement levers was the replacement of dozens of obsolete boiler plants with modern and efficient facilities. Similarly, in Narbonne, France, the heatingoil-fired boiler plant supplying one of the city's district heating networks was converted to gas and a biomass boiler plant and thermal solar panels were added. The electricity generated is sold and offsets the site's energy consumption. As a result the customers should see an 8% drop in their energy bill.

#### Top priority: customer satisfaction

Whatever the services provided, Veolia Environnement monitors the quality of its customer relations through a research and measurement system applied in each of its divisions. Satisfaction surveys and customer reporting are regularly carried out to ensure our company is always aware of consumers' wishes, thereby enabling us to provide services that match their expectations as closely as possible. Training courses are also run to improve employee awareness of our company's customer-focused culture. "Going for Green" is a training program developed by Veolia Transport that has been run at more than 40 sites and attended by 5,000 employees. This program has led to a sharp drop in the number of complaints and boosted employee motivation in all the transit systems where it has been applied and in all countries concerned.

one of our priorities in recent years. Exclusive programs with stringent time and processing targets for all complaints have led to a marked improvement in service quality. These programs, supervised by dedicated teams trained in customer focus, are used in all divisions. In 2008, for example, Veolia Water introduced a single tool right across France to log, track and process complaints. This system is steered by a National Complaints Committee chaired by the Consumer Department. It has enabled Veolia Water to identify the points that result in customer dissatisfaction and the actions needed to improve them. These points can be divided into four categories: work on the network, the water bill, water quality and

Customer satisfaction also depends on good

complaints handling and we have made this



#### **First NF Customer Relations Service Center certification**

Veolia Environnement is committed to constantly improving customer satisfaction and continues to focus on its certification policy. In 2008, the Veolia Eau Banlieue de Paris Customer Service Center, which handles relations with the 4 million customers of the Paris region water authority, SEDIF, became the first environmental industry entity to be awarded the French standards authority's NF Customer Relations Service Center certification. The result of efforts made over the past three years to achieve this level of excellence, this label required the Customer Service Center to comply with 17 indicators, 14 of which concern customer request processing. To reach this level, Veolia Eau Banlieue de Paris trained its employees and introduced an IT system that logs a complete record of all relations with each customer.

employee attitude. Similarly, Veolia Transport is now offering its transit authority clients the possibility of introducing a more efficient complaints handling system than those currently in regular use. To achieve this, Veolia Transport offers public authorities an efficient information system that facilitates the investigation of complaints. Already rolled out in France, Ireland and shortly in Germany and the United States, this system makes it possible to pool costs and expertise, and fosters the adoption of professional methods and tools.

Information: a key to quality of service

Lastly, to improve quality of service, Veolia Environnement makes use of an efficient information policy. In addition to customer service centers, which are installed at 84% of the operations that provide customer service, the company develops personalized information systems (compliant with local laws on the protection of personal data). In Rabat (Morocco), Shenzhen (China) and Prague (Czech Republic), Veolia Water uses text messaging in addition to traditional methods to answer customers' questions about their bills, payment and consumption. Similarly, in the Czech Republic, Veolia Energy-Dalkia has provided its customers (public authorities and consumers) with a call center located in Ostrava where operators rigorously track all customer requests. Veolia Transport provides its customers with real-time

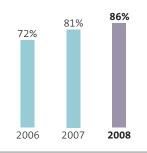
information by text message or e-mail about all incidents affecting its networks. In 2008, the division recorded considerable growth in mobility centers and multifunction ticket offices providing the full range of call, information, advice and complaint management and ticket sales services. With the support of Veolia Environnement's research teams, some transit systems now have an innovative service enabling passengers to buy tickets with their mobile phone providing it is equipped with NFC (Near Field Communication) data exchange technology; they can also check schedules, select their transit mode and receive alerts in the event of service disruptions.

# Customer reporting:

Measuring performance in customer relations enables Veolia Environnement to continually improve the quality of its services. Customers already have access to many new tools for contacting the company (dedicated Web site page, text messages, call centers, etc.). The challenge now is to provide relevant and precise answers to the increasingly diverse range of customer questions. To standardize customer satisfaction methods across the organization, Veolia Environnement has introduced reporting procedures based on six principles: commit, understand and satisfy, welcome and deliver, simplify and inform, motivate and train, raise awareness and educate. These principles are assessed annually using indicators that reflect consumers' expectations. Since the procedure was introduced in 2003, the company has extended the scope of its customer reporting, and is attempting to bring on board an increasing number of business units. In 2008, for example, customer reporting covered 88% of the revenue generated with public authorities.

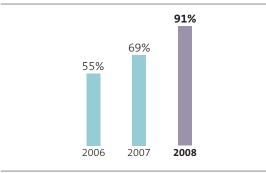
#### SATISFACTION SURVEYS

Operations having introduced satisfaction surveys. (Consolidated scope of Veolia Environnement 2008)



#### **COMPLAINTS HANDLING**

Operations having introduced a complaints handling system. (Consolidated scope of Veolia Environnement 2008)



# Luas, light rail

# meeting Dubliners' needs



For the past decade or so, Dublin has been undertaking major urban improvement projects that have improved the city's image and lifted its ranking to the point where it now figures among the most attractive cities in Europe. Veolia Transport has been working with the city since 2000, when it signed the country's first public-private partnership to operate and maintain the Luas system of two light rail lines.

By proposing a fast and environment-friendly transportation system, Veolia Transport responded to two major challenges: how to improve Dubliners' quality of life by providing more attractive public transportation, and how to cover the system's operating costs solely through ticket sales. To achieve these goals, Veolia Transport in Ireland undertook to conform to high performance standards that would ensure system reliability, clean cars and stations, and quality passenger information. Today, Veolia Transport has not only reached these initial goals, it has exceeded them by making the customer the focus of its entire structure.

All employees have attended the "Going for Green" customer focus training course aimed at improving the match between passengers' perception of service quality and their actual level of satisfaction.

The Luas system also has a customer relations center with extended opening hours and a Customer Care Section on its Web site. Veolia Transport in Ireland has also added to the resources in place to meet passenger expectations and improve its services. These resources include annual satisfaction surveys, "mystery" passengers, and the "Meet our managers" program under which passengers are regularly invited to talk to managers in the stations.

Opened in June and September 2004, the two Luas light rail lines are an undoubted success: ridership rose from 22 million passengers in 2005 to more than 27 million in 2008, and overall passenger satisfaction has climbed from 66% to 76%. Service excellence has largely contributed to Dubliners' pride in their new light rail system. Today 82% of customers would recommend Luas. In July 2008, the system received dual ISO 9001 and 14001 certification.

At the end of 2008, the contract with Veolia Transport was extended for five years with the ambitious goal of supervising three line extensions that will lift the annual number of passengers to 45 million.



# Invent sustainable solutions



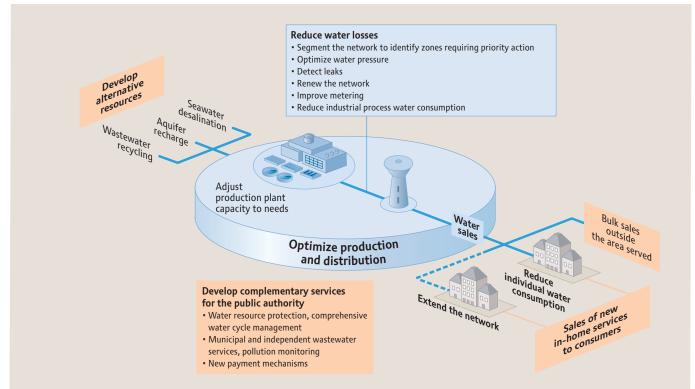
Veolia Environnement delivers services that are essential to people's well-being and health, and more broadly to their community's economic and social development. Yet we operate in a context of increasing use of the planet's natural resources and raw materials, at a rate beyond nature's ability to replace them. In all of its activities, service provision is, for Veolia Environnement, inseparable from higher objectives in saving scarce resources, such as water and energy, and in improving the management of its activities' impacts on the environment and public health. As a manager of scarce resources, we deploy solutions that combine economic efficiency with environmental efficiency.

#### From abundance to scarcity

The conditions under which Veolia Environnement operates its businesses are changing in response to new demands and the need to factor in the management of increasingly scarce resources. This entails developing new approaches to how services are organized and ensuring their affordability, as their long-term survival is dependent on this. Two facts must be taken fully on board. First, any effect on volumes largely depends on external factors over which Veolia Environnement does not always have direct control. The volume of waste is

largely dependent on production processes and consumer habits. The demand for transportation varies in accordance with the urban planning choices that have been made. With regard to energy, the mix and the capacity to influence it depend on a multitude of historic, geographic and economic factors. For water, the essentially local relation between available resources and consumption depends on physical factors and choices made in agricultural and industrial activities. Second, within the narrower context of Veolia Environnement's activities, certain basic parameters escape its control.

Water pricing policies, usually based on volume, are very often the domain of public authorities; the same applies to incentives to use renewable energy or cogeneration. Investment, essential for driving system change, is largely dictated by the decisions and financial capacity of public or industrial clients. Veolia Environnement is a stakeholder in all these issues and plays a key role in discussions; it uses its expertise to influence and advise in a bid to drive the necessary change in service structures, regulations, pricing systems and investment policies. Within this context





### **REDUCING WATER WASTAGE BENEFITS EVERYONE**

The efficiency level of a water distribution network is dependent on two factors: first, water losses exist mainly because the network is in poor repair and therefore leaks; and second, a certain volume of water is consumed but not invoiced due to illegal tapping or faulty metering. Veolia Water is often contracted to take over the management of networks that have efficiciency levels below 50%. Increasing efficiency to the optimum level of 80% to 90% involves taking action over a period of several years. The cost of these investments is absorbed both by taking into account the environmental cost of wasting water resources and by reducing the economic cost that is incurred to treat water that is then lost and does not bring in any revenue. In addition, the size of production facilities can be reduced when huge amounts of water are no longer being lost in the distribution network. In the case of the Prague, Czech Republic contract, over a period of 10 years, it has been possible to scale back the volume of water produced by around 50 million cubic meters, or 30% of the initial production. This volume more or less corresponds to the water saved by reducing water losses from 41% to 21%. On both the economic and environmental levels, the action taken to improve network efficiency far outweighs the savings that can be made from improving users' consumption habits. Also, such action encourages users to make the efforts needed to reduce their consumption because it contributes to fair billing and real pricing by containing costs. In addition, as part of the bid to encourage users to reduce consumption, there is a need to develop in-home services such as leakage insurance and plumbing services and these are a source of new offers for us. Other sources of new offers are managing water resources, both in terms of their quantity and quality, the development of quality standards and the improvement of wastewater services, which are still far from ideal in many towns and cities.

of constraints, Veolia Environnement assumes responsibility for developing resource-saving solutions that combine economic efficiency with environmental efficiency. Its aim is to provide the best possible fit with its customers' aspirations without jeopardizing its own capacity to create value.

#### Reduce wastage

The first aspect of Veolia Environnement's action focuses on seeking system efficiency and combating wastage. Our actions involve improving the efficiency of water distribution networks, optimizing the efficiency of heating and electrical systems, recycling the raw materials contained in waste, and improving the fit of transportation to needs while maintaining the level of service. We aim to reduce the service cost to the public authority and to the end user,

while improving our own productivity as an operator and saving depleted resources. In the area of water distribution, reducing leaks in public water supply networks is an effective way of limiting withdrawals from water resources. We systematically use leak reduction as a first step before using technology such as recycling and desalination, which, although effective, are more costly and heavily reliant on energy. Veolia Water implements leak reduction procedures throughout the networks in all its contracts. The leak reduction achieved between 2002 and 2007 by Veolia Water in Tangier and Rabat, Morocco, equates to the consumption of a city with a population of 950,000. In Paris, France, in 20 years' private management of water supply south of the Seine, the network loss rate fell from more than 20% to 5%. Veolia Environnement also contributes to reducing wastage by helping end users

manage their consumption. Improving awareness of responsible consumption is of great importance for our company, which is committed to respecting the eight principles of the Global Compact by undertaking "initiatives to promote greater environmental responsibility." Veolia Environmental Services' awareness programs help boost the percentage of waste materials recovered and recycled. In Hampshire, United Kingdom, various campaigns coupled with opening sites to the public doubled the recycling rate to 35.8%, placing this county among the UK's biggest recyclers. The next goal is to achieve a 50% recycling rate by 2010. Veolia Water provides users in some 10 countries, including France, China and Romania, with a specific Web page where they can track their water consumption and make changes if necessary.



## **Empower**

# consumers

In 1999, to promote waste reduction at the source and recycling, Veolia Environmental Services introduced an innovative system in France and the United Kingdom that empowers consumers in managing their waste. It is based on variable billing according to the amount of waste produced: the personalized bill includes a fixed contribution for the service provided and a variable charge for actual usage of the service, based on the number of bags the user puts out for collection. A customer service center provides information about how to reduce the quantity of waste. For example, in the Montaigu-Rocheservière area of France, this new management method cut the tonnage of residual waste by 63% and lifted the recycling rate from 16% to 41% between 1998 and 2008. The success of this pioneering approach in France has been confirmed by the introduction of national regulations that are currently evolving and being clarified. One of the conclusions to come out of the Grenelle Environment Forum in France is the need to introduce price incentives to encourage waste reduction.

The "Keep CO2 light" campaign was launched by Veolia Transport in partnership with UNEP (United Nations Environment Program). This campaign encourages people to restrict their use of personal vehicles and use public transportation whenever possible by calculating for them the environmental benefits gained from reducing the amount of fuel consumed per passenger transported.

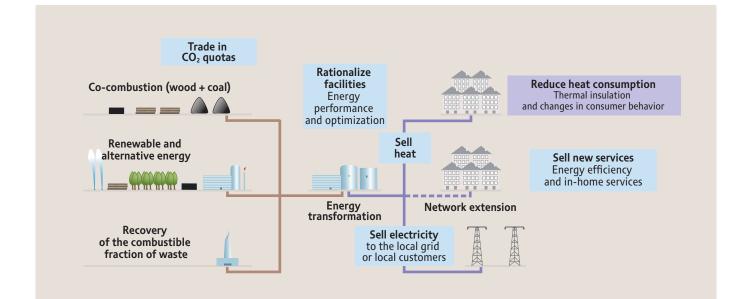
# Reconciling economic efficiency with environmental performance

The environmental commitment and sustainable profitability of an activity combine to offer clients win-win solutions in which the added value comes from integrating service and volume supply,

economic efficiency and environmental performance.

By combining the use of biomass in energy-mix management and contributing its energy efficiency expertise, Veolia Energy-Dalkia has developed a solution of this type for the city of Kelme, Lithuania. Over a period of four yeas (2005-2008), the share of biomass input in the energy mix rose to 84%. By using renewable energy in this way, it was possible to keep price increases to half what they would have been had fossil fuels continued to be used.

In Australia, under the performanceguarantee contract signed with the city of Adelaide, Veolia Water is able to provide the city's residents with the lowest drinking water and wastewater charges of all the main urban networks in Australia, while still complying with entirely satisfactory service quality criteria. Recycling wastewater combined with leak reduction techniques enable the city to save more than 22 million cubic meters of water a year. All the solutions provided by Veolia Environnement must ultimately fit with the goal of optimizing services. The growth of the recovery and recycling activities of Veolia Environmental Services also contributes to minimizing the extraction of natural resources. Under integrated waste management contracts in the United Kingdom, Veolia Environmental Services' mission and remuneration are based on performance criteria tied to significant increases in recovery and recycling rates.





#### **COMBINE ENERGY SAVINGS WITH VALUE CREATION**

District heating network managers expect that improved building insulation and changing user behavior will eventually lead to lower per capita consumption. In Western and Central Europe, Veolia Energy-Dalkia is preparing for this situation, and expects average consumption to fall by 20% to 30% by 2020. The company has already demonstrated its ability to factor in these reductions without affecting its economic performance through a three-pronged approach: first, the network's dynamism, its extension and accretion through new customers; second, rationalizing the production plant by eliminating the least efficient excess capacity and improving the energy efficiency of its processes; and third, detailed heat demand tracking to optimize the sale of heat, the electricity generated by cogeneration and tradable  $CO_2$  allowance savings. More generally, Veolia Energy-Dalkia uses every possibility to incorporate renewable energy through co-combustion with fossil fuels or the installation of boilers fired by biomass (which may account for up to 20% of the energy mix by 2020) to save carbon and leverage green energy incentives when they exist.

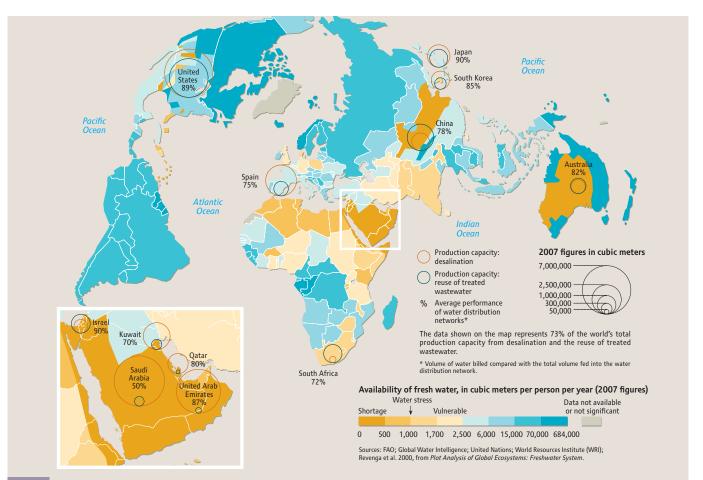
## Identifying new resources that reflect local conditions

In some cases, savings and wise management of the available resources is not enough. In such cases, Veolia Environnement meets its clients' needs by developing new or alternative sources and innovative processes. Veolia Water diversifies the resources it uses (groundwater, seawater, etc.), to limit the pressure on other resources.

Recharging aquifers can, for example, preserve stocks and speed up the renewal rate of water resources.

