SUEZ ENVIRONNEMENT
Magazine
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SUPPLEMENT
SUEZ ENVIRONNEMENT IN CHINA

THE ENVIRONMENT AT THE HEART OF INDUSTRY'S ISSUES

"OUR AMBITION IS TO SUPPORT INDUSTRY AND ITS GROWING NEEDS."
INTERVIEW WITH HENRY SAINT BRIS_P24

01_

02_

REENERGY, AN "EXEMPLARY" PLANT

AT THE CUTTING EDGE OF ENERGY RECOVERY

SINCE THE END OF 2011, SITA HAS OPERATED A NEW GENERATION WASTE RECOVERY PLANT IN THE NETHERLANDS, REENERGY: **AN ENERGY RECOVERY PLANT THAT IS ONE OF THE MOST EFFICIENT IN EUROPE.**

PHOTO REPORT: XAVIER SCHWEBEL / PICTURETANK

01_
Arrival of the lorries transporting the waste. Almost 300,000 tonnes can be treated each year.

02_
The ReEnergy plant is located in Roosendaal, the Netherlands.

01_

02_

01_
The waste holding area.

02_
The control room.
An operator manoeuvers a grapple and moves the waste into the hopper for incineration.

03_

04_

03_ and 04_
The ReEnergy plant is fully automated. Only four people are required to operate it.

01_
Connected to the electricity grid, ReEnergy generates 256,000 MWh of electricity.

02_

REENERGY : "ENERGY IN OUR WASTE"

A treatment capacity of
291,000
tonnes of waste per year

—

Treating the waste of some
2 million inhabitants.

—

256,000 MWh
of electricity generated, equivalent to the electricity consumption of
70,000 households.

—

With raw materials

becoming increasingly scarce, the waste treatment market is evolving towards recovery: waste becomes raw materials again or a source of energy by enabling the generation of electricity and heat.

As the third-largest source of alternative electricity generation after hydropower and wind turbines, this "renewable" energy source is as infinite as our waste production! It also contributes to reducing the greenhouse gas emissions.

Specialising in the treatment and recovery of waste, SITA opened one of Europe's most modern and efficient waste-to-energy plants in Roosendaal, Netherlands, last October.

With an annual treatment capacity of 291,000 tonnes, it processes the waste produced by over 1.9 million inhabitants each year and generates 256,000 MWh of electricity, which is equivalent to the electricity consumption of 70,000 households.

Over €200 million was invested during the design and construction phases of the ReEnergy site in Roosendaal between May 2008 and June 2011.

Exemplary in terms of its environmental performance, ReEnergy produces residual heat through waste incineration. It goes on to heat greenhouses located close to the plant, making savings of around 3.5 million cubic metres of natural gas. Furthermore, this energy source will also be used to heat an eco-district currently under construction.

02_
SITA ReEnergy supplies heat to greenhouses situated in the vicinity of the plant, saving around 3.5 million cubic metres of natural gas.

→ Find out about the ReEnergy plant through this video.

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"Industry and SUEZ ENVIRONNEMENT each have a lot to gain from creating partnerships, in terms of growth, technological innovations and international development."

→ In this magazine, flash the codes with your flashcode reader to discover videos related to the subject (cost of a mobile internet connection).

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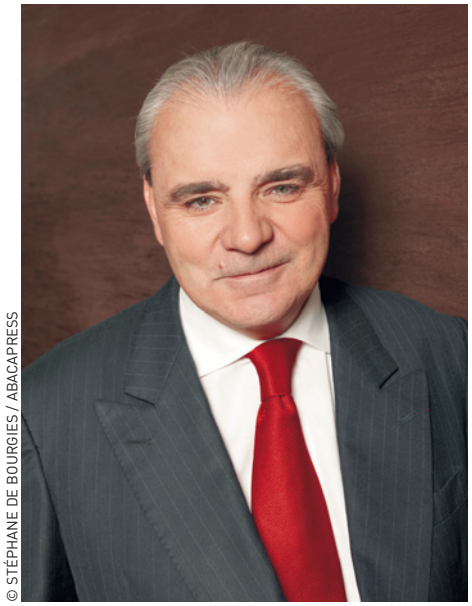


JEAN-LOUIS CHAUSSADE /
CEO OF
SUEZ ENVIRONNEMENT

"TODAY, INDUSTRY MUST FIND STRATEGIC PARTNERS THAT CAN SUPPORT ITS DEVELOPMENT."

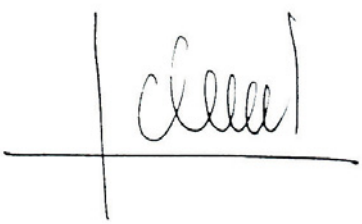
Dear readers,

The Rio+20 Earth summit, which will take place in Rio de Janeiro from 20-22 June, showcases commitments and solutions around the idea of the green economy and the international governance of sustainable development. We have chosen to be there both as a key player and as a contributor. As a key player because we hope to actively participate in the global discussion by providing an insight into our long-term vision for our businesses. As a contributor because sustainable development must be supported by results and evidence, that highlight our technological expertise and our ability to reinvent our operating procedures. In this magazine, you will discover the great challenges faced by this new summit, and some examples of the actual solutions that we are currently proposing to respond to them.

The environmental challenges are at the heart of society's problems. Fighting against pollution, the scarcity and rising cost of natural resources, increasing environmental regulations, water stress, etc. Some world markets are more heavily impacted than others, which is one of the reasons why manufacturers today must find strategic partners capable of accompanying them in their development and the improvement of their environmental performance. This notably includes the management of their scarce resources, water considered over the entire course of its cycle, as well as raw materials through the recovery and recycling of their waste.

In the coming pages, you will discover how every day, together with our 80,000 employees, we are making a commitment for the planet: to contribute to green growth, to co-create sustainable solutions with our industrial partners, to recover waste and use the energy produced or to develop the towns and cities of the future.

Enjoy reading!



SITA

SAFETY, A MAJOR CHALLENGE

SAFETY IS A MAJOR COLLECTIVE CHALLENGE and an ongoing area of focus for SUEZ ENVIRONNEMENT.

The new *"Safe Driving"* programme, designed and carried out by SITA in the Netherlands, is a "code of conduct" that aims to encourage employees driving trucks to be ever-more vigilant when behind the wheel: in particular, it aims to draw attention to accidents caused by blind spots. Despite the mirrors present on household waste skips, there are in fact four areas that a truck driver finds it completely impossible to see when behind the wheel. This is particularly dangerous for pedestrians and cyclists that are in the immediate vicinity of the truck. Roger Versluis, Logistics – Transport Director in charge of the *"Safe Driving"* programme, stresses the fact that *"safety is everyone's business since everyone must remain vigilant"* and that it represents *"an essential condition to enable us to perform our work correctly and responsibly."* This programme comprises training for all drivers and co-drivers on driving simulators, the implementation of explanatory signs in the cab and a substantial body of teaching work for the public and elementary schools.

"Safer Crushing", the second recent safety initiative, comes from SITA in Germany. Following the fire in the site's main waste recovery crusher in Bruchsal in April 2010, SITA redoubled its efforts to improve the selection process for waste destined to be crushed. The plant, rebuilt due to the damage caused by the fire, is now fitted with an innovative crusher and an optimised safety system. *"It is equipped with an automatic detection system that separates and evacuates large pieces of ferrous metal (specifically gas bottles, etc.), full separation of the main crusher from the rest of the facility thanks to concrete walls and a flame detector extinguisher system,"* explains Joachim Dach, SITA project manager in Germany. Here again, promising results have already been observed. The new crusher safety system at the Bruchsal plant has shown levels of efficiency far higher than those of the former plant.

In parallel, SITA equips all of its crushers (more than 50 there of) for new personalised security initiatives within a program dedicated to safer crushing.

TWO PROJECTS AWARDED

SITA's "Safe Driving" and "Safer Crushing" projects were awarded prizes at the SUEZ ENVIRONNEMENT Innovation Trophies 2012 by two major prizes in the "Industrial Performance" category.

"THE NEW SAFETY MEASURES IMPLEMENTED IN THE FOUR SITA NEWS COUNTRIES (BELGIUM, GERMANY, LUXEMBOURG, NETHERLANDS) MUST IN THE LONG TERM, SERVE AS A REFERENCE IN THE GROUP ON A WORLDWIDE SCALE."

© ABACAPRESS / ERIC VIDAL

FOR AS LONG AS HE CAN REMEMBER, Éric Pellet has always had an irrepressible passion for uncharted lands, which is what undoubtedly prompted him to create Alabama, an association for sports, cultural and scientific expeditions, in 1990. But it is also what led him to leave the Lyon region to come and live in French Guyana in 1992.

By his early thirties, this born adventurer needed to be closer to nature. Having specialised in the field of hydraulic engineering, Éric Pellet joined Société Guyanaise des Eaux, initially as a network supervisor and subsequently as network manager in 1996. In 2011, he became head of the eastern branch office of SGDE. As expected, this new "playground" kept all its promises: over the years, Eric has mounted several raids on the Guyanese plateau and the surrounding countries (Brazil, Surinam) and travelled across the vast and hostile rainforest in the footsteps of past expeditions, discovering how the Amazonian ecosystem is a formidable open-air laboratory.

Whether he is leaving for an SGDE worksite or heading a team of scientists in an Alabama expedition – as he did in 2002, discovering unknown lakes[1] –, nothing can be left to chance. *"In the middle of the Amazonian forest, logistics is your best ally and team spirit is essential, says Eric. This is the approach I take with my SGDE teams, with whom I cover half of this French territory. This means I have 100,000 inhabitants under my responsibility, with all the production and sanitation problems that are specific to this region."*

Twenty years after arriving in French Guyana, Eric Pellet appreciates every day of the life he dreamt of living. A fulfilling professional life, where his talents as a "born leader" allow him to stay close to his 27 agents and listen to them. A personal life in which he has already been able to share his love of adventure with 240 participants, at the heart of one of the biggest unknown areas of the planet.

(1) As part of the CNRS/CEA "ECOFIT" programme, the sampling of substrates from the bottom of the Toponowini lake will allow past climates to be identified and the mercury levels that exist in the natural state in Guyana to be measured.

Close-up on Société Guyanaise des Eaux (SGDE)

— A long-time subsidiary of Lyonnaise des Eaux and Veolia, Société Guyanaise des Eaux has been in the arms of Lyonnaise des Eaux since 2010. Covering a vast territory of 84,000 km² (96% forest), SGDE manages 57,000 customers through two local branches: East and West, a customer branch and a technical branch.

ÉRIC PELLET / LOCAL BRANCH MANAGER, SOCIÉTÉ GUYANAISE DES EAUX (SGDE)

"WHETHER YOU'RE ON A SITE OR AN EXPEDITION THROUGH THE JUNGLE, THERE IS NO PLACE FOR IMPROVISATION..."

RIO+20
THE SUMMIT OF ACTION

It has been 20 years already! In 1992, the planet's "big players" got together in Rio for the "Earth Summit".

This historic summit was for the first time "environmental protection" and "equity in development" were approached jointly. Twenty years later, at the same location, but in a very different context, the Rio+20 Summit is set to open.

Its aim: to initiate a new development model. Brice Lalonde, the Summit's Executive Coordinator and Jean-Louis Chaussade, CEO of SUEZ ENVIRONNEMENT, share their points of view about this long-awaited moment.

MEETING OF THE PEOPLE

BRICE LALONDE /
EXECUTIVE COORDINATOR
OF THE RIO+20 SUMMIT

Former Minister of the Environment in France between 1988 and 1992 and former Ambassador of France in charge of international negotiations on climate change, today Brice Lalonde is the United Nations' Executive Coordinator at the Rio+20 summit.

© UN PHOTO/ESKINDER DEBEBE

How has the world changed between Rio 92 and Rio+20?