Recycling wastewater is another way of maximizing the use of water withdrawn from the environment before returning it to nature. This solution can be used everywhere and is particularly suited to growing needs, as the volume of recyclable water increases in direct proportion to the volume consumed.

The reuse of treated wastewater also meets industrial clients' needs. For example, Veolia Water provides microelectronic plants in Singapore with ultrapure water produced from treated wastewater. In areas with limited fresh water resources but close to the coast, desalination is an option considered to extend measures to save resources. This technology uses a stock of water that accounts for 97% of the planet's resources without undermining



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# FRESH WATER AVAILABILITY AND DEVELOPMENT OF ALTERNATIVE RESOURCES

The use of new technology sometimes comes under criticism as being a costly way of escaping the discipline of responsible consumption and saving resources. This view is not borne out by the facts. The technology for the reuse of treated wastewater and for desalination is essentially used in areas suffering from a major shortage of fresh water resources. In most cases, resource management techniques, such as improving distribution network efficiency, have already been implemented before resorting to technology for tapping into new resources. The main exception to the rule is Saudi Arabia, where a major program to improve network efficiency has been started, in which Veolia Environnement has been involved since 2008 through the Riyadh management contract. The progress being made with these innovative techniques is also helping bring down their cost. For desalination, for example, significant efforts have been made to reduce the energy consumed by these processes in order to make them more accessible to less wealthy regions.

the local fresh water resources. Veolia Environmental Services adopts a similar rationale in its bid to conform to the waste treatment hierarchy (prevention, reuse, recycling, recovery, disposal) introduced by the European Union. The company is also developing new pioneering treatment processes to bring to light and secure new recovery possibilities through automating and combining different sorting techniques for flows of various types of waste. The integration of new recovery possibilities, such as the production of refuse-derived fuel or the recycling of waste cooking oil, contributes to increasing the volume of waste recovered. In 2009, in Limay, France, Veolia Environmental Services will start to

produce biodiesel from used cooking oil, non-used oil and grease, with output expected to reach 45,000 metric tons a year. Veolia Energy-Dalkia also modulates its services by adapting its clients' energy mix to integrate alternative local renewable energies.

# Develop tailored sustainable solutions for industry

Veolia Environnement also offers multiservice contracts to its industrial clients that enable them to optimize their operating costs and economic and environmental performance.

In April 2008, Veolia Environnement signed a contract with Artenius, a subsidiary of chemicals group La Seda de Barcelona, for its new site in Sines, south of Lisbon,

Portugal. The company will build and then operate the production plant for all the utilities: steam, electricity, demineralized water, industrial gases and effluent treatment. Production startup for the various utilities (including a 40 MW cogeneration power plant) is scheduled for the end of 2009. Veolia Environnement's commitment is to enable Artenius to limit its environmental impact and to generate energy savings of around 25%, in particular by installing an anaerobic treatment system for the plant's effluent, which will reduce the volume of waste and recover biogas as a substitute for natural gas for steam generation. This 15-year contract should provide estimated cumulative revenue of €730 million.

## Inventing the wastewater treatment

# plant of the future

Just 10% of cities worldwide have wastewater treatment facilities. And yet such treatment is one of the major challenges facing our planet if we are to meet the global population's demand for safe drinking water. To incorporate this activity into a sustainable development approach, the researchers at Veolia Environnement are working on revolutionizing the approach to wastewater treatment by recycling all the resources contained in municipal wastewater (water, carbon, nitrogen and phosphorus) after separating out the noxious content. The approach also focuses on massively reducing energy consumption and chemical reagent use in treatment facilities. By bringing together and integrating numerous research programs and pilot units, we will start to see the wastewater treatment plant of the future in around 2020.



# How to recycle more than half of a waste flow

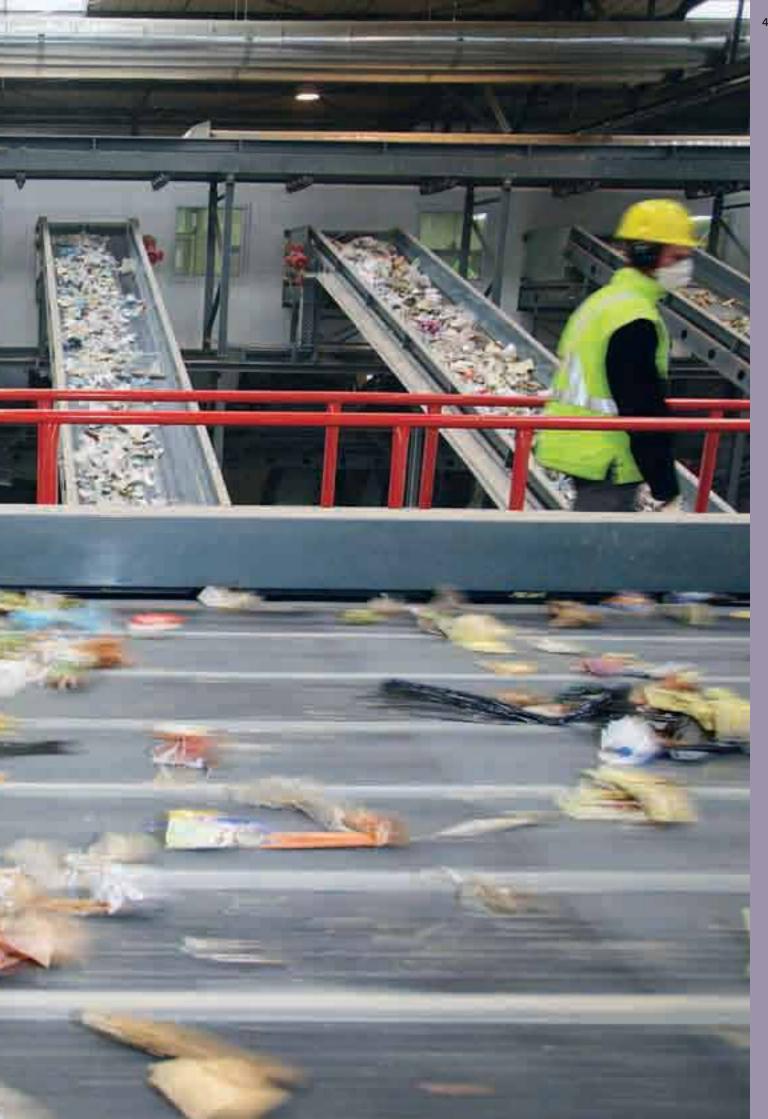


To increase the volume of waste that is recycled and recovered to improve preservation of natural resources, sorting has to be industrialized through the use of efficient and competitive technology, especially in the case of non-hazardous industrial waste.

In 2008, Veolia Environmental Services made a significant technological breakthrough in sorting technology, when it opened its high-performance materials recovery facility (MRF) in Ludres, eastern France. Fully automated, the MRF uses a combination of pioneering techniques to extract recoverable material from a mixed flow of non-hazardous industrial waste: pre-shredding, distribution of the waste by size, recovery of metals using magnets, separation of ferrous and nonferrous metals using an eddy current machine, distribution of the remaining waste by weight using a ballistic separator, extraction of paper and plastic using optical sorting, etc.

The Ludres MRF is innovating on two fronts with this flexible new system. From this mixture of non-hazardous industrial waste, it produces secondary raw materials—paper and cardboard, wood, ferrous and non-ferrous metals—and refuse-derived fuel, a first in France. Essentially comprised of nonchlorinated plastics with a high heating value, this refuse-derived fuel, prepared in accordance with European standards, can be used in industrial furnaces and boiler plants for district heating networks, thereby saving fossil fuels.

In all, the Ludres MRF recovers more than 50% of the waste collected, another first in France. This performance far exceeds the national goal for 2012 set by the Grenelle Environment Forum in France, which stipulates a 15% reduction in the volume of household and non-hazardous industrial waste sent to landfill. Already, Ludres prevents landfilling more than 30,000 metric tons of non-hazardous industrial waste. The processes implemented at this facility have also led to improved working conditions for the sorting operators. Again, these same processes are behind the development of an ambitious program to boost recycling rates by lowering the cost to a level that is competitive with other treatment options, such as incineration or landfilling.



# Combat climate change



In 2008, the facilities and equipment Veolia Environnement managed contributed around one thousandth of the world's<sup>(1)</sup> greenhouse gas (GHG) emissions, or a total of 47.2 million metric tons equivalent  $CO_2$ . We are seriously engaged in combating climate change and reducing GHG emissions, and have implemented a global strategy based on:

- optimizing the technical management of facilities and equipment;
- rationalizing energy use by developing solutions designed to improve energy efficiency and reduce fossil fuel consumption;
- changing energy mixes to include renewables;
- measuring carbon footprints and developing specific offers for this;
- innovating in low CO<sub>2</sub> emission technology, especially solar energy and biomass.

wo Veolia divisions are high GHG emitters, and account for approximately 90% of the company's total emissions: Veolia Energy-Dalkia, especially its heating and cooling activities, and Veolia Environmental Services, through its CO<sub>2</sub> emissions from incineration and the methane (CH<sub>4</sub>) emissions from its landfills. Veolia Water and Veolia Transport, although low emitters, are nonetheless concerned by climate change. Veolia Water has to deal with the effects of climate extremes on the availability of water resources and so must focus more on their conservation and renewal and the development of alternative solutions. These solutions involve higher energy consumption and therefore generate carbon emissions, thereby making it essential to work on improving the industrial processes. Veolia Transport is strategically involved in combating climate change by providing alternatives to high GHG emitting personal cars.

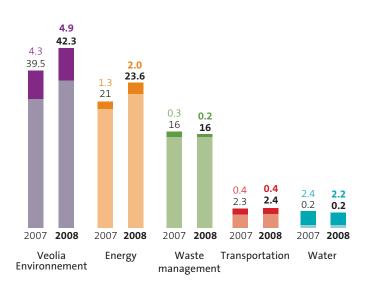
#### **Reducing activity-related GHG emissions**

In a highly comprehensive approach, it is possible to assess the carbon intensity of Veolia Environnement's revenue. In two years, this has dropped by 8.5% from 1.42 million to 1.3 million metric tons of equivalent CO<sub>2</sub> per billion euros of revenue. Yet, this approach only partially reflects Veolia Environnement's contribution to less carbon-dependent growth. As the company grows, it takes on the responsibility for pre-existing sources of emissions, so the evolution of its GHG emissions is highly dependent on the extension of its scope, the pre-existing energy efficiency of the activities acquired and the sources of energy used. For example, the drop in the carbon intensity of its revenue between 2007 and 2008 took place over the same period as a major acquisition of a district heating network in the United States that increased Veolia Environnement's GHG emissions in America by 40%, and while the emissions from the facilities it manages in China

quadrupled as a result of the startup of district heating networks in that country. To get a more precise idea of the company's performance, a method spanning the four business areas has been developed. This method takes into account all the positive impacts from the global decrease in GHG emissions. Honed a little further each year, the method provides a carbon efficiency ratio that puts into perspective the global reduction in GHG emissions attributable to the company's activity and the total GHG emissions (direct and indirect) managed on behalf of its clients. In 2008, the ratio was 58%, compared with 53% in 2007. Therefore, the positive actions and impacts of Veolia Environnement's activity in terms of the overall decrease in GHG emissions offsets by almost two thirds the GHG emissions attributable to its activities.

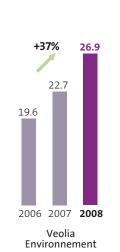
#### TOTAL DIRECT AND INDIRECT GHG EMISSIONS

(millions of metric tons of eq. CO<sub>2</sub>)



# GLOBAL REDUCTION OF GHG EMISSIONS

(millions of metric tons of eq. CO<sub>2</sub>)



# CARBON INTENSITY OF REVENUE

(millions of metric tons of eq. CO<sub>2</sub> per billion euros)



In 2008, Veolia Environnement contributed a total of 26.9 million metric tons of equivalent CO<sub>2</sub> to the global reduction in GHG emissions, up 19% on 2007, and emitted 47.2 million metric tons of equivalent CO<sub>2</sub>, up 8% on 2007, while its revenue rose 13.4%.

<sup>(1)</sup> Greenhouse gas emissions covered by the Kyoto Protocol came to 49 billion metric tons of equivalent CO<sub>2</sub> in 2004 (Source: Chiffres clés CO<sub>2</sub> et énergie –France et Monde, édition 2007).

# GLOBAL REDUCTION OF GHG EMISSIONS

The company contributes to a global reduction of GHG emissions by reducing the emissions from the facilities it manages or by enabling third parties to avoid emissions.

#### **VEOLIA ENERGY-DALKIA**

#### CO<sub>2</sub> emission reductions through:

- using renewable and alternative energy instead of fossil fuels;
- proper use of energy transformation facilities (energy efficiency);
- optimum supply of energy services (integrated energy management);
- combined production of heat and electricity (cogeneration).

# VEOLIA ENVIRONMENTAL SERVICES

#### CO<sub>2</sub> emissions avoided through:

- the sale of energy produced from the biogas collected at landfills;
- the sale of heat and electricity from the combustion of incinerated waste:
- the recovery of raw materials contained in waste.

#### Reduction of GHG emissions through:

- the on-site consumption of part of the electricity generated by the incineration of waste and recovery of biogas;
- the collection of biogas at landfills.

#### **VEOLIA TRANSPORT**

#### CO<sub>2</sub> emissions avoided by:

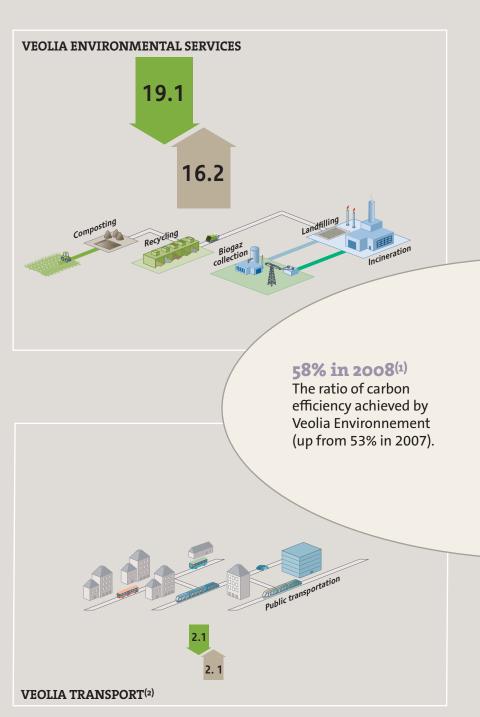
• limiting transportation in private

#### **VEOLIA WATER**

# Reduction of CO<sub>2</sub> emissions and emissions avoided through:

- the on-site consumption of part of the heat and electricity from the production of renewable energy on-site;
- the sale of energy produced from renewable energy sources on site (biogas from sludge digestion, hydraulic microturbines, heat pumps, etc.).

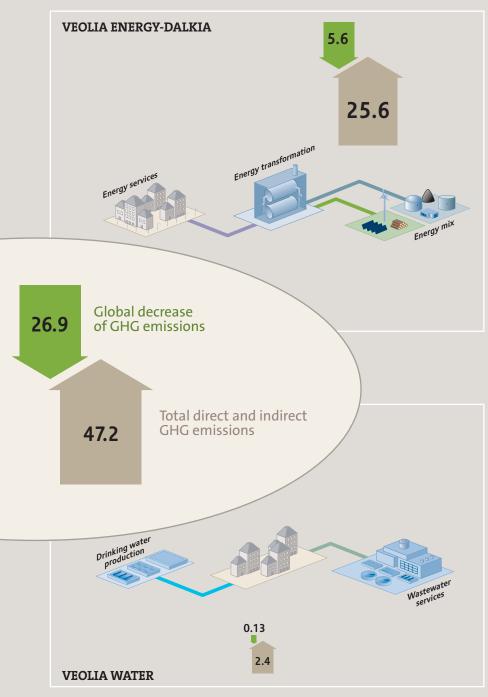
# THE COMPANY'S CARBON PERFORMANCE



- (1) The total direct and indirect GHG emissions taken into account to calculate the carbon efficiency ratio correspond to a restricted scope (46.4 compared with 47.2) attributable to the limited scope for Veolia Transport.
- (2) The scope of the Eco-Efficient Travel indicator is limited for Veolia Transport; it corresponds to 96.3% of trips and 77.2% of kilometers traveled.

# OBSERVATIONS ON THE CARBON EFFICIENCY RATIO BY ## ERNST & YOUNG

The carbon efficiency ratio is the ratio between the "decrease" in greenhouse gas emissions compared to scenarios adopted as the company reference, and the total direct and indirect emissions. Since 2007, this ratio, across all divisions, has mainly been used to measure the change in the company's carbon profile given the changes to its scope. The calculation method is precisely described in the environmental reporting protocol, while the calculation scope is yet to be stabilized. Performance is based on operational indicators, such as percentage of waste recovered, percentage of renewable energy used or vehicle occupancy rate.



Unit: millions of metric tons of eq. CO<sub>2</sub>.



# CARBON EFFICIENCY RATIO OF VEOLIA ENERGY-DALKIA



Veolia Energy-Dalkia has set itself a target of 23% by 2011.

# TOTAL DIRECT AND INDIRECT GHG EMISSIONS

For each of its activities, the company measures the direct emissions from the processes, vehicles, facilities and equipment it manages, and the indirect emissions from the electricity and heat it consumes.

The greenhouse gases concerned are:

- CO<sub>2</sub> emitted by combustion facilities, the incineration of the fossil content of waste and the combustion of fuel by mobile sources (75.6% of direct emissions);
- CH<sub>4</sub> from the biogas emitted by landfills that is not collected by the collection systems installed, and the combustion of compressed natural gas (24% of direct emissions);
- N<sub>2</sub>O from the waste incineration process (0.4% of direct emissions).



# Integrate carbon efficiency in commercial proposals

In 2008, we developed and implemented decision-aid tools allowing the impact of GHG emissions to be factored into our commercial proposals. For example, in 2007, Veolia Water developped Eolia™, a decision-aid tool to help make the best possible choice of treatment process for water, wastewater and wastewater sludge. User-friendly and modular, the tool

simulates the energy consumed and produced, along with the GHGs emitted by the water and wastewater systems. Eolia™ is therefore used to assess and compare the energy and GHG balances of the various systems under consideration and to identify potential levers for improving one of the main environmental criteria, namely, the influence of the treatment

processes on climate change. In 2008, Veolia Environmental Services developed an internal tool called GHG Tracker to calculate the carbon footprint of the services supplied to its industrial and public sector clients. This tool, based on internationally recognized methods, calculates GHG emissions for a particular contract or site and compares the impact

# Adaptation tools

MANY REGIONS OF THE WORLD are experiencing chronic and growing water shortages, often compounded by the effects of climate change. To ensure optimum use of the locally available resources, in 2003, Veolia Water introduced a research program designed to develop diagnostic aid tools to determine the best possible use of traditional resources (aquifers, rivers, etc.) and the optimum use of alternative resources (reuse of treated wastewater, seawater desalination, etc.). Today, two tools are providing support for managers confronted with these issues: the first one, called Appr'eau, is a checklist of questions, and the second one is a needs versus resources calculation tool that simulates various water management scenarios combined with the relevant mapping.



of various waste management solutions. Currently being rolled out, GHG Tracker is designed to help the company take better account in its proposals of clients' growing concern about this issue. In the United Kingdom, Veolia Energy-Dalkia offers a new energy service called CarbonCare. Introduced in 2007, this program provides a step-by-step approach that includes an analysis of the link between the activity and GHG emissions, quantification of carbon balances for sites and buildings, the implementation of measures to reduce consumption, and proposals for the use of new sources of clean energy, such as cogeneration and biomass. This service can be adapted to a

broad range of sectors, from health to education and including industry and municipalities. It is accompanied by a training program for all employees responsible for sales, marketing and operations. The CarbonCare program has already resulted in numerous projects with organizations such as the Greater London Authority, Tesco (retail sales), North Somerset Schools and Kingston Hospital. Veolia Transport has been fine-tuning its Eco-Efficient Travel method since 2006 to make it a true decision-aid tool when reorganizing a transportation system. The approach is used when responding to calls for tender and in the management of existing contracts, for both urban and

intercity systems. The aim is to compare the CO<sub>2</sub> emitted by the transit system with the CO<sub>2</sub> avoided by its use, which is then used as a basis for recommendations about reorganizing. For example, a bus route or entire transit system can be reorganized to improve its overall carbon balance (through the introduction of transportation on demand, increasing ridership, maintaining a route as a social service, redeploying resources to a route with higher potential, or using vehicles of a more appropriate size). New indicators, such as urban congestion and public health, are gradually being added to the Eco-Efficient Travel method to reflect quality of life in the city.



# the total carbon cost

In addition to the tools developed by each individual division, the Sustainable Development Department is overseeing the development of a method to calculate the "total carbon cost" of a contract or project. This method, developed with the assistance of an outside engineering firm, uses the general principles of the Bilan Carbone® devised by Ademe, the French Environment and Energy Management Agency. It will factor in the emissions attributable to the construction of the infrastructure used under a contract managed by the company (for example, a light rail system, a district heating network or an incinerator), and that generated by its operation over a reference period of time. The aim of this carbon accounting is to gain a better understanding of a system's vulnerability in terms of carbon constraints and to make the best investment and management decisions possible. It provides the essential groundwork when helping Veolia Environnement's clients progress through these issues.

# The challenges of the future

# Methane: a major challenge in the combat against climate change

The global warming potential of methane (CH<sub>4</sub>) is very high and evolves significantly over time. Thus, over the period of 100 years, 1 metric ton of methane represents  $25^{(1)}$  metric tons of CO<sub>2</sub>, but over the period of 20 years, this equivalence is  $72^{(1)}$ . Taking into account the impact of methane solely over the long term therefore risks minimizing its impact on climate change and underestimating the efforts required to reduce the emission of this gas. The biogas generated in landfills contains around 40% to 60% methane. In 2008, fugitive methane emissions accounted for nearly a quarter of Veolia Environnement's

total direct GHG emissions. This explains the need to collect biogas to reduce its environmental impact and recover the biogas in the form of heat or electricity. In 2008, the biogas collection systems at the landfills managed by the company led to 546,000 metric tons of CH $_4$  (that is 49.6% of the biogas emitted) being flared or recovered at the 81 sites that are equipped with biogas collection systems out of a total of 221 sites. At the same time, extensive research

At the same time, extensive research and experiments have been undertaken to develop improved methane emission modeling and measuring systems. The predictive models for methane production used by environmental agencies and

Veolia Environmental Services in accordance with local regulations raise problems of data compilation and comparison. Work is currently under way to define a single model that could be used to consolidate data from all Veolia Environmental Services sites worldwide. The effectiveness of actions to reduce methane emissions is improved if they are backed by actual emission measurement rather than less precise general calculation methods. The measurement of fugitive emissions is a major technological challenge, as it needs to be performed over quite considerable surface areas and involves complex space and time variables. The Veolia Environnement research teams

## Research and development

# for solar energy

IN 2008, we made significant advances in solar research and development. Thermal solar power has been integrated in buildings using highly innovative processes, for example, cooling by absorption, and coupling to heating and hot water circuits. An installation for 96 dwellings was started up in 2008 and is now in service. A study on solar concentration coupled with a Stirling engine, which converts heat energy into mechanical power, was carried out in conjunction with university and industry partners. The conclusions showed the potential for this technology and the prospects for its improvement. Lastly, the Research & Development teams installed a test platform for photovoltaic solar panels in Narbonne, France, to compare four different types of panel technology (monocrystalline silicon, polycrystalline silicon, amorphous silicon and copper, iridium and selenium or CIS) under strictly identical climatic conditions. The aim is to be in a better position to choose the most appropriate solar photovoltaic technology and to estimate with greater precision the energy production capacity over time.



(1) Data from the IPCC 2007 report. The global warming potential (GWP) of methane is set at 21 in Veolia Environnement's reporting in accordance with the Kyoto Protocol.

are engaged in a major measurement program using spectroscopic detection of fugitive methane emissions. The first phase in this study performed in Lapouyade, France, with the support of Ademe, has enabled a comparison to be made of the technical and economic performance of five different types of technology based on laser, gas tracer and imaging software. Veolia Environnement initiated a second phase of comparative studies in the United States at the end of 2008 for which the results are currently undergoing validation.

# Development of activities in the area of renewable energy

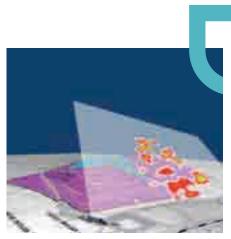
Veolia Environnement is stepping up the integration of renewable energy in the energy mix of the municipal and industrial facilities it manages and is developing specific proposals based on alternative energy sources: wind, photovoltaic, thermal solar (large solar power plants), biomass and biofuel.

Currently, wind projects with a total capacity of 7,000 MW are under development at Eolfi, a subsidiary controlled 50% by Veolia Environnement, with operations in France, Greece and Poland, in particular. In September 2008, Veolia acquired Ridgeline Energy, a company working on similar projects in the United States.

Solar energy is a major component in the energy services provided by Veolia Environnement to industry and the tertiary sector. In Zaragoza, Spain, Veolia Environnement, General Motors, Clairvoyant Energy and the Government of Aragon have installed a 10 MW photovoltaic power plant with a surface area of 32 hectares of roofs.

It is currently the most powerful roof-mounted photovoltaic facility in the world. In response to the Mediterranean Solar Plan, Veolia Energy-Dalkia has submitted proposals for large capacity (100 to 200 MW) solar concentrator power plants. The company is developing thermal solar power and aerothermal heat pumps for its heating and hot water production systems.

In the area of fuel, Veolia Environnement has developed a new biodiesel from recycled waste cooking oil. Tests are currently being performed by the research teams to check its compatibility with existing and new engines. This fuel will be produced starting in 2009 by Veolia Environmental Services' subsidiary SARPI. A blend of 30% of this biodiesel will reduce by 25% the CO<sub>2</sub> emitted by the vehicles using it.



# Méthacontrol® optimizing biogas collection

The development of efficient operation techniques and the systematic treatment of biogas (flaring, recovery as electricity to drive motors and gas turbines) have significantly increased the recovery of biogas given off by waste. Veolia Environnement research has developed gas extraction techniques and an automated management tool for collection systems called Méthacontrol® that has been patented by Veolia Environmental Services. This system is used to dynamically control the collection system's operation, taking into account various parameters inside and outside the system. Méthacontrol® has been tested under real conditions at the Claye-Souillly, France, site with conclusive results: it led to an increase of nearly 40% in the quantity of biogas collected compared with the manual adjustment method. The system is currently undergoing industrial development.

# How to avoid

# three times more CO<sub>2</sub>

# than you emit



Up until now, Hungary imported the bulk of its energy resources, in particular 80% of the natural gas consumed, its main source of primary energy. For the past two years, the country has been refocusing its energy policy in a bid to diversify and secure supply, reduce consumption and develop renewable energy sources.

Veolia Energy-Dalkia is helping the country achieve its goals. In 2007, the company acquired the cogeneration plant in Pécs, the fifth largest city in Hungary. This plant, with a total electricity capacity of 182 MW and heat output of 313 MW, has one of the largest biomass recovery facilities in Central Europe (50 MW of electricity). It supplies the country's second largest district heating network, serving industrial and tertiary sector customers and 31,000 dwellings along its 180 kilometers.

In 2008, Veolia Energy-Dalkia consolidated the supply of heat from biomass at a very competitive cost for the public authorities, and signed a contract with Pécs to bring into service a second biomass-fired unit with an electricity generation capacity of 35 MW. By developing the use of biomass, the company is contributing to Hungary's energy independence, to combating greenhouse gas

emissions and to the social and economic development of the Pécs region. This facility reduces the flow-on effects of fluctuating fossil fuel prices reflected on customers' bills. Also, the recovered biomass is produced locally: 70% is wood from forestry operations that is unsuitable for more noble applications, and the remainder is sourced from joinery waste and secondary products from the agricultural sector.

To extend and secure the source of supply for this second biomass boiler, Veolia Energy-Dalkia has launched a poplar plantation project. Poplar trees grow very quickly (two years), and they will also be produced in the region. By using biomass, the power plant emitted 129,000 metric tons of CO<sub>2</sub> in 2008, but contributed to the overall reduction of the city's emissions by 337,000 metric tons of CO<sub>2</sub>, bringing the global carbon efficiency ratio to 260%





# Protect **ecosystems**



Human activity can alter natural environments and disturb their fauna and flora. Deterioration in water, air and soil quality interferes with the way ecosystems work and therefore the benefits people obtain from them. According to the United Nation's Millennium Ecosystems Assessment, more than 60% of ecosystems are reported to be in a degraded state. In response, Veolia Environnement has undertaken to learn more about these questions and to continue to define its dependency and impact on ecosystems. It is also committed to taking action to preserve biodiversity and make wise use of "ecosystem services" and to informing, training and educating its employees about the issues in biodiversity.

#### **Reduce environmental pollution**

By their very nature, Veolia Environnement's activities help protect ecosystems by reducing environmental pollution. The services provided by Veolia Water and Veolia Environmental Services concentrate and treat wastewater and waste to contain various forms of urban and industrial pollution and prevent them from contaminating the soil, air, and rivers, lakes and oceans. In energy services, the development of centralized district heating systems, operated under continuous supervision and subject to strict regulations, helps reduce air pollution compared to more polluting individual systems burning heating oil or coal. The promotion of public transportation also helps reduce air pollution—the use of a private car can emit up to three times the amount of local air pollution per person transported as a bus for a given trip (Source: Ademe, French agency for the environment and energy management, 2007).

### Interdependency

Veolia Environnement needs ecosystems to function properly in order to provide some of its services. Veolia Water makes sure it can continue to benefit from the ecosystem service that regulates the quality of water resources by working closely with municipal and industrial clients to reduce accidental and chronic pollution, and to protect water withdrawal points. By doing so, treatment to make the raw water

potable can be kept to a minimum. Veolia Energy-Dalkia ensures it benefits from the ecosystem service that supplies biomass for its combustion facilities, while rigorously protecting resources by directly controlling forestry and agricultural activities upstream of supply. Lastly, Veolia Water's wastewater services and Veolia Environmental Services' composting activity use biological processes to break down organic matter.

The protection of ecosystems is therefore central to the development and even the future of Veolia Environnement's activities.

#### **Define and control impacts**

To minimize the impact of the footprint of its facilities, Veolia Environnement includes ecosystem protection in the initial design phases of its projects, in particular through its sustainable development approach. The company works with its municipal and industrial customers when it takes over existing facilities to improve their integration in the natural environment. In addition, Veolia Environnement's activities generate secondary impacts, especially because of the consumption of natural resources and the residual pollution in the discharge from its facilities. The assessment of their impact on ecosystems is constantly being improved, especially for the water and waste management activities. In addition to the conventional physical-chemical approach, our company has acquired extensive expertise in biological tools to assess the toxicity and impact of the

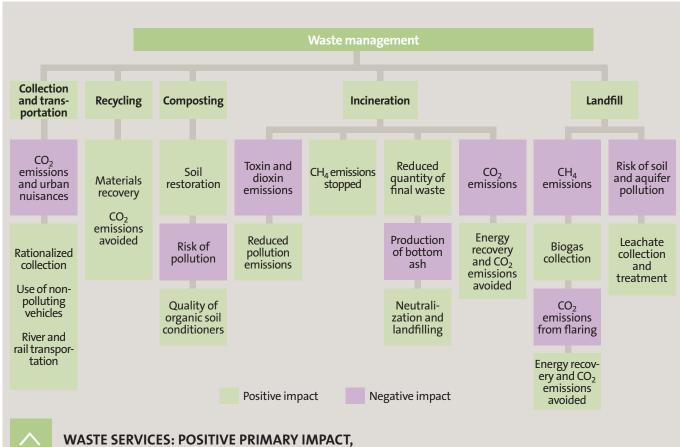
water it discharges into the aquatic environment, its atmospheric emissions and its products (organic soil conditioners and secondary primary materials). Ecotoxicity tests and biological indicators of the condition of water and soil are used more and more frequently. Leveraging this expertise, our company installs pilot units in the fields of water and wastewater to define best practices for the operational management of its facilities. The Research and Development teams are extending the scope of their work to include ecological engineering that can identify impact-reducing techniques (lagooning, grass filter strips, etc.), and developing expertise in environment restoration. To capitalize on its expertise and excellence in this area, Veolia Environnement has formed partnerships with universities and institutions. In 2008, a partnership agreement was signed with the Paul Ricard Oceanographic Institute to limit the environmental impact of seawater desalination techniques. Veolia Environnement assesses and quantifies the impacts of these techniques and is developing solutions to minimize chemical contamination and optimize brine dilution and dispersion systems using diffusers. This partnership will allow us to test the impact of a salinity gradient on the receiving marine environment and develop viable solutions to minimize the impact. More generally, attention is paid to the economic value



# Committed to Working with UICN Comité Françai

IN 2008, Veolia Environnement signed a partnership agreement with the French Committee of the International Union for the Conservation of Nature (IUCN). The aim of this agreement is to:

- work with the company on integrating biodiversity in its corporate strategy;
- underscore the directions adopted in Research and Development through a network of renowned experts;
- participate in boosting employees' awareness through training programs.
  IUCN France has 44 members (ministries, state entities and NGOs) as well as a network of around 250 experts. At the global level, IUCN has had UN observer status since 1999.





# **CONTROLLED SECONDARY IMPACTS**

Waste collection and treatment are extremely positive for the protection of ecosystems and biodiversity. Nonetheless, the various components in the waste disposal cycle can have negative environmental and climatic consequences. Each of these secondary negative impacts is the subject of a specific response (recycling or recovery) to neutralize or minimize its consequences. Further, Veolia Environmental Services ranks treatment modes in order to focus on those providing maximum environmental added value, such as recycling.



# to improve wastewater treatment

ORGANICA FBR™ is enabling Veolia Water Solutions & Technologies to provide an innovative and technological system for the treatment of municipal wastewater and at the same time offer an answer to public authorities wanting to focus on sustainable development solutions. In biological tanks, plants selected for their root system provide a healthy habitat for living organisms, especially bacteria, protozoa, snails and shellfish, along with certain species of fish. As the wastewater flows through these tanks, the organisms consume the pollution and use it as nutriment, thereby maximizing the biological degradation of the contaminants. The Organica FBR™ process is opening the way to a stable ecosystem that is suitable for effective wastewater treatment.

of the living world to promote its inclusion in the company's decisionmaking processes. For example, Orée, FRB (Foundation for biodiversity research) and Veolia Environnement, along with some 20 companies, public authorities and non-profit organizations in France, have published a guide called *Intégrer* la biodiversité dans les stratégies des entreprises (Integrating biodiversity in corporate strategy). This guide puts forward a methodology aimed at quantifying, monitoring and characterizing the interaction between companies and biodiversity. It aims to assess the contribution of biodiversity and the ecosystem services that companies benefit from for the creation of added value. This approach will be trialed in 2009 by our company.

## Preserve biodiversity and make use of ecosystem services

Our company is developing an approach that is primarily based on identifying the areas where action most needs to be taken and then rolling out an assessment method to define an action plan. Since 2005, we have been using a geographic information system (GIS) to precisely locate our main facilities in relation to areas of ecological interest. This tool, which georeferences more than 1,200 facilities, is constantly being expanded to provide operational personnel with a better understanding of the ecological context of their facilities. It also provides the possibility of sharing best practices within the network. We have also developed a biodiversity diagnostic tool. The method lists the characteristics of the environment and the development and management modes for each site, which then enables an action plan to be defined taking into account local issues. It is intended to use this tool at all sites within the main areas of ecological interest (biodiversity hotspots identified by Conservation International and the Natura 2000 protected areas, etc.). These tools have been developed with a view to their eventual integration in the company's environmental management system. Among the actions implemented, Veolia Eau Île-de-France Centre has undertaken to apply special management for the natural areas at the sites it

manages and that have been identified as warranting top priority. Some areas are left in their natural state to allow plants to grow and insects to thrive, large areas are scythed once a year and the use of phytosanitary products has been abandoned. Notice boards have been erected to help hikers and the local population identify those areas placed under special management, to inform them about the visual changes these sites will undergo and, more generally, boost their awareness of environmental protection. This policy is already being applied at over 20 sites and involves more than 40 hectares.