Brice Lalonde : In 1992, we were at a historic turning point, with the fall of the Berlin wall. During the summit, 110 Heads of State and Government accepted the implementation of major agreements. Twenty years on, the geopolitical outlook has changed considerably. That is before we even talk about information technologies that have profoundly changed the relationships between people and seen progress, even for the world's poorest. At the same time, major countries have emerged, such as China, Brazil or India. Their influence is very strong. They have partially adopted the consumer model of the Western world and are not in favour of supranational regulation. However, they do know that if they were to continue on this road, it would lead to a dead-end. For all these reasons, Rio+20 will be different. Also, it is being held at a very particular time given the economic crisis.

What will the central theme be and what are the challenges?

B. L.: Rio+20 is not an anniversary! It must define the objectives for the coming twenty years. International governance of sustainable development and the green →

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02_

01_After the Summit of 1992, Rio organised once again the "Earth Summit". More than just a symbol, Brazil is particularly determined to see progress made.

02_India joins China and Brazil as part of a group of emerging countries. Their current situation has significantly altered the global geopolitical order.

"THE GREEN ECONOMY IS NO LONGER AN OPTION, TODAY IT IS A NECESSITY. THE QUESTION IS: WHEN AND WITH WHOM?"

→ economy will be its driving forces. Ten or so priority themes have been put on the agenda: employment, energy, cities, food, water, oceans, land degradation and catastrophes. We must also mobilise and catalyse the incredible energy and numerous proposals that come in particular from civil society. For the past few weeks, dialogue with civil society has been taking place online; it will result in 30 recommendations on these themes that will be submitted to the Heads of State at the Rio de Janeiro summit. As for the days prior to the summit, they will be devoted to a gigantic forum where companies, NGOs and local authorities will debate and present their solutions. Rio+20 is not just an intergovernmental conference, it is also a meeting place for people.

Why are companies so very present in this debate today?

B.L.: Companies make up a large part of the economy. They are present in both developed and emerging countries. It must also be said that they offset a degree of reservedness on the part of the state. However, they need strategist states that make rules and direct. The dialogue companies initiate with these states is essential. It gives them the chance to say to the politicians: this is what we could do in terms of sustainable development if you make such-and-such a decision. But we do not forget local authorities, and in particular cities where over half of the world's population live. Their role is essential in this area.

The green economy is at the centre of every discussion. What can we expect from it?

B. L.: The green economy includes the economy and ecology. It is no longer an option, today it is a necessity. The question is: when and with whom? Today, there can be no economy without ecology since nature is understood as being vital capital in order to produce. This holds even truer in poorer countries where people are more dependent on it. But you must be careful: the green economy cannot be conceived without a social dimension, as this would make no sense. So indeed a new economic model is what is at stake. The heart of the challenge is to put all countries, regardless of their level of development, in a position to successfully complete this transition.

Why will governance be at the heart of the debates during this summit?

B.L.: We do not have an international body in charge of the planet, as is the case for health with the WHO. UNEP (United Nations Environment Programme) has no decision-making powers, and depends on the United Nations, whose main concern to date is that of nations, not the planet. There is thus an institutional question to be answered. Beyond that, two things are essential: the capacity of emerging countries, which have long been spokespersons for poorer countries, to impose themselves as co-managers of the planet, and the need to improve governance in each country to relay international decisions with the creation of real sustainable development ministries allocated decision-making powers. Beyond the question of governance is that of reporting, and thus that of defining criteria that do not simply measure the creation of wealth. Let's hope an agreement in this respect occurs at Rio+20.

01_

02_

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SUEZ ENVIRONNEMENT, A PLAYER OF A NEW GROWTH MODEL

JEAN-LOUIS CHAUSSADE /
CEO OF
SUEZ ENVIRONNEMENT

An engineer by training, Jean-Louis Chaussade entered Degremont in 1978, a subsidiary in which he grew to become President and CEO in 2000. Since 2004, he has been CEO of SUEZ ENVIRONNEMENT.

© STÉPHANE DE BOURGIES / ABACAPRESS

As the director of an international group that is an expert in water and waste, what does Rio+20 represent for you?

Jean-Louis Chaussade : Rio+20 is a unique opportunity for the major players in our world to set common objectives for the planet. It is an amazing meeting place where states, spurred on by civil society, will have to commit to and identify solutions. I expect this summit to breathe new life into an economic transition in which companies have a major role to play: that of the green economy. That's why SUEZ ENVIRONNEMENT will be both a player and a contributor. Why? Because companies are on the front line when challenges are facing the planet, and because they are the bearers of new advances in terms of sustainable development. For all these reasons, we are mobilising ourselves, as our presence in Rio shows, to take part in the debate and to present our solutions that will not be solely technological.

How is SUEZ ENVIRONNEMENT concerned by the transition towards a green economy?

J.-L. Chaussade: Whatever we say or do, this transition will be imposed on us; so it is better to anticipate and lead it. Today, our Group supplies drinking water to 91 million people, provides wastewater treatment services to 63 million users, and collects the waste produced by 57 million people worldwide. We are thus naturally and fully convinced that our businesses are at the heart of the transition to an economy that is more respectful of its resources, is responsible and promotes general welfare. We make this green economy more tangible every day by integrating in a very operational way the principles of sustainable development into our strategy, and into our methods of organisation, production and consumption. We do not just provide resources but also global solutions. The essence of the challenge lies in defining the model that reconciles sustainable development and value creation.

How does SUEZ ENVIRONNEMENT contribute to a more restrained economy in terms of resources, and more respectful of the environment?

J.-L. Chaussade: In each of our businesses and in all major areas, our Group provides innovative, pragmatic solutions. This can be seen in the principle of circular economy in our two businesses, visible in the industrial complex in Suzhou, China that brings together a wastewater treatment plant, a sludge treatment plant and an electricity generation plant. Another example can be seen in Chile. We have

→

01_Thanks to the solution proposed by SUEZ ENVIRONNEMENT, the quality of life for the inhabitants of Santiago, in Chile, has considerably improved.

02_Brazil, India and China have partly adopted the consumption model of Western countries, and are not in favour of a supranational regulation.

RIO+20, PLAYERS IN A NEW GROWTH MODEL

During the RIO+20 Conference, SUEZ ENVIRONNEMENT drafted a contribution bringing together 40 concrete proposals and solutions at the service of "green" economy that is socially responsible.

Find out more at

→ www.suez-environnement.com

→ www.emag.suez-environnement.com

"WE HAVE CHOSEN TO BE BOTH A KEY PLAYER AND A CONTRIBUTOR BEFORE, DURING AND AFTER THE RIO+20 SUMMIT."

→ considerably improved the quality of life of over six million inhabitants of the Santiago basin by purifying 100% of wastewater, compared with 3% in 1999. In the Netherlands, our ReEnergy plant in Roosendaal is one of Europe's highest performing plants in terms of waste recovery. In it, we treat the waste of over 1.9 million inhabitants, which we use to produce electricity equivalent to the annual consumption of 70,000 households. Though our knowledge plays a key role in the transition in progress, it is also the way we conceive of and do our business that makes a difference. As such, we act to conserve biodiversity, as SITA does at its waste storage facilities or by establishing a social pricing scheme, as in Orleans in France, giving everyone access to water services. Our solutions are not just technical. And with them, we contribute to our customers' economic, social and environmental performance, and to development in our territories.

In your view, which new governance of sustainable development should be negotiated in Rio?

J.-L. Chaussade: This summit must reaffirm the necessity for worldwide governance of sustainable development, as well as the role of civil society in international discussions. Just as local authorities have done, companies are invited to play a growing role and to become committed. As we did at the World Water Forum by committing to create governance committees to integrate all the stakeholders in cities of over 300,000 people. Our Group needs clear rules of the game in order to develop its activity in this respect. It therefore seems necessary to balance the powers of the financial and commercial institutions (WTO [1]/IMF [2]) by giving more power to the ILO [3] and to a similar environmental organisation in order to impose ourselves upon sovereign.

(1) World Trade Organisation
(2) International Monetary Fund
(3) International Labour Organisation

01_The Group applies solutions to contribute to an economy that is more respectful of the environment, such as at the ReEnergy plant in the Netherlands.

→ See the video version of the interview with Jean-Louis Chaussade, CEO of SUEZ ENVIRONNEMENT, on the Rio+20 Summit.

01_ © ABACAPRESS / ERIC VIDAL

"THE WORLD NEEDS A MORE CONCRETE AGENDA"

BETTINA LAVILLE / A LAWYER, MEMBER OF THE FRENCH STATE COUNCIL AND FORMER DIRECTOR OF THE OFFICE OF THE MINISTRY OF THE ENVIRONMENT, THE FOUNDER AND HONORARY CHAIRPERSON OF COMITÉ 21.

What is Comité 21?
Comité 21 is a network of some 500 players committed to the operational implementation of sustainable development and a world that is more humane, more ethical and more responsible. It is altogether a platform for dialogue, an expertise laboratory and a network tool.

What does it do?
Its aim is to give life to Agenda 21 in France, a wonderful programme of actions for the 21st century, ratified at the Rio Summit in 1992 by 170 Heads of State. Comité 21 acts to support education in sustainable development, to anchor sustainable development in territories and to promote responsible economic development and sustainable tourism.

What did Rio 92 do and what do you hope for at Rio+20?
Rio 92 resulted in the formalisation and ratification of a "general environmental code". This was an extraordinary step forward. It is clear that we are at a dead-end today. Rio+20 must meet three challenges: that of worldwide governance of sustainable development by asking the question of the future of UNEP, the position given to non-governmental organisations, and a new Agenda 21 that gives appropriate prominence to the green economy. The world needs a more realistic agenda with more effective and faster decisions and actions, since time is of the essence. Rio+20 must be the Summit of Action. This is in a context where civil society is very important, and Brazil, the organising country, particularly determined to move things forward.

THE WATER FOOTPRINT

AN INDICATOR THAT IS MAKING ITS MARK

THE "WATER FOOTPRINT" IS BASED ON THE REALISATION THAT WATER IS A VULNERABLE RESOURCE ON OUR PLANET THAT NEEDS TO BE PRESERVED. *"Not only must the quality of water be preserved but it is also unequally distributed across the planet"*, explains Catherine Chevauché, senior project manager in the Research, Innovation and Development Department of SAFEGE.

Developed in 2002 by Professor Arjen Y. Hoekstra, this indicator allows the total volume of fresh water used directly or indirectly to produce goods or services to be measured. Thanks to this tool and the methods developed by the *Water Footprint Network,* we know, for example, that the quantity of water required to produce a kilo of rice is 3,000 litres and that almost 16,000 litres are required for a kilo of beef. A relatively simple calculation tool, it helps raise awareness of the problem of water wastage. It also complements the more global approach of the ecological footprint which, since the 1990s, through the WWF[1], has highlighted the need to measure the environmental impact of human activity.

"However, this indicator, which is only about ten years old, needs to be refined. It provides a volume, but it does not currently allow the impact on the ecosystem to be calculated", says Catherine Chevauché. For this reason, research carried out in her department is aiming to resolve the thorny issue of using the volume to determine the impact caused.

The development of the ISO 14046 standard, which will be published in 2013-2014, is intended to harmonise international guidelines on calculating the water footprint. SAFEGE, which is participating in the development of this standard, is attempting to clarify the guidelines by rigorously defining the elements to be taken into account in this calculation and the scope to be considered. In this respect, Catherine Chevauché rightly points out that *"1m³ used in northern France does not have the same environmental impact as 1m³ of water used in Cairo"*. SUEZ ENVIRONNEMENT, which is particularly mindful of this emerging challenge of preserving the resource throughout the world, is firmly committed to this process through the establishment, together with the R+I Alliance, of specific research work on water footprint.

(1) WWF, World Wildlife Fund for Nature
*Illustration source: Water footprint Network; WWF 2012 Report. 1,786m³ per year and per consumer: this figure represents the necessary water to produce goods that a french consumer consumes daily.

QUANTIFYING THE WATER FOOTPRINT: SAFEGE, A CUTTING EDGE OPERATOR

A key player in the field of environmental engineering, SAFEGE, a subsidiary of SUEZ ENVIRONNEMENT, is a member of the AFNOR international think-tank in charge of drawing up the ISO14046 "Water Footprint – requirements and guidelines" standard. SAFEGE is involved in the various stages of water treatment. Beyond the global water footprint, it will be possible to estimate what part of the process is the most detrimental in terms of water consumption.