## Integrating natural solutions into our activities

Our interdependence with ecosystems does not only carry risk, it also provides us with opportunities. Biological diversity can enable Veolia Environnement to create value. With this in mind, the company is developing new forms of technology using the living world and integrating them into its service proposals for both public authority and industrial clients.

## Participate

# in conservation projects

THE VEOLIA ENVIRONNEMENT FOUNDATION is working with US and Mexican government agencies, NGOs including the Sky Island Alliance, universities, other foundations, companies, and soon local government authorities, to stop the destruction of an exceptional and highly endangered ecosystem: the Madrean archipelago hotspot, on the US-Mexican border. The MABA (Madrean Archipelago Biodiversity Assessment) project aims to study and help preserve this ecosystem. The Veolia Environnement Foundation is supporting the project with funding of €450,000 over three years, and will also be working on the biodiversity inventory, assessing the impact of climate change and human activity on this biodiversity, compiling a strategy for its safeguard and the rehabilitation of ecological habitats, along with encouraging the involvement of public authorities and the local population. This project, approved by the Board of Trustees in November 2008, is an excellent illustration of the Foundation's work in biodiversity conservation.

# How to protect the wealth of Australian ecosystems

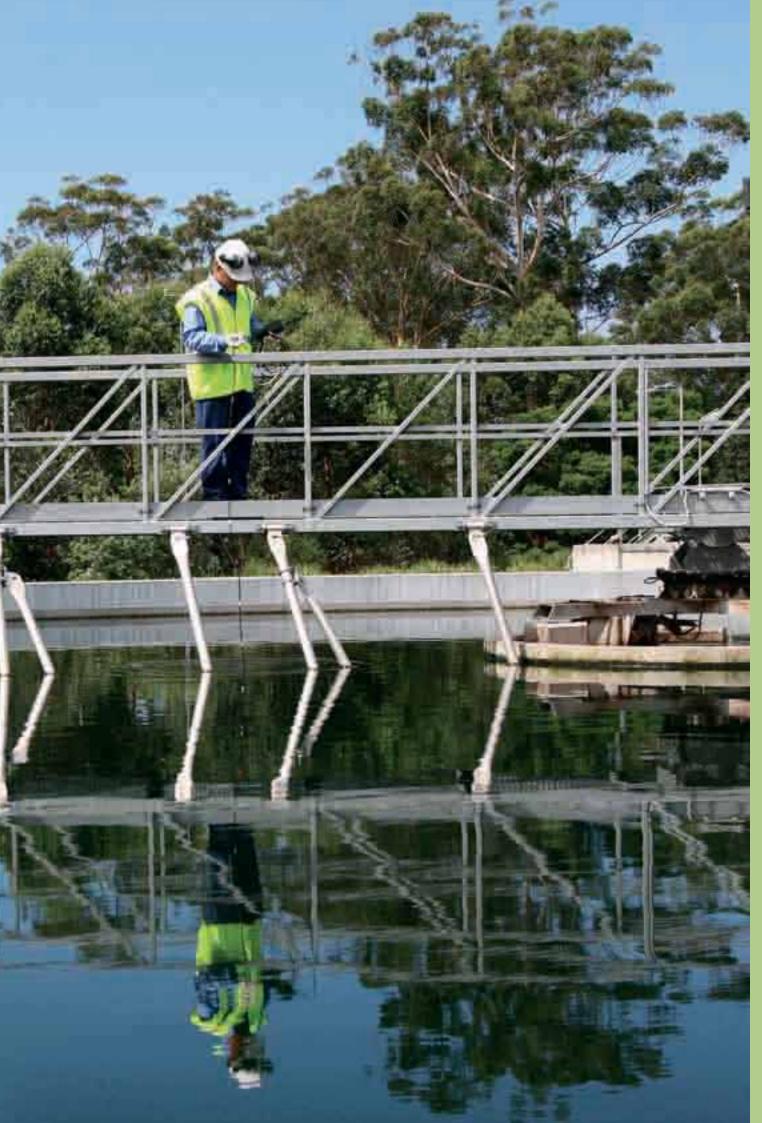


In Australia, the natural heritage comprises numerous plant and animal species, some of which are endangered. In its projects, Veolia Water concentrates on reconciling its activities with environmental protection.

# On the southern coast of New South Wales, renowned for its beaches and biodiversity,

and close to a highly sensitive ecosystem called Crooked River, the Gerringong-Gerroa waste water treatment plant complies with very strict environmental standards. It includes highly sophisticated tertiary treatment for the wastewater (ozonation, activated carbon filtration, microfiltration and, lastly, disinfection), enabling 80% of the water to be recycled. Stored in a reservoir, the treated wastewater is used to irrigate the neighboring pastureland. The remaining 20% is treated and then discharged into the river. The quarterly analyses made by an independent laboratory show that this treated effluent actually helps improve the quality of the local streams.

**Veolia Water seeks to optimize the impact of** its activities from the initial design phase for its facilities, but also throughout their period of operation. In Illawarra, on the New South Wales coast, the company has, for example, introduced a project to restore the biodiversity of a natural area close to its water production plant. This 100-plus hectare site has a wide variety of micro-ecosystems: small forests, ponds, streams, pasture, etc. For the past year, the staff have been working with experts to reintroduce vegetation by planting native species and bringing noxious species under control. Lastly, the company has also helped save the English elms at the University of Adelaide's Waite Arboretum. Planted in 1928 and listed on the National Estate, State Heritage and National Trust Register of Significant Trees, their survival was under threat from drought. Veolia Water's Australian subsidiary, which recycles its process water, has already supplied 600,000 liters of water to the Arboretum.



# Embrace our corporate social responsibility



Veolia Environnement's activities are by their very nature highly local and play a direct part in people's day-to-day lives. It is our responsibility to develop relationships of trust with all our stakeholders—not least our employees—to progress with them in the exercise of our corporate social responsibility. Veolia Environnement's contribution is all the more important because the public services we manage are essential to providing an adequate standard of living that is consistent with the principles of the United Nations' Global Compact on economic, social and cultural rights. Our expertise and development of innovative, supporting solutions enable us to contribute to improving access to basic services in widely diverse contexts and countries.

#### Respect employees' basic human rights

Our company's global presence, in extremely different economic, social and political contexts, requires we pay particular attention to protecting our employees. Compliance with the values and principles of basic human rights stipulated by international bodies such as the ILO and OECD are an integral part of our company's commitment. Veolia Environnement only accepts contracts if it is certain it can comply with these rights. In some countries, we implement modified solutions that prioritize employees' social rights. In particular, we have been working since 2007 on defining minimum internal standards that we undertake to adapt and apply in each country where we operate. Five main areas are the subject of in-depth work and consultation with all our company's people: safety and working conditions; a guaranteed living wage and welfare cover; employee representation and right of expression; non-discrimination and equal opportunity; and lasting employment and career development. Each of these areas represents a

fundamental condition that enables each employee to express his or her talent and make progress in the company. Veolia Environnement also rolls out assessment methods that incorporate criteria for basic social rights, through solicited external ratings and the assessments instituted by the Ethics Committee.

#### Involvement in local community life

Through listening and discussion, Veolia Environnement is able to take the local population's needs and concerns into account in the operation of its activities. Our four divisions set up local initiatives to maintain and extend this dialogue: district meetings, meetings with elected representatives, site visits and open days to inform the general public. In the United Kingdom, Veolia Environmental Services has set up liaison groups in some 20 localities to maintain regular dialogue and answer the concerns of people living near waste treatment sites. In Romania, Veolia Water has introduced weekly meetings with building management associations (CAB) and tenant and owner

associations, which have led to the establishment of constructive dialogue with its customers. As a result, more than 9,000 contracts have been signed with CABs. When the light rail system was opened in Nice, France, Veolia Transport employees attended district meetings and organized more than 20 meetings in 2008 to provide information prior to the introduction of the new service. In Boston, United States, Auckland, New Zealand, Melbourne, Australia and Dublin, Ireland, Veolia Transport organizes meet-themanager sessions during which riders are free to discuss their service expectations with system managers.

#### Working with international organizations

In 2008, Veolia Environnement continued to work alongside the main UN agencies to help achieve the Millennium Development Goals and implement the commitments it made when signing the Global Compact in 2003. In 2008, we provided our expertise in integrated water resource management and access to basic services. In particular, Veolia Environnement took part in the symposium organized by the

## Act through

# the corporate foundation

THE VEOLIA ENVIRONNEMENT FOUNDATION enables the company to become directly involved in the life of communities through the support it provides, in France and abroad, to projects in the public interest that contribute to sustainable development. This commitment was reasserted in 2008 through the renewal for five years of the Foundation's mandate by the Board of Trustees. An annual budget of €7.2 million was voted and the Foundation's financial sponsorship was united with Veoliaforce's volunteering of skills. Through these two forms of support, employees can commit to sponsoring local initiatives they see as being of particular importance or volunteer their skills to communities worldwide in an emergency situation. In 2008, 107 projects were provided with support in the areas of environmental conservation, workplace development and outreach. Volunteers spent a total of 1,400 days in the field and equipment donations coupled with logistics support came to the equivalent of €430,000. Part of the support is directed at projects that involve several partners working together (governments, NGOs, institutes, etc.). This is the case of a project that has been under way since 2007 to eradicate cholera in the Democratic Republic of the Congo, under a joint project by the local Ministry of Health, the French Embassy, the Red Cross and the AFD (French development agency).





#### CORPORATE SOCIAL RESPONSIBILITY ON A GLOBAL SCALE

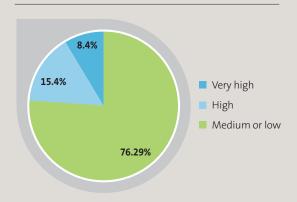
Using data from analyses performed by international, governmental and non-governmental organizations, Maplecroft ranks countries by their level of risk based on six criteria: the degree of freedom to associate and form unions, the quality of labor law, working conditions, the existence of the risk of discrimination, and corruption or restrictions on rights and political freedom. The cross-referencing of this independent analysis with Veolia Environnement data reveals that just 8% of the company's employees are located in the regions with the highest levels of risk.

Three regions stand out in particular:

Latin America. In this area, a sustainable development rating audit was solicited in 2008 for Proactiva, a Veolia Environnement and FCC subsidiary in Latin America. A specific sustainable development improvement plan was defined and in early 2009 Proactiva was awarded UN Global Compact membership.

**The Middle East.** This region is notable for the high level of economic immigration by workers from Southeast Asia and the Indian subcontinent. In February 2009, the Ethics Committee visited Egypt and the United Arab Emirates. Several areas for improvement were identified in relation to the specific economic and socio-cultural context of each case. The high level of inflation in one of the countries was identified as a factor weighing heavily on wages. Solutions also need to be developed when the multiplicity of cultural origins and languages spoken by employees is not conducive to social dialogue. The ongoing concern for safety, training, health and the efforts deployed to improve the number of women employed were singled out as very positive steps. This vigilance on the part of the company is backed by the efforts deployed by the Veolia Water AMI personnel to contribute to local social development through training and the introduction of tools to disseminate best practices and instill the company's employee accountability culture at the local level.

# BREAKDOWN OF TOTAL WORK FORCE BY LEVEL OF RISK



Sources: Maplecroft, Human Rights Risk Report 2009.

Asia, especially China, where Veolia Environnement is making every effort to develop procedures to allow salaries to better reflect individual performance, insofar as the local legal framework allows. Veolia Water's Chinese employees benefit from an annual performance review with their manager to identify career prospects, job mobility preferences or the need for training. These interviews provide additional elements alongside other improvements and collective agreements adopted in various areas (working hours, salaries, paid leave, health and safety, welfare, etc.).

Prince Albert II of Monaco Foundation and Unistar during the Expo Zaragoza 2008 in Spain on "Water and Sustainable Development," and sat on the panel of experts during the UN-Habitat World Urban Forum in Nanjing, China. Additionally, 2008 saw the company participate, alongside the Inter-American Development Bank (IDB), UNDP and Unesco, in the international conference held in Quito, Ecuador, on the contribution of urban services to combating social exclusion. We also participate in the program to strengthen local governance rolled out for the past six years by Unitar.

## Provide access to high quality basic services

Veolia Environnement's expertise in each of its activities contributes to providing concrete solutions in the areas of health, hygiene and access to high quality infrastructure, all of which are essential to the well-balanced development of urban areas. Veolia Water provides water services to more than 80 million people, and wastewater services for 58 million people. The expertise of Veolia Energy-Dalkia improves access to district heating networks in towns and cities, with almost 15 million people supplied with heating.

In its areas of operation, a high level of hygiene is assured through the control of interior air quality, especially in hospitals. Veolia Environmental Services helps improve hygiene in cities through its street cleaning and waste collection services. In 2008, almost 24 million metric tons of municipal waste (WEEE included) was collected. Veolia Transport made 2.6 billion trips in 2008, helping reduce regional isolation and boost economic activity, while at the same time reducing local air pollution.



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Redistribution of Veolia Environnement's revenue among stakeholders

#### Promote

# dialogue and transparency

JERUSALEM Veolia Environnement is the future operator of the Jerusalem light rail system, an essential contribution to the city's transportation infrastructure, improving mobility in this rapidly growing urban area. Initiated almost 10 years ago, at a time when the international community hoped to see common infrastructure projects lead to a rapprochement between Israel and the Palestinian Authority, the project has been the subject of criticism for the past three years, some of which reflects a deep lack of understanding of the actual situation. The light rail service will start up at the end of 2010 and will serve the entire population in the area on the basis of equal access. It will primarily benefit the Arabic communities in the Shoafat and Beit-Hanina area, who are currently without access to transportation to West Jerusalem. Moreover, these communities are overwhelmingly in favor of the creation of this transportation system. In the extremely difficult and fluctuating political context of this part of the world, Veolia Environnement has opted to shoulder its corporate responsibility within the context of open dialogue with the NGOs and other stakeholders by presenting its analyses and commitments openly and transparently. The company managers have explicitly undertaken in particular to:

- comply with any final international or French legal decision expressing the illegality of this operation;
   operate the light rail system under guaranteed conditions of non-discrimination and equal access for all users;
- check through independent surveys the ongoing support by the communities concerned for this transportation system;
- maintain open and transparent dialogue in good faith with all stakeholders about the conditions under which its corporate responsibility is exercised.

#### Our expertise allied with funding bodies

To meet the targets of the Millennium Development Goals, it is essential to invest at least an additional \$10 billion per year. Finance can only increase if the conditions of governance are met to ensure it is used correctly. Underscoring the recognition of Veolia Environnement as a partner of choice for the promotion of access to basic services, cooperation between funding bodies and the company was stepped up in 2008 by combining their financial contributions with our expertise. In Asia, Veolia Energy-Dalkia signed a financial partnership agreement with the Asian Development Bank (ADB) to finance the rehabilitation and extension of district heating and cooling networks in China. Project funding through partnerships has taken on a more structured form of cooperation with the funding bodies acquiring part of the capital in our organizations in developing countries.

For example, International Finance Corporation (World Bank Group) and Proparco, a subsidiary of AFD, the French development agency, have acquired a share in the equity of Veolia Water AMI. In Central Europe, Veolia Environnement has extended its cooperation with the European Bank for Reconstruction and Development (EBRD) from energy and transportation to include water, and in so doing has become its leading French partner. These partnerships boost the capacity to develop and optimize service infrastructure. For example, cooperation with the EBRD will provide access to additional resources to improve water supply and wastewater treatment. Another partnership co-financed by several funding bodies, including the African Development Bank, will enable Sade, a Veolia Water subsidiary, to lay 200 kilometers of pipe by 2010 to improve water supply from the Senegal River to the capital of Mauritania.

#### Adapt prices and alleviate hardship

Service charges for water, energy and transportation users are set by the local organizing authorities for each contract. Nonetheless, in consultation with these authorities, we can suggest price adjustments to improve access to services for people suffering hardship. In various countries, we make contractual commitments to pricing structures that reflect public authorities' policies in favor of sustainable development and the reduction of social inequality. In Bulgaria, where households' purchasing power is low compared with the cost of heating, Veolia Energy-Dalkia has undertaken to guarantee a set price over time. The energy efficiency of its facilities has been improved and the district heating network upgraded. The payment arrears of 60% of its customers have been cleared and the company has introduced separate billing for common areas in buildings. In some

## Aid for the victims

# f the Sichuan earthqua

CHINA The Veolia Environnement Foundation, through the emergency actions of Veoliaforce, provides the company's skills to help victims during emergencies. The earthquake that ravaged Sichuan province, China, in May 2008 completely disrupted water supply following the destruction of water sources and networks. Veolia Water in China and Veoliaforce pooled their efforts and their technical skills to install three mobile water treatment units in the space of a few days (Aquaforce units developed by Veoliaforce). This enabled 15,000 people to be supplied in three localities. At the request of Unicef, for which Veoliaforce is a standby partner, another mission was organized in July to install five additional treatment units and train 12 local technicians and operators to run them.





countries, Veolia Water adapts its prices to people's ability to pay and develops specific financial solutions, such as subsidized connections. This approach includes exceptional payment terms, such as spreading the cost of connection to a water network over a period ranging up to seven or even 10 years. In Morocco, this policy has enabled around 650,000 people to be connected to the water supply network since these contracts were introduced in 2002. In 2006, in the Paris region, Veolia Water introduced an assistance unit that helps customers suffering hardship and guarantees continued water supply in the event

of payment difficulties. In 2008, this unit handled 1,400 cases, providing information and administrative assistance to beneficiaries of subsidized housing payments, over-indebted customers, and condominiums placed under receivership.

### Ensure service continuity and its resumption in the event of disruption

If there is a risk of service disruption, the company implements efficient crisis management systems to maintain or resume services. In Central Europe, heating is sometimes exclusively fired by gas from Russia. During the January 2009 gas crisis, Veolia Energy-Dalkia

implemented exceptional measures for 17 days to maintain heating in the district networks under its responsibility. The situation was stabilized by using replacement fuels and through efficient coordination between the local authorities and the company's management. Similarly, during the storms that ravaged France in January 2009, Veolia Environnement mobilized the technical and human resources needed to maintain or restore water, energy distribution and transportation services as quickly as possible.



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Veolia Environnement's presence in developing countries

#### Employees, ambassadors of

# drinking water and hygiene

NIGER The Niger water company (SEEN), a Veolia Water AMI subsidiary, noted people's lack of awareness of water-related hygiene and health issues. As this was causing water to become unfit for drinking between the tap and its consumption, SEEN introduced a training program. The aim is to turn its 550 employees into drinking water and hygiene ambassadors to educate the local population and their colleagues in the field. The employees were trained in how to communicate best practices to customers and standpipe managers in order to prevent contamination after the tap. Developed with the assistance of Veolia Environnement's Health Department and Campus, the course has two modules, one of which has been specifically developed for illiterate field employees. As a result of this project, everyday behavior has changed and there is now greater respect for hygiene practices.

# Which economic model should be adopted to improve

access to drinking water in Bangladesh?



Aquifers in Bangladesh are not very deep underground and are used by rural communities as their direct water supply. But the aquifers are often naturally contaminated with arsenic. It is believed that almost 75 million Bangladeshi consume this polluted water, exposing themselves to the risk of serious illness. To provide these communities with access to safe drinking water, despite their limited financial means, an innovative economic model is needed. The result is a partnership between Veolia Water and Grameen Bank, the micro-credit bank founded by Muhammad Yunus, 2006 Nobel Peace Laureate.

In 2008, the partners created a joint subsidiary, Grameen-Veolia Water, the initial task of which is to invest in and operate five water production plants. These will serve a population of 100,000 in around 10 villages in isolated rural areas. The subsidiary benefits from the technical expertise of Veolia Water and its knowledge in the area of providing access to water services for disadvantaged communities. It also relies on the Grameen Ladies' network in the country's rural communities.

This pilot project is based on the "social business" principle developed by Muhammad Yunus of "no loss, no dividend": the water is sold to the population at a price they can afford and that is around 10 times less expensive than the bottled water available locally. The €500,000 investment for the five plants will therefore be

reimbursed and enable the project to be duplicated at a later stage.

The first plant will come on stream in 2009 in Goalmari, a village located around 100 km from the capital, Dacca, and will provide water for 25,000 people. It will produce drinking water to World Health Organization standards from an intake installed on the bank of a neighboring river. The water will be distributed through standpipes and through deliveries to the more remote areas.

With this essential service for health and development, Veolia Water is trialing an innovative socio-economic model that specifically targets rural populations in developing countries. The success of this experiment should open new paths toward achieving the Millennium Development Goals.







# Manage corporate responsibility

To anchor sustainable development in the day-to-day operations of its businesses, Veolia Environnement incorporates the concept in its management systems through defining commitments and deploying policies, objectives and procedures. In addition, ethical values and sustainable development are embedded in the culture of each of its employees.



Veolia Environnement uses a variety of bodies and methods to ensure its corporate responsibility is actively managed at all stages of the issues affecting the company. The Sustainable Development Department, which is directly accountable to the Chairman and Chief Executive Officer, drives and coordinates this process. The department encourages the adaptation of contract models and business proposals in order to make sustainable development a priority and a lever for value creation. Our sustainable development policy involves a large number of internal stakeholders—functional departments, operating divisions and independent bodies—and therefore requires a structured approach for managing all the challenges, from compliance to forward thinking.

#### **COMPLIANCE**

#### **Legal Department**

Ensures that company activities comply with the regulations and provides legal intelligence.

#### **Internal Control Department**

Formalizes and deploys internal control procedures (transposed for the divisions and business units).

#### **Internal Audit Department**

Assesses the company's risk management, governance and internal control procedures.

#### Fraud reporting

Information transmitted to the heads of internal audit and internal control and to the Accounts and Audit Committee to report cases of financial fraud.

#### **MANAGEMENT**

#### **Environmental Management System**

Managed by the Environmental Performance Department, which defines and deploys company policy and health environment (see page 75).

#### Annual social reporting

Managed by the Human Resources Department, which defines and deploys company policy on human resources (see page 22).

#### **Client reporting**

Managed by the Sustainable Development Department and the divisions' marketing departments (see page 36).

#### **Extra-financial rating**

Managed by the Sustainable Development Department (see page 82).

**Campus Veolia Environnement** Personnel training to meet company needs (see page 77).

#### **Veolia Environnement Foundation**

Steering of financial assistance and volunteering of skills (see page 65). www.fondation.veolia.com

#### **ANTICIPATION**

#### Research, Innovation and **Sustainable Development Strategy Committee**

(Attached to the Board of Directors) Assesses the company's research, innovation and substainable development strategy and gives its opinion to the Board of Directors.

#### **Ethics Committee**

(Made up of four independent members) Ensures compliance with the principles of the Ethics, Commitment and Responsibility program (alerting system and ethics audits).

#### **Risk Management Department**

Coordinates the analysis of risks that could impact on the company's activities and action plan implementation (see page 78).

#### **Research Department**

Manages and coordinates the company's Research & Development programs (see page 28).

#### **Europe services**

Represents Veolia Environnement at European Union institutions in Brussels (see page 80).

#### **FORWARD THINKING**

#### **Institut Veolia Environnement** (IVE)

Forecasts economic, environmental and social trends and challenges, based on the work of the Foresight Committee and a network of experts. Serves as a forum for dialogue with the academic community and civil society, based on prospective studies, international conferences and original publications. www.institut.veolia.org

#### **Sustainable Development Visiting Committee**

Helps Veolia Environnement move forward in its vision of and thinking on sustainable development (see the Committee's report on page 77).

To fulfil their duties, the functional departments rely on the company's four divisions



#### Managing our environmental performance

A reliable and structured management system had to be developed to control our company's impacts and ensure its compliance with environmental regulations.

Since 2002, all of Veolia Environnement's divisions have been using the Environmental Management System (EMS) as a tool for improving their environmental and health performance. The EMS enables the company to assess its environmental impacts and compliance with the regulations and internal corporate rules, as well as to set targets and then implement the methods and action plans needed to meet those targets.

The guiding principles for the EMS are defined and validated by the Environmental Liaison Committee, which reports directly to the company's senior management. The committee ensures overall consistency in the EMS by guaranteeing a coherent view of the extent to which impacts are controlled and defines the strategic orientations on environmental management every year. In addition, the EMS is overseen by the Environmental Management Committee, made up of the environmental managers in each division, which transmits information and coordinates the action plans. In 2007, to round out the control and verification mechanism, the company put together a team of internal auditors with the purpose of ensuring direct control over

EMS deployment, regulatory compliance and the pertinence of the action plans. In 2008, the audits made it possible to establish the extent of EMS deployment, validate action plans and satisfy the expectations of the business units.

The environmental and health problems associated with climate change, water resource management and resource recovery from waste continued to grow, leading us to begin work on our 2009-2011 program. The final deadlines for the commitments defined in 2002 fell in 2008. The new program of environmental management commitments and targets is in the validation phase. It will include minimum environmental standards applicable across the company. A list of possible standards has already been established for each of the main operating processes at priority facilities.

In 2009, the emphasis will be on EMS management, organization and audit with a view to facilitating dissemination of best practices, feedback, and best practices adoption by the business units. Another goal is to ensure consistency in the targets and the actions implemented. The priorities are to improve consistency in EMS deployment across the divisions, to better formulate its requirements so as to make them less open to interpretation and to further harmonize our environmental culture across the company.



#### Organize

#### **Ethics and combating corruption**

Ethical breaches and corruption can divert funds intended for purposes such as investing to improve access to basic services and protect the environment. Such problems also increase costs and undermine service efficiency and the operator's reputation. Stakeholders consider that the water sector is particularly vulnerable to this risk. Since its creation, in 2000, Veolia Environnement has never been convicted of any corrupt conduct. In our company's opinion, combating corruption requires first and foremost stricter governance, no matter what the context or management method—public or private. It also demands strong, ongoing determination on the part of the organizing authority and a clear, precise distinction between the duties of the authorities responsible for regulation and control and the duties of the operators, in a framework that is transparent to civil society. Veolia Water has taken this direction by, for example, joining the Water Integrity Network in 2006. Through this membership, Veolia Water is committed to refusing any contract based on questionable governance. This is especially the case if the tariffs seem excessive given the customers' income — households should

not spend more than between 3% and 5% of their income on water and sanitation, according to the UNDP, WHO and World Bank—or if the revenues provided for in the contract are insufficient to ensure satisfactory service. In addition, we have a number of internal programs that reduce the risk of ethical breaches. Veolia Environnement's Ethics, Commitment and Responsibility program, introduced in 2003 and translated into nine languages, is binding on all our employees. It sets out our company's main ethical principles, which include complying with the rules against corruption. We also have mechanisms to ensure strict control over subcontracting. The Purchasing Charter and the Purchasing Code of Ethics have sections describing the ethical practices to be respected and promoted by anyone involved in company procurement. Our contract model applying to commercial intermediaries and business introducers also contains a detailed ethics and anticorruption clause.

Mechanisms are in place for monitoring compliance with the company's ethical principals. For example, the Ethics Committee's role is to ensure that the Ethics, Commitment and Responsibility

#### Consultation **Commitment of** Supplier qualification **Contracts Contract management Purchasing Officers Purchasing Charter** Suppliers Charter Sustainable development **Evaluation of suppliers Purchasing Code** Questionnaire for suppliers commitment. Art. 6 of company Sustainable development of Conduct framework contracts audits Determine whether supplier Evaluate the suppliers' application Incorporate sustainable Commit suppliers to contributing practices are consistent with development commitments of the sustainable development to the company's sustainable and ethical conduct rules for the company's sustainable commitments and identify areas development objectives purchasing officers development commitments for improvement



#### PROMOTION OF RESPONSIBLE PURCHASING

Veolia Environnement promotes adherence to the principles of sustainable development by external parties. Their inclusion in each step of company procurement was formalized in 2004 by various means, such as the Purchasing Charter and procedures for supplier evaluation. Our intention in this respect is to build long-term partnerships with our suppliers based on a sharing of risks and the promotion of Veolia Environnement's values. Since 2004, 258 Veolia Environnement purchasing officers have been trained in procurement through a sustainable development module, and 586 suppliers have been evaluated on occupational safety and environmental criteria. Besides the tools developed at the corporate level, each division employs its own methods governing product selection and relations with suppliers and subcontractors. For example, in 2008, Veolia Water pursued the work on incorporating sustainable development in its contracts and supplier audits it had begun in 2006. By making 12 experts available to its suppliers, in addition to audit reference materials covering social, environmental and economic criteria, Veolia Water helps its suppliers set up improvement plans in these three areas. In 2008, 751 improvement actions were approved for 59 suppliers in nine countries. A purchasing convention was held in September 2008, and 50 purchasing officers took part in a workshop focused on sustainable development and the two-year targets.

program is effective. The committee can be contacted voluntarily and in strict confidentiality by any employee, and has the power to conduct ethics audits in all of the company's operations. In 2005, a procedure was established for reporting cases of financial fraud to the Audit Director, Internal Control Director and the Accounts and Audit Committee.

Lastly, ethical questions were systematically incorporated in the auditing duties of the Internal Audit Department in 2008. Adherence to the ethical principals is reliant upon best practices becoming a matter of habit, which is why Veolia Environnement uses training to ingrain its ethical culture in its employees. Following seminars on the Ethics, Commitment and Responsibility program held in France and other countries in 2004 and 2005 for hundreds of company managers, Veolia Environnement developed a training program on competition law. The first courses were given in 2008, and thousands of managers will eventually take the program, which is in the form of seminars and online courses. In addition, Veolia Environnement published a manual in 2009 on compliance with competition law. The manual is available in English and French.

#### Sustainable development training and awareness raising

Campus Veolia Environnement helps train our employees in sustainable development issues. The Campus offers two Master Degree diplomas, in the management of environmental services and in sales of sustainable solutions, and a Master's diploma, in environmental services management and engineering. In four years, more than 600 employees have taken these courses; the content includes site visits and contact with local urban development managers to demonstrate how to take into account the concept of sustainable development. In 2008, over 1,000 managers took part in Veolia Environnement induction days (JIVE), and their ability to incorporate sustainable development concepts was evaluated in one of the workshops offered. Lastly, an online learning tool is being developed for managers and sales people on how to integrate a sustainable development culture and then pass it on to their teams and clients. This course will be available in the summer of 2009.

# Extracts from the report of the Sustainable Development Visiting Committee on Veolia Environnement's sustainable development policy

#### John Gummer,

#### Former UK Environment Minister, member of the UK Parliament, Chairman of the Sancroft Group

"Developed and developing countries increasingly recognize that they are all in the same boat —a low-carbon future or no future at all. Yet that understanding, however resolute, will deliver nothing without real change and effective agents for change. That must be Veolia's vocation: to deliver change cost-effectively and competitively by providing high quality, profitable environmental services with an ever smaller carbon footprint."

#### Philippe Lévêque,

#### Executive Director, CARE France

"In many places there is widespread concern about allegations of corruption in the water, energy and waste management sectors, and it is important that Veolia ensures the highest ethical standards in its business practices. That is valuable, not only because of the reactions of campaigners in the developed world, but because it reinforces the ability of developing countries to build more transparent societies."

#### Karina Litvack,

#### Head of Governance and Socially Responsible Investment, F&C Asset Management

"As an influential global company with deep local relationships, Veolia has an opportunity to mobilize its political relationships for the good: to press for regulatory, fiscal and market reforms that will reward carbon savings, and reward its own efforts and those of its clients to reduce CO<sub>2</sub> emissions."

#### Dr. Rajendra Pachauri, Chairman of the IPCC,

#### winner of the Nobel Peace Prize, Director General of TERI (The Energy and Research Institute)

"If we are to stabilize the global mean temperature increase at between 2°C and 2.4°C, we must ensure that CO<sub>2</sub> emissions peak by 2015. There are so many co-benefits from such action that if they were to be fully accounted for, there could actually be a net increase in economic output and economic welfare: health improvements resulting from lower local air pollution, greater energy security, higher yields in agriculture and huge opportunities for employment in the new green

industries. In many of these areas, Veolia Environnement has a direct stake and is ideally placed not only to help achieve these CO<sub>2</sub> reductions, but also to share in the co-benefits."

#### Usha Rao-Monari,

#### Senior Manager, International Finance Corporation (World Bank Group)

"Given the number of countries in which Veolia operates, it must expect to be confronted by complex ethical issues, many of which will not have emerged when projects were first undertaken. Veolia must increasingly be able to handle these concerns, not only from its internal resources, but through partnerships with NGOS and other organizations with specialist understanding of local circumstances."

#### Ignacy Sachs,

### Professor at EHESS (École des hautes études en sciences sociales)

"The demands of climate change and the economic effects of resource depletion are making people question the continuous growth in personal mobility. That means that Veolia will want to be in the forefront of the application of sustainable biofuels and the use

of new technologies that will make transportation increasingly sustainable."

#### Jean-Michel Severino,

### Director General, Agence française de développement

"As a global company, it is part of Veolia's role to make public-private partnerships work, even where the public partner lacks experience and know-how. If its partnerships are to flourish in difficult environments, the company itself has to strive for the highest standards of corporate responsibility and ethics."

#### Björn Stigson,

#### President of the World Business Council for Sustainable Development

"It is my view that the need for responsible business engagement in the big issues of our time has never been more urgent. The current financial crisis is the result of short-term and unsustainable business models. Our experience is that industries that have put sustainability issues at the heart of their business strategy offer some valuable lessons for the financial sector."

April 25, 2009



# Anticipate risks and identify opportunities

Veolia Environnement's growth is supported by an overall and coordinated management of the risks associated with its activities. Maintaining basic services that are essential to community life—water, waste management, transportation and energy—requires constant vigilance and preparedness: the management of the risks delegated to us by our clients is at the heart of our company's expertise.

#### **Exacting requirements for a responsible company**

The context in which we provide environmental services is becoming increasingly demanding. With the strengthening of the precautionary principle and more-stringent environmental regulations, a changing climate and changing stakeholder expectations, more parameters have to be taken into account and there is a greater need for human, technical and logistic expertise.

Veolia Environnement's wide range of experience in a variety of economic, social and regulatory contexts gives it a good foundation for managing risk so as to be able to respond to the expectations, not only of its clients, but also of other stakeholders. For its clients and customers, risk management is essential to ensure service quality and continuity. Various methods were employed for managing alerts and continuity in our activities in 2008, ensuring that service was maintained or resumed following unusual events. These proved effective in a number of situations, such as when storm Klaus struck southwestern France in January 2009. Our preparations since 2005 for a flu pandemic also included improvements to our business continuity plan.

Risk management is also essential to support our international growth, particularly when it comes to best environmental and social practices. Our program for setting minimum social and environmental standards by 2011 will give us a firm foundation for this. Lastly, our management by risk approach responds to the financial community's expectations of reliability and predictability.