News from France...

BLUE ORANGE

A NEW TREATMENT FOR **BALLAST WATER**

The SUEZ ENVIRONNEMENT investment fund has teamed up with Norwegian firm Redox Maritime Technologies to develop a new technology for the ozone treatment of ships' ballast water. This partnership relies on Degrémont's expertise in ozone and ultraviolet treatment of urban and industrial residual water.

An ecological challenge on a worldwide scale, ballast water containing aquatic bacteria and micro-organisms is transported by tourist or commercial ships. In order to restrict their impact on ecosystems, over 15,000 ships will have to be fitted with treatment systems by 2016.

UP

BLUE ORANGE

Created in 2010, Blue Orange is SUEZ ENVIRONNEMENT's investment fund specialising in new water and waste technologies. With a budget of €50 million over ten years, this fund supports the work by companies, such as Cynar Plc, which recycles plastic waste into diesel fuel or recent addition Redox Maritime Technologies, which treats ballast water.

GDF SUEZ

GDF SUEZ OBTAINS THE **DIVERSITY LABEL**

On April 19, the French national organisation for standardisation (Afnor) awarded the Diversity Label to GDF SUEZ. It recognizes and highlights 30 years of Group actions in terms of preventing discrimination, and promoting equal opportunities and diversity. This label rewards the work undertaken by the Diversity committee, in close partnership with the Human Resources Department, and 40 Diversity referents.

LYONNAISE DES EAUX

ROLLOUT OF ACCESSIBLE CUSTOMER SERVICE TO **DEAF AND HEARING-IMPAIRED CUSTOMERS**

On the Lyonnaise des Eaux website, the Acceo service puts deaf and hearing-impaired customers in touch with a customer service representative. The customer simply selects the instant speech transcription option or real-time translation by an interpreter into sign language.

After the Great West region of France, the Urban Community of Bordeaux and Greater Rouen last April, Lyonnaise des Eaux will roll the solution out in Orleans in the coming months.

THE 17

THE EXPERIMENT BEGINS

Last May, SUEZ ENVIRONNEMENT opened its space for the promotion of knowledge and innovation, christened the 17. Located on the 17th floor of the Group's headquarters at La Défense, near Paris, this unique 300m² space invites visitors, be they customers, prospects, employees or students, to follow a path that plunges them into the heart of sustainable development and social, societal and technological innovations. The aim is to discover actual creations, partnerships and commitments made by SUEZ ENVIRONNEMENT.

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WORLD WATER FORUM

35,000

people took part in the 6th World Water Forum in Marseille, from March 12-17, including **15 Heads of State**, government or European commissioners. **175 State representatives, 170 national delegations** and **international organisations** participated in the final declaration, alongside **2,600 young people.**

THE FRENCH ARE CONSUM'ACTORS

79%

of French people confirmed that they sorted their waste in 2012.

47%

strive to reduce their energy consumption and 45% their water consumption. Respecting the environment and local production are at the heart of consumer choices, and 70% of French people state they give priority to brands that show genuine ethics.

Source: survey carried out by Ethicity "French people and responsible consumption 2012"

© FRANCK DUNOUAU

INNOVATION TROPHIES

SUEZ ENVIRONNEMENT REWARDS COLLECTIVE INTELLIGENCE

The 4th edition of the SUEZ ENVIRONNEMENT Innovation Trophies was a great success with 146 entries lodged and 30 prizewinners including 13 Grand Prizes and 4 Special Prizes from the jury. The Trophies, presented in Paris on March 27, rewarded 8 categories of innovation: field techniques, environmental and industrial performance, business development, support activities, research and technology, commercial action and "new business ideas." Proof of the company's creativity at all levels, these trophies enable employee initiatives to be identified and highlighted.

MAY 24, 2012

GENERAL MEETING

The General Meeting of SUEZ ENVIRONNEMENT took place on **Thursday May 24 at 3pm at the CNIT** in Paris (La Défense), attended by members of the Board of Directors and executives.

GUYANA

LAYING THE FOUNDATIONS OF THE MATITI **DRINKING WATER PLANT**

On March 12, construction of the Matiti drinking water plant in Guyana was officially launched in the presence of Marie-Luce Penchard, Minister for Overseas Territories. Degrémont won the process portion of the contract that comprises water pumping upstream of the Kourou River, the pulsatube, UV and sand filter section.

Destined to meet the drinking water needs of the inhabitants of Cayenne and the surrounding region, the facility will produce 1,200 cubic meters of water per hour and will be operational in January 2014.

AQUITAINE

WHEN **COOKING OIL** TURNS TO **FUEL**

In February 2012, SITA South West (France) created the YellowBio company for the collection and recovery Used Cooking Oil as biofuel at the treatment site in Villenave d'Ornon.

This offer enables the industry and restaurant owners to meet the obligation implemented on January 1 to recover used cooking oil when they produce over 1,500 litres per year. In 2016, this obligation will be applied to all production over 60 litres. YellowBio has already been appointed as the preferred service provider to collect used cooking oil in the wider La Rochelle region.

YELLOWBIO

Valorisation énergétique des huiles alimentaires

... and from around the world

SITA BELGIUM

SITAIR, A MADE-TO-MEASURE, ECOLOGICAL TRUCK

Since January 23, AVIAPARTNER, one of the largest player in the field of airport services to passengers in continental Europe, can welcome the fact that it now has a waste collection truck that is 100% electric and does not emit any CO_2. SITA, already leading the way with a 100% electric skip in Courbevoie in France, designed it in Belgium this time. In fact, it is to SITA Belgium, a SUEZ ENVIRONNEMENT subsidiary, that AVIAPARTNER owes this innovative technology. A first for Belgium and for Brussels Airport, the country's largest airport. Fully designed on a made-to-measure basis by SITA, in conjunction with AVIAPARTNER, its design was this time thought out so that it can easily move around the airport's basement areas and narrow corridors. The partnership is promising, with perspectives that should enable progress to be made in terms of environmental protection.

© FREDERIK PEVENS, SITA, AVIAPARTNER

© DR

MOROCCO

MAJOR WASTEWATER TREATMENT PROJECT IN **CASABLANCA**

Lydec launched a major coastal wastewater treatment project targeting the Eastern zone located between the port of Casablanca and Mohammedia, with the objective of collecting the entire zone's wastewater and evacuating it into the ocean. Spread over a 24 km length, the project is made up of two coastal interceptors, several pumping stations, a pre-treatment plant and a marine outfall system of 2.2 km. It is part of the major investment plan for delegated water management in Casablanca, worth €170 million.

UNITED STATES

UNITED WATER RENEWS ITS CONTRACT IN **BENSENVILLE**

On January 1, United Water renewed its maintenance operation and management contract for two years for the Bensenville wastewater treatment plant in Illinois, and its 20,800 inhabitants. This two-year, $4 million contract rewards the work done since 2004 by United Water, specifically in terms of computerised corrective and preventive maintenance, as well as customer service.

MALI

VICTORY FOR DEGRÉMONT TO BUILD A DRINKING WATER PRODUCTION PLANT

Energie du Mali and SOMAPEP (Malian Company for Drinking Water Heritage) chose Degrémont and its local partner Builders Diawara Solar to build a compact drinking water production plant in a district of the capital, Bamako. Financed in full by the Islamic Development Bank, the Degrémont Compact Unit type plant will produce 18,500 cubic meters of drinking water per day, with water taken from the Niger River.

UNITED KINGDOMI

SITA UK RECOVERS **WOOD WASTE IN SCOTLAND**

RWE npower renewables chose SITA UK to supply more than 50% of the wood needed for its biomass cogeneration plant that is under construction in Fife, Scotland.
Operational in 2013, this plant will produce 49.9 MW of electricity and supply a neighbouring paper mill with electricity and steam. Wood waste from the SITA UK collections will be used to replace fossil fuel, which is normally used in this type of plant. The expected CO_2 saving for the entire project stands at 250,000 tons per year!

GDF SUEZ

THE ACQUISITION OF INTERNATIONAL POWER STRENGTHENS THE STRATEGIC AMBITION OF GDF SUEZ

The GDF SUEZ stake in International Power is set to increase from 70% to 100%, with the acquisition of minority shareholder stakes. Unanimously approved by the independent directors of International Power, the transaction should be complete by mid-July 2012. This is a major strategic step in the development of GDF SUEZ in high-growth areas. In fact, International Power is a leader in regions where energy demand is very high, such as South America, the Middle East, South-East Asia and Australia.

90 GW

installed outside Europe by 2016. This is the GDF SUEZ objective, strengthened by the ambition to achieve positioning as the reference energy provider in the emerging world

SUEZ ENVIRONNEMENT AROUND THE WORLD

91

million people supplied with drinking water

61

million people benefit from wastewater treatment services

40.7

million tonnes of waste treated annually

UP

HORSE-DRAWN COLLECTION IS ON THE UP

Cleaner and less noisy than motorised collections, waste collection by horse has been around since 2005 at the Drottningholm Palace in Sweden. In France, horse-drawn collection has already spread to 70 towns!

CENTRAL AND LATIN AMERICA

AQUALOGY STRIKES TWICE IN THE CARIBBEAN AND BRAZIL

In Trinidad and Tobago, Aqualogy, Agbar's integrated water solutions brand won a transformation and corporate efficiency contract. This covers improvement works to WASA services [Water and Sewerage Authority], providing water and wastewater treatment services to the country and its 1.2 million inhabitants.
In Brazil, Aqualogy's first contract covers the provision, installation and guarantee of a sludge management system from the Limeira treatment plant in the state of São Paulo. The city of 280,000 inhabitants will thus benefit from low-temperature thermal drying technology known as STC, as do the cities of Dublin, Alicante and Barcelona already.

170

million euros is the predicted investment under Brazil's National Sanitation Plan by 2030

AUSTRALIA

THE CITY OF PERTH CONFIRMS ITS CONFIDENCE IN SUEZ ENVIRONNEMENT

On April 2, Degrémont, a SUEZ ENVIRONNEMENT subsidiary, and its partner Transfield Services, won the contract in Perth to operate and maintain drinking water and wastewater treatment facilities comprising 19 drinking water plants and 14 wastewater treatment plants. The contract worth €294 million will take effect in July 2012 for 10 years, and may be extended by a further five years. The fourth-largest city in Australia had already chosen the Group for its desalination plant.

01_


02_

01_02_03_04_Through their partnership, the Food Banks bring their experience in the collection of foodstuffs, as SITA brings their expertise in collecting, sorting and waste treatment...

SITA, A CORPORATE PARTNER OF FOOD BANKS

SKILLS SPONSORSHIP, FINANCIAL ASSISTANCE, EMPLOYEE INVOLVEMENT THROUGH NATIONAL COLLECTION DRIVES: THE PARTNERSHIP ENTERED INTO BETWEEN SITA FRANCE AND THE FRENCH FEDERATION OF FOOD BANKS (FFBA) HAS BEEN ACTIVE SINCE 2010. IT IS BASED ON THE VALUE OF SHOWING TOWARDS THE UNDERPRIVILEGED, AND ON THE OBJECTIVE OF COMBATING FOOD WASTAGE.