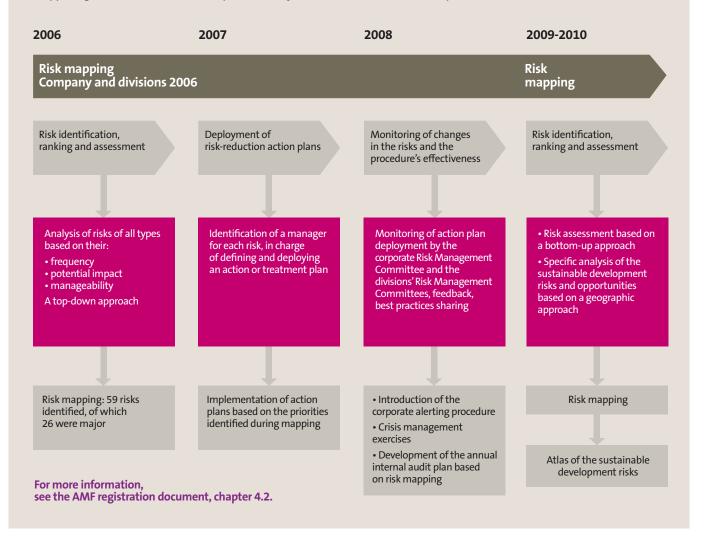
### Adapt risk assignment to the company's geographic organization

To complete its risk mapping, our company began preparation in 2008 of an atlas of sustainable development risks. The goal is to provide management with a detailed, commented tool reflecting the risks and opportunities associated with Veolia Environnement's activities in the various geographical regions. The atlas will be used to assess the opportunities and risks associated with each region so that they can be taken into account in investment and expansion decisions. It will also be useful in pinpointing priority areas for action plan implementation. The project, managed jointly by the Risk Management and Sustainable Development Departments, will concentrate specifically on issues relating to our sustainable development strategy in order to ensure its long-term coherence and the acceptability of our business model in the different operating regions.

These issues relate to the risks and opportunities specific to the environmental services industry, but also the social, ethical and governance aspects.

### A continuous corporate risk management process

Veolia Environnement's Risk Management Department introduced a corporate risk management procedure in 2006 with support from dedicated teams in the four divisions. The procedure involves identifying and ranking the company's risks and opportunities and implementing the action plans needed. The tasks are carried out in close collaboration with the Internal Audit and Control Departments, which oversee implementation of risk reduction plans and adherence to the procedures, and with the Environmental Performance Department, which is in charge of environmental risks. The broad orientations are decided by the corporate Risk Management Committee and are transposed in the divisions. The company's major risks will be mapped again in 2009-2010 and complemented by an atlas of sustainable development risks.





## RISK MANAGEMENT, LEVERAGING SYNERGIES IN THE COMPANY: THE EXAMPLE OF CHEMICAL RISKS

The company took advantage of the application of the European Union's Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) to establish a coordinated response procedure that reinforces its management of chemical risks. Joint work by the divisions and functional departments (Legal, Institutional Relations, Technical, Risk Management, Research and Development, Purchasing, Health and QHSE) and the pooling of resources enabled our company to meet its obligations for preregistration on December 1, 2008. REACH represents a valuable opportunity for improving the prevention and management of health and environmental risks associated with the chemicals we use, treat or produce and, therefore, reviewing certain internal procedures. The inventories conducted on our chemicals facilitated the definition of action plans and training in managing these substances. There will be many long-term advantages: better protection of our employees' health and safety, better management of the environmental impact of our activities, promotion of chemicals recovered through processes that minimize health and environmental impacts, and better information about chemicals for our clients.

# Responsible lobbying

Veolia Environnement organizes consultation meetings and forums in order to provide input on environmental policy, help improve quality of life and prepare for developments in environmental services management. As new regulations are passed, our company engages with and addresses government bodies, the European Union and international institutions in order to demonstrate and gain recognition for its expertise.

Veolia Environnement monitors regulatory and policy initiatives that directly or indirectly influence the conduct of its business and its capacity to respond to the major challenges of the 21st century, in particular preserving natural resources, combating climate change, and sustainable and equitable growth. As European Union decisions have an impact on our activities, our company is now represented in European institutions in Brussels. The main duties of our representatives are to monitor legislation, represent our company in trade federations and associations (sector and non-sector based), contribute expertise to European institutions (organization of events, participation in consultations, participation in conferences) and direct representation in European decision-making. Veolia Environnement engages in responsible and transparent lobbying, abiding by the official rules. Our representatives in Brussels in direct contact with the European Parliament (Members of the European Parliament, secretariats, political groups) have received Parliamentary accreditation. Veolia Environnement has also voluntarily joined the European Commission's register of interest representatives and has

thereby committed to abide by the provisions in the Commission's code of conduct.

In France, Veolia Environnement has been participating in working groups organized in connection with the Grenelle Environment Forum since 2007 and has been advocating in favor of various practices: water resource conservation and nature preservation; the conversion of waste into resources; the management of energy demand, the use of renewable energy sources and decentralized production; and the establishment of a sustainable mobility policy. In 2008, our company continued to keep a close eye on the debates and voting in the French Parliament.

We also engage in ongoing dialogue with stakeholders: political decision-makers, trade associations, think tanks and NGOs.

Thus, we are active participants in debate on the problems associated with access to basic services, the environment and public health, climate change and sustainable development in the urban context.

#### Open Days: develop an integrated approach to cities

In the European Union, 80% of the population lives in cities. Therefore cities have a vital role to play in combating climate change and adapting to its consequences. That is why, in October 2008, Veolia Environnement hosted a round table of metropolitan area mayors, government officials, heads of European Union bodies, and climate change experts. The event took place in Brussels during the European week of regions and cities (Open Days 2008). It became clear during the discussions that, although cities are committed to combating climate change, they lack the resources to assume their responsibilities and achieve their goals. It was concluded that concerted action and an integrated approach at the European level—involving the member states, municipalities, economic development policy and access to financial instruments—were needed for concrete responses to the climate change issue.

#### A concrete commitment to control energy consumption



In April 2008, Veolia Transport became the first private operator of public transportation in the United States to join the California Climate Action Registry. The CCAR was created in 2001 by the State of California to encourage private

companies, local municipalities and government agencies to measure their greenhouse gas emissions voluntarily. By taking this step, Veolia Transport has demonstrated its determination to help combat climate change and control its energy consumption.

This commitment will translate in 2009 into a process of reporting its direct and indirect greenhouse gas emissions in the preceding year, with certification by an independent party. The CCAR will later publish a report on the emissions of its member companies.



#### **CONTACT**

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#### A productive partnership with the city of Poznań

On the occasion of the United Nations Framework
Convention on Climate Change (UNFCCC), held in Poznań,
Poland, in December 2008, Veolia Environnement entered
into an innovative partnership with the city. The company,
which had been operating in Poland since 2002 through
the Veolia Energy-Dalkia division, is helping Poznań conduct
a carbon assessment (Bilan Carbone®), an essential step
toward defining action plans to reduce greenhouse gas
emissions in keeping with the city's particular characteristics.
Veolia Environnement also took part in two events organized
with Poznań city hall in parallel with the Convention:
the first was in connection with the climate sessions of local
governments and the second, under the aegis of the French
presidency of the European Union, on the theme "Veolia and
the Low Carbon Economy."

#### Participation in the Waste Framework Directive review

In November 2008, the European Parliament reviewed the Waste Framework Directive. By setting recycling and reuse targets for 2020 (50% for municipal waste), the new text establishes a waste treatment hierarchy, which Veolia Environmental Services supports: prevention, reuse, recycling, resource recovery, and safe and environmentally sound disposal. The waste management sector was pleased to see the definition of different responsibility levels, affirmation of the principle of broader producer responsibility and the hazardous waste provisions. Waste status has been lifted for certain waste streams in order to make Europe a recycling society, in which the company intends to play an active role. Veolia Environmental Services took part in the debates on the directive and is on the whole satisfied with the new directive, which establishes a European waste policy that recognizes environmental protection as a priority.

#### → www.report2008.veolia.com

Details of the positions defended by Veolia Environnement on themes such as climate change, urban mobility, soil remediation, industrial emissions, water scarcity and public-private partnerships.

#### Organize

# Extra-financial rating

As a company listed on the CAC 40, Veolia Environnement is rated for its extra-financial performance based on published information and statements. In addition, our company can solicit ratings in certain fields and areas when it believes they will be helpful in its management of its social responsibilities and the associated risks. These two types of ratings allow us to see where we stand and serve as a guide for continuous improvement of our sustainable development performance.

# Selected by the principal extra-financial indexes and company rankings

Extra-financial ratings and inclusion in specialized stock market indexes provide a measure of companies' sustainable development performance. The principal areas evaluated are governance, human resources management, environmental performance, ethics, human rights, customer care, supplier relations and dialogue with civil society.

#### FTSE4Good



Veolia Environnement has been listed on the UK's FTSE4Good index since 2004. This index comprises companies listed on FTSE Global Equity indexes that are considered to have the best sustainable development performance.

#### DJSI



In 2008, Veolia Environnement again appeared on the DJSI World and Stoxx indexes. The DJSI World index is made up of 320 of the 2,500 biggest companies on the Dow Jones World Index, while the European components of the DJSI Stoxx are 162 companies on the Dow Jones Stoxx 600 index. Our overall score fell slightly, from 74 to 72.

#### Ethibel Sustainability indexes (Vigeo)



Since 2002, Veolia Environnement has been included in the Ethibel Sustainability index that comprises the Ethibel Excellence Europe and Ethibel Excellence Global indexes. These two indexes are composed of companies with the best or above-average social and environmental performance and meet the ethical criteria set by the independent organization Forum Ethibel.

#### Classified "Prime" by Oekom Research



The German rating agency Oekom Research studies companies' sustainable development performance and updates its selections every year for socially responsible investors. Veolia Environnement scored B, putting it in the "prime" category, assigned by Oekom to companies among the best in their industry for social and environmental responsibility.

#### Performance in the ASPI Eurozone Vigeo ratings

In 2008, Veolia Environnement was not included in the ASPI Eurozone (Vigeo) index. A small decrease in Veolia's corporate governance score (from 49 to 45) put the company in last position of the companies in its sector that were rated, and it was therefore automatically eliminated from the ASPI index according to the Vigeo method. Veolia Environnement's score in governance was, however, higher than the average of all the French companies assessed by Vigeo in 2008. Its performance on the other criteria was also generally better than that of the other companies rated in its sector, with particularly good scores in human resources, human rights, business behavior (ethics and customer relations) and the environment.

Fields min/ max ++	Score 06/2008	Ratings 06/2008
Human resources	62	++
Environment	54	+
Business behavior	72	++
Corporate governance	45	
Community involvement	54	=
Human rights	57	++

#### Centre français d'information sur les entreprises (CFIE)

In 2008, for the second consecutive year, Veolia Environnement came out first in the French business classification for the quality of its social end environmental information.

#### **CONTACT**

developpement.durable@veolia.com

# Solicited sustainable development ratings: evaluation for improvement

Every year, Veolia Environnement asks to be rated on its social and environmental performance so that it has an up-to-date assessment of how it is meeting its corporate responsibilities. The results of these audits help the company fine-tune its sustainable development policy.

BMJ Ratings BMJ				
2004	2005	2006	2007	2008
A+	A++	A++	AA+	AA+

Every year since 2004, Veolia Environnement has asked BMJ Ratings to update its score on all aspects of social and environmental responsibility (SER) and produce its Global Value® rating, which measures the contribution of extra-financial criteria to overall performance.

BMJ Ratings evaluates the company's activities in its four divisions and covers the environment, human resources, marketing, purchasing and subcontracting, relationships with civil society and corporate governance.

#### 2008 extra-financial rating: AA+

Veolia Environnement's latest rating, produced on March 23, 2009 based on data and information for 2008, shows good results and progress, confirming the previously observed tendency for the company's extra-financial performance to improve. The performance was similar in all SER fields analyzed. The agency, however, pointed out that there was room for improvement in overall engineering and breakthrough innovation.

#### Global Value® 2008: 1.17

The Global Value® index rates the company's capacity to bring its SER policy into a process of economic value creation. After two evaluations, in 2006 and 2007, Veolia Environnement's performance index for 2008 was 1.17, on a scale of from 0.70 to 1.40.

#### Pascal Bello,

CEO of BMJ Ratings

#### Analysis of our business models



BMJ Ratings made a detailed analysis of Veolia Environnement's business models. The agency noted the quality of Veolia Environnement's strategic study of the problems of conserving resources and managing scarcity. Innovative contract models were identified in the divisions, which can be used to build proposals based on a sustainable approach to quality of service. However, ensuring the operational deployment of models decoupled from "volume" effects will be challenging for the company. In a worldwide economic context that is prompting environmental services operators to offer their clients new services, BMJ Ratings recognizes the work the company has done to share the gains from the introduction of more-sensible, innovative services.

# >

# SOCIAL AND ENVIRONMENTAL RATINGS: LEVERS FOR IMPROVEMENT

In Latin America, following the ratings process at the beginning of 2008, Proactiva (a subsidiary of Veolia Environnement and FCC) joined the Global Compact in 2009 and defined a sustainable development action plan. Supported by a charter and network of correspondents, the plan will include social initiatives (a corporate voluntary work program and funding for local social projects); environmental projects (common target of a 5% reduction in energy consumption and CO<sub>2</sub> emissions, Clean Development Mechanism projects, biodiversity protection and awareness raising); subcontractor projects (contract model with SER clauses); and client relations projects (monitoring indicators).

**In Morocco and Niger,** two audits of commitment to social responsibility in Africa were conducted for Veolia Water. The results were instrumental in accelerating certain ongoing initiatives and projects in the preparatory phase. A "sustainable development tour" took place in Veolia Water's operations in Niger to explain the process to the employees and obtain their suggestions and opinions. An ambitious action plan on occupational safety went into effect, in addition to a major educational program for the staff (managers and workers) on hygiene and health. New indicators for monitoring diversity were gradually introduced in connection with the hiring of people subject to discrimination (disabled people, young people, seniors and women). Relations with Veolia Water's clients were improved by actions to explain the operator's role and community hygiene awareness campaigns. Training was also launched for local managers in Morocco and Niger.

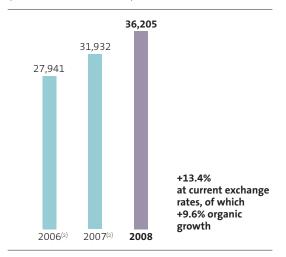




(1) Revenue from ordinary activities under IFRS.

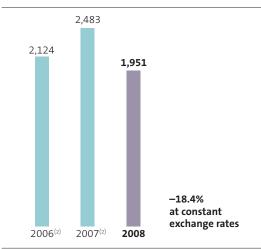
# CONSOLIDATED REVENUE<sup>(1)</sup> OF THE VEOLIA ENVIRONNEMENT GROUP

(in millions of euros)



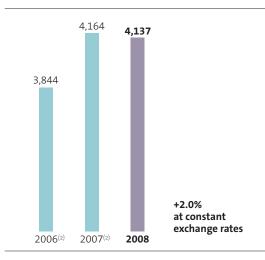
# OPERATING INCOME OF THE VEOLIA ENVIRONNEMENT GROUP

(in millions of euros)



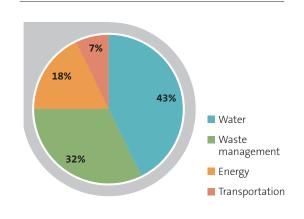
# OPERATING CASH FLOW OF THE VEOLIA ENVIRONNEMENT GROUP

(in millions of euros)



# BREAKDOWN OF OPERATING CASH FLOW BY DIVISION

(excluding holding companies)



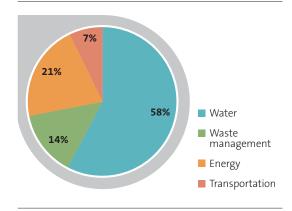
<sup>(1)</sup> Revenue from ordinary activities under IFRS.

<sup>(2)</sup> In accordance with IFRS 5 "Non-current Assets Held for Sale and Discontinued Operations," financial statements at December 31, 2007 and at December 31, 2006 have been adjusted, to ensure comparability, for the amount of the profit or loss of businesses sold in 2008 (Clemessy and Crystal in the energy division) and presented in the income statement in the "Net income from discontinued operations" line.



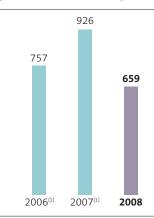
# BREAKDOWN OF OPERATING INCOME BY DIVISION

(excluding holdings)



# RECURRING NET INCOME ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT

(in millions of euros)



(1) In accordance with IFRS 5 "Non-current Assets Held for Sale and Discontinued Operations," financial statements at December 31, 2007 and at December 31, 2006 have been adjusted, to ensure comparability, for the amount of the profit or loss of businesses sold in 2008 (Clemessy and Crystal in the energy division) and presented in the income statement in the "Net income from discontinued operations" item line.

#### **GROUP INVESTMENTS**

(in millions of euros)

	2007	2008
Maintenance capital expenditures	1,590	1,860
Investments in growth <sup>(2)</sup>	5,012	2,505
New operating financial assets	334	336
Total gross investments (including net financial debt from discontinued operations)	6,936	4,701
Disposals (including industrial)	(453)	(761)
Principal payments on operating financial assets	(395)	(358)
Total net investments	6,088	3,582

(2) Investments in growth were lower than in 2007 in the currently demanding global economic environment.



#### **Consolidated balance sheet**

#### LIABILITIES

(in millions of euros)	Dec. 31, 2008	Dec. 31, 2007	Dec. 31, 2006
Capital	2,362.9	2 358.8	2,063.1
Primes	9,197.5	9,179.5	6,641.2
Reserves and retained earnings attributable			
to equity holders of the parent	(4,559.2)	(3,925.4)	(4,343.5)
Total equity attributable to equity holders of the parei	nt 7,001.2	7,612.9	4,360.8
Minority interests	2,530.5	2,577.8	2,192.6
Equity	9,531.7	10,190.7	6,553.4
Non-current provisions	2,160.2	2,138.9	2,196.6
Other non-current debt	_	_	207.3
Non-current borrowings (C)	17,063.9	13,948.0	14,001.6
Derivative instruments—Liabilities	159.9	163.8	145.9
Deferred tax liabilities	1,936.0	1,794.7	1,504.9
Non-current liabilities	21,320.0	18,045.4	18,056.3
Operating payables	13,591.8	12,944.8	11,268.6
Current provisions	773.1	825.7	825.9
Current borrowings (D)	3,219.7	3,805.0	2,904.1
Current derivative instruments—Liabilities	125.9	34.0	_
o/w revaluation of treasury instruments (E)	7.4	27.7	_
Bank overdrafts (F)	465.7	459.4	456.0
Liabilities directly associated with assets classified			
as held for sale <sup>(1)</sup>	98.2	1.9	59.4
Current liabilities	18,274.4	18,070.8	15,514.0
Total equity and liabilities	49,126.1	46,306.9	40,123.7

#### Net financial debt = C + D + E + F - A - B.

<sup>(1)</sup> Assets and liabilities classified as held for sale mainly consisted in certain jointly controlled French subsidiaries in the water division in 2008, the Jean Nicoli ship in 2007 and to transportation operations in Denmark in 2006.

#### Consolidated cash flow statement (in millions of euros) Dec. 31, 2008 Dec. 31, 2007 Dec. 31, 2006 Net income attributable to equity holders of the parent 405.1 927.9 758.7 Share of minority interests 304.1 326.9 236.2 Operating depreciation, amortization, provisions and impairment losses 2,301.6 1,816.7 1,831.0 Financial amortization and impairment losses 19.5 8.0 9.4 Gains/losses on disposals and dilution (288.2) (173.5)(73.3)Share of net income of associates (18.5)(16.9)(6.0)Dividends received (8.4)(8.8)(9.7)Finance costs and finance income 922.8 701.0 817.1 Income tax expense 470.9 420.1 357.1 Other items (including IFRS 2) 69.5 101.9 40.0 Cash flow from operations before changes in working capital and income taxes paid 4,178.4 4,219.4 3,844.4 Change in working capital (80.9)(167.1)(111.8)Income taxes paid (347.5)(417.7)(343.0)Net cash from operating activities 3,750.0 3,634.6 3,389.6 Capital expenditures (2,780.6)(2,518.7)(2,017.6)Proceeds on disposals of intangible assets, property, plant and equipment 329.8 212.9 141.3 Purchases of investments (800.7)(1,835.4)(1.291.5)Proceeds on disposal of financial assets 181.7 206.7 361.1 Operating financial assets: New operating financial assets (507.0)(404.1)(360.6)Principal payments on operating financial assets 358.2 360.7 438.1 Dividends received 15.8 15.3 13.8 New non-current loans granted (69.4)(252.7)(65.0)Principal payments on non-current loans 30.0 61.6 29.2 (27.4)Net decrease (increase) in current loans (89.0)2.6 Purchases/sales of marketable securities 3.4 (4,018.4)(2,904.0)Net cash used in investing activities (3,335.1)Net increase (decrease) in current borrowings (1,437.0)(1,534.5)(239.2)New non-current borrowings and other debt 3,590.2 2,060.4 1,997.2 Principal payments on non-current borrowings and other debt (184.8)(1,362.9)(1,000.8)Proceeds on issue of shares 51.0 3,039.2 246.5 Share capital reduction (131.0)(Purchases of)/proceeds from treasury shares 0.4 3.2 18.9 Dividends paid (754.4)(564.3)(479.2)Interest paid (847.6)(716.0)(596.4)Net cash from/(used in) financing activities 289.6 940.8 (71.5)Net cash and cash equivalents at the beginning of the year 2,656.2 2,202.0 1,829.3 Effect of foreign exchange rate changes and other 23.2 (102.8)(41.4)Closing cash and cash equivalents position 3,383.9 2,656.2 2,202.0 Net cash and cash equivalents at the end of the year 3,849.6 3,115.6 2,658.0 (465.7) Bank overdrafts and other cash position items (459.4)(456.0)Closing cash and cash equivalents position 2,202.0 3,383.9 2,656.2 Net cash flows attributable to discontinued operations as defined in IFRS 5 contributed +€14.8 million, +€35.7 million and +€2.6 million to net cash from operating activities, +€138.4 million, -€27.0 million and +€10.0 million to net cash from investing activities and -€4.5 million, -€1.9 million and +€6.2 million to net cash from financing activities in 2008, 2007 and 2006, respectively





the French Energy Regulatory Commission. Total generation capacity will be 122 MW and the largest plant will burn 500,000 metric tons of biomass.

**Czech Republic**—Veolia Energy-Dalkia is building a cooling network for the air conditioning system of the 240,000 square meters of commercial, administrative and residential buildings in the new Nová Karolina district, in Ostrava. The 30-year contract also includes the supply of heating through an extension of the existing network.

#### JULY

**Germany**—As part of a consortium, Veolia Water set up a partnership with the municipal utility company (Stadtwerke) of Springe to improve the management of the distribution of energy and water in this city.

**Spain**—Veolia Transport won an eight-year contract to manage the urban bus system of Bilbao, a city with 400,000 residents. The system uses 700 employees and a fleet of 150 buses.

**Europe**—Veolia Environnement launched with Syngenta, the world leader in agrochemicals, a partnership covering the multiservice operation of several of its European facilities. Operations started in two French formulation and distribution sites, in Saint-Pierre-la-Garenne and Aigues-Vives, in July 2008 and January 2009.

#### **AUGUST**

**China**—Veolia Energy-Dalkia signed its first contract for industrial cogeneration by acquiring a plant in the Chongqing Chemical Industrial Park (CCIP). Performance: 25 MW of electricity and 260 metric tons per hour of steam, with recovery of industrial heat.

#### **SEPTEMBER**

**Australia**—Veolia Water, in a partnership with AquaNet Sydney Pty Ltd, a company of the Jemena Ltd group, signed with Sydney Water Corporation a contract for the country's first private scheme for supplies electricity, gas, compressed air, industrial and drinking water to automotive and construction companies, as well as 6,500 homes.

**United Kingdom**—Veolia Environnement signed a five-year multiservice contract with General Motors covering its Luton site, northwest of London, where the General Motors UK head office is located. The plant produces 100,000 light commercial vehicles per year. Services provided include the operation and maintenance of utilities (water and energy) and of facilities (management of buildings and roads, excluding industrial maintenance).

#### **NOVEMBER**

**Ireland**—Veolia Water was awarded two Design, Build & Operate contracts for major wastewater treatment plants in Mullingar and Castlebar. The two contracts form part of wider plans for the sustainable development of both towns, in particular in view of anticipating forecasts of significant demographic growth.

#### **DECEMBER**

**France**—Veolia Environnement, through a consortium formed by Soval and Dalkia, was awarded a 12-year contract by the Bordeaux urban authorities to operate the Hauts-de-Garonne waste-to-energy plant and heating network.

**France** — Veolia Transport won the 12-year contract for the operation of all regular bus routes and school buses in the Oise département, involving 334 vehicles.

**China**—Veolia Transport signed a partnership agreement with Nanjing Zhongbei. The agreement covers the creation of a joint venture to operate transportation systems in six Chinese cities in the suburbs of Nanjing and in Anhui province, close to Shanghai. The six systems use a total of 2,000 buses and carry 360 million passengers per year.



<sup>\*</sup> Share price as of December 31, 2008 and adjusted for the €2.6 billion capital increase with preferential subscription rights, finalized in July 2007.

#### Net dividend per share

Veolia Environnement decided to submit to approval by the Annual Shareholders Meeting of May 7, 2009 payment of a 2008 dividend of €1.21 per share, payable according to the shareholder's choice in cash or in Veolia Environnement shares. These new shares will be issued with a maximum discount of 10% to the average opening price on the Euronext of the shares over the 20 trading days prior to the day of the Shareholders Meeting, less the amount of the dividend. The ex-dividend date has been set on May 13, 2009. The period during which shareholders may choose the option of payment of the dividend in cash or in shares will begin on May 13, 2009 and end on May 28, 2009. The 2008 dividend will be paid—in cash or in shares—from June 8, 2009 onward.

STOCK MARKET DATA 2	008 IFRS	2007 IFRS	2006 IFRS
Year's highest price (in euros)	64.00	66.25	57.42
Year's lowest price (in euros)	16.55	49.75	35.88
Closing price on last trading day of the year (in euros)	22.20	62.45	57.42
Average daily trading volume (1) (in thousands)	2,832	1,867	1,704
Number of shares outstanding at December 31 (in millions)	472.5	470.7	418.1
Average number of basic shares outstanding (in millions)	457.4	430.0	398.8
Market capitalization at December 31 (in billions of euro	os) 10.5	29.4	24.0
Basic recurring net earnings per share attributable to holders of the parent <sup>(2)</sup> (in euros)	e 1.44	2.15	1.90
Basic consolidated net earnings per share attributable to holders of the parent <sup>(2)</sup> (in euros)	0.89	2.16	1.90
Net dividend per share (in euros)	1.21 <sup>(3)</sup>	1.21	1.05

- (1) Not including transactions carried out outside the market.
- (2) After application of IFRIC 12 on the accounting treatment of concessions under IFRS and IFRS 5 "Non-current Assets Held for Sale and Discontinued Operations" to the Clemessy and Crystal units in the energy division.
- (3) Payable in cash or in Veolia Environnement shares (in which case, with a maximum discount of 10% to the average opening price on the Euronext of the shares over the 20 trading days prior to the day of the Annual Shareholders Meeting, less the amount of the dividend) and subject to approval by the Shareholders Meeting of May 7, 2009.

**NET DIVIDEND PER SHARE**After an average annual rise of 22% during the last four fiscal years, the 2008 dividend has been left unchanged at its 2007 level.

	Net dividend per share (in euros)
2000	0.55
2001	0.55
2002	0.55
2003	0.55
2004	o.68
	o.85
2006	1.05
2007	1.21
2008	<b>1.21</b> <sup>(3)</sup>



The Veolia Environnement stand at the 2008 Actionaria Investors' event in Paris.

#### Internet: daily news

The www.veolia-finance.com site is a common portal dedicated to all shareholders, whether individual or institutional, as well as financial analysts.

Daily updated, it provides real-time stock market data, press releases and all types of information about the company. Its documents can be downloaded.

This site was awarded a Coup de Cœur ("Special Favorite") prize by Boursorama surfers in November 2008 for its user-friendliness, clear layout and accurate information.

#### **SHAREHOLDER CONTACTS**

The Shareholders Department is available to answer your questions and requests for documents at:

service.actionnaires@veolia.com

A hotline is available to provide information at **o 805 800 000** (toll-free for landline calls in France)

All financial information and events are available at:

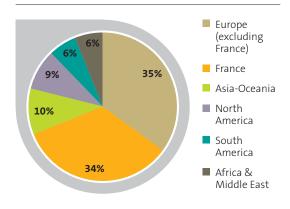
www.veolia-finance.com

# social performance

Managing our social performance requires in-depth knowledge of our work force and operational practices. The annual social reporting system implemented across Veolia Environnement measures the actual human resources situation via 165 measurement indicators in 72 countries. A network of more than 600 correspondents spread throughout the four divisions collects and consolidates data.

The business units' monitoring and management efforts focus in particular on a number of parameters: safety of working conditions; reducing temporary labor (fixed-term contracts and temporary workers); pay and career development; training and skills development; and labor relations.

# BREAKDOWN OF WORK FORCE BY GEOGRAPHIC AREA AT DECEMBER 31, 2008

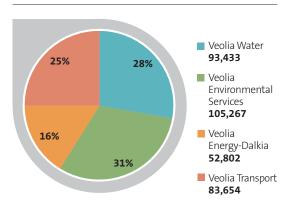


#### **HUMAN RESOURCES DATA VERIFICATION**

BY KPMG, STATUTORY AUDITOR

As in 2007, 11 key human resources performance indicators covering the work force, training, absenteeism and safety were verified by KPMG, statutory auditor of Veolia Environnement. In their moderate assurance (i.e., intermediate level) report, KPMG concluded that there were no significant anomalies in the data checked. KPMG emphasized the quality of the control of reporting procedures, the reliability of data collection processes, which have been improved by the deployment of a common software program throughout the company, and the stringent control environment. They also pointed out areas to be improved, such as the definition of training hours and the number of working days lost due to work accidents.

#### BREAKDOWN OF WORK FORCE BY DIVISION AT DECEMBER 31, 2008



Excluding Veolia Environnement head office employees: 857

+ → www.report2008.veolia.com

Entire KPMG appraisal report Social reporting indicators Details of methodology

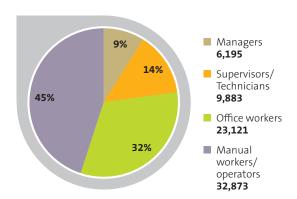
336,013 employees at Dec. 31, 2008 up 5.2%

#### STRUCTURE OF WORK FORCE

# BREAKDOWN OF MALE EMPLOYEES BY SOCIO-PROFESSIONAL CATEGORY

# 8% 16% Supervisors/ Technicians 40,251 Office workers 16,684 Manual workers/ operators 185,227

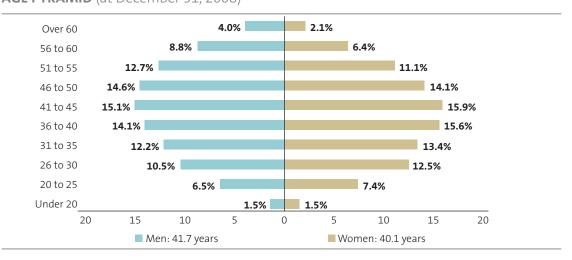
# BREAKDOWN OF FEMALE EMPLOYEES BY SOCIO-PROFESSIONAL CATEGORY



Due to the nature of its activities, nearly two-thirds of Veolia Environnement employees are manual workers. The physically strenuous working conditions in some of its business lines explain why women account for only 21% of the total work force. Indeed, the breakdown of the work force by gender and by socio-professional category shows that 45% of women are operatives versus 70% of men and 32% are office workers versus 6% of men. Nonetheless, the share of women in hires has been inching upward—rising from 24.4% in 2006

to 25.2% in 2008 with respect to hires under unlimited-term contracts—and this trend has been more pronounced among operatives and supervisory staff. In addition, the average age, i.e., 40.1 years for women and 41.7 years for men, results from a balanced age pyramid, close to the breakdown of the working labor force in the job market. The proportion of older employees in particular does not exceed 25% and that of over-60 employees stands at 3.6%. In 2008, retirements amounted to 5% of causes of departures.

#### AGE PYRAMID (at December 31, 2008)



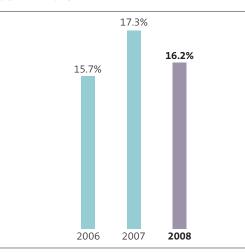


#### **EMPLOYMENT TRENDS**

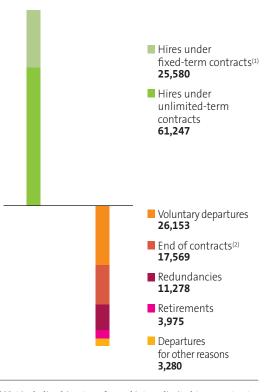
In 2008, approximately 87,000 new employees were hired while 62,000 left the company. Some 62% of hires were directly made under unlimited-term contracts, while 23% of hires under fixed-term contracts were converted into unlimited-term contracts. All in all, therefore, 70% of hires were with unlimited-term contracts, reflecting the company's determination to promote employee loyalty given the need to keep scarce and skilled labor.

The turnover rate results from operational management decisions and varies in line with local employment contexts, which entail diverging levels of job protection, flexibility and strains in the job market. The turnover rate of personnel under unlimited-term contracts was 16.2%, down by more than a percentage point from 2007. Departures from the company were down nearly 8% from 2007, mainly because of voluntary departures and completed contracts (both down 13%). The redundancy rate remained flat, while the proportion of retirements increased 11%.

# CHANGE IN TURNOVER RATE OF EMPLOYEES UNDER UNLIMITED-TERM CONTRACTS



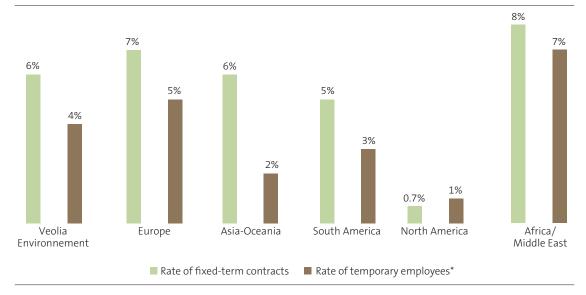
# BALANCE OF HIRES AND DEPARTURES



- (1) Not including hires transformed into unlimited-term contracts.
- (2) Not including employees on fixed-term contracts subsequently hired under unlimited-term contracts.

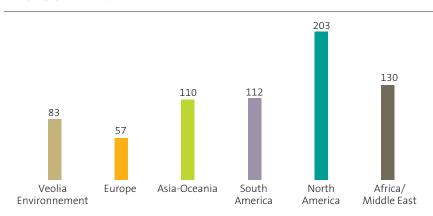
86,850 new employees hired in 2008





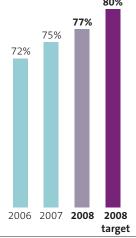
105

# AVERAGE ANNUAL AMOUNT OF OVERTIME HOURS PER EMPLOYEE BY GEOGRAPHIC AREA

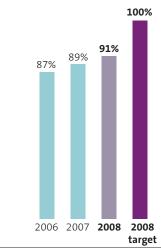




 $<sup>^{\</sup>ast}$  Calculated in relation to company's work force in full-time equivalents.



The implementation rate of the Environmental Management System (EMS) rose by two percentage points in 2008. When looking at changes in the indicator, it must be taken into consideration that, generally speaking, most facilities managed by the company under new contracts do not have an EMS in place. The divergence from the 2008 target of 80% set by the company is therefore partly explained by the time required to include new facilities in the internal procedures and by problems encountered in some business activities in terms of implementing the EMS. From 2009 onward, Veolia Environnement has set a new target of 85% with respect to implementing the EMS by end 2011.