"For us, the people who collect and sort all kinds of waste, including food bio-waste, the French Federation of Food Banks (FFBA) partnership is in some respects the natural extension of our professional culture," immediately emphasizes Laurent Berthier, *SITA's communication manager. Created in 2010, this partnership comes from a desire to share skills and pool know-how. Food Banks thus provide their experience in the collection of foodstuffs, while our expertise lies in the collection, sorting, processing and recovery of waste in all forms. Our common aim is the fight against food wastage."*


© PIERRE TORSET

03_


© PIERRE TORSET

© PIERRE TORSET

04_

THE PARTNERSHIP DYNAMIC

THÉRÈSE POURRIOT /
FFBA SKILLS SPONSORSHIP MANAGER


© PIERRE TORSET

"The starting point for our partnership with SITA France was our desire to go further in our fight against food wastage. We wanted to find out what the environmental impact was of our collection and sorting system. SITA developed a methodology for us that could be rolled out to all 79 Food Banks. In addition to the ecological interest, the assessment of our carbon footprint means we can think in more depth about food wastage, and optimise collection routes with hypermarkets to increase the volume of foodstuffs recovered. Lastly, the involvement of SITA employees during the last two national collection drives and their commitment to finance the creation and modernisation of sorting units until 2013 have been the two other highlights of this partnership dynamic. To thank the subsidiary for its involvement, we awarded it the 'Corporate Partner of Food Banks' label, which it shares with some twelve other large companies."

185 MILLION MEALS PER YEAR

In 1984, when faced with mounting poverty, several charitable associations came together to create the first French Food Bank, according to the American Food Banks model. Today, the 79 departmental and regional Food Banks cover virtually the entire mainland territory. They are served by over 4,000 permanent volunteers, and mobilise over 100,000 volunteers during national collection days. They have distributed 92,500 tonnes of foodstuffs, equivalent to €291 million, to 5,011 social bodies and associations. Throughout the year, around 740,000 people benefit from this food assistance, which represents the equivalent of 185,000 meals.

Thus FFBA and SITA came together to carry out a pilot study and assess the environmental impact of Food Bank activities.

This study was undertaken by Alexandra Lalet, a Greenhouse Gas expert working in the Technical Department at SITA, using collection and sorting results from the Bas-Rhin Food Bank, in accordance with the Ademe (1) Carbon Footprint® method. Simulated at a national level, the results reveal that Food Bank activity prevents general emissions equivalent to those resulting from electricity generation for a city of 300,000 people.

"Further to this study, we implemented a new type of partnership," says Laurent Berthier. *"SITA Négoce, a subsidiary of SITA France specialising in the marketing of recycled materials, committed to pay €1 per tonne of household packaging collected as part of recovery contracts (2), so as to finance the building of new FFBA refrigerated food sorting rooms. Three were created in 2011, and three others will be created in 2012."*

Lastly, after initial participation in Alsace in 2010, SITA France employees worked together to take part in the Food Bank national collection drive on 25-26 November last year. Around one hundred staff volunteered to collect food at the entrance to around a dozen supermarkets in Rheims, Metz, Toul, Strasbourg, Colmar, Haguenau, Verdun, Saint-Quentin, Soissons, Dijon, Poitiers, and Paris.

These actions, through which SITA showed its solidarity with the underprivileged, were a highlight for the employees involved.

(1) The Carbon Footprint®, initially developed by ADEME (French Environment and Energy Control Agency) and adopted by the Carbon Footprint Association, is the carbon accounting method that is most used in France. The term represents the process of measuring the impact of greenhouse gas emissions for all products, services and human entities.
(2) The recovery contract or "guaranteed recovery" is a system allowing local authorities and operators to jointly organise the technical and economic conditions for household packaging waste recycling resulting from selective collections.

To find out more:
→ www.banquealimentaire.org

INDUSTRIAL CH

WATER AND WASTE MANAGEMENT

© SINO FRENCH WATER

ALLENGES IN

SUEZ ENVIRONNEMENT, an ideal partner for finding relevant solutions to new industry challenges

PROVIDING TAILOR-MADE RESPONSES TO INDUSTRY

THE FIGHT AGAINST POLLUTION, THE SCARCITY AND RISE IN THE COST OF NATURAL RESOURCES, GROWING ENVIRONMENTAL REGULATION, WATER STRESS... ENVIRONMENTAL CHALLENGES ARE AT THE HEART OF INDUSTRY CONCERNS. THANKS TO ITS EXTENSIVE KNOW-HOW, SUEZ ENVIRONNEMENT IS THEIR NATURAL PARTNER TO HELP THEM OVERCOME THESE CHALLENGES.

01_The hazardous waste incinerator operated by SITA in the industrial park on Shanghai, in China.

02_SITA Spécialités manages industrial waste on the Salindres site, in France.

03_Inside the O'Mobile truck, the mobile water treatment solution for the industrial partners of Degrémont Industry.

The rapid population growth in some parts of the world and the way in which developed economies are growing, as is the case in emerging countries, are today weighing down on the future of natural resources and the balance of the planet. The world is at a turning point, and all its partners are looking for sustainable solutions to conserve the environment, save resources – including renewable resources such as water – and successfully manage the energy transition. Due to the quantities of water they use and evacuate after treatment, and the waste they generate, industry is at the heart of these environmental challenges. Water withdrawals for industry today represent 16% of the volumes withdrawn across the world, i.e. 800 billion cubic metres of water per year. This figure looks set to increase to 1,500 billion cubic metres in 2030 [1]. Sustained growth in emerging countries and energy tensions that require techniques that use a lot of water to extract oil or gas will, in addition, increase water requirements (today, an average of 5 barrels of water are needed to extract one barrel of oil).

For industry, sustainable management of resources has three major challenges: it is both a question of responsibility, image and obligation since the regulations in this respect are so strict. Lastly and most importantly, it is an economic necessity to stabilise prices, maintain safe supply and ensure the longevity of their activities. *"When faced with the growing needs of industry, our ambition is to support it globally in the waste cycle management of its scarce resources, by working on the entire water cycle, and by specifically developing recycling and waste recovery services,"* highlights Henry Saint Bris, Strategy Director for SUEZ ENVIRONNEMENT. *"We will achieve this ambition by developing partnerships both with SMEs and Western multinationals that we can support in*

04_

x 2
is the share of the Group's business in the industrial water market within 5 years

20%
is the share of water withdrawn by industry in developed countries

+80%
is the forecast growth in volumes of water consumed by industry by 2030

04_SITA Belgium, a mechanical sorting unit for industrial waste in Tienen.

their international growth, as well as with large companies in emerging countries in connection with contracts in their domestic market, or relating to industrial parks in the Middle East, China, India or Brazil, for instance. Beyond the excellence of our services, the environmental image associated with our group is today a key factor of differentiation. For instance, this is the case for the oil and gas industry, specifically in their exploration/production activities," adds Henry Saint Bris.

BECOME STRATEGIC PARTNERS

Today, industry is a major player in the environmental effort, and it needs strategic partnerships to support itself in the long term in terms of these issues. *"We have a lot to gain from these types of partnerships," stresses Henry Saint Bris, "whether this be in terms of growth, international development or technological innovation."*

Cooperating with the industrial world means dealing with many diverse situations and very stringent requirements, since the variety of sectors requires complete mastery of water and waste management. Furthermore, industrial markets take shape more quickly, and large companies are looking for reactive partners able to support them in their geographical expansion. For SUEZ ENVIRONNEMENT, this represents an opportunity to speed up its international development by establishing itself in markets undergoing high growth, such as the construction of new infrastructures in China, Brazil, and the Middle East or major projects in the oil, gas and petrochemicals sectors in the Middle East. Lastly, it is a matter of innovation: cooperating with the industrial world often means having to move faster and go further, either because of regulatory or competitive reasons.

SITA
THE WASTE RECOVERY MANAGEMENT SPECIALIST

SITA works on the entire waste recovery and management chain: collection and sorting, material recovery producing "secondary raw materials", energy and biological recovery, waste elimination, sanitation and industrial maintenance.
SITA in Europe: has 35,000 employees, more than €6 billion in revenues and 280,000 business and industrial customers. In order to meet the wide variety of local requirements and recycled materials, SITA is organised into specialised subsidiaries like SITA AMI, which is an expert in sanitation and industrial maintenance, to provide the best response.

ALMOST **23 MILLIONS** TONNES OF WASTE MANAGED BY SITA IN 2011, WITH A VIEW TO RECOVERY

OF WICH MORE THAN **15 MILLIONS** TONNES OF WASTE TREATED FOR PHYSICAL RECOVERY BY SITA IN 2011

01_An industrial effluent treatment plant in China.

© PATRICK WACK

01_

SOLID ASSETS AND ACKNOWLEDGED EXPERIENCE

The Group relies on its extensive know-how in water and waste management to help industrial partners that are seen as a reference on the world stage, with whom the group has worked for a long time (Renault, Airbus, Areva, Ineos, etc.) *"We are able to provide them with a complete offer along the entire value chain for their domain, and over several sites. Degremont Industry also proposes global solutions for the entire water cycle to help players of the agro-food industry to meet their performance and environmental objectives. This can range from the production of process water and control of products' health risks, to effluent treatment, sludge recovery and the reduction of energy consumption, as well as the fight against bad odours,"* says Henry Saint Bris. *"We know how to manage all environmental challenges: from the impact study to the building and management of treatment plants, not forgetting turnkey service offers such as OMOBILE, a truck availability solution for water treatment that is simple, reliable and available everywhere on demand."* SUEZ ENVIRONNEMENT and its subsidiaries also possess a sizeable asset thanks to their unique experience of approaching projects from a partnership perspective. In fact, the group has shown time and again its ability to initiate and establish co-construction processes with several partners, allowing each of them to find new areas for development. The partnership approach developed by SUEZ ENVIRONNEMENT also allows the skills and experience of all partners to be used most effectively, and together, enables the emergence of a new knowledge base, particularly in the field of waste recycling.

DEDICATED OFFERS AND STRUCTURES

"In the industrial water field, our ambition is to double our revenues within five years," says Henry Saint Bris. To meet this challenge, the Group created Degrémont Industry, a new department born of the closer ties between Degrémont, following its successful international establishment, and Ondeo IS,

DEGRÉMONT INDUSTRY

THE PARTNER FOR SUSTAINABLE MANAGEMENT OF WATER IN INDUSTRY

Degrémont Industry, born of the closer ties between Degrémont and Ondeo IS: it represents 1,100 employees, €320 million in revenue in 2011, over 3800 plants installed, 200 contracts currently under operation and maintenance. Degrémont Industry meets the specific needs of industry via a wide range of offers for water treatment and management (engineering and supply of facilities, operation and maintenance, optimisation, innovative tailor-made services, technical support and equipment). On a daily basis, it supports industry via solutions adapted to their production challenges, with the aim of enhancing economic and environmental performance.

DOW AND SUEZ ENVIRONNEMENT:

BEYOND THE CUSTOMER/SUPPLIER RELATIONSHIP

Dow Water & Process Solutions allows Degrémont Industry to benefit from its separation and purification technologies, making water available for their processes or to recycle wastewater. Dow is both a supplier and a customer, as is the case at Chauny in France, Dow's largest ion exchange resin manufacturing site in the world, where Degrémont Industry, through Ondeo IS, rolled out its mobile water treatment solution. With its 197 production sites in 36 countries, Dow is a major customer and a potential partner of SUEZ ENVIRONNEMENT, and also of GDF SUEZ. Beyond the customer/supplier relationship, SUEZ ENVIRONNEMENT and Dow are developing technological and commercial lines of collaboration.

02_

03_

02_The Dow site in Chauny, in France, in which Degrémont Industry has deployed its mobile solution for water treatment.

03_Industrial waste.

04_Operation of the treatment plant, on a SOBEGI site in Lacq, in France.

04_

renowned for the excellence of its industrial expertise. In this field, SUEZ ENVIRONNEMENT focuses its offers over four main sectors: oil and gas, refined chemistry and the pharmaceutical industry, mining and agri-food. In terms of waste, SUEZ ENVIRONNEMENT has developed many different forms of expertise in collecting, sorting, recycling and recovering waste, as well as in the sanitation and maintenance of industrial sites. SITA works on industrial sites decontaminating soils, dismantling infrastructures, treating hazardous materials and recovering waste to make "secondary raw materials". For instance, this is the case of the innovative and forerunning partnership between SITA and RENAULT in the recycling of end-of-life vehicles, via "Re-Source Industries", a subsidiary of INDRA (motor vehicle dismantling company in which the two companies hold an equal share). Lastly and most importantly, this industrial strategy and ambition will take shape by relying on the full force of GDF SUEZ with whom we have numerous synergies. The expertise of GDF SUEZ in certain sectors, such as Oil & Gas exploration and production, is in fact key to enabling SUEZ ENVIRONNEMENT to access these markets. The networking of the various divisions' "major account" structures will also allow optimisation of coordination and information sharing in terms of key industrial customers. Today, SUEZ ENVIRONNEMENT is ready and willing to take on the industry challenges.