Out of a total of 1,359 priority facilities, the rate of environmental evaluations carried out rose to 91% in 2008 (cumulative total since January 2002). The company's robust growth prevented it from meeting the target of 100% even though the number of environmental audits jumped 26% in comparison with 2007. Also, continuing to measure our effort since 2002 is no longer a satisfactory yardstick, as it means that certain priority facilities may not have been audited for six years. In order to guarantee that changes in regulations or our own internal requirements are taken into account, we have decided to change our indicator and the related target. The new target is that more than 95% of facilities should have carried out an environmental evaluation during the previous five years.



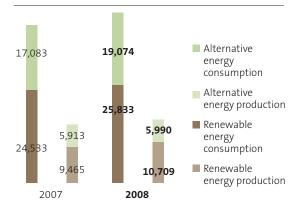
- · physical-chemical treatment;
- soil remediation.
- By consequence, the indicator covers 93.2% of waste treated (excluding transfer) by Veolia Environmental Services.
- (2) Calculated from a ratio between methane emissions produced and tonnages landfilled in 2007 at the French sites of Veolia Environmental Services

\* Indicator with a quantified target.

# **Preserving natural resources**

#### **CONSUMPTION AND PRODUCTION**

(thousands of MWh—Veolia Environnement)

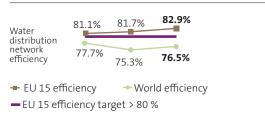


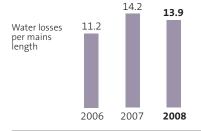
In 2008, the company's consumption of renewable and alternative energy rose 8%, while the production of renewable and alternative energy increased by 9%. An important point is that the renewable and alternative energy consumption data presented for 2008 shows a significant increase in comparison with previous years because of a change in the scope covered. Energy from the combustion of waste and the combustion of biogas collected in landfills is now taken into account. 2007 data was therefore recalculated to ensure its comparability with 2008 data. Veolia Environmental Services accounted for 80% of the consumption of renewable and alternative energy due to the incineration of waste and combustion of biogas recovered in its landfills. Related energy sales accounted for 57% of production. Veolia Energy-Dalkia accounted for 17% of the consumption of renewable and alternative energy, due in particular to the increased use of wood, up 20%. Related energy sales from combustion facilities accounted for 40% of Veolia's renewable and alternative energy production. Veolia Water and Veolia Transport are also promoting, at their level, the consumption of non-fossil energy. The significant rise in the percentage of clean vehicles at Veolia Transport, up from 18% to 25% in 2008, enabled greenhouse gas emissions of transportation vehicles to be kept in check. In 2008,

the share of renewable and alternative energy in the company's total energy consumption was 26%, while the share of renewable and alternative energy produced stood at 18%.

# **Saving water resources**

#### WATER LOSSES\*





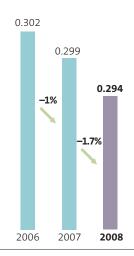
In 2008, the efficiency of water distribution networks operated by Veolia improved by slightly more than one percentage point in the European Union 15, as in the world. The "water losses per mains length" index, which measures the volume of water losses per kilometer and per day, improved by 0.3 percentage points between 2007 and 2008. If contracts consolidated in 2008 are excluded, the improvement was actually 0.7 percentage points. The progress recorded for efficiency and the water losses per mains length index is mainly explained by a 3.7% fall in leakage against a backdrop of flat consumption. The commitment made with respect to the networks operated by Veolia Water in the European Union 15, which is to keep network efficiency above 80%, has now been completed by an additional target: reduce by 5% by end 2011 the volume of losses in the 2008 environmental reporting scope.



\* Indicator with a quantified target.

# CARBON PERFORMANCE OF VEOLIA ENERGY-DALKIA COMBUSTION FACILITIES

(metric tons of  $CO_2$  per thermal MWh produced)

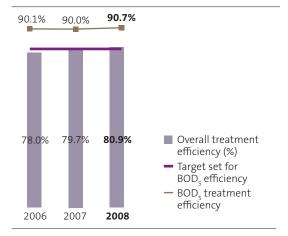


In order to reflect more accurately its efforts aimed at reducing the carbon intensity of heat produced  $^{(1)}$  by its combustion facilities, in 2008 Veolia Energy-Dalkia included all its facilities in the calculation of the indicator (the scope of coverage was formerly restricted to facilities of more than 20 MW). In 2008, Veolia Energy-Dalkia managed 110 TWh of input energy, or nearly 17% more than in 2007. Direct  $\rm CO_2$  emissions grew by just 12%, up from 21 to 23.6 million metric tons of  $\rm CO_2$ . The 1.7% reduction in the "carbon content" per thermal MWh produced is mainly explained by the increased use of renewable energy.

# Limiting the discharge of pollutants into water

# TREATMENT EFFICIENCY OF WASTEWATER TREATMENT PLANTS\*

(capacity above 50,000 population equivalent)



In 2008, the pollution abatement rate expressed as  $BOD_5$  remained stable at 90.7%. To reflect more accurately the performance of current types of treatment, a composite indicator that takes into account and weights the different forms of pollution<sup>(2)</sup> was developed by Veolia Water, based on the model used by the French river basin agencies to analyze impacts. In 2008, the overall wastewater treatment efficiency rate stood at 80.9%, in particular due to a better inventory of polluting loads for all parameters and an improvement in treatment performance.

From 2009 onward, Veolia Water undertakes to maintain the overall wastewater treatment efficiency of municipal wastewater treatment plants with capacity in excess of 50,000 population equivalent above 80%.

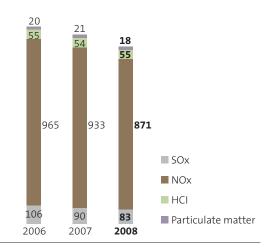
(1) CO<sub>2</sub> emissions related to electricity production are evaluated on the basis of the energy mix of the business unit.

(2) Five-day Biological Oxygen Demand (BOD<sub>5</sub>), Chemical Oxygen Demand (COD), nitrogen (N), phosphorus (P) and suspended solids (SS).

# **Limiting air pollution**

# **WASTE INCINERATION PLANT EMISSIONS**

(hazardous and non-hazardous) in g/t of incinerated waste



Waste incineration plant emissions per metric ton of waste treated declined further due to the improvement in the performance of flue gas treatment systems.

In 2008, the significant improvement in emissions of particulate matter, down 24%, but also of SOx (sulfur oxide) and of NOx (nitrogen oxide), down 12%, was due in particular to the better maintenance of bag filters (particulate matter) and the introduction of NOx removal systems (such as DENOX).

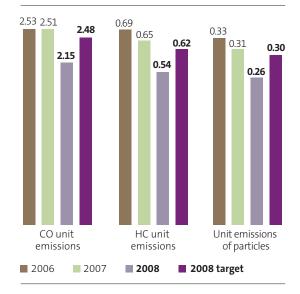
Furthermore, the company is working on enhancing the reliability of an indicator for measuring air pollutants (in particular NOx and SOx) on a scope that will take into account other major sources of environmental impact (in particular, energy production).

Veolia Transport continued its efforts to reduce polluting emissions from its fleet of passenger transportation vehicles. With respect to the scope of reference set in 2005 (73% of the fleet of buses and coaches), the targets set for reducing emissions in 2008 were topped: –17% for carbon monoxide (CO), –23% for hydrocarbons (HC), and –25% for particles.

These results are explained by the extent to which the fleet of vehicles has been renewed, notably by Euro 5 vehicles that have performance levels exceeding regulatory requirements. In 2008, Veolia Transport defined a new scope of reference, covering 89% of its fleet of buses and coaches and has set new targets for reducing emissions by end 2011: –8% for carbon monoxide (CO), –24% for hydrocarbons (HC), and –27% for particles.

# UNIT EMISSIONS PER PASSENGER TRANSPORTATION VEHICLE\*

(g/km)



# Glossary

# Glossary



#### Ademe

Agence de l'environnement et de la maîtrise de l'énergie, the French environment and energy management agency.

#### Alternative energy

Energy sources of natural or industrial origin (biogas, flare gas, etc.).

#### **Alternative water resources**

Non-potable water resources obtained from such techniques as reuse of treated wastewater and aquifer recharge, or treated to produce drinking water through techniques such as seawater desalination.

#### **AauaFed**

The International Federation of Private Water Operators.

#### **Aquifer recharge**

A technique that consists in reusing treated wastewater from wastewater treatment plants in order to recharge aquifers and maintain their levels.

#### Areas of ecological interest

Sectors characterized by the presence of significant species or environments forming part of the national, regional or worldwide natural heritage.



# **Biodiversity**

Refers to the variety and variability of living organisms and ecosystems. Biological diversity is studied at three levels: genetic, specific and ecosystemic.

#### **Biofuel**

Liquid or gaseous product that can be used in the engine of a vehicle, containing products derived from vegetable or animal crops.

#### Biogas

Gas resulting from the biological degradation of organic materials in the absence of oxygen. Contains a high percentage of methane and therefore has high heat value and energy potential.

#### Biomass

Vegetable matter derived from forestry or agriculture. It mainly consists in wood from industrial waste, recovered wood and forest residues.

#### **BOT (Build-Operate-Transfer)**

Type of PPP contract in which the private operator is responsible for construction and operation of infrastructure that it will be required to hand over to the public authority at the end of the contract.

#### **Business unit**

Organizational and geographic entity forming a level of management and consolidation with the division.



#### Car sharing

Service based on the sharing of a fleet of vehicles (in practice: rental of cars for a short period of time).

#### Circular economy

Economy in which a balance is maintained between economic development and preservation of resources (according to the United Nations Environment Program).

#### Clean Development Mechanism (CDM)

This mechanism set up under the Kyoto Protocol enables countries that have made a commitment to reduce GHG emissions and their companies to obtain certified emission reduction (CER) credits by investing in emission-reduction projects in host countries (developing countries, major emerging nations) that have ratified the Kyoto Protocol but do not have a GHG emission reduction target.

#### **Clean vehicles**

Vehicles running on biofuel, ethanol, biogas, compressed natural gas, LPG, water-diesel emulsion, or electricity; or equipped with a treatment system such as a particle filter, or a Selective Catalytic Reduction (SCR) system.

#### Cogeneration

Process that consists in simultaneously producing heat and electrical power and has a high efficiency level.

#### Composting

Biological process used to treat organic waste (green waste, fermentable fraction of municipal waste, wastewater sludge, etc.) by speeding up decomposition.

#### Concession

Contract to operate a public service signed between a public authority and an operator (concession holder). The concession holder is responsible for the operation, replacement and maintenance of the facilities, as well as invoicing. It also finances necessary investments, in contrast with service concession (affermage) contracts.



#### District heating network

Central boiler plant that supplies connected buildings through a network of pipes.

## **DNA (Designated National Authority)**

Entity (often forming part of the Department of the Environment) designated by the government of a CDM project host country and made responsible for approval of such projects within its national area.



#### **Ecosystem services**

Knowledge of how ecosystems work and the benefits that human beings obtain from them.

#### **Ecotoxicity**

Property of a substance to cause harmful effects on living organisms or their physiology (biochemical effect) and their functional organization (ecosystem).

#### **Environmental Management System (EMS)**

A system an organization can use to implement its environmental policy and meet related targets for controlling the significant environmental impacts of its activities and complying with regulatory requirements.



## **FACTS (Field Action Science)**

Initiative started by the Institut Veolia Environnement in May 2007 aimed at disseminating best practices through an international publication, called *FACTS Reports*. The issues covered deal with development, humanitarian aid, health, education and the environment.

#### Fossil fuel

Energy produced from rock originating from the fossilization of living beings: oil, natural gas and coal. Their combustion creates greenhouse gases.

# Fundamental values of Veolia Environnement set out in the Ethics, Commitment and Responsibility program

Commitment to sustainable development, compliance with regulations in force in the countries in which we work, loyalty toward clients and consumers, social responsibility and risk management.



#### Greenhouse gas (GHG)

Gas absorbing some solar rays and responsible for climate change ( $CO_2$ ,  $CH_4$ ,  $N_2O$ , water vapor).

#### Greenhouse gas emission quotas

These quotas correspond to the authorization to emit a metric ton of equivalent carbon dioxide during a given period. In particular, they are assigned to operators of energy facilities in application of the Kyoto Protocol.



#### **Heterogeneous flows**

Various waste flows. Example for hazardous waste: flows made up of such components as solvents, paint, varnish, ink, glue, paint stripper, chemical products, soiled packaging, sump oil, detergents, stain remover, thinner, insecticide, weed-killer, fungicides, etc.



## **IFRS (International Financial Reporting Standards)**

International accounting standards adopted by listed companies in the European Union.

#### ILO

International Labor Organization.



#### **Kyoto Protocol**

Protocol that came into force in 2005 in extension of the United Nations Framework Convention on Climate Change. In particular, it sets limits on greenhouse gas emissions in industrial countries.



#### Landfills

Sites that replace tips, enabling the storage and treatment of waste and energy recovery from biogas.

#### Large water cycle

Water resource cycle governed by natural phenomena: rivers, lakes, aquifers, clouds, oceans and ice.

#### Leachate

When stored and under the combined effect of rainwater and natural decomposition, waste produces a liquid fraction called leachate. Due to its high organic and trace element content, leachate cannot be directly released into the natural environment and must be treated.



#### Millennium Ecosystem Assessment (MA)

An initiative of the United Nations launched in 2000, this report was drafted by more than 1,300 experts. Its objective is to assess the consequences of ecosystem change for human well-being and establish a scientific basis for action required to improve the safeguarding and sustainable use of ecosystems.

#### Mixed waste

Refers to "mixed non-hazardous industrial waste" which is non-hazardous and non-inert waste produced by tradesmen, retailing, industry or services. It is assimilated to household waste as it has the same components but in different proportions (packaging, textile scrap, shavings, manufacturing scraps, cleaning residues and office waste).

#### **Mode integration**

Method of organizing transportation that enables passengers to use, during a single journey, several transit modes (bus, metro, light rail, bicycle, transportation on demand, etc).



#### **OECD**

Organization for Economic Cooperation and Development.

#### Orée

French association composed of companies and public authorities with the objective of developing common research on how the environment is taken into account by these bodies.



#### **Primary energy**

Input energy before transformation into secondary energy.

#### **Priority facilities**

Facilities with the most sensitive environmental impacts for the company.

#### Public-private partnership (PPP)

PPPs encompass a very wide variety of methods used to produce and manage infrastructure, facilities or public services. In terms of public services, a PPP contract draws on a financing method under which a public authority calls upon private service providers to finance and manage facilities providing or contributing to public services. In return, the private partner receives payment from the public partner and/or users of the service managed under the contract. This financing method is found in many countries in various forms.

# **Public service management contract**

Method of operating public services or services in the public interest for which public authorities have responsibility and that are provided for the benefit of residents, who pay the price directly to a private operator. The private operator is responsible for managing the service and, if applicable, for making some investments.

### **Purchasing Power Parity (PPP)**

Method used to compare the purchasing power of national currencies between different countries. It consists in measuring the amount of goods and services that can be purchased using a currency (standard shopping basket of goods in countries being compared).



#### **REACH**

Registration, Evaluation, Authorization and Restriction of Chemicals.

## Relevant activities

- Production and distribution of water, collection and treatment of municipal wastewater.
- Waste treatment activities (sorting, composting, incineration, landfill, treatment of hazardous waste).
- Energy services (heating and cooling networks, thermal and multitechnical services, industrial utilities and facilities management).
- Transportation of passengers and goods.

# Renewable energy

Energy produced from natural elements (sun, wind, water, earth): solar and wind energy, hydroelectricity, geothermal, biomass, tidal, biogas from landfills, etc.



#### Sanitation equipment

Systems for treatment of wastewater or waste, or well-ventilated latrines or toilets connected to a septic tank, according to the definition of the World Health Organization and Unicef.

# "Sapiens" (Surveys and Perspectives Integrating Environment and Society)

Multidisciplinary scientific journal issued by the Institut Veolia Environnement publishing articles written by the best specialists describing significant advances in the field of environmental forward-thinking.

# **Secondary raw materials**

Raw materials derived from recycling of waste and that can be used in manufacturing of a new product.

# Service concession (affermage) contracts

Contract for operation of a public service (for example, water services) drawn up between a delegating public authority and a private operator. The public authority makes investments while the private company is responsible for operation, replacement of facilities and invoicing. The operator's remuneration is derived from users of the service.

## **Shared ride**

Refers to three types of transportation including car-pooling, car sharing and transportation on demand.

#### Soil conditioner

Product added to soil to improve its physical qualities and correct its acidity.

#### **Stakeholders**

Internal and external parties concerned by the activities of the company: employees, clients, suppliers, shareholders, non-profit organizations and associations, civil society, government authorities, etc.

#### **Subsidized connection**

In the most common case, this refers to the connection of low-income households to public utilities offered at a low price and/ or with payment facilities.



#### Transportation on demand (TOD)

Transportation mode that includes standard or shared taxis, school buses, car sharing and self-service bicycles. TOD services are different from other public transportation services in that vehicles do not follow a fixed route and do not generally have a precise schedule.



#### Waste recovery

There are three types of waste recovery:

- recovery or recycling of used materials contained in waste in the aim of reusing them;
- energy recovery, which generates electricity or supplies a heating network;
- agricultural recovery, which consists in transforming the fermentable fraction of organic waste into compost.

#### Wastewater reuse

Reuse of treated wastewater (wastewater that has been treated in a treatment plant and is of a quality that could be discharged into the natural environment).

#### Wastewater service

Collection and treatment of wastewater and stormwater. Known as "sanitation" in its most basic form.

#### Water distribution network efficiency rate

Ratio between the sum of invoiced and non-invoiced volumes of water used, to the total volume put into the distribution network.

# Whistleblowing system

A system employees can use, if they become aware of breaches of the rules of conduct of the Ethics, Commitment and Responsibility program, to warn the Ethics Committee, should their managers fail to react appropriately after being informed.

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