(1) McKinsey survey: "Charting our water future", November 2009

THE MAJOR CHALLENGE OF **INDUSTRIAL PARKS**

INDUSTRIAL PARKS BRING TOGETHER IN THE SAME SPACE THOSE INDUSTRIES THAT ARE PART OF THE SAME BUSINESS SECTOR. THEY COVER DOZENS OR EVEN HUNDREDS OF HECTARES. IN ASIA AND IN THE MIDDLE EAST, THEY ARE PROVING INCREDIBLY POPULAR.

01_

02_

03_

→ Watch a video about the Shanghai Chemical Industrial Park

01_02_03_In China, for example in Shanghai and Suzhou, industrial parks are rapidly expanding and at the leading edge of green technologies.

The vast majority of industrial parks host refined chemicals and petrochemical industry. This pooling the aims to share infrastructures and common services for players operating within them, and to restrict the environmental impact through an optimised management of process water, waste water and waste on site. These parks provide SUEZ ENVIRONNEMENT with two types of opportunity: management of water and waste treatment facilities for each company within the park, and that of infrastructures in terms of the industrial complex.

Though these industrial parks are less and less frequent and are showing their age in the United States and Europe, with the exception of the Rotterdam industrial park where the Group is established, they are proving very popular and at the cutting edge of green technologies in the Middle East and Asia, and particularly in China.

As such, the Chinese government has opted for the creation of major specialised industrial complexes where international companies are present. Environmental protection has become the priority of Chinese authorities and standards in terms of waste may be stricter there than in the rest of the world. The potential is thus enormous in terms of water and waste management. Both for fitting out new parks when they are built and to upgrade older facilities. With Sino French Water, the Group provides process water production services, wastewater treatment services, and sludge processing services in seven industrial areas, including the Shanghai region (Shanghai Chemical Industrial Park - SCIP) where SITA also has a hazardous waste incinerator. In November 2011, SUEZ ENVIRONNEMENT and Degrémont Industry won a 30-year contract to design, build and operate the wastewater treatment plant at the Wuhan chemical and industrial park. 60,000 cubic metres of wastewater will be treated every day, and from 2013, another plant will produce 300,000 cubic metres of water on a daily basis.

In addition to their potential in terms of business for the Group, these parks which are ultramodern and highly regulated, drive innovation.


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NEXANS,
A WORLD EXPERT IN CABLES AND CABLING SYSTEMS

Nexans produces cables and cabling systems at more than 90 production sites over the 5 continents. With 24,500 employees, it made revenues of €7 billion in 2011. It produces cables and wires for industry, cables for buildings, energy networks and telecoms.

WHEN **NEXANS** AND **SUEZ ENVIRONNEMENT** WORK TOGETHER

NEXANS, A WORLD EXPERT IN THE CABLE INDUSTRY, RECENTLY STARTED COLLABORATING WITH SITA FRANCE TO RECYCLE USED CABLES. WE TAKE A CLOSER LOOK AT THE PARTNERSHIP.


© JOHANN ROUSSELOT / CAPA PICTURES

GUY BURLET /
HEAD OF CABLE RECYCLING MANAGEMENT OF NEXANS IN EUROPE, A WORLD EXPERT IN CABLES INDUSTRY

How did your partnership with SITA France come about?
Nexans, expert in end-of-life cable management thanks to its subsidiary RIPS, wanted to find a sizeable, efficient industrial tool. After many studies, we decided to launch a partnership with SITA. We already knew of SITA, a company with which we had already worked on OIW (Ordinary Industrial Waste) and on recycling copper and aluminum cables during the dismantling of the Metaleurop site at Noyelles-Godault in France.

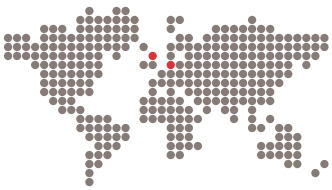
So what does this partnership actually consist of?
We created a joint venture christened 'RecyCables', which was established in Calais at the very same place as the RIPS plant, that moved in the second half of 2009 to the SITA AGORA site in Noyelles-Godault to start the line in November 2009. Cables from Nexans plants in Europe are crushed there to separate out metal and polymers. The copper shot thus obtained is sent to the Nexans plant in Lens, France, which uses this recycled raw material in the production of 8mm wire rods for its internal customers. After a wire drawing process to the desired diameter, the assembled rods will be isolated and will be transformed into cables after coating is complete. Thanks to the proximity of the two plants, copper shot recycling limits the environmental impact and enables Nexans to safeguard these recycled copper supplies.

Are there any other recycling projects on the way?
In 2012, we are recycling aluminum cables. We are also working on recycling polymers and have established a committee for this purpose made up of SITA Recycling, RecyCables and Nexans. After giving new life to copper, we want to do the same thing for the polymers resulting from cable crushing, by integrating them into cable production.

AN IMPORTANT INDUSTRIAL PATH

SUEZ ENVIRONNEMENT WORKS WITH MANY INDUSTRIAL PARTNERS TO WHOM IT OFFERS MULTI-SITE SOLUTIONS AND WITH WHOM IT BUILDS SOME VERY INNOVATIVE PARTNERSHIPS. IN WATER AND IN WASTE. THIS PORTFOLIO OF CUSTOMERS TOUCHES ON A WIDE RANGE OF ACTIVITIES, ACROSS THE ENTIRE WORLD. WE EXAMINE A FEW IN DETAIL.

WATER /



A REFERENCE PARTNERSHIP FOR INDUSTRIAL PARTNERS IN PETROCHEMICALS

IN SCOTLAND WITH
INEOS

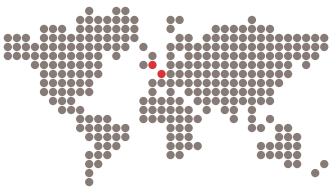
Chemical group, INEOS operates the oil refinery and petrochemicals complex at the largest industrial site in Scotland. Their Grangemouth site refines around 200,000 bbls of crude per day , and supplies ethylene, ethanol and plastics. Degrémont Industry, through Ondeo IS, manage the entire water cycle in the complex – where more than 51,000 cubic metres are consumed every day – as well as managing the effluent streams. This is all done in accordance with IPC environmental standards.
On a daily basis: a team of 30 specialising in water production and wastewater treatment carry out operation and maintenance of all facilities (demineralisation plants, cooling systems, treatment plants etc.) Not forgetting the implementation of an environmental management system that is more stringent than the current standards in force.
Customer benefits: reliable production tools that are available permanently and very substantial savings.

IN ROTTERDAM WITH
BP

With a production of 380,000 barrels per day, the BP refinery in Rotterdam is the second-largest in Europe. In order to meet the growing needs and developments in regulation, BP has installed a new effluent treatment facility. At the beginning of 2012, the oil producer awarded this engineering and equipment supply contract to Degrémont Industry.
Degrémont Industry will roll out a solution enabling treated water to be evacuated into the natural environment with a treatment quality that respects the 2014 Dutch regulations.
The winning of this new contract rewards Degrémont Industry's expertise in water treatment in the oil industry. It is a welcome addition to the customer portfolio, which already includes ENI, which recently chose it to manage wastewater recycling facility from its refinery in Sannazzaro. Degrémont Industry also exports its know-how to Petrochina in Chengdu, China, and to Brazil on many Petrobas sites.

WASTE /

FROM RECYCLING TO DECONTAMINATION



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IN FRANCE AND ABROAD WITH **RENAULT**

Recovering 95% of a vehicle's end-of-life mass by 2015: a most ambitious objective set by the regulations and taken on by Renault and SITA. The Group also intends to increase the rate of reuse for recycled materials in the production of its new cars. Just like the 17% of recycled plastic materials on its Laguna III model. A partner of Indra SA, with a network of 320 companies specialising in motor vehicle dismantling in France, SITA got together with Renault in 2008 to create Re-Source Industries, a joint venture that is an expert in the industrial dismantling of vehicles at end-of-life, meeting the manufacturer's requirements.
Two plants make up this system: the first is based in Romorantin, and dismantles vehicles and sorts the recyclable materials; while the second, based in Noyelles-Godault, houses a dismantling unit, and a spare parts shop. These two plants have a dismantling and sorting capacity of 50 vehicles per day.
SITA's adventure with Renault is also continuing abroad and under other forms; such as metallic waste management with Boone Comenor Metalimpex, another subsidiary of Renault and SITA, and delegated management of certain production plants with SITA Solving.

IN THE UNITED KINGDOM WITH **THE EAST MIDLANDS DEVELOPMENT AGENCY**

Specialising in site and water table decontamination, SITA Remediation is the group's subsidiary dedicated to the restoration of polluted soils. Its knowledge is garnered over 20 years of experience, covers a wide range of fields: geology, hydrogeology, chemistry, biology, environmental science, public works, etc. In Chesterfield, since 2008, the mission of SITA Remediation has been to decontaminate a site of almost 100 hectares that was severely damaged by the activity of a former coking plant to make way for tertiary, cultural and sport-based land use.
On the menu: the excavation of 3 million cubic metres of materials, the treatment of 600,000 cubic metres of land and sediment, as well as the building of a water treatment plant. To achieve this mission, SITA Remediation has specially designed and built a special thermal desorption unit to treat the most polluted soils.
Work will last 5 years.

SOCIAL PRICING FOR WATER

OUR CAPACITY FOR INNOVATION FOR THE BENEFIT OF ELECTED OFFICIALS AND LOCAL CITIZENS

ALTHOUGH ACCOUNTING FOR LESS THAN 1% OF INCOME ON AVERAGE, for people on lower earnings the water bill can represent quite a burden. In fact for two million French households, it exceeds 3% of their income, the acceptable threshold selected by the UN.

In 2006, the legislator established the right to water for all in economically acceptable conditions. *"In the context of economic and social crisis, our responses (waiver of debts as part of the Housing Solidarity Fund, support systems to encourage water savings, monthly payment plans) are no longer enough,"* says Gilles Gombert, Territorial Strategy Director at Lyonnaise des Eaux. *"For this reason, we have decided to go further by offering social pricing for water, to help alleviate the growing marginalisation of households. In partnership with local authorities, and at their request, we will implement pricing solutions that reflect their choices in terms of public policies."* As such, progressive pricing was one of the solutions adopted in Libourne and Orleans in 2010 and 2011. It is based on pricing calculated according to three levels of consumption ("Vital water", "Useful water" and "Convenience Water"). The price billed, which increases with each level, offers greatly reduced pricing for the first phase. Another solution is the application of differentiated tariffs, by which the water price is adjusted according to household income. *"Universal solutions or ready-made solutions do not exist,"* says Gilles Gombert. *"However, we use our skill in engineering and innovation to benefit elected officials to offer them tailor-made solutions that take into account the social complexity of populations within their territories."*

Lyonnaise des Eaux has thus developed an innovative application, known as Tarif-Eau-Scope, which by combining statistical data from the department (levels, volumes consumed) and socio-economic data from INSEE, enables tariff scenarios to be simulated and their impacts measured over the various consumer categories. This decision support tool should soon be used by ten large metropolitan areas.

(1) - the Law on Water and Aquatic Environments (known as LEMA) of 30 December 2006. It confirms access rights to drinking water in economically acceptable conditions for all;
- the decree relating to the procedure applicable in the event that electricity, gas, heating and water bills should go unpaid (2008);
- the Law relating to solidarity in the water and wastewater treatment domain, known as the Cambon Law (2011). It authorises towns to finance a Water Solidarity Fund.

AN ENTHUSIASTIC HR PRACTICIONER, Effie Tsekouras has embraced the recent challenges presented to her.

Effie is responsible for Human Resource Management at Allwater.

Her role is a part of the *People and Culture* group, which incorporates the management of Human Resources, Training and Health and Safety.

Bringing 15 years' experience in HR to her role, Effie's strong work ethic, genuine empathy, interest in the welfare and wellbeing of others, desire for process improvement and a love of learning have come to the fore with her new appointment.

Much of Effie's week involves travel to the 11 Water and Wastewater Treatment Plants Allwater operates and maintains. *"I thoroughly enjoy being out on site – not only does it give me greater understanding of the myriad of HR issues that we must cover but I have found it beneficial to all aspects of my role to gain further understanding of the process and assets that we manage."*

Effie has helped lay the human foundations of this contract, *"to be a part of a new joint venture, on a new project and see Allwater from its inception is an experience that most HR professionals rarely get to be a part of"*, she says. Whilst it has presented challenges, it has been a tremendous learning experience and Effie has relished the opportunity to embrace diversity and change and to be able to guide and support others through significant organisational change; *"it has been both a rich and humbling experience. A key focus for me now will be collaborating with the Degrémont team in Sydney to introduce Degrémont processes and cultural values into the Group,"* she explained.

As Allwater approaches its first anniversary Effie reflects on the hard work that has already been done and the group effort that has begun to pay off, acknowledging that the HR team has recently surpassed a milestone and developed a clear and specific action plan for the programs that will serve as guidelines in the future.

Much has already been achieved, but there is still much more work to do. Effie is confident of success; *"my main motivation in my job is to add value in any possible way – contributing to an organisations operating success by impacting on the HR processes, culture and individuals within that organisation is the ultimate satisfaction."*

Allwater: the Adelaide alliance contract

— Allwater is a joint venture between SUEZ ENVIRONNEMENT, Degrémont and Transfield Services, with each company bringing a wide range of water expertise to the partnership. On 1 July 2011 Allwater commenced a 10-year services alliance contract with SA Water to operate and maintain metropolitan Adelaide's water, wastewater and recycled water systems. SA Water chose an alliance model contract to allow it and its alliance partner to work more flexibly together in the delivery of water services to SA Water's metropolitan customers, 1.1 million inhabitants.

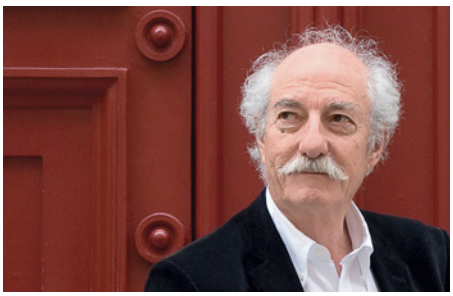
EFFIE TSEKOURAS / HUMAN RESOURCES MANAGER, ALLWATER

"GUIDING AND SUPPORTING OTHERS THROUGH ORGANISATIONAL CHANGE IS BOTH AN ENRICHING AND HUMBLING EXPERIENCE."

URBAN OUTLOOK

MORE BRIDGES, FEWER WALLS…

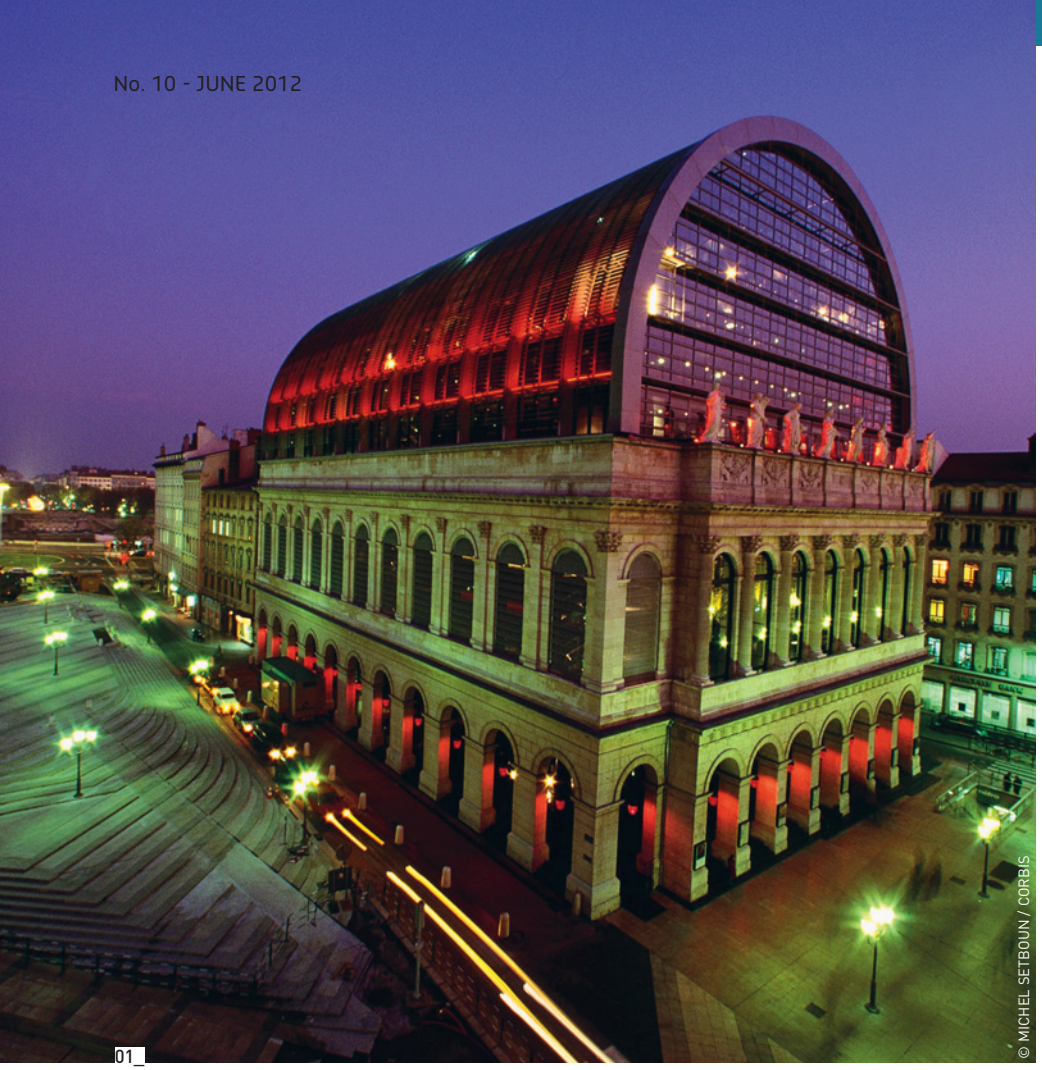
MICHEL CANTAL-DUPART / URBAN PLANNER AND ARCHITECT



© XAVIER SCHWEBEL / PICTURETANK

"Men build too many walls and not enough bridges," said the great physicist Isaac Newton. Three centuries on, at a time when all urban areas throughout the world are tending to grow, this observation has not lost of its relevance. However, a new type of hybrid city that is recyclable and sustainable in the long term, is breaking through. An urban planner and architect, director of a development workshop, teacher at the Conservatoire National des Arts et Métiers and specialist in urban strategy and analysis, Michel Cantal-Dupart agreed to participate in a small-scale outlook project.

Born in 1940 in the Landes region of south-west France, Michel Cantal-Dupart heads a multidisciplinary urban planning firm in Paris. Under his belt are a large number of notable creations. Among them, spearheading the "Banlieues 89" mission in 1989, a prize-winning project in the "Grand pari de l'agglomération parisienne" ("Greater Paris Greatest Challenge") exhibition in 2008-2009, the contractorship of urban planning projects in Perpignan (France), Pittsburgh (United States), and a Campus in Sion (Switzerland).



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01_To double the surface area of the Lyon Opera House, architect Jean Nouvel dug more than 20 metres underground. He was also able to conserve the original façades.

02_French citites, such as Bordeaux, have made water a key focus for their development.

We are talking more and more about a city that is flexible, reversible, resilient and so on. At a time when uncertainty rules, and where our relationship with time is speeding up, has long-term urban planning had its day?
Michel Cantal-Dupart : Definitely not! But as is the case in the navy, navigation must be adapted according to an aim, an objective, and not a method defined in advance.

We are just coming out of a long period of economic growth in which a lot of walled cities and separated districts were built. Thus some satellite towns and new towns were built in this spirit, especially in France, such as Surville in Monterau, and Evry, which in my opinion are urban planning mistakes or failures. Some alternative experiments have also failed due to a lack of openness. Take for example the Vauban district in Fribourg, Switzerland. This eco-district built in the 1990s on the site of a former barracks was a wonderful experiment. But it remained cut off from everything: Vauban is an island, an exception, not a lesson.

What benefit should the city of tomorrow therefore provide in your view?
M. C.-D. : Like our mixed society, the city will be a hybrid, multifunctional and filled with contrasts. Every city, and every district in the city, is like a human body: the bodies resemble one another but they have neither the same morphology nor the same pathologies. Each site has its own shape and solution.

Cities must be sustainable, or rather tenable, that is to say economic in their management of resources, mobilities and spaces, whether public or given over to housing. It is a matter of repairing what does not work in the city rather than giving in to the temptation to rush forward headlong. In this respect, the Île de Nantes is emblematic: this flagship of the city only uses part of the immense wasteland surrounding it, where homeless and travellers live in close quarters due to their economic situation.

Is the concept of recycling relevant on a city scale?
M. C.-D. : Of course! Furthermore, recycling cities is a specifically French type of engineering. You need only think of the Halles de la Villette in Paris, a slaughterhouse that became a high-spec cultural centre. Or else what has become "Secteur 6" in Paris – the current Marais district – which in the 1920s was a very insalubrious area, earmarked for demolition. Le Corbusier and Voisin put forward the idea of destroying it in their plans, to build towers in its place! Conversely, the work accomplished by Jean Nouvel with the Lyon

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Opera House is exemplary, in my mind. By digging over 20 metres underground, he has doubled the building's surface area, while conserving the original façades and dimensions.

When committing to major change, is it more effective to think on a scale of global interaction, or in contrast to perform urban "acupuncture"?
M. C.-D. : The challenge to be met consists of encouraging interactions between the very small-scale entry-level scope exemplified by squares or basketball courts, the mid-scale scope of reduced land use as a whole, and the broader scope of the wider urban area.

This does not occur everywhere, far from it. As such, the current Plateau de Saclay project in Greater Paris, which will host the most prestigious research centres and best-performing start-ups, forms an extremely ambitious urban vision. But it has forgotten to concern itself with the well-being and attractiveness of the neighbouring towns, such as Gif, Palaiseau or Orsay. Conversely, for the past ten years, I have supported an urban renovation process in Perpignan in southern France, which I feel is particularly relevant. The city has been able to use a national restoration project for sensitive neighbourhoods allowing them to change and empowering their participation in the overall recovery of the metropolitan area.

The history of the city is very much associated with water. What will the situation be tomorrow, in your view?
M. C.-D. : In effect, there can be no city without water. For a very long time, cities were established along waterways, for the simple reason that the generous rivers were able to swallow up everything you wanted to get rid of: waste….and bodies too. An increasingly rare material asset, and a subject of growing importance, water is becoming a strong element in urban attractiveness. It is a sizeable and valuable addition to any city's inventory! You only have to look at how many major French cities, from Bordeaux to Strasbourg and from Marseille to Lyon, have profoundly changed their relationship with water by restoring bridges and banks, which were up to now occupied by unending industrial wastelands.

With my help, the city of Pittsburgh in the United States committed to a similar process. As part of a project to integrate the black ghetto located on a high plateau, the entire city rediscovered the paths of the Allegheny and Monogahela rivers, initiating traffic both to and on the water to breathe new life into the city, in particular using river boats.

Who will the players in tomorrow's cities be?
M. C.-D. : For centuries, the major urban planner was the state (or the King!). Today, cities no longer have the resources behind their ambitions, and we can see the limits of inter-city cooperation. To me, the future is clearly closer links between the private and public sectors, and resource pooling. Furthermore, this principle of the "combined" economy is a domain where France excels.

PUBLIC AND PRIVATE SECTORS WORKING TOGETHER FOR THE CITY OF TOMORROW

BENOÎT CLOCHERET /
CHAIRMAN AND CEO OF SAFEGE


© CYRILLE DUPONT

"Within SUEZ ENVIRONNEMENT, SAFEGE is the reference partner in terms of the sustainable city. In our business of consulting and engineering sustainable urban development, we design solutions on a daily basis in close partnership with urban planners, architects, landscapers and even sociologists. We specifically defend an integrated approach to the city's essential utilities, thus water, waste, energy and mobility. With this in mind, we have been assisting the urban community of the Dieppe region, "Dieppe-Maritime"(France), in its urban reflections on the 25-30 horizon and supporting an urban developer in Bondoufle in implementing a High Environmental Quality approach across an entire joint development zone, or ZAC. We have also been helping the city of Lille to compile its application for the Eco-cités call for projects as part of the Grand Emprunt (Major National Loan). In all these instances, we must think about utilities together to design a neighbourhood that is equally economic in terms of resources, pleasant for everyday living and linked to existing urbanisation. To build the city of tomorrow, strengthening the bonds between public and private partners is a key factor for success. As an example, the benchmark we have created over 30 eco-neighbourhoods throughout the world enables us to help our customers in a more relevant way to define their sustainable development objectives, then to offer them an extremely broad view of established or emerging technical solutions. The public-private partnership is also well-suited to conducting research projects. In this way, SAFEGE mobilises its modelling expertise to contribute to the Syracuse research project, financed by the National Research Agency from 2011 to 2015. The aim of this project is to model several management solutions for water, waste and energy (centralised, decentralised, etc.) on various urban development scales (building, neighbourhood, town, and so on), with a view to comparing them in terms of their social, economic and environmental impact. This project is a very ambitious one, conducted with LATTS (Laboratoire Techniques, Territoires et Sociétés at the CNRS [French National Center for Scientific Research]), the ENPC school and the Plaine de France EPA (Public Development Establishment)."


© CHARLES E. ROTKIN / CORBIS

03_

03_The city of Pittsburgh, in the United States, is in the process of modifying its relationship with water.

"AN INCREASINGLY RARE MATERIAL ASSET, WATER IS BECOMING A STRONG ELEMENT IN URBAN ATTRACTIVENESS."

DEGRÉMONT

DEHYDRIS™ TWIST: A MAJOR BREAKTHROUGH IN SLUDGE TREATMENT

INDUSTRIAL FRUIT JUICE PRODUCTION ON THE ONE HAND, SLUDGE DEYDRATION ON THE OTHER: two businesses that you wouldn't imagine have any knowledge to exchange! Yet this is the path that led Degrémont, a subsidiary of SUEZ ENVIRONNEMENT, to develop an innovative, efficient and economical sludge treatment solution.

"In 2008, technological monitoring work put us on the trail of a hydraulic press marketed by the Bucher group for fruit juice production applications", explains Eric Judenne, technical director for biosolids and air at Degrémont. *"Studies quickly demonstrated the ability of this equipment to dehydrate difficult sludge."* And it did this in an optimum way, since the action of movable "drains" inside the press helps to prevent adhesion problems. After having validated this performance in a pilot industrial plant, Degrémont developed the Dehydris™ Twist technology.

Thanks to the "twist" effect of these drains on the sludge, the piston press achieves the same productivity as a centrifuge and the same performance as a press filter.

Thanks to the feedback from 2,000 machines operating in the agri-food industry, Dehydris™ Twist provides strong guarantees of reliability. It also provides good operating conditions thanks to the automated nature and compactness of the processing plants.

The technology will be installed for the first time on an industrial scale in France at the Châteaubourg drinking water production plant. Without this innovation, sludge would be passed through a centrifuge, from which it would emerge with a dryness[1] of 20%, after which it would be combined with lime to achieve 30% dryness. *"Dehydris™ Twist allows us to achieve 40% dryness without having to add lime. Furthermore, the annual volume of sludge produced has been cut by half, from 800 to 400 tonnes."*

Under an exclusive partnership in countries where it has a subsidiary, Degrémont is the only operator that can integrate the Bucher hydraulic press in a drinking water sludge treatment, desalination and urban wastewater system.

(1) The dryness of sludge is determined by an index used in the field of wastewater treatment. Sludge consists of water and dry matter. The dryness is the mass percentage of dry matter. Therefore, sludge with a dryness of 10% presents a humidity of 90%. This data is essential for handling sludge during the wastewater treatment process, because the consistency of the sludge is a physical state that depends on its dryness.

A PROJECT PRAISED AND AWARDED

Every year, the Innovation Trophies reward the best initiatives taken by SUEZ ENVIRONNEMENT employees to put creativity in the service of performance. Of the 140 entries submitted in 2012, Dehydris™ Twist was among the ten to receive a "Grand Prize" (in the Research category).

"OF ALL THE TRADITIONAL MECHANICAL DEHYDRATION TECHNOLOGIES, DEHYDRIS™ TWIST IS THE ONLY ONE THAT VIRTUALLY ALLOWS MAXIMUM DRYNESS TO BE ACHIEVED.

© BUCHER

RIO, NEW YORK, STANFORD, PARIS... since her childhood, Flavia Zraick has gone back and forth from one side of the Atlantic to the other. Born in Rio, she studied at the most prestigious universities: Columbia, Stanford and the École Centrale de Paris.

A chemical engineer specialising in the environment and water treatment, Flavia wanted to join a group like SUEZ ENVIRONNEMENT from a very early age. *"I am convinced that public structures have an essential role to play in the definition and control of the regulatory framework. However, I think that delegating the implementation of solutions to private entities like ours allows more accurate regulation of the system and better service for customers."*

Though her heart has always been in technology and science, Flavia has an abundantly communicative disposition. Just like her international path, this polyglot is at ease everywhere and the motto *"E pluribus unum*[1]*"* fits her like a glove. Her career path at SUEZ ENVIRONNEMENT reflects this alliance between technical, scientific and relational competencies. Since 1998, she has thus naturally progressed in the Group within posts that are both very technical and also require expertise in human relations. *"When I started at Lyonnaise des Eaux, my international profile enabled me to support a group that was growing rapidly, and exporting know-how. For me, it was a baptism of sorts, since the transversal Knowledge Manager post that I held allowed me to discover other business lines that were not exclusively linked to water technology."*

She was then appointed Communications Manager for R+i Alliance, where she was in charge of promoting and disseminating advances made in research on water issues.

Since early 2011, her global knowledge of the Group has enabled her to manage and support structural research projects at CIRSEE, the international centre for water and environmental research.

Although she spends a lot of time up travelling, this cosmopolitan engineer reminds herself on a daily basis of the great professional choice she made.

(1) "United in diversity."

CIRSEE, A RESEARCH CENTRE AT THE HEART OF ENVIRONMENTAL ISSUES

Created in 1981, the CIRSEE centre (International Research Centre on Water and the Environment), is today SUEZ ENVIRONNEMENT's main research and expertise centre. It supports Group development in France and internationally. In 2011, SUEZ ENVIRONNEMENT devoted €74 million to research, development and technology on the themes of water and the environment. The Group's technical and scientific network comprises some 400 researchers.

FLAVIA CRISTINA ZRAICK / RESEARCH ENGINEER, CIRSEE

"IT'S A VERY SATISFYING JOB, AS MUCH FROM A TECHNICAL POINT OF VIEW AS FROM A HUMAN POINT OF VIEW."

On the web

WWW.UNCSD2012.ORG
This comprehensive site identifies the major themes broached during the Rio+20 Summit from June 20-22.
This platform gives all the practical information you need. What's more, it is a place for discussion, providing the opportunity to share photos and comment on certain publications.

© DR

WWW.YOUPHIL.COM
The Youphil.com site provides a way to decipher news relating to involvement in all its forms, from associations and humanitarian causes to philanthropy, entrepreneurship and politics. It contains reports, local or international analyses, videos, numerous photos, etc. In addition to its journalists, it brings together a community of committed bloggers. From May 14 – June 30, it will provide a comprehensive special report on the Rio +20 Summit.

Out and About

"WHEN OUR MOVEMENTS SHAPE TOWNS & CITIES" EXHIBITION
April 4 → August 26, 2012
Paris, France
This exhibition presented at the Cité Chaillot gives visitors the chance to monitor the progress of urban designs and spaces according to how people move in and around them. This fun, sensory experience was set up as a stage set, using videos and images...
You follow a chronological route from the first human settlements to the cities of tomorrow, and in so doing, you gain a better understanding of how mobility shapes space.
→ www.citechaillot.fr

© GUILLAUME LEBIGRE D'APRÈS LE DESSIN DE HARVEY WILEY CORBETT 1913 - L'ILLUSTRATION / CAPA 2012

SINGAPORE INTERNATIONAL WATER WEEK
July 1 → 5, 2012
Singapore
This event, in which SUEZ ENVIRONNEMENT is participating, brings together experts, opinion leaders, and officials to discuss the challenges we face, talk about the latest water-based technologies and innovations. The central theme of this edition will deal with the necessity of finding solutions to better manage water in the cities of tomorrow.
→ www.siww.com.sg

INTERNATIONAL WATER ASSOCIATION / WORLD WATER CONGRESS & EXHIBITION
September 16 → 21, 2012
Busan, South Korea
This major event brings together 5,000 water professionals and companies, including SUEZ ENVIRONNEMENT, and institutions from around the world. It is a valuable opportunity to meet up, exchange ideas and debate key issues.
→ www.iwa2012busan.org

INTERNATIONAL ECOLOGICAL FILM FESTIVAL
October 11 → 14, 2012
Bourges, France
The city of Bourges is organising an international ecological film festival, with the aim of increasing reflection on our planet, and raising awareness through images. During the opening ceremony of this, the 8th festival, the latest film by Luc Jacquet, *"C'était la Forêt des pluies"* ("That was the rainforest") will be presented. In it, and in partnership with botanist Francis Hallé, he shows what these great and wild forests were, prior to man's influence.
→ www.festival-film-bourges.fr

© DR

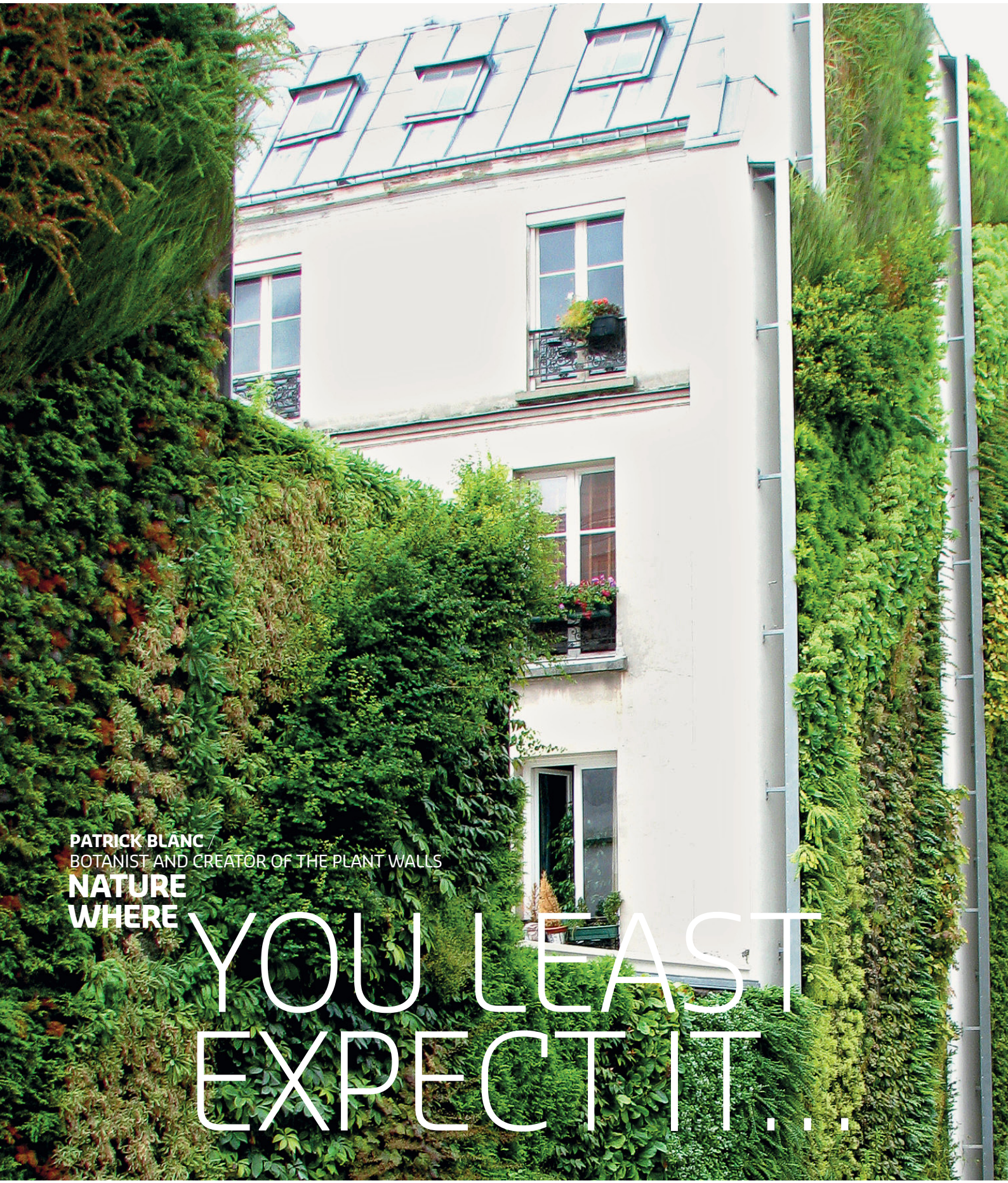
It's in the air

SUCCESS AT THE ARTOTHÈQUE
SUEZ ENVIRONNEMENT supports the Neudorf Artothèque in Strasbourg, which has lent out over 2,000 contemporary works of art since its creation in November 2010.
The originality of this media lending library is that it enables every member to borrow a work of art from 600 photos, drawings and engravings, and to put it up in their living room!

PRIMED FOR ACTION
Founded in 2006, the Planet Workshops, of which SUEZ ENVIRONNEMENT is a partner, are an independent think tank, analysing contemporary and forthcoming challenges in terms of sustainable development.
Resolutely primed for action, they highlight successful experiences in the field, and disseminate best practice to support the switch to sustainable models. They offer all players working in favor of sustainability, from companies to governments, the chance to come share their experiences.
From September 24-26, they will be organising the 7th edition of the Global Conference, an annual event bringing together decision-makers committed to sustainable development.
→ www.planetworkshops.org

ACHIEVE BETTER UNDERSTANDING OF THE WORLD
October 11 → 14, 2012
SUEZ ENVIRONNEMENT is a partner in the Cité de la Réussite (Success in the City) project, organised by the Sorbonne University from October 20-21 this year. Because sharing is at the heart of any effort to found, build, and help Humanity to grow, the project decided this year to call on its participants to "share." Managers, public leaders, artists, thinkers, journalists and citizens will thus share two days of dialogue and debate to establish the basis of progress and a better common destiny.
→ www.citedelareussite.com

Want to find out more? Check out:
→ **eMag :** www.emag.suez-environnement.com
→ **Blog :** www.waterblog.suez-environnement.com
→ **YouTube :** www.youtube.com/user/SUEZenvironnement
→ **Twitter :** http://twitter.com/#!/suezenv



PATRICK BLANC /
BOTANIST AND CREATOR OF THE PLANT WALLS

NATURE WHERE YOU LEAST EXPECT IT...

© PATRICK BLANC

For as

long as I can remember, I have bred tropical fish. And I have always sought to create mini ecosystems that are increasingly sophisticated in and around my aquariums. That's how the idea of the plant wall came to me.

The technical solution I created aged 21 has remained unchanged since then: a tilted PVC board, away from the wall, a pump and felt made with old recycled synthetic garments that capture and distribute water, but which also allow many forms of life to establish themselves.

In the meantime, as a botanist I studied in depth the adaptation of plants in tropical undergrowth to very low levels of light (around 1%). What I find most interesting is introducing a fragment of nature where you least expect it.

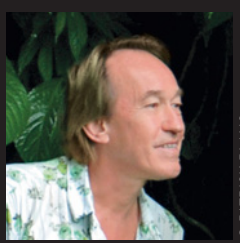
There is nothing more exciting for me than the challenges I am facing at the moment: a vegetable plot of 1,500m^2 for a shopping mall in Clayes-sous-Bois in France, a wall that will soon be subjected to temperatures of 55°C during its first summer in Bahrain where I am testing 280 species, vegetable patches 150 metres high designed with Jean Nouvel in Sydney, Australia, or the dressing of 70 columns for a contemporary art museum in Miami, United States.

Each project is unique! It has to be beautiful. It also has to be ecologically right. By its very configuration, the vertical garden is a wonderful solution in terms of heat regulation for buildings, especially if the air cushion of 4-5 cm separating it from the wall is fitted with insulation. It is also a haven for a whole host of bacteria, mushrooms, birds and insects: a biotope[1] of its own!

When choosing the plants to be grown in it, as much as possible I use species that can be found locally, and horizontally.

As for water resources, there are many ways to manage them economically. From the top to the bottom of a vertical garden, only 10% to 20% of the irrigation water goes unused. In more and more cases, this remaining water is collected and used to water the surrounding gardens. The solutions put forward are increasingly innovative. For instance, for a project in Dubai that unfortunately got suspended, the watering system was to have used the water from air conditioning systems, thus produced by the human acts of breathing and sweating, up to two litres per person per day. I like the idea that if plants provide us with fresh air, we can also nourish them in return!

(1) A biotope is a place that is favourable to the life of an animal or plant.



© PATRICK BLANC

A botanist, researcher at the CNRS, gardener, artist and traveller: Patrick Blanc is all these things at the same time. Aged 58, the inventor of the plant wall concept is now famous and sought after throughout the world. From San Francisco to Tbilisi, from Paris to Hong Kong, he introduces fragments of nature to the vertical spaces in cities, to the inner or outer walls of museums, office buildings, car parks, shopping malls, hotels and other public spaces. At the same time, he remains faithful to his passion for the aquarium, which has driven him since childhood. In his home, a former masonry workshop, Patrick Blanc has recreated an entire ecosystem: a gigantic flat aquarium of 42m^2 and 20,000 litres of water, where 3,000 fish live and on which he lives and works. Between plant walls, of course.

To find out more:
→ www.murvegetalpatrickblanc.com

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GDF SUEZ

BY PEOPLE FOR PEOPLE

CHINA
SUEZ ENVIRONNEMENT
AT THE SERVICE OF THE COUNTRY'S SUSTAINABLE DEVELOPMENT

Chongqing in China

01_

02_

A HISTORY GOING BACK MORE THAN 30 YEARS

ESTABLISHED IN CHINA FOR OVER 30 YEARS, SUEZ ENVIRONNEMENT IS CONTINUING ITS EFFORTS TO PROVIDE MUNICIPALITIES, COMPANIES AND COMMUNITIES IN HONG KONG, MACAO, TAIWAN AND MAINLAND CHINA WITH INNOVATIVE ENVIRONMENTAL SOLUTIONS. A LOOK AROUND SUEZ ENVIRONNEMENT AND ITS SUBSIDIARIES IN THE MIDDLE KINGDOM.

With Sino-French Holdings and Sino French Water in the water field, Degrémont in the design and building of water treatment plants and SITA Waste Services in waste management, SUEZ ENVIRONNEMENT provides its know-how to help from the North to the South, and from the East to the West of this immense land.

• **Sino-French Holdings,** formed in 1985 with the New World group in Hong Kong, operates in mainland China via its subsidiary, Sino French Water Development. It supplies drinking water and wastewater treatment services to 19 Chinese municipalities (Macao, Chongqing, Qingdao, Sanya, Tanggu, Shanghai, etc.), representing the supply of water to some 13 million inhabitants. It also manages sludge treatment and industrial water treatment.

• The first company to penetrate the Chinese market over 30 years ago, **Degrémont** designed and built over 200 water treatment plants with industrial customers and public entities. A major player and pioneer in the sustainable development field, Degrémont's success is based on its expertise and innovative water treatment technologies, which combine technical performance and respect of natural or urban sites.

• **SUEZ ENVIRONNEMENT** is established on 7 industrial parks in China, including the Shanghai Industry Park (SCIP), the largest petrochemicals and industrial site in Asia. In line with European emission standards, this plant which treats industrial effluents and hazardous waste, is today a reference in China thanks to its size and innovative technology.

• **SITA Waste Services** has been working in China since 1987, providing a full range of services in the waste management field across China. In Hong Kong, it operates two of the largest, most modern landfill sites in the world: WENT and NENT.

Convinced that Chine must itself provide the majority of the sustainable responses to the environmental challenges it faces, SUEZ ENVIRONNEMENT gives priority to recruitment and training of technicians,

03_ 04_

01_Hazardous waste incinerator at the Shanghai Chemical Industry Park by night.
02_Sino French Water Developpement supplies drinking water to nearly 13 millions inhabitants.
03_Water treatment plant in Tanzhou.
04_Sludge digestion facilities at Chongqing Tangjiatuo.

engineers and other employees of Chinese nationality. Its commitment to new generations of Chinese people is also reflected in initiatives like the building in Shanghai of a research centre on wastewater treatment and water supply for the chemical industry; the long-term partnership with Tongji university to offer study grants and job offers to young Chinese engineers, and lastly joint management of a study laboratory with the Tsinghua university destined for the experimentation and practice of environmental science and engineering.

PARTNERSHIP BETWEEN SINO FRENCH WATER AND THE WCIP

As part of an agreement signed in 2011 between Sino French Water, the Wuhan Chemical Industry Park (WCIP), Degrémont China and the Shanghai Chemical Industry Park (SCIP), the partners have just extended their cooperation to a water treatment project lasting 30 years within WCIP.
Sino French Water will thus become the park's exclusive supplier of integrated drinking water supply services and wastewater treatment. The subsidiary will be in charge of the design, build and operation of a wastewater treatment plant with capacity of 300,000 cubic meters per day, of an untreated water capture system and the associated distribution network.
Located on the banks of the Yangtze River, WCIP manages crude petrochemical resources and distributes refined petrochemical products across China's entire central region. When complete, the park will cover an area of 76.64 km².

CHARLES CHAUMIN /
CEO OF
SUEZ ENVIRONNEMENT ASIA

"In China, SUEZ ENVIRONNEMENT supports the government's ambitions in terms of the environment and sustainable development.
All SUEZ ENVIRONNEMENT activities work to this end: the distribution of drinking water to Changshu's inhabitants, the protection of the Yangtze river in Chongqing, the reduction of the risks of pollution linked to hazardous waste in Shanghai, implementation of the concept of circular economy via the production of a renewable energy source in our sludge treatment plant in Suzhou, etc.
SUEZ ENVIRONNEMENT, a pioneer in terms of public-private partnerships, is ideally positioned to help identify and meet the specific needs of each of our communities. In China, this form of collaboration enables the transfer of leading edge technologies and their adjustment to fit local requirements.
Our mission, together with our Chinese partners, is to provide solutions that can both conserve the environment and contribute to China's sustainable economic growth."

SUEZ ENVIRONNEMENT IN CHINA

more than **1 billion** euros
of managed revenues in 2011

7,000
employees

25 water
service contracts in 18 cities

13 million
people supplied
with drinking water

Over **200 water**
production and wastewater
treatment plants built

2 of the largest landfill sites in
the world operated in Hong Kong

7 industrial parks,
including the largest in Asia, are
SUEZ ENVIRONNEMENT customers

BREAKDOWN OF THE 2011 REVENUE FIGURES BY BUSINESS SEGMENT: