TOTAL

SOCIETY AND ENVIRONMENT REPORT 2010

In Other Words

Ten Questions You Asked Us

The People Who Asked Us The 10 Questions

Pierre-Yves Gomez

Pierre-Yves Gomez is an economist with a PhD in management science who is a faculty member at France's EMLYON business school. He has been a Senior Visiting Researcher at the London Business School, is Director of the French Institute of Corporate Governance (IFGE), and chairs the French Management Society.

Governance
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Christiane Hölz

A lawyer who is a member of the European Commission's Financial Services Users Group, Christiane Hölz represents the interests of shareholders in North Rhineland-Westphalia as part of DSW, Germany's largest shareholders' advocacy association.

Resource Management
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Sreeja Nag

A graduate of the Indian Institute of Technology (IIT) in Kharagpur, Sreeja Nag is pursuing a dual Master of Science in Aerospace Engineering, Technology and Policy and is a researcher in the Engineering Systems Division of the Massachusetts Institute of Technology (MIT).

Alternative Energies
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Pierre Toulhoat

Pierre Toulhoat studied at the ENS graduate school in Paris. He is Scientific Director of the French National Institute for the Industrial Environment and Risks (INERIS) and of the Scientific Analysis Institute, a joint unit of the French National Center for Scientific Research (CNRS), Lyon 1 University and the ENS Lyon graduate school.

Preventing Major Accidents
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Seif Ali Seif

After earning a Master of Business Administration and spending 15 years in the transportation and logistics industry, Seif Ali Seif is President of Super Star Forwarders, a Tanzanian haulier.

Transportation Safety
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Reine-Claude Mader

A legal expert, Reine-Claude Mader is Chairman of France's CLCV consumers' association and a member of the European Economic and Social Committee, the French Competition Authority and the French Consultative Committee on the Financial Sector (CCSF).

Total and Its Profits
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Jean-Marc Jancovici

Jean-Marc Jancovici is an engineer, the author and main developer of the method used in France to assess carbon emissions by business — the French Environment and Energy Management Agency's (ADEME) Bilan Carbone® — co-founder of consulting firm Carbone 4, professor at the Mines ParisTech graduate engineering school, and author of the www.manicore.com Web site.

Energy Efficiency
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Jay Gouliard

Formerly an executive with General Mills, Jay Gouliard is now Vice President, Global Packaging Development and Design at Unilever. Member of the company's working group on environmental impact, he also chairs the Sustainable Packaging Management Committee.

Plastics
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Wole Soyinka

The first African writer to receive the Nobel Prize in Literature, in 1986, Wole Soyinka lectures at universities worldwide. The Nigerian literary figure is also actively involved in his country's intellectual, social and political life.

Nigeria
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Henri de Reboul

Henri de Reboul is Executive Director of IMS-Entreprendre pour la Cité, an association that helps more than 200 French businesses implement CSR and diversity initiatives. A graduate of France's HEC business school, he has forged a career bridging the worlds of business and NGOs.

Diversity
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In just under a year, the world experienced two major industrial accidents related to energy production, the *Deepwater Horizon* explosion in the Gulf of Mexico and the Fukushima nuclear power plant accident in Japan. In Fukushima's case, we still don't know the full extent of the consequences.

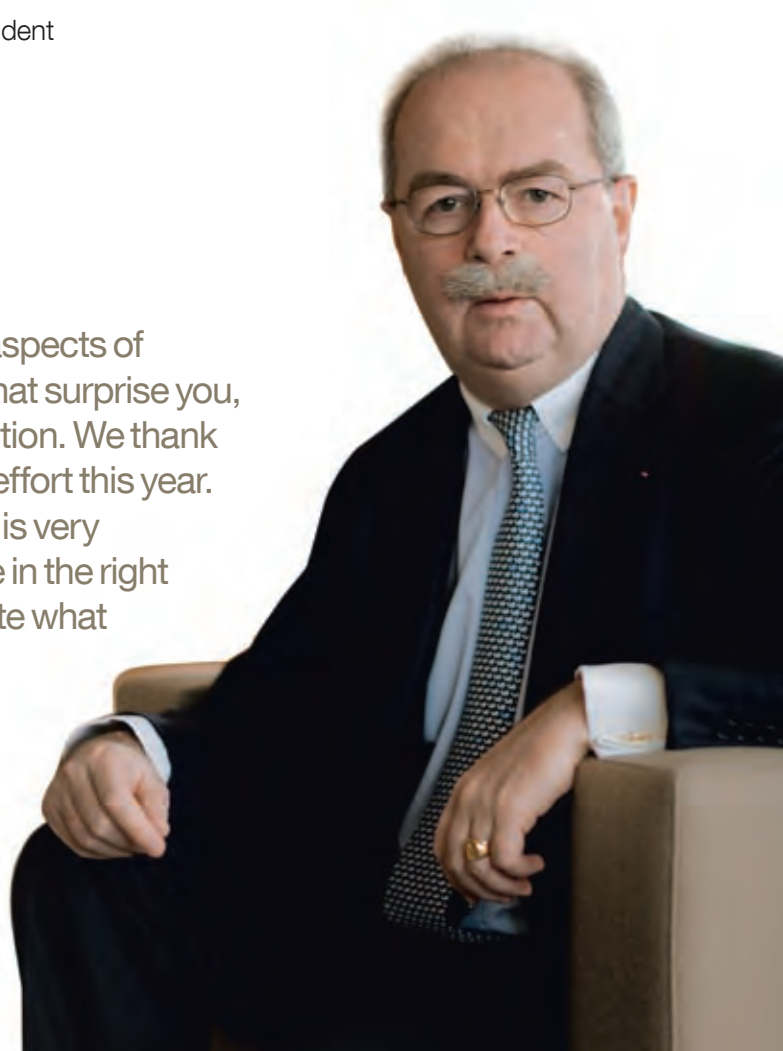
These tragic events serve to remind us that energy is a precious and critical resource, requiring complex, costly and not entirely risk-free industrial operations and facilities to produce.

Precious, because there are no current substitutes for oil in many applications. Critical, because growth is utterly dependent on energy.

We've become quite attached to our standard of living and emerging economies — quite legitimately — aspire to match it.

Can the world strike a balance between a steady energy supply, growth, and the protection of lives and the environment? We believe it can. What's more, we're focusing all of our skills and expertise on providing practical, innovative answers to this question, dedicating substantial financial resources to it each year. That, in our eyes, is our primary responsibility.

Your 10 questions home in on aspects of our operations and decisions that surprise you, worry you or simply spur a reaction. We thank you for once again making the effort this year. You can be sure that your input is very important in helping us to move in the right direction and to clearly formulate what we can do to improve the way we use and share energy.



However, juggling all these demands requires us to adapt. One way we do that is by looking for oil and gas in more complex environments — the ultra-deep offshore, for example — or in less conventional forms, such as oil sands and shale gas, to name just two.

But that won't be enough to meet demand. So we also have to develop alternative energies and help promote more efficient energy use and more energy conservation. In other words, offer our customers solutions that support more efficient, more frugal energy use, a goal that guides our innovation process.

The technical, business and environmental challenges we face are enormous. So are the social challenges. Indeed, the recent disasters heighten concerns about industry — mainly in OECD countries — and rekindle questions about its ability to manage its risks and responsibilities.

But society is no more ready to give up the comfort and conveniences energy brings than it is to accept structural increases in its price.

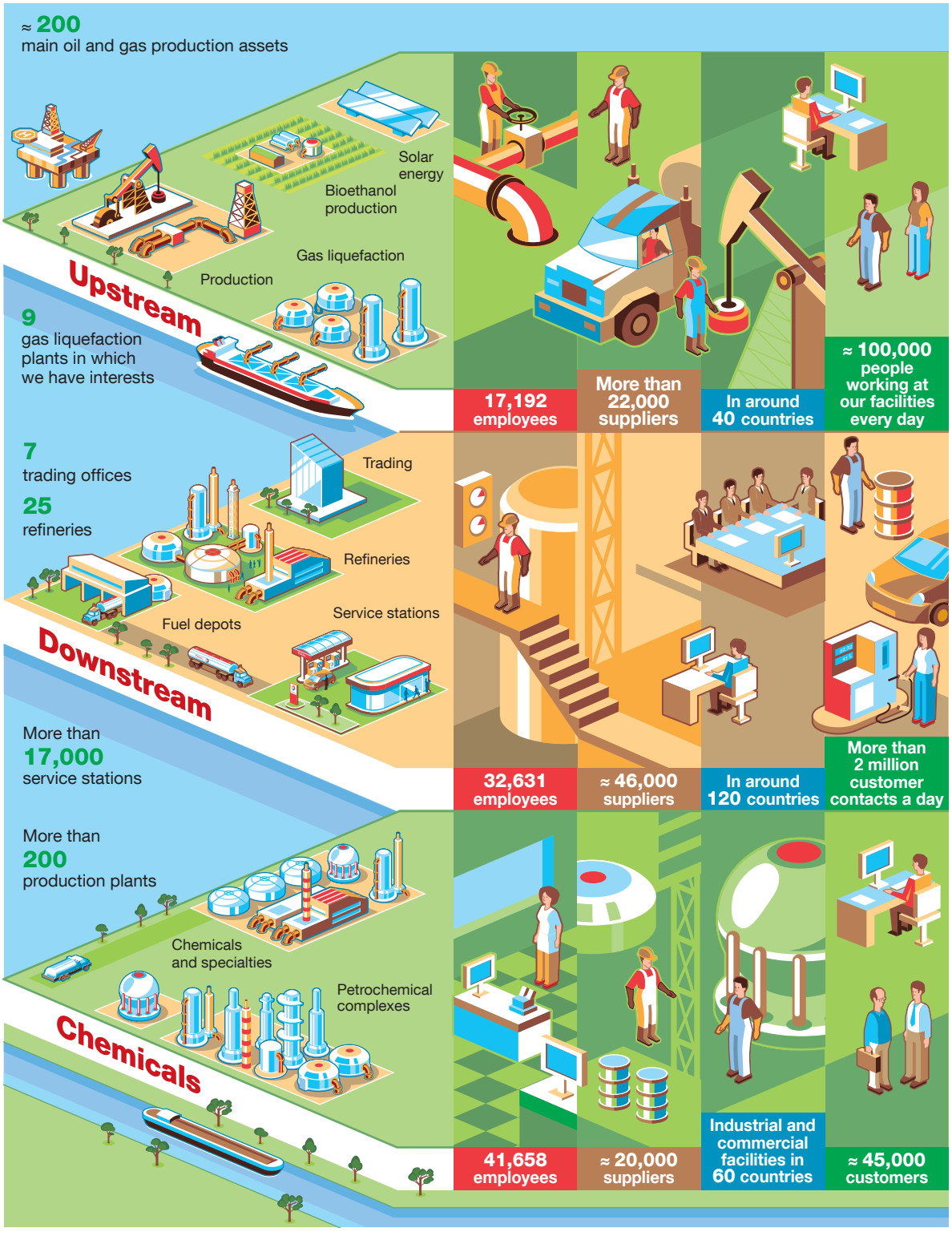
Hope often trumps concerns in emerging geographies. But society's expectations of energy operators are sky high, especially given that the people living in the countries richest in minerals and fossil fuels are frequently among the world's poorest.

Meeting all these challenges will take time and we will not be able to do it alone. Partnerships and dialogue are vital for helping us better pinpoint the expectations and fears we sometimes raise and find better ways to meet or allay them.

This ongoing effort to connect with the wider world will drive our continued improvement and help us to develop today the bold ideas and technologies that will foster innovative, socially acceptable solutions tomorrow.

We hope you find our report informative and enjoy reading it.

Christophe de Margerie,
Chairman and Chief Executive Officer, Total


≈ 200
main oil and gas production assets
Solar energy
Bioethanol production
Gas liquefaction
Production
Upstream
9
gas liquefaction plants in which we have interests
17,192 employees
More than 22,000 suppliers
In around 40 countries
≈ 100,000 people working at our facilities every day
7
trading offices
25
refineries
Trading
Refineries
Fuel depots
Service stations
Downstream
More than 17,000
service stations
32,631 employees
≈ 46,000 suppliers
In around 120 countries
More than 2 million customer contacts a day
More than 200
production plants
Chemicals and specialties
Petrochemical complexes
Chemicals
41,658 employees
≈ 20,000 suppliers
Industrial and commercial facilities in 60 countries
≈ 45,000 customers

Total encounters a wide array of economic, social, political and environmental interests, sometimes conflicting, that it has to meet. How does your governance system allow you to rank these interests?

Pierre-Yves Gomez, Professor of Strategic Management at France's EMLYON business school and Director of the French Institute of Corporate Governance (IFGE)

We don't have a predefined ranking for the different interests you mention. They all have to be considered, but not necessarily at the same time and in the same way. That said, safety takes precedence over all the rest. For projects like CLOV offshore Angola, we take environmental and socioeconomic factors into account right from the design stage. So right now there's an emphasis on construction in Angola. This commitment to working with local contractors was clearly specified in our calls for tender. In addition to being covered by international and local regulations — like all our other projects — CLOV will also be the subject of internal and external audits at all stages of its development. This will ensure that all aspects of our governance policy are complied with.

Geneviève Mouillerat, CLOV Project Director, Total

10 external ethical assessments conducted in 2010

40,000 employees pegged to receive priority training in the new rules on preventing corruption

300 CSR professionals across Total

We have a body of regularly updated, primary guidance structuring our governance that deals with everything from corporate governance to risk management and stakeholder dialogue. But it is through action that we show who we really are, by implementing new, more open, more responsible and more partnership-oriented approaches in the field. Our motivation: to constantly stay in step with the expectations of our stakeholders.

The Letter and the Spirit

For 10 years, our entire organization and every employee has been bound by Total's Code of Conduct. Based on **three ethical values — respect, accountability and exemplary behavior —** this guide sets the parameters for corporate and personal behavior. Respect for human rights, anti-corruption and anti-fraud, respect for free competition, financial transparency and respect for people are much more than just words. They are the focus of ongoing efforts and continuous improvement, cascaded at the local level and through each business line.

Our Code of Conduct is based on the major international reference documents, including the *Universal Declaration of Human Rights,* the fundamental conventions of the International Labour Organization (ILO), the *OECD Guidelines for Multinational Enterprises* and the principles of the United Nations Global Compact.

Monitoring compliance with the Code of Conduct is the job of the **Ethics Committee**, which reports to senior management and is also in charge of adapting and facilitating the ethics process at Total. It also handles requests, questions and matters referred by employees that were not resolved by the managers or functions concerned. In 2010, the Ethics Committee directly followed up on 73 cases.

In recognition of our engagement, Total was admitted in late 2010 to Global Compact LEAD, a select platform of companies dedicated to spearheading corporate sustainability.

Novel Cooperation with the UN

Supplementing our legal officers' work, notably on the question of socially responsible investment contracts, Total was a key participant in the consultation with business stakeholders held in Paris in October 2010. Organized by John Ruggie, Special Representative of the UN Secretary-General on business and human rights, the gathering aimed to publicize and discuss the UN's proposed framework and its implementation by businesses. Our Chairman and CEO, Christophe de Margerie, threw his support behind the framework, which defines the respective responsibilities of governments and businesses based on three core pillars: respect, protect and remedy. We are already laying the groundwork for deploying these business principles, without waiting for the adoption of the final report in June 2011.

Fast-Tracking in the Field

A MUCH STRONGER GOVERNANCE, ETHICS AND HUMAN RIGHTS PROCESS

For several years now, three external partners have helped us by assessing our practices. Their complementary approaches provide us with a wide range of information and practical ideas for improvement. In 2010, we renewed all three arrangements, highly appreciated, for two or three years depending on the partner.

Collaborative Learning Projects, a not-for-profit organization, is expert in economic and social development and local community relations. It has created a program to help multinationals pinpoint the impacts of their activities in our host regions.

Another not-for-profit, the **Danish Institute for Human Rights (DIHR)**, combines an educational tool to raise awareness of what is at stake and a checklist that organizations can use to assess whether their activities respect

human rights. Its approach involves having clients review each function, such as procurement, human resources or HSE, using the Human Rights Compliance Assessment (HRCA) tool. Tested in Angola in 2009, the HRCA — which is well suited to our operations — was rolled out in a portion of our service station network in South Africa. Both Total representatives and independent retailers were involved in the process. Our new cooperation agreement calls for continuing these assessments at a rate of two units a year. It also covers our participation in the portal project to map the status of human rights in our host countries. The database compiled from DIHR information will be rounded out by information collected and verified in the field by the partner businesses. This agreement will provide us with more specific surveys of certain countries and enable us to improve the quality of our due diligence.

Lastly, **UK consulting firm GoodCorporation** assessed eight of our units and subsidiaries in 2010, using a benchmark of 87 evidence points that covers all ethics topics, including interpersonal relations, compliance with market and anti-trust rules and regulations, business integrity, fraud and corruption, and human rights. The goal is to verify, by asking all internal and external stakeholders, that the unit being assessed has in fact put in place systems for effectively applying the Code of Conduct. For the first time ever, in 2010 GoodCorporation conducted an assessment focusing on a major project, in Angola. It also audited our Trading & Shipping operations in Geneva and examined the way Bostik, one of our specialty chemicals subsidiaries, ensures that the ethical principles set out in its own code of conduct have been adopted and deployed in its own subsidiaries.

Training in Myanmar

It can be difficult to differentiate between forced labor and community work on the ground, where public works and minor voluntary service can overlap and sometimes appear very similar. To address these tricky questions, Total tapped the expertise of the International Labour Organization (ILO) to train our employees in the relevant standards. After advance discussion and consensus-building work with the Myanmar authorities, three training sessions were held in September 2010: one for our teams based in the Yadana gas pipeline area, another for local authorities, and the third for villagers and local entrepreneurs. National oil company MOGE, our local partner, was also involved in the initiative, which will be repeated regularly in the years ahead.

A NEW COMPLIANCE PROGRAM IN 2010

In liaison with the Ethics Committee, the Compliance Department has been working since 2008 on the legal issues associated with business integrity, corruption prevention, human rights and community development issues.

TWO QUESTIONS FOR

Bernard Claude, Chairman of the Ethics Committee

Where are you headed with your ethical assessment partners?
We renewed all of our agreements with our three long-standing partners in 2010. This will enable us to keep auditing 12 to 14 Total units or subsidiaries a year and also to adopt new processes and further improve the quality of our collaboration.
In 2010, for the first time, GoodCorporation vetted a major project: I'm referring to CLOV, a deepwater development in Angola.

Do you think that Total employees are proactive enough about ethics issues?
We now have a set of business principles that reflect the company's values and practices. But efforts to stay on top of ethics are ongoing, because local situations change, legislation evolves constantly and employees move on or switch jobs. Hence our new initiatives with the Danish Institute for Human Rights, designed to closely align training and analysis with our business lines and local situations. The idea is to do extensive work with two units a year, emphasizing the taking into account of human rights in our supply chain.

In 2010, a corruption prevention program was introduced to expand on the principles set out in the Code of Conduct in 2000. Its purpose is to outline clear rules of conduct for employees who may be exposed to the risk of corruption.
The program was approved at the highest corporate levels and is based on three solid cornerstones:
– Specific guidance — the Anti-Corruption Compliance Guideline and related procedures — incorporating strict rules, especially for due diligence, governing our relations with intermediaries, suppliers and partners.
– A dedicated organization with **more than 300 compliance officers** appointed in each of our businesses, subsidiaries and units.
– An array of courses to acquire proficiency with tools and resources and learn what to do when faced with real-world situations. They include a broad-ranging e-learning program in 11 languages that will be available to all employees in 2011.

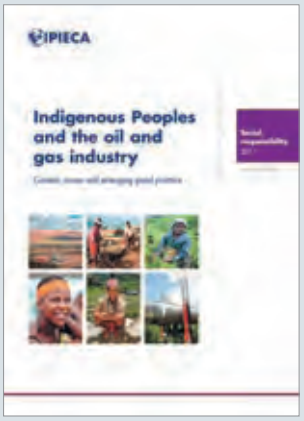
We have bolstered our actions to prevent corruption by laying the foundations of a strengthened program to combat fraud. The anti-corruption and anti-fraud programs constitute our business integrity policy.

RESPECT FOR INDIGENOUS PEOPLES IN BOLIVIA

The problem we faced in Bolivia was how to conduct a seismic survey of the Ipati Block, located in the heartland of the Guarani indigenous people, while fully respecting their rights and culture.
In accordance with our ***Charter of Principles and Guidelines***

Risk Governance

With the assistance of the Risk Committee and our Internal Control and Internal Audit Departments, the Executive Committee is responsible for identifying, assessing and preventing internal and external risks that could impact our performance and our stakeholders. The principal risks are then reviewed by the Board of Directors' Audit Committee.
Our business units are responsible for assessing their own industrial, environment and social risks and for applying the relevant corporate and business-level guidance. In 2010, a cross-functional committee chaired by the Senior Vice President of Strategy initiated a coordinated process to integrate these risk management systems and activities.



Prepared by IPIECA, this guide offers an overview of the political and legal issues that can arise when companies operate in areas occupied by indigenous peoples. It is intended as a reference tool that will disseminate best practices in this area.

Regarding Indigenous and Tribal Peoples, Total set up a process for discussion and consensus-building and, even more important, participation for each project phase. In addition to creating an agricultural support project, our local subsidiary made sure indigenous people were full partners in the process. Seven of them joined the team responsible for community relations and three technicians were trained to monitor the project's environmental effects as it moved forward. The result: a climate of solid, enduring trust that earned us our social license to operate in the region.
Our Exploration & Production business is currently preparing an **Indigenous Management Plan** for countries where such issues are particularly sensitive. Another step forward in demonstrating our respect for indigenous people, after helping to prepare a guide on this subject through the International Petroleum Industry Environmental Conservation Association (IPIECA), the global oil and gas industry association for environmental and social issues.

Ongoing Dialogue

To manage our operations' environmental, economic and social impact, we foster as wide-ranging and constructive a dialogue as we can with a very broad array of stakeholders, often with divergent and even conflicting expectations. However, this process of listening, assessing impacts and responding

to expectations at every stage in projects and the operating life of facilities is often difficult, confusing and publicly criticized.

So Total is committed to fostering the **professional development of the 300 people involved in community issues**, tapping NGO expertise, and creating and assessing new tools tailored to each specific case. Our core goal is helping local communities take control of their own development and future and promoting a sustainable coexistence between industrial activities and the people living and working near our operations.

Two experiences in 2010 helped us better understand expectations, initiate partnerships, arrive at common goals, and evaluate our community initiatives.

In the province of Alberta, Canada, five years of consensus building and dialogue with local authorities and residents concerning production of the Joslyn oil sands culminated in **a series of public hearings** in the fall of 2010. Over two weeks, 15 Total experts gave testimony and answered questions from representatives of national and regional governments, local communities including First Nations and people living and working near facilities, NGOs and other oil companies. At the end of this thorough and transparent democratic process, the project was found to be in the public interest and final regulatory approval was recommended. Despite a climate predisposed to be hostile toward oil sands mining, the public hearings also led to the signature of economic and social development agreements with the primary communities, which commit Total for the life of the project.

Seven years after *Association Pointe-Noire Industrielle* (APNI) was created **in the Congo,** it was **formally evaluated** by our E&P subsidiary there. The aim was to help this association dedicated to the financial support and coaching of fledging local businesses take stock of its work to date and give it new impetus. The subsidiary commissioned a French development NGO, GRET[1], to conduct interviews and a field review. The findings delivered in 2010 helped APNI make some important decisions: to shift its focus back to key missions, adopt stricter governance and raise the professional level of its staff. Total E&P Congo also decided to distance itself from APNI's day-to-day management, so that it can learn to operate independantly.

Buoyed by this first experience, our Congolese subsidiary plans to conduct another assessment of its community development projects, this time focusing on the Djeno oil terminal.

A business funded by APNI.

Corporate Governance

We have opted for a form of governance suited to the challenges of a complex industry with long-term horizons. Starting in 2008, Total has applied the guidance issued by French employers' associations AFEP and MEDEF, the *Corporate Governance Code of Listed Corporations.*

Since May 2010, Christophe de Margerie has served as our Chairman and Chief Executive Officer. The decision to once again combine these positions was made in 2007.

Working alongside him to ensure Total's good governance are a Board of Directors and dedicated committees, oversight bodies comprised mainly of independent directors.

Our Board of Directors is made up of very hands-on experts with diverse backgrounds: in 2010, a quarter of its members were economists and energy experts and 30% were non-French nationals. Some 13% of Board members in 2010 were women, and we expect this figure to increase significantly, to 27%, in 2011.

1. An international cooperation and support association created 30 years ago to promote sustainable development and solidarity and fight poverty and structural inequality.

What are the major challenges for Total with regard to sustainable resource management and how do you manage them?

Christiane Hölz, individual shareholder, Düsseldorf, Germany

The challenges can be summed up as meeting global energy demand while making sure that our operations are safe and acceptable. Our oil and gas experts are developing ever more complex projects that require the use of innovative technology devised by our R&D teams, with special attention paid to managing risks and environmental and social impacts.
One of our key challenges is extending the life of natural resources by continuously increasing the producible reserves of our fields.

Jean-Paul Goetschy, Strategy, Business Development and R&D, Exploration & Production, Total

124% Our proved reserves replacement rate in 2010

4.3% The amount by which our production increased in 2010

70 years
The life of global oil resources, not counting oil shale

The availability of oil and gas resources, production capacity and their environmental footprint will remain major issues throughout the 21st century. Because our primary vocation is to deliver an uninterrupted supply of energy for the planet, we must plan ahead, to reconcile continuity of energy supply with management of our environmental impacts.

Inching Closer to Plateau Oil

OIL AND GAS RESOURCES ARE STILL VERY ABUNDANT

Over geologic time, colossal amounts of hydrocarbons have accumulated beneath the Earth's surface, of which about 1.7 trillion barrels of oil equivalent have already been extracted. According to our experts, discounting possible oil shale production, over 2 trillion barrels of liquid hydrocarbons have yet to be produced. **This is a supply of 70 years or more** based on current consumption.

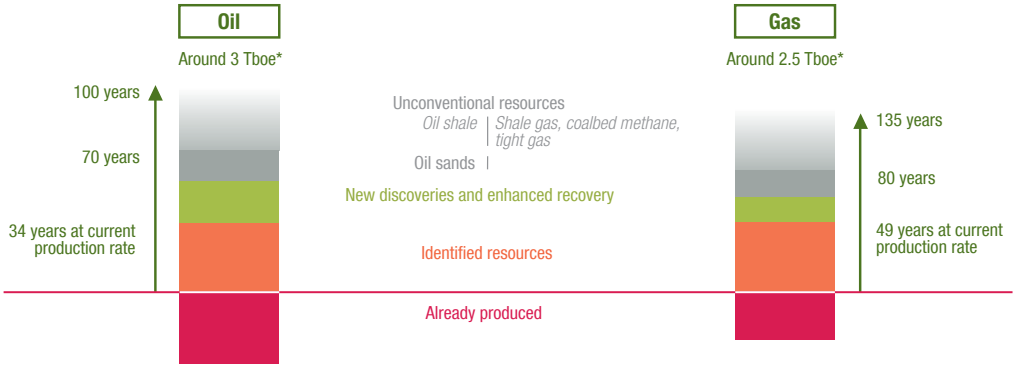
Known conventional gas and unconventional gas resources are equivalent to at least 80 years of current consumption. Unconventional gas discoveries yet to be made, coupled with foreseeable technological advances, are expected to extend that time line significantly. However, appraisal of unconventional gas' global potential is in its infancy and is a difficult exercise, especially in the case of shale gas[1]. One thing is certain, though: oil and gas resources are nowhere near depletion.

SOARING DEMAND, DRIVEN CHIEFLY BY EMERGING ECONOMIES

The rise in world population and living standards in emerging economies are structural factors that will sustain global energy demand for the foreseeable future. Indeed, unmet demand is enormous, especially in China, India and Brazil. Even more so than today, all types of energy will be needed to meet this challenge, with both fossil and non-fossil energies figured into the mix.

However, our estimates indicate that fossil fuels will still easily dominate the global energy mix in 2030. Demand for oil has risen by about 1.3% annually in the last decade and is expected to grow by 1% a year in the coming years. Demand for gas, whose combustion releases less greenhouse gas than oil, will expand even more strongly, at 2.2% a year.

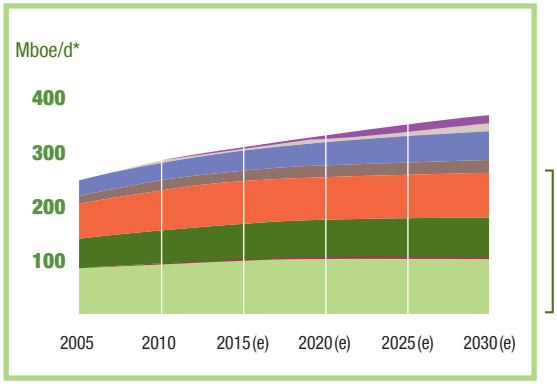
Unconventional Resources



** Trillion barrels of oil equivalent.*

1. An unconventional gas with the same chemical composition as conventional natural gas. The difference lies in the geological properties of the source rock and the methods used to produce them.

Oil and Gas, Here to Stay for the Medium Term



81% for fossil fuels, of which:
35% for oil
21% for natural gas

75% for fossil fuel, of which:
30% for oil
23% for natural gas

- Solar, wind and other renewables
- Hydro power
- Biomass excluding biofuels
- Nuclear
- Coal
- Natural gas
- Biofuels
- Oil

** Million barrels of oil equivalent.*

PRODUCTION CAPACITY: FROM GROWTH TO PLATEAU

How much longer can supply quench the ever-growing thirst for oil? According to our experts, until about 2020-2025 if the environment remains stable overall. That is when global oil production capacity is expected to reach about **95 million barrels** per day, plateauing thereafter. Resource scarcity will not be the culprit. The plateau will be caused instead by structural market constraints related to technical, economic and geopolitical issues, such as investment capacity, lack of manpower, limited access to resources, and political instability. Colossal sums are in play, with capital expenditure on oil and gas on the order of **$5 trillion over the next decade** to offset the decline of mature fields with new production and to drive production growth. The six biggest international oil companies account for almost a quarter of the entire industry's investments, despite having access to only about a tenth of global reserves.

Reaching such a plateau will signal the start of a new era: one in which supply limits demand, automatically putting upward pressure on oil prices.

Keeping Our Production Growing While Protecting the Environment

To keep up with growing demand, we must find and produce new reserves, no matter how difficult to develop. And we must do that while making good on our commitment to manage risks and environmental impacts. For example, our latest-generation floating production storage and offloading (FPSO) vessels are designed not to flare gas during normal operations (see page 45).

Our environmental policy, grounded in dedicated management systems, employs a structured process encompassing all of our activities, from the acquisition of interests through to decommisioning of our operations.

SPOTLIGHT

Next-Generation Environmental Monitoring

Having pioneered several techniques to gauge the environmental impact of our activities, we have now come up with new innovative monitoring methods. In June 2010, a large-scale environmental monitoring campaign was conducted around N'Kossa, one of our offshore oil fields in the Congo, in partnership with respected researchers and laboratories.
The study aimed to assess the accuracy of various innovative tools for evaluating the state of the deep ocean:
– Analysis of foraminifers, microorganisms that live in all marine environments.
– Passive sensors that detect substances at very low concentrations.
– Biomarkers to detect the potential toxic effects of contaminants on marine life.
– Ecotoxicological tests to detect any deepwater pollution.

Our developments are designed from the outset to limit their environmental footprint. Before a project is launched, an environmental assessment establishes the "baseline" for all parameters. It serves as a reference for regularly monitoring our environmental performance, to identify and quantify all our impacts. This precise tracking of our performance is continuously improved as we develop ever more efficient processes for protecting water, air and soil.

LAUNCHING OUR MAJOR PROJECTS

Six major projects were kicked off in 2010 and another dozen will be by 2012. And we are working without letup to develop yet others. In 2010, **net Upstream capital expenditure came to $14.8 billion**, mainly to drive production growth. We will ramp up our development strategy further in 2011, through capital spending (excluding acquisitions and divestments) of $16 billion, or 80% of our total investment budget.

Our successes in 2010 once again demonstrated our ability to manage large projects while meeting our technical and financial commitments and our pledges to stakeholders and local communities. Such strengths will be decisive for our participation in future developments, with their ever more complex and demanding safety and environmental challenges.

MORE AGGRESSIVE FRONTIER EXPLORATION

Because exploration amounts to "inventing" the oil and gas of the future, we broaden our acreage each year. We invested **$1.8 billion in 2010** in this strategic area.

Very active in prolific basins, we have stepped up our exploration of still mostly unexplored acreage. Our goal is to have **these plays eventually make up around 25% of our portfolio**. So-called frontier exploration of unproved basins has a lower probability of success, but the size of potential targets warrants our increased interest.

EXTRACTING MORE OIL

The industry only manages to recover about a third of the oil trapped in reservoirs. Picking up this performance is crucial: **each extra percentage point means global consumption can be met for another two years.** A five-point gain would yield more than 300 billion additional barrels of oil, or an amount equivalent to the estimated potential of future exploration.

We cannot steadily increase our production without innovation. We are already working on innovative projects such as polymer injection and subsea separation. The latter technology makes it possible for us to produce satellite reservoirs on existing fields and significantly enhance their energy performance.

Our R&D teams are working on such important goals as increasing our production and resources, improving our environmental performance, tackling climate change through carbon capture and storage, and safer developments.

STRENGTHENING OUR POSITIONS IN THE MAJOR PLAYS OF THE FUTURE

A leader in the growth of the deep offshore and liquefied natural gas (LNG) industries, Total pursues an ambitious development strategy in both of these areas, considered to be key for replacing resources.

Six Major Projects Launched in 2010, to Step Up Our Production Growth

Surmont Phase 2 (Canada)	Laggan-Tormore (United Kingdom)	CLOV (Angola)	Halfaya (Iraq)	West Franklin Phase 2 (United Kingdom)	GLNG (Australia)
50%	Total operator, **80%**	Total operator, **40%**	**18.75%**	Total operator, **35.8%**	**27.5%**
• Capacity: 110 kb/d (Phases 1 and 2)	• Capacity: 90 kboe/d	• Capacity: 160 kb/d	• Capacity: 535 kb/d	• Capacity: 40 kb/d	• Capacity: 150 kb/d
• ≈1.5 Bb	• 230 Mboe*	• ≈500 Mb*	• 4.1 Bb*	• 85 kboe*	• ≈1.5 Bboe*
• Start-up: 2015(e)	• Start-up: 2014(e)	• Start-up: 2014(e)	• Start-up: 2012(e)	• Start-up: 2013(e)	• Start-up: 2015(e)

** Initial total proved and probable reserves, Total estimates. For Halfaya, Iraqi Ministry of Oil estimates.*

Expanding Carbon Capture and Storage

Curtailing our greenhouse gas emissions is vital to the uninterrupted growth of our activities. Because we know a lot about oil and gas reservoirs, we naturally took an early interest in carbon capture and geological storage (CCS). We are involved in a number of R&D and demonstration projects to help make CCS competitive, efficient and safe. Since early 2010, we have been testing Europe's first end-to-end industrial CCS chain, in Lacq, France. Other programs under way include a chemical looping combustion pilot and the France Nord CCS project.

A deepwater pioneer, in 2010 we are a major operator reckoned by number of offshore installations. When Pazflor in Angola and Usan in Nigeria come on stream in 2011 and 2012 respectively, we will rank as the top deep offshore operator in West Africa. By 2015, when we will have a record number of 400 subsea wells, **we will operate more than 10% of global deepwater production.**

We cemented our position as an LNG market leader in 2010 with a **40% jump in production,** fueled by the ramp-up of Yemen LNG and Qatargas 2. The world's second-ranked operator in this booming segment, we are active in most major producing regions and the main LNG consumer markets. Our involvement in several planned liquefaction facilities clearly demonstrates our commitment to LNG growth, to meet the needs of European and Asian markets sustainably.

In 2010, we stepped up our involvement in vital unconventional oil and gas resources. We consolidated and streamlined our portfolio of Canadian oil sands assets through a strategic alliance with Suncor Energy Inc. Production of oil sands poses major environmental challenges. Keenly attuned to this, we deliberately select technologies that deliver the best available performance.

For example, our Joslyn North Mine project will use a very innovative method to manage the treatment of tailings, which are a mix of sand, loam, clay and water. It will sharply reduce water use and the size of settling basins. Smaller than traditional ponds, Joslyn's basins will allow faster land reclamation, which will take a few years to complete instead of several decades.

We must also stay on the cutting edge of the emerging unconventional gas niche, a major advance in maintaining a sustainable gas supply. A partner of U.S.-based Chesapeake in all of its Barnett Shale leases since 2009, we extended our shale gas positions in 2010 by acquiring three exploration leases in France and Denmark and another six in Argentina. We also ventured into coalbed methane — also known as coal seam gas — acquiring an interest in Australia's Gladstone LNG project, thereby solidifying our position as a leader in LNG. In return, we will tap into the expertise of the project operator, Australian independent Santos, which has been producing this gas resource for several years.

What Shale Gas Offers

World electricity demand will grow by more than 60% by 2030. Today, coal accounts for 40% of world power generation. Replacing it with natural gas, which generates 50% less carbon emissions, will provide a transitional foundation for the ramp-up of renewable energies.

Oil companies are fully proficient in shale gas exploration and production technologies, which have been around for several decades. Protecting the environment and communities is a forefront consideration. Total will develop these new resources responsibly.

As an energy producer, how does Total encourage the emergence of technology in new energy fields, influence markets and smooth the energy transition?

Sreeja Nag, Massachusetts Institute of Technology (MIT) student

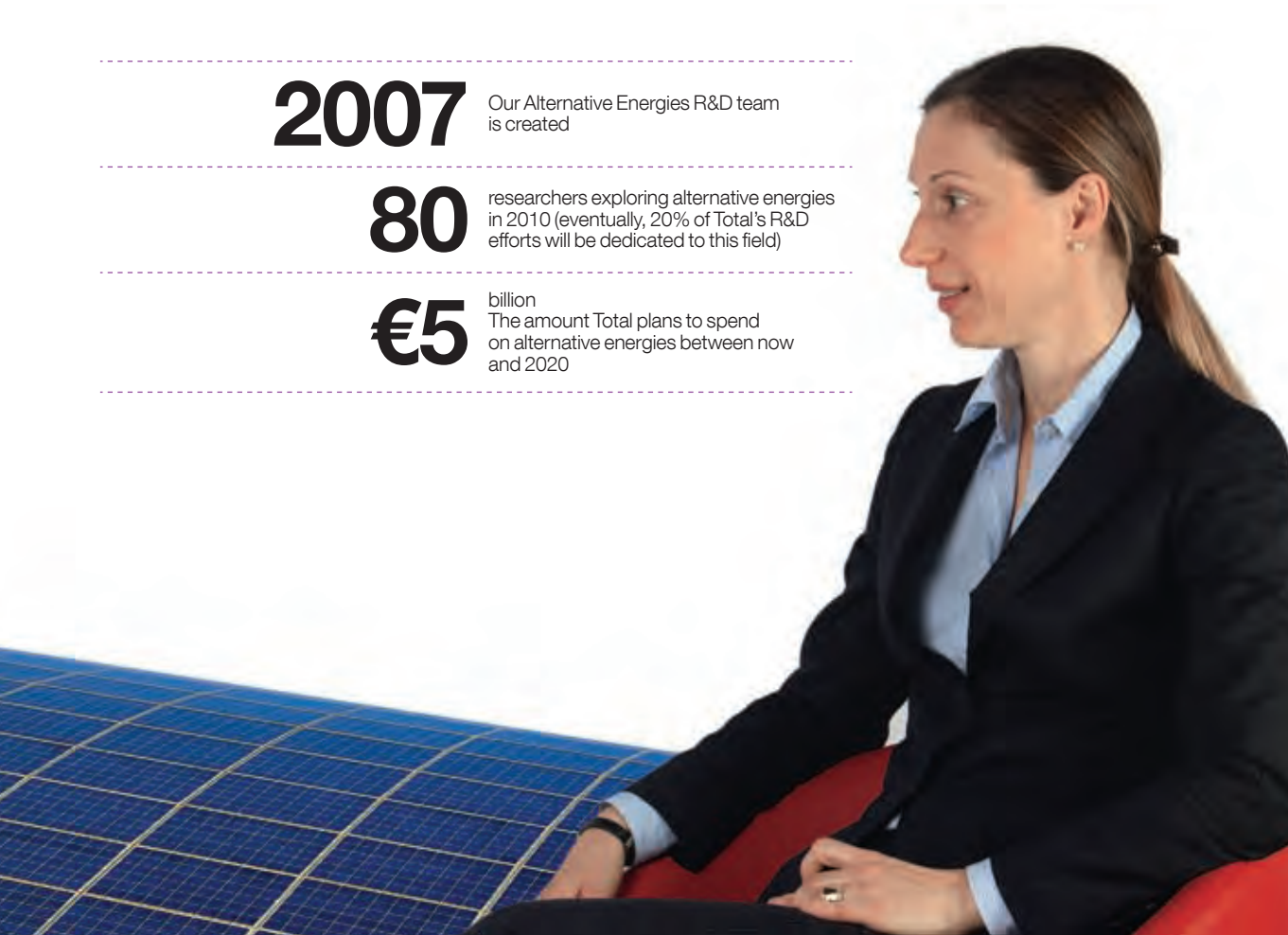
The global supply and demand balance for 2020-2030 shows a very tight energy supply and strongly growing demand. That means we need to enlist every type of energy without delay, while making a special effort to promote the widest possible adoption of low greenhouse gas energy sources.
Our role is to contribute right now to boosting the development and competitiveness of still immature technologies.
Our recipe: prepare future technologies by means of venture capital and R&D, commercially scale up promising technologies through innovative partnerships with start-ups such as Amyris, and leverage the skills and expertise of our marketing and specialty chemicals teams.

Béatrice Humbert, Vice President, Strategy, Gas & Power, Total

2007 Our Alternative Energies R&D team is created

80 researchers exploring alternative energies in 2010 (eventually, 20% of Total's R&D efforts will be dedicated to this field)

€5 billion
The amount Total plans to spend on alternative energies between now and 2020



To meet growing energy needs while tackling climate change, the limited availability of oil and gas and geopolitical uncertainties is not an easy task. We will have to start by being a smarter, more frugal energy user and helping our customers do the same. But it is also essential that we add a variety of competitive, lower environmental impact solutions to our fossil fuel supply. We have identified four promising areas: solar energy, biomass, carbon chemistry (paired with a carbon capture and storage solution) and, in the longer term, nuclear power. Our goal is to become a leader in the first three sectors within the decade, by nurturing them to commercial maturity. With that in mind, we are stepping up our capital expenditure and looking to differentiate ourselves technologically, by leveraging sustained R&D and innovative partnerships.

Preparing to Scale Up Solar Energy

Abundant, low carbon and suited to a variety of applications, solar energy is essential for meeting tomorrow's energy needs. We are building up our skills and industrial capacity today to expand the use of solar technology and help make the sector more competitive.

R&D IN THE LIMELIGHT

The first step is enhancing the energy efficiency of crystalline silicon solar panels and developing next-generation thin film and organic photovoltaic solar cells. We are continuing to invest in the R&D partnerships initiated in these areas several years ago.

We are also investing in innovative energy storage solutions. We strive to maximize synergies between our business lines. Our experts are providing valuable input on energy storage (solar batteries) and collaborating with **Konarka, a start-up in which we hold a nearly 25% interest,** to develop polymer-based solar films.

RAMPING UP TO COMMERCIAL PRODUCTION

We are now active in most of the key stages in the photovoltaic value chain. In 2010, we acquired **a 25.4% interest in AE Polysilicon**, a U.S. start-up that is developing a more competitive, less energy-intensive process for producing purified silicon. A manufacturing unit is being commissioned and will be able to produce the equivalent of 300 MWp[1] during Phase 1. Photovoltech, which we co-own 50-50 with GDF Suez, increased its photovoltaic solar cell production capacity to 155 MWp in 2010. Tenesol, our joint venture with French electric utility EDF, makes, installs and operates solar energy systems, giving us direct access to the market through its network of solar panel installers. Announced in late 2010, the construction of a solar panel manufacturing and assembly plant in northeastern France will expand our production base.

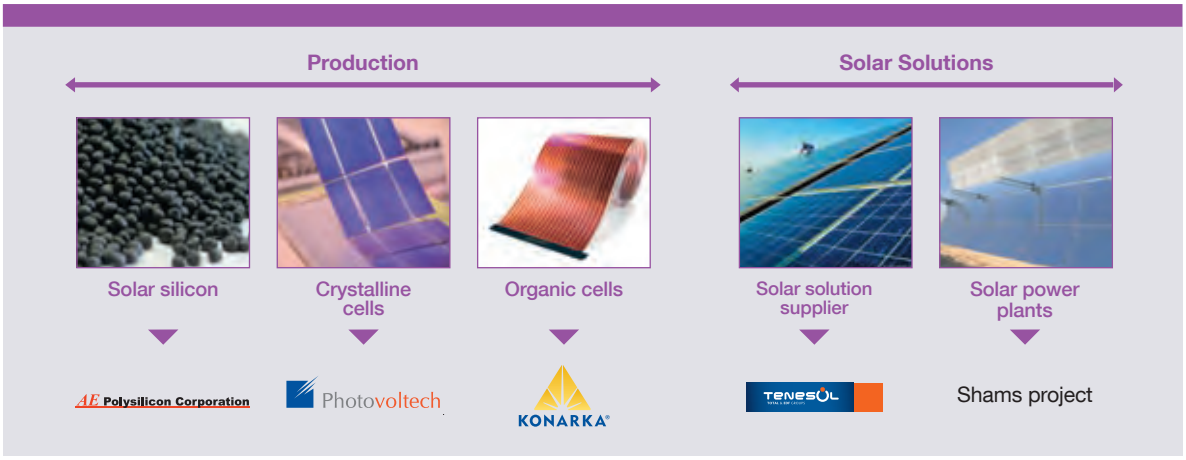
PROMOTING SOLAR SOLUTIONS

Our production sites and service stations are ideal showcases for our expertise. **Our Lacq and Pau facilities in France,** the first where photovoltaic solar solutions were installed, **are now connected to the grid**. In addition, in April 2010 we announced our decision to join the Positive Energy Consortium, which aims to implement measures to lower energy use in buildings in France. Total leads the task force on integrating photovoltaic solar equipment into office buildings.

Shams, a First Foray into Concentrated Solar Power

Total is a member of the consortium selected in June 2010 by Abu Dhabi to build and operate Shams 1, which ranks as one of the world's biggest concentrated solar power plants with a capacity of over 100 MW. Our first project in this niche, Shams broadens our technology portfolio. It also enables us to support Abu Dhabi in its goal to produce 7% of its energy from renewable sources by 2020. Shams 1 is expected to begin operating in the summer of 2012 and is the first plant of its kind recognized by the United Nations as a Clean Development Mechanism (CDM).

1. Megawatt-peak: 1 million peak watts. A peak watt, the unit used to rate the performance of photovoltaic panels, will deliver 1 watt of electricity under standard conditions of 1,000 W of light intensity per square meter and an ambient temperature of 25°C.



Biomass, Prudent Commercial Development

Right now, biomass is the only renewable alternative to fossil energies that can augment the supply of liquid fuels and provide the fast-growing chemical industry with the molecules it uses, in addition to oil. The technological and industrial challenge posed by large-scale deployment is enormous, as are the related ethical and sustainable development criteria.

We want to commercially scale up processes developed jointly with laboratories and start-ups to deliver innovative, more efficient products for the automotive fuel and chemical markets.

We are focusing on more energy efficient, lower environmental impact solutions that are compatible with existing industrial plant, automobile fleets and fuels.

RESOURCES AND PROCESSES

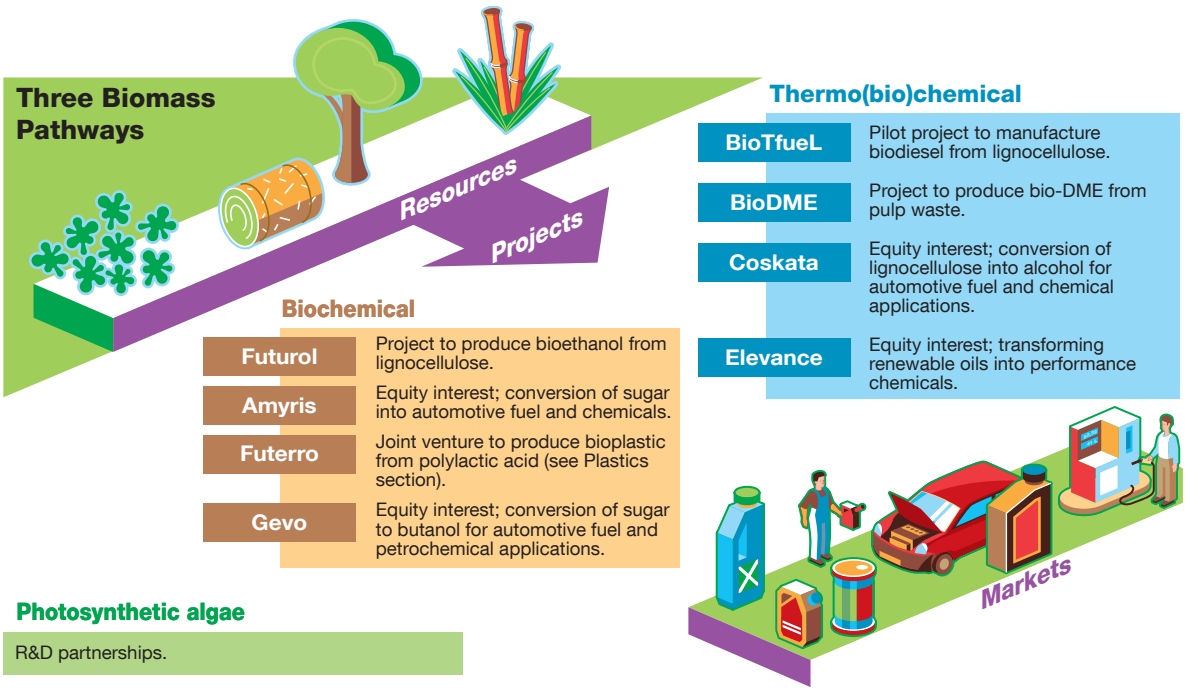
We have adopted the following **criteria for resources: the biomass used cannot compete with food crops, it must have an overall positive environmental and community impact, and it must be profitable to produce and market.** The life cycle assessment method helps us meet our criteria.

Through our partnership with Amyris (see sidebar on the next page), we plan to use sugar cane produced in Brazil. The arable land available is more than sufficient to avoid both competition between food and energy needs and deforestation. Production and cultivation conditions meet our ethical standards, and environmental indicators are positive.

We are investing in R&D to facilitate commercial development of **three main biomass pathways:** biochemical conversion using microorganisms, thermochemical conversion involving gasification followed by chemical or biological synthesis, and photosynthetic algae.

In the first area, our acquisition of an interest in Amyris and the resultant innovative partnerships are the cornerstones of our commercial ramp-up.

In the second, we are evaluating gasification processes, notably through the BioTfueL and BioDME demonstration projects. We have already implemented an operational process to refine vegetable oil and grease into distillates at one of our units. Our medium-term priority is to find a way to **use lignocellulose**, which is the non-food part of straw, wood and plant waste. In early 2011, we signed an R&D agreement on lignocellulose breakdown with the Joint BioEnergy Institute at the University of California, Berkeley. We are also testing various ways of producing biofuels and molecules for the chemical industry from lignocellulose, including farming and forest waste, with Coskata and the Futurol and BioTfueL projects, and from pulp waste through the BioDME project. Ultimately, Amyris will also use lignocellulose.



Lastly, we are conducting exploratory research on micro-algae, which do not require arable land, produce very high yields and can convert light and carbon directly to molecules — all valuable advantages.

TARGETING INNOVATIVE CONCEPTS

Total Energy Ventures (TEV) is helping us broaden our portfolio of technologies. A bona fide "talent scout" of emerging concepts to meet the energy and climate challenge, TEV selects, supports — mainly by acquiring minority interests — and coaches small businesses working on alternative and renewable energies, energy efficiency, energy storage, ecomobility, greenhouse gas reduction and waste-to-energy processes. In 2010, TEV acquired equity interests in two U.S. firms working on innovative biomass conversion processes, Coskata and Elevance (see opposite).

TWO QUESTIONS FOR

Emmanuel Courcier,

Vice President, Biomass and Coal Conversion (X to Y), Gas & Power, Total

In June 2010, Total announced the signature of a strategic partnership with Amyris, a top-tier start-up in the biotechnology field. A decisive step to gear up in biomass.

What attracted you to Amyris?

U.S.-based start-up Amyris has an unmatched bioengineering platform. It develops microorganisms that can convert sugar derived from biomass into various molecules, including the ones used in refining and chemical production. Although it is a disruptive technology, it is close to commercial maturity: the first biofuels produced in this way are expected to be ready for commercial scale-up within three years.

What does the partnership agreement signed with Amyris entail?

It gives us a stake of around 22% in Amyris and outlines a collaboration agreement covering research, development, production, marketing and the creation of a joint R&D team. Amyris is providing an unrivalled technological platform, a groundbreaking process and production units in Brazil. We are bringing our capital investment capability, access to markets and industrial expertise.

Carbon Chemistry: Commoditizing Carbon Resources

An abundant, low-cost resource found across the globe, coal can be converted to fuels or chemical bases. We have been active in coal production and trading for close to 30 years and believe that coal is a strategic growth area, provided it is combined with a carbon capture and storage solution.

The chemical conversion of coal — or carbon chemistry — produces among other substances methanol. We have developed a process for producing plastics from methanol. The innovative Methanol to Olefins (MTO) and Olefin Cracking Process (OCP) technologies are currently being deployed by Total Petrochemicals at its Feluy site in Belgium. To maximize internal synergies, we are working primarily on **gasification**, combining it with cutting-edge R&D on carbon capture and storage.
Optimizing existing solutions and developing disruptive technologies are our priorities. In late 2010, we signed an agreement with Chinese utility China Power Investment Corporation to study the feasibility of a petrochemical plant to manufacture plastics from methanol produced by means of coal gasification. Located in China, the plant would employ the MTO and OCP technologies tested on a large scale by Total Petrochemicals. Plans include a carbon capture and storage solution and the project is expected to get under way after 2015.

Taking a Long-Term Approach to Nuclear Power

The tragic accident in Japan following the recent tsunami will force an in-depth rethink of how natural disasters are taken into account when designing and siting nuclear power plants.

However, nuclear power remains an option capable of meeting the growing demand for low greenhouse gas energy. To our mind, it is a key component of the energy mix of the future, because it is a low-carbon solution. Our ultimate aim is to become a nuclear power plant investor and operator. Our capital expenditure capability and our skills and expertise in managing complex projects are solid assets to participate in crucial projects. In 2009, alongside EDF and other European electric utilities, we acquired an 8.33% interest in the consortium responsible for developing the Penly EPR™ (European Pressurized Reactor) in France. Step one in our nuclear strategy, acquiring this interest gives us a chance to gain expertise by working with top-notch partners and to add an initial reference to our résumé.

Carbon, a Major Issue in the Carbon Chemistry Process

Because carbon chemistry processes emit large amounts of carbon, it is essential to combine them with carbon capture and storage (CCS) solutions. We are participating in a number of R&D and demonstration projects to help make CCS competitive, efficient and safe (see pages 15 and 45). One involves working with the French Petroleum and Alternative Energies Institute (IFPEN) on a combustion technique that incorporates carbon separation in the process and requires only a very small amount of energy. It is called chemical looping combustion. This very promising technology was successfully pilot-tested in 2010. Its commercial scale-up is expected to continue with a larger pilot around 2013. Lastly, we are involved in exploratory R&D to develop carbon as a resource.

How does your R&D address society's growing expectations for risk prevention?

Pierre Toulhoat, Scientific Director, French National Institute for the Industrial Environment and Risks (INERIS)

One of our many research focuses is accurately characterizing natural, geological and ocean meteorology hazards. The phenomena we continuously monitor include natural gas hydrates, earthquakes, tsunamis, sea ice and icebergs, in close contact with the scientific community. For example, we work with the French Research Institute for Exploration of the Sea (IFREMER) on sedimentary instability on the continental slope. In partnership with other oil majors, we are leveraging the expertise of the National Center for Atmospheric Research in the United States to assess the impact of climate change on tropical cyclones. Our organization means that our R&D programs are always in touch with our industrial development projects and can even be involved in the design stage.
This is the most effective way for us to identify and prevent risks.

Valérie Quiniou-Ramus, Geotechnical, Geophysics, Ocean Meteorology and Civil Engineering Manager, Total

10% of our oil and gas production comes from the deep offshore

246 pollution control equipment deployment drills conducted in 2010

The accident involving the BP-operated *Deepwater Horizon* drilling rig in the Gulf of Mexico cast doubt on the industry's ability to manage deep offshore drilling risks. Although the safety of offshore drilling has always been an absolute priority, several safety barriers failed in the case of the Macondo well. It is the responsibility of all oil operators to deploy every possible resource to prevent such an accident from recurring. Responsibly and sustainably developing a sector that is strategically important for meeting global energy needs is a critical challenge.

Deepwater Horizon: Pointing the Finger at Monitoring of Operations

On April 20, 2010, 11 people lost their lives when the *Deepwater Horizon* drilling rig exploded just as drilling was winding up on the Macondo exploration well, in a water depth of 1,500 meters.

This human tragedy was echoed by an environmental disaster, ending in the largest marine oil spill in history, on the southern coast of the United States. Training the media spotlight on deep offshore operations, the tragedy shook the oil industry to its core and reminded us that drilling is never without risk.

A LOSS OF CONTROL LEADING TO DISASTER

Blowout is a major drilling risk and consists of an uncontrolled eruption of oil that billows up to the surface. Blowout prevention is usually a well rehearsed routine, which all personnel have been trained to perform. As proof, consider the 14,000 or so deep offshore wells drilled prior to the BP accident, often involving technological feats by the industry.

In the case of the *Deepwater Horizon*, technical problems and an undoubtedly inadequate response resulted in delayed detection of the blowout and a decision to close the blowout preventer (BOP) that came too late. A BOP is a safety device installed on the wellhead on the seafloor, which can be used to shut down the well.

Is Total safe from an accident similar to this one? Obviously, there's no such thing as zero risk. Human error and equipment failure can unfortunately always happen. But we believe that the accident could have been avoided by following our safety guidance. We would have classified Macondo as a "critical" well from the outset, requiring stepped-up supervision on site and at corporate headquarters. We would also have made different technical choices, especially for the cementing job, an area in which we have strong internal expertise.

THE NEED FOR AN INDUSTRY-WIDE RESPONSE

The Gulf of Mexico disaster impacts the entire deep offshore industry. With a significant share of the world's oil and gas resources, this sector remains essential to satisfying global energy demand and is a major growth driver for Total.

The entire industry has learned from the *Deepwater Horizon* accident. We must prove to the authorities and to our stakeholders that we have the ability to manage this major risk.

That's why in June 2010 we set up three task forces to strengthen drilling safety even more, respond more effectively should a well suffer a loss of containment and better tackle deepwater pollution. At the same time, we are very active in the different task forces set up by the International Association of Oil & Gas Producers (OGP), which encompasses the Global Industry Response Group (GIRG) and the International Petroleum Industry Environmental Conservation Association (IPECA) (see Spotlight on page 25).

Further Improving the Safety of Our Drilling Operations

OPTIMAL MONITORING OF THE QUALITY OF OUR OPERATIONS

One of our task forces focuses on blowout prevention and ways to make our drilling operations safer, through standards — technical procedures and guidance — and our management systems and organization. A work plan was created to strengthen our already very solid, centralized technical guidance. It will be more prescriptive about well monitoring, cementing and BOP specification, inspection and testing, including BOP emergency control systems during a crisis.

It goes without saying that our requirements apply to contractors when we are the operator. The same process, carried out by all GIRG companies vis-à-vis their contractors, means that the same quality control guarantees will apply when we are acting as a project partner.

We paid special attention to assuring the quality of operating procedures. An example would be the rules for quickly and efficiently actuating a BOP, including systematic testing to ensure that everyone thoroughly understands the shutdown sequence.

Our audit system provides us with regular assurance that our guidance is being implemented effectively.

STRENGTHENING THE SKILLS AND EXPERTISE OF OUR PERSONNEL

Drilling supervisors, who represent us on our contractors' rigs, shoulder enormous responsibility. They may have to shut down drilling, regardless of the technical and financial consequences of their decision.

Their training is being enhanced with a new module designed with the French Petroleum and Alternative Energies Institute (IFPEN). In particular, they will role play a situation involving the loss of control of a deepwater well, an extreme risk.

SPOTLIGHT

An Industry-Wide Response

To learn everything we can from *Deepwater Horizon* and make sure that the entire industry shares in its lessons, the OGP created the Global Industry Response Group (GIRG) on July 14, 2010.

GIRG's membership comprises some 100 experts from 20 oil companies. Working with a number of national associations, regulatory authorities and government agencies, the Group focuses on improving:

– Prevention: optimizing well design, well equipment and operating procedures.

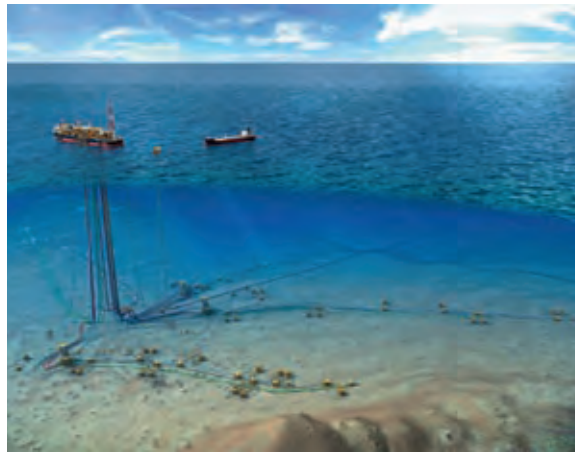
– Response: identifying the best technological options for stopping a deepwater blowout.

– Spill control measures: managing the availability of equipment, expertise and resources. The International Petroleum Industry Environmental Conservation Association (IPIECA) and the Oil Spill Response (OSR) network were chosen to oversee this task force.

We were involved in all of the above work and loaned two of our experts to the task force on subsea well eruption response techniques.

We are also the driving force behind working groups on regional needs within GIRG's task forces. The idea is to outline, region by region, specific measures in the event of an offshore accident, especially in the Gulf of Guinea, where we are a widely present operator.

In 2011, GIRG will pass on the baton to three new organizations that will monitor the implementation of its recommendations. One, a Joint Development Agreement (JDA), gives nine large companies, working together, responsibility for capping equipment and inventorying capture requirements and solutions worldwide.



Pazflor development in Angola, comprising subsea wellheads and separation units.

Stopping a Subsea Blowout Promptly

Although the probability of another accident on the scale of *Deepwater Horizon* is very low, it is not zero. It is therefore our responsibility to anticipate all possible risks. A subsea blowout that lasts for three months is not acceptable to society, in light of the environmental consequences and impact on marine biodiversity. That's why our task force on deepwater oil and gas capture is working to enhance our ability to regain control of a well as quickly as possible.

DEVELOPING WELL-PLUGGING EQUIPMENT

We are closely involved in the OGP's work on plugging wells during drilling. To flesh out its efforts and broaden the scope of the analysis, our task force focused on producing wells, especially in the Gulf of Guinea, where we are a leading operator.

The goal is to **have solutions that will be effective in every imaginable scenario** during the two or three months it takes to drill the relief wells to permanently stop the leak from the failed well. The first, called capping, closes off the well using a plugging device that contains the blowout. The second solution, containment, would be used when capping fails to completely plug the well. It would be paired with a procedure to capture the effluents spilling from the leak, in order to bring them to a floating treatment vessel. Studies have also been initiated to design such a system.

The first equipment is expected to be available and stored on our sites in 2012.

ENSURING THE INTEGRITY OF ALL OUR DEEP OFFSHORE INSTALLATIONS

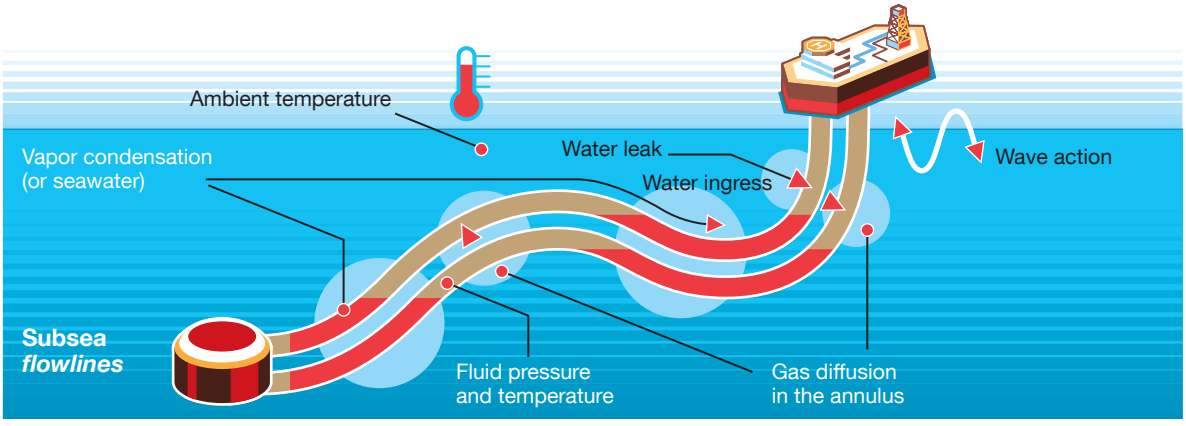
An analysis of the safety equipment for our subsea wells in production in the deepwater Gulf of Guinea confirmed that they were effective and in good working order.

More generally, we have begun work on an updated risk analysis for all of our deepwater fields in production. Offshore developments consist of gigantic subsea production systems with kilometers of flowlines on the seafloor and involve highly technical instrumentation and control equipment. Inaccessible to direct human intervention, they are designed to operate for 20 years or more. Optimizing surveillance, maintenance and repair systems for this equipment is one of our top R&D priorities.

The Usan FPSO at the shipyard in South Korea.

SPOTLIGHT

Continuous Surveillance of Our Subsea Flowlines



In the deep offshore, immense flexible lines called risers tie subsea production systems to surface facilities. Riser integrity is essential for the safety and reliability of our developments. That's why we partnered with Schlumberger to design an innovative system christened RACS, for Riser Annulus Condition Surveillance, to continuously monitor their condition. We are currently testing it in a pilot. RACS can detect in real time any defect that could cause a line to rupture fairly quickly — a safety-enhancing technological breakthrough.

Consolidating Our Major Spill Response Capabilities

After a disaster on the scale of the *Deepwater Horizon*, it made sense for us to revisit our pollution control policy and organization, especially for low probability but potentially disastrous events.

A task force bringing together all of our pollution control expertise is reviewing our preparedness. It is jointly steered by our Sustainable Development & Environment Department and CORAPOL, a cross-business group that coordinates external oil spill response resources. Both groups strive for the highest standards, which are applicable to all of our host regions.

The effectiveness of our emergency response plans was reevaluated in terms of how appropriate they are to each situation — proximity of nature reserves, economic activities on the coasts affected — and our operational resources and support, such as product and dispersant supply and transportation capabilities. We have also tightened our training requirements, stepped up the frequency of drills, and worked on protocols for managing our potential responders.

Lastly, we are improving our real-time oil slick observation capabilities, so that we can better direct resources and update our control strategies frequently. We are working on the complex challenges of satellite imaging techniques and modeling oil slick changes, which require constant innovation.

The possibility of broadening the range of our technical response solutions is under study. The task force has focused mainly on applying dispersants directly to the pollution source and on the controlled burning of oil spills offshore. R&D programs, both internal and in partnership with the industry, have been initiated to assess the effectiveness and environmental impact of implementing these procedures and related best practices.

What are Total's plans to face challenges from your competitors in order to create a successful synergy between enforcing safety rules and tapping a large share of the market?

Seif Ali Seif, President, Super Star Forwarders, a Tanzanian haulier

Safety in general and transportation safety in particular is a key focus for us. Familiarizing our customers, authorities and regulatory organizations with our standards is a daily priority. It's the only way for us to stand out in highly competitive markets. Here in Tanzania, we track trucks by GPS and have deployed continuous training for our drivers. It helps us not only to manage transportation, but also to offer a value-added customer service. At Total, we develop safety management tools and systems and implement regional actions to foster a deep-rooted safety culture. As managers, we're responsible for transposing these initiatives to the front line — and for making sure they are sustainable.

Luc Vu Cong, Managing Director, Total Tanzania

590 million kilometers traveled by road worldwide

57 million metric tons of products transported by road worldwide

Total is not in the transportation business. However, our operations do require us to move or have contractors move hazardous materials — petroleum products, chemicals and natural gas — from their point of production to factories and refineries and then on to customers, industrial companies, consumers and service stations. Strengthening road, shipping, inland waterway, rail and pipeline transportation safety through management systems, equipment quality and practices is therefore a major focus for us.

A Diversity of Ongoing Initiatives to Make Road Transportation Safer

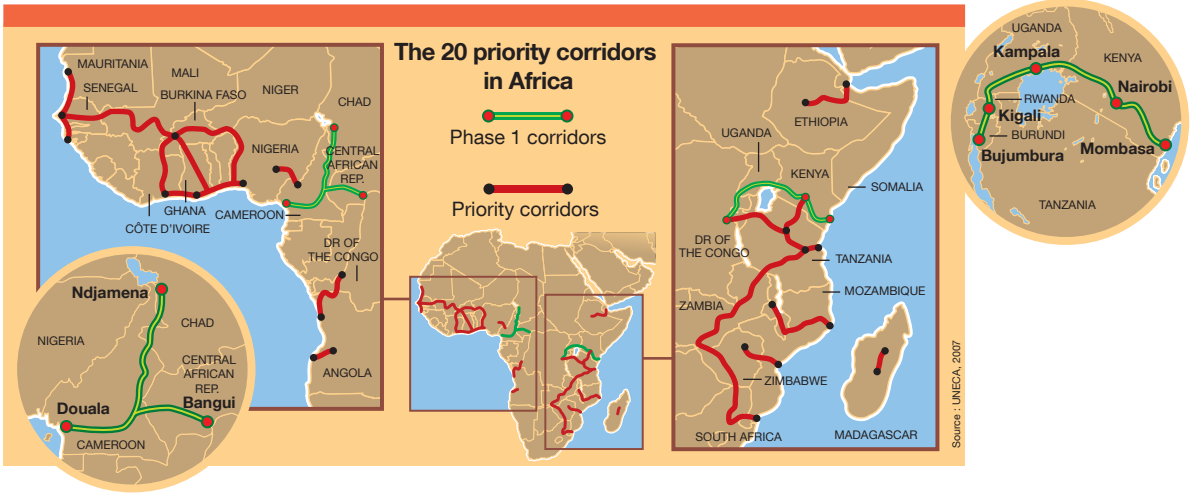
Each day, hundreds of trucks rumble down highways and roads carrying our products. Naturally we hope to improve road safety by providing solutions that are right for the situation and involve all stakeholders. Indeed, despite a slight downtick in 2010 — 9 deaths in 2010 versus 10 in 2009 — road accidents are still the leading cause of fatalities at Total. Africa and the Asia-Pacific region report the highest rates of fatal accidents in our operated scope and we are monitoring both especially closely.

CONTINUOUS IMPROVEMENT

We strive to implement best practices, including driver training, carrier vetting, vehicle checks to ensure trucks are in good working order, the use of onboard event data recorders, and in-depth analysis of feedback.

Created in 2003 for our African and Caribbean subsidiaries and later cascaded to Latin America and the Asia-Pacific region, **our overseas road transportation improvement program, PATROM**, is particularly important to us. It got a boost in 2010 with the deployment of the **TMS**, a tool for auditing transportation organization and management in subsidiaries. Short for Transportation Management System, these action plans aim to curtail road accidents by upgrading transportation equipment and making sure that drivers have been adequately trained to handle every type of road, in any environment.

Also in 2010, ***Total's Golden Rules*** — especially Golden Rule No. 2 on traffic — were disseminated to our drivers and to companies that work with us, to educate them about the do's and dont's of driving and riding as a passenger in a vehicle (see Spotlight on page 33).



In our subsidiaries in Cameroon, Zimbabwe, Nigeria and Madagascar, **beginning and advanced driver training centers** are open to our drivers, as well as to other businesses. The centers give businesses a chance to improve their knowledge of the road so that they can drive more safely; they also receive training in the hazards of the products we transport.

The fleets of our carriers in Burkina Faso were upgraded in 2010, thanks to the action of our subsidiary in 2010, which involved banks and insurance companies in the process and oversaw negotiations. More than 130 tank trucks have been purchased through the project.

A number of audits were also conducted, in the Republic of Guinea, Nigeria, Kenya, Jamaica and Pakistan.

Nor did we overlook Europe, where we have required our service providers to introduce safety management system (SMS) since 2004, to effectively manage road transportation risks. Internal experts evaluate SMS quality every three years, through audits based on proven guidelines that review all procedures and their application in the field. A simplified but nonetheless comprehensive checklist has been developed for very small trucking companies. A single set of internal audit guidelines for Europe was recently developed for the next cycle of audits from 2011 to 2013.

Trucks on the road in Yemen.

The "Safety Caravan" Makes the Rounds in Cameroon and Ghana

Because people are too often unaware of the potential hazards of petroleum products, fuel thefts when a tank truck rolls over can veer into tragedy. So Total Cameroun came up with an attention-catching initiative to spread the word: the "Safety Caravan." Several times a year, the caravan travels the highways used by our truck drivers to teach the thousands of people they meet about the risks of handling petroleum products.
The project's success prompted Total Ghana to start its own Safety Caravan, in December 2009.

PARTNERING WITH OTHERS TO BOOST OUR EFFECTIVENESS

The cross-border highways linking Kenya to Burundi and Cameroon to the Central African Republic and Chad are two of the deadliest on the African continent. Total's Africa and Middle East Division and the **World Bank** have teamed up on a project to make road traffic safer on both highways, working with the government, private sector and specialized organizations in each country. The program is implemented by a team dedicated to each corridor and covers every aspect of road safety, from prevention to care for accident victims.

In addition, we have stepped up our involvement in the **Global Road Safety Partnership (GRSP)**, of which we are a member of the Executive Committee. The GRSP brings together governments and governmental agencies, the private sector and civil society organizations to address road safety issues around the world.

SOME FIGURES[1]

More than **850** carriers

More than **6,000** trucks

≃ **7,200** drivers

More than **250** million kilometers traveled a year

≃ **15** million metric tons transported a year

1. In the Africa and Middle East marketing scope.

EDUCATING CHILDREN ABOUT ROAD HAZARDS TOO

According to the World Health Organization, children and young people under 25 account for **more than 30% of all deaths and injuries from road accidents** worldwide. To help children learn about and thoroughly understand road safety, more than 10 of our subsidiaries conduct **prevention and education campaigns** in partnership with relevant associations and authorities. One of them is Total Zimbabwe, which has been a partner of a government-created road safety training center since 2007. Each week, local managers drive 40 children to the center from different schools, so that they can learn how to behave on the road.

Total Tunisie partners with the Tunisian road safety association on its national campaign, called *Viva la vie*. In Cameroon and Ghana, our subsidiaries have created an original initiative known as "Safety Caravans" (see page 31). And Total Puerto Rico has developed a similar concept with the help of local authorities through its *Super Segurito* campaign.

Making Other Forms of Transportation Safer

Whether by sea, inland waterway, rail or pipeline, transportation — especially the loading and offloading of our products — is a risky business and involves a number of different participants. In 2010, we used accident analysis and feedback to focus on the interfaces among them, devise workable solutions, enhance safety and avoid environmental damage.

SHIPPING AND INLAND WATERWAY TRANSPORTATION: EVER MORE DEMANDING STANDARDS

Each year, Total ships about 130 million metric tons of products by sea. Liquid hydrocarbons account for 120 million metric tons, of which more than half is crude oil. The other products shipped are gas (LNG and LPG), chemicals and bulk solids such as coal, sulfur, fertilizer and, in the near future, petroleum coke from the Port Arthur refinery in Texas.

Barges are without doubt the safest and most environmentally friendly mode of transportation, but also represent colossal tonnages. Twenty-one million metric tons are transported by inland waterway each year to meet Total's needs, including 14 million metric tons in Europe and 5 million metric tons in the United States.

More than 200 maritime and inland waterway terminals are concerned in some way by our operations. The training and accountability of the people who ensure seamless operation are strengths of the safety processes we deploy.

In that regard, the signature and publication of a **Group Safety Guideline on maritime and inland waterway terminal safety** in 2010 was a milestone. Its purpose is to help maintain a high level of safety for personnel, facilities and infrastructure, and prevent pollution. More generally, the guideline also reinforces the measures applicable to shipping and inland waterway transportation, such as communication with ships, technical operational precautions and the use of brief call reports.

The safety of maritime and inland waterway terminals was also a core focus of work in the Oil Companies International Marine Forum (OCIMF) in 2010. For Total experts, it was an opportunity to examine the issue in more depth and to create a safety self-assessment checklist for terminal managers.

Tanker berthing at the Donges refinery in France.

We published a workplace safety handbook entitled *Total's Golden Rules* in 2010.

PIPELINE TRANSPORTATION: EVER MORE EFFICIENT

With some **23,500 kilometers of onshore pipeline and 6,000 kilometers of subsea flowlines** under our control, the units responsible for monitoring pipeline integrity can never let down their guard. Our priorities are clear:
– Continuously improve the methods used to detect and repair pipeline defects.
– Manage the risks associated with heavy and highway construction, farming and other types of work carried out near our pipelines.

RAMP-UP OF RAIL RISK MANAGEMENT

Total transports **more than 15 million metric tons of hazardous materials by rail each year**, mainly in Europe, where most of our rail transportation needs are met by national rail operators.
The decline in the number of incidents reported in 2010 underscores the importance of checking interfaces at the start and end of trips, when operator and railway changeovers take place. To further strengthen safety, a risk assessment methodology for these regions is being prepared for 2011.

SPOTLIGHT

Fostering a Shared Safety Culture

René Jacquot, Secretary of the European Works Council

Safety has always been a major focus of the European Works Council, a forum for information and dialogue that brings together union representatives from European Union member states in which we operate. Senior management and the European Works Council have co-organized a safety seminar every year since 2007, to compare safety cultures, approaches and practices in Europe. Discussions lead to a widely shared summary report, which personnel in the field, including managers, employees and employee representatives, are expected to review.
In 2010, we published a workplace safety handbook entitled *Total's Golden Rules*. Everyone is required to follow them. Golden Rule No. 11 deals with change management, especially whistleblower protection, feedback and follow-up, and was the subject of intense discussions at the fall 2010 seminar. Another opportunity to practice the participatory process for improving HSE approved by senior management. Both employee representatives and managers must get involved and urge everyone, at every reporting level, to do the same.
The European Works Council will work actively to promote widespread participation.

Total is generating comfortable income. What practical steps are you taking to ensure affordable access to energy for all consumers in the years to come?

Reine-Claude Mader, Chairman of CLCV, one of France's largest consumers' associations

We mean it when we say that we want to guarantee sustainable, affordable access to energy for our customers. That's our main task, as resources become harder to access and global demand soars. One way to make access to energy financially feasible is to invest substantially in new production projects — while keeping a close eye on costs — to ensure supply keeps pace with demand. Another is to provide real-world solutions that trim our customers' energy bills by promoting efficient, frugal energy use, rather than consumption for consumption's sake. Our R&D plays a pivotal role by developing innovative solutions to reduce energy use, such as our Total Ecosolutions products and services.

Hubert Scuiereb, Marketing Development Department, Marketing Europe, Total

$21.6 billion
Our gross capital expenditure in 2010

+50% The amount by which our capital expenditure increased between 2005 and 2010

More than 700 employees working on environmental protection across Total

€4.9 billion paid to our French suppliers in 2010

In 2010, our business activities generated a profit of €10.3 billion, or $13.6 billion. Although this figure may seem astronomical compared with the average profits of businesses, it is in line with the profits of other companies in our industry.
Moreover, the massive, repeated capital expenditure our industry requires make such profits crucial. It is our ability to post high profits and reinvest that keeps our business alive and able to meet the expectations of our customers, employees, suppliers, shareholders and host countries.

Investing in Energy Production

The projects we initiate today will supply the energy the world needs tomorrow. We therefore maintain a steady stream of capital expenditure — nearly €16.3 billion in 2010 — to develop new projects and technologies. Our investments will enable us to provide our customers with an uninterrupted supply of competitive products with a low environmental impact, while continuously improving safety.

TODAY…

PRODUCING MORE, MORE EFFICIENTLY

While demand for oil and gas is on a constant upswing, fields are declining at a natural rate of 6% a year worldwide. That is why it is so important for us to increase our oil and gas production, without losing sight of the need to reduce our environmental impact. We allocate **80% of our capital expenditure** to stepping up exploration, bringing new projects on stream, enhancing production, acquiring resources, and forging partnerships. Because the oil and gas to which we have access is harder to extract and demands more and more complex technologies. Production also poses daunting environmental challenges. All these factors raise the cost of our projects: for example, the Pazflor project in Angola alone cost nearly $9 billion.

HONING THE COMPETITIVENESS OF OUR DOWNSTREAM OPERATIONS

In mature regions such as Europe and North America, we are investing to optimize our positions, adjust our infrastructure to environmental standards, and unlock more synergies across our businesses. In 2009, the Leuna refinery in Germany commissioned its third desulfurization unit, a $150 million upgrade that makes it a top-tier refinery in Europe. We have spent more than $2 billion updating the Port Arthur refinery in Texas.
We will also invest €1 billion to upgrade our refining and petrochemical operations in Gonfreville, France. A structural decline in the demand for petroleum products in Europe and North America is, however, creating surplus refining capacity. We therefore need to adapt by closing or selling off certain facilities[1], thereby reducing our exposure, while stepping up our presence in growth regions such as Asia and the Middle East, which are close to both resources and markets. In partnership with Saudi Aramco, we are currently building our biggest refinery, in Jubail, Saudi Arabia. It will begin operating in 2013. Lastly, in 2010, we inaugurated the world's biggest ethane cracker in Ras Laffan, Qatar. It boosts our polyethylene production capacity by 20%.
At the same time, we are spending more than $1 billion a year on our network of service stations in Europe and the rest of the world.

… AND TOMORROW

STEPPING UP OUR INVOLVEMENT IN RESEARCH & DEVELOPMENT

R&D is the lookout post for our growth and change strategy. It helps us anticipate development opportunities, devise technologies that set us apart and give us a lasting competitive edge, and post some of the lowest technical costs in the market. Our R&D spending came to **over €715 million** in 2010. We are also allocating 20% of our R&D capital expenditure each year to the environment and "clean" technologies, including alternative energies.

1. Closure of the Dunkirk refinery in France and pending divestments of our service station network and the Lindsey refinery in the United Kingdom, as well as our interest in CEPSA (refining and marketing).

ALTERNATIVE ENERGIES: PICKING UP SPEED

We are focusing on three promising pathways: solar energy, biomass and carbon chemistry combined with a carbon capture and storage process (see pages 18 to 21). Our goal is to have **commercial-scale operations in all three by 2020**. To accelerate their economic and technical maturity, we are actively building our skills and expertise along with our project portfolio. In 2010, we made three strategic investments, totaling more than $300 million. They are major capital outlays that reflect our ability to develop these projects.

Investing for Our Stakeholders' Sake

We want our presence and activities to provide lasting benefits for our stakeholders. That is the key to our long-term integration in host communities and our access to new projects.

TRIMMING OUR CUSTOMERS' ENERGY BILLS

Our customers expect practical solutions for cutting their energy bills. We have been marshalling all our expertise for several years now to create products and services that can help them scale back their energy use. Most of our **Total Ecosolutions lineup** fills the bill (see page 43).
We also want to offer **low-income communities modern, affordable energy solutions with a lower environmental impact.** We are testing three options through a dozen or so pilot projects in Morocco, Venezuela and other countries: photovoltaic solar power, biofuels produced for local markets and, in countries hosting our oil exploration and production operations and commoditizing gas associated with oil production.

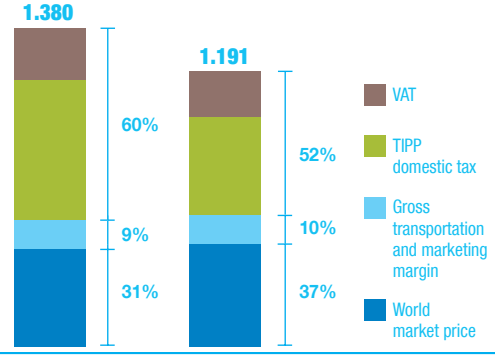
ATTRACTING, RETAINING AND MOTIVATING EMPLOYEES

We hired nearly 10,000 people under permanent contracts worldwide in 2010 and spent over €6 billion on payroll. Our approach to compensation aligns with local regulations while providing a common base for our employees all over the world. We also help them save for the medium and long term through various employee savings incentives, including employer contributions and co-investment funds. Lastly, we want all of our employees to have a minimum benefits package offering the same kinds of coverage, including death benefits and permanent and temporary disability, mindful of the specific requirements of each local situation.
To allow our employees to partner our growth, we are actively broadening the employee shareholder base. Employee shareholders currently hold 4% of Total's share capital, or about €4 billion in 2010, and we paid out €211 million in dividends to them.

How Prices at the Pump Are Set in France

The first factor driving fuel prices at the pump is the international market for refined products. World market prices are closely tied to crude oil prices, as well as the specific supply and demand for each product, such as unleaded 95-octane gasoline and diesel. In addition,there are the costs of marketing through the service station network (fuel storage in depots, delivery to stations, station operation and maintenance), legal obligations such as blending in biofuels and, last of all, taxes. In France, taxes such as the TIPP, a domestic consumption tax on petroleum products, and VAT make up 50% to 60% of the price at the pump. In the end, the net margin works out to around 1 euro cent per liter. Total respects the commitments we made to the French government to keep pump prices moderate.

Prices at the pump in Total's retail network
Price in euros per liter – 2010 average in France



Total and Elf service stations under contract management, including on highways.

In 2010, we awarded **25 free shares to more than 100,000 employees in over 120 countries.** Not only was it a first for Total, it was a global plan as yet unmatched by any other international company.

REWARDING SHAREHOLDER LOYALTY

Our long-term dividend policy is to pay out an average of **one half of our profits to shareholders**. This is in line with industry practice and is a factor in shareholder retention, helping to sustain both our independence and our future growth.

PROMOTING FINANCIAL TRANSPARENCY IN HOST COUNTRIES

In 2010, we paid €10.2 billion in corporate income tax and €4.9 billion in production taxes in our host countries. Our overall tax rate is **56%, more than twice the average global corporate income tax rate** for all industries[2]. It varies widely by country and activity, running as high as 80% for profits from oil and gas production and as low as 30 to 35% for refining, marketing and chemical manufacturing. We also pay €18.8 billion in excise tax (indirect consumption taxes).

To promote financial transparency, we are actively involved in the Extractive Industries Transparency Initiative (EITI), which urges national authorities in resource-rich countries to publish the revenues they earn from extraction. With the agreement of the governments concerned, we publish the income and other taxes we pay in eight countries that account for 61% of our crude oil production.

Why Does Total Pay So Little Income Tax in France?

There is corporate income tax and there are other kinds of taxes. Total pays about €300 million in other taxes in France each year, about €175 million of that in local taxes. We also paid €500 million in dividend withholding tax for foreign shareholders. Total paid more than €10 billion in corporate income tax worldwide in 2010. To avoid double taxation, the profits on which those taxes are paid are virtually exempt from further taxation once they arrive at our French headquarters, as they are in every country. Total pays corporate income tax in France when our French operations post a profit. Before the recession took its toll, cumulative corporate income tax for fiscal 2005, 2006 and 2007 came to almost €700 million. We invest more than €1 billion in France each year, in addition to €350 million in R&D spending. Like any French company in the same situation, we do not pay corporate income tax when our French operations do not generate a profit.

STIMULATING LOCAL ECONOMIES BY DOING BUSINESS WITH LOCAL SUPPLIERS

Our €27 billion in procurement expenditure in 2010, with almost 50,000 suppliers worldwide, has helped spur local economies. We work with companies of all sizes, paying special attention to small and medium-sized businesses. But to avoid their becoming dependent on us, we make sure that our purchases do not represent too high a percentage of their revenue. Development of the local industrial base is also a Total priority. Sourcing quality goods and services from local businesses is one way we can fully integrate our operations, while providing support and coaching to help businesses meet higher standards for quality, safety and working conditions.

The Total Foundation's Engagement

With an annual budget of €10 million, the Total Foundation is the top corporate foundation in France. By blending various types of expertise, it helps anchor Total locally in France and in other countries. The Foundation has pledged €50 million over a six-year period to work with the French Ministry of Education on developing projects to help young people land their first job. It has donated €2 million a year to the Pasteur Institute since 2005 for infectious disease research and public health programs in our host countries. It finances projects to protect marine biodiversity and promotes cultural dialogue by supporting exhibitions showcasing the arts and traditions of host countries. Lastly, it makes regular emergency humanitarian aid donations to the Red Cross, including €1 million for Haiti and €1 million for Japan.

2. 23.45% in 2010, KPMG International report, October 2010.

BASING INITIATIVES TO HELP LOCAL COMMUNITIES ON THE PRIORITIES OF THE PEOPLE WHO BENEFIT FROM THEM

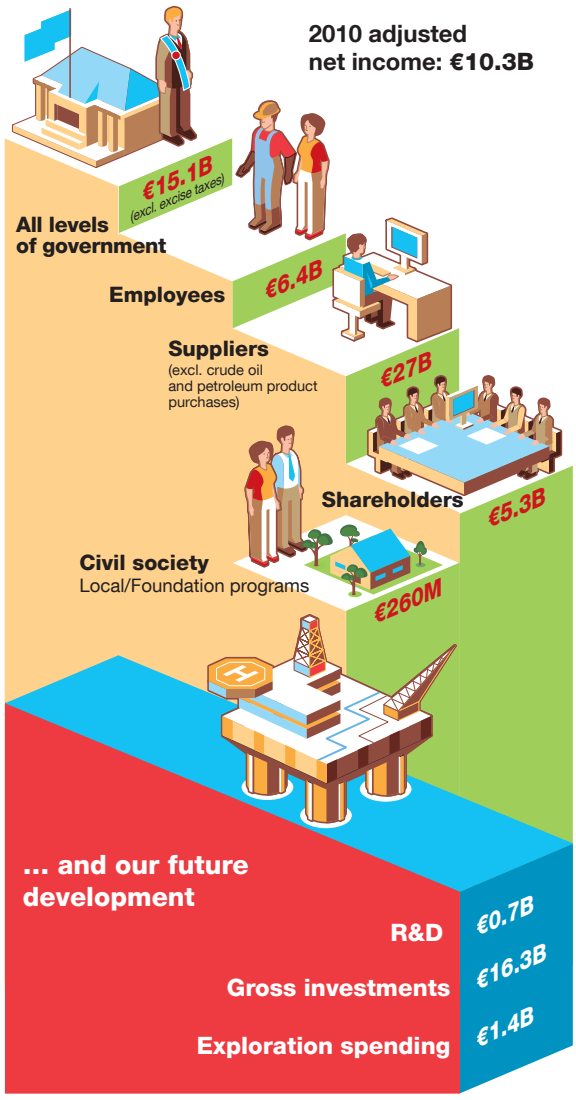
Helping to stimulate the development of the communities near our facilities is a core tenet of our Code of Conduct. It is especially important given that 75% of our production comes from non-OECD countries, which often have significant basic needs. Our financial resources must be enlisted to help us improve the living conditions of communities in our host countries. We co-develop our initiatives with the authorities and communities concerned, based on their needs and their priorities. In 2010, we spent **nearly €250 million on community development** (excluding Total Foundation initiatives), in fields as varied as employment, economic development, public health, education and access to energy.

Employment is very often a key concern, which is why we sponsor programs and initiatives to expand it everywhere. We give priority to hiring local employees, whenever possible and for all reporting levels. We urge our contractors to do the same.

Through Total Développement Régional, we grant interest-free, unsecured loans for business start-ups and takeovers, mainly in France. In the last decade, we have lent **€60 million to 1,000 small businesses**, helping to create, save or line up **15,000 jobs**.

Lastly, our financial resources help us minimize the impact of our restructuring plans. The Dunkirk refinery site in France, for instance, will switch over to new activities, without suffering any layoffs. Also in France, we announced plans in late 2010 to build a photovoltaic solar panel plant in the Moselle region that will create 80 jobs, fulfilling a promise we made in 2008.

Our profits serving stakeholders...



Would Total be willing to publicly support a gradual increase in taxes on fossil fuels?

Jean-Marc Jancovici, consultant and energy and climate specialist

Taxes have their uses. They can restrain markets when they're not efficient, for example, and help consumers in their choices. Taxes work: look at the surge in diesel cars in France. So it's possible to imagine using taxes to promote more thoughtful, less "carbon-intensive" patterns of energy consumption. But with the globalization of markets, how do we find the right way to structure taxation geographically? Without unexpected or unwanted side effects? But careful: if investments don't take into account the needs of men and women who currently can only dream of a lifestyle similar to ours, no tax will be able to stem the inexorable rise of prices.

Frédéric Baule, Trading, Total

558,000 metric tons of carbon equivalent. The carbon emissions averted by using Total Ecosolutions products and services

33% of global greenhouse gas emissions are caused by oil and natural gas production and use

The International Energy Agency estimates that global energy needs could soar by nearly a third between now and 2030, given population growth and the rise in average living standards. But that's not all good news, as around 60% of the greenhouse gas (GHG) emissions generated each year by human activity derive from fossil fuel production and use. Our challenge as an energy producer is to balance the requirements of supplying energy and protecting the environment over a long-term horizon. To do that, we need to fine-tune our products and services, manage the energy consumption associated with our facilities and the use of our products, and offer our customers solutions that will allow them to be smarter, more frugal consumers. That is why making our products, processes and facilities more energy efficient is a core priority.

Innovative Products and Services, for Smarter, Lower Energy Use

Right now the transportation, housing and industry sectors are responsible for most of the greenhouse gas emissions from oil and gas, or nearly a third of global emissions. For several years now, we have been developing innovative products and services for each of our markets. These **energy-saving** solutions have a lower environmental impact over the production and use cycle — and even on end-of-life — but offer **quality on par with or higher than competing products and services in the market.**

This satisfies a growing demand on the part of consumers, who want to control their use and shrink their environmental footprint. The process leverages our innovation capabilities and expertise and employs life cycle assessment whenever possible to help us continuously improve our products. Life cycle assessments analyze product impacts at all stages, from the extraction of raw materials to end-of-life.

PRACTICAL SOLUTIONS IN EACH OF OUR MARKETS

In transportation, where expectations are high, the aim is to improve fuel efficiency and reduce emissions. Our Excellium fuels and our line of fuel economy lubricants improve engine performance, for example **cutting fuel consumption by at least 1% for trucks and 2.5% for passenger cars.**

Our ever-lighter plastics and resins that go into manufacturing vehicles also boost fuel economy. What's more, Total also encourages fuel-efficient driving. Since 2008, we have conducted the driving tip campaigns Eco 10

Supporting the Commitment of French Truck Drivers

The French *Objectif CO_2: les transporteurs s'engagent* charter *[Carriers Commit to Reducing CO_2 Emissions]* aims to give trucking companies a set of procedures and methods for cutting their fuel use and thus their carbon emissions. At end-2010, 223 companies, or 11% of the truck fleet in France, had pledged their support for the initiative, with the backing of institutional and corporate partners including Total. That represents a savings of 88.8 million liters of diesel fuel annually, averting 262,800 metric tons of carbon emissions a year.

On November 17, 2010, we renewed our strategic partnership with PSA Peugeot Citroën for five years. One of our priority goals is to develop ever more efficient energy-saving lubricants.

(Europe) and EcoServices (Africa and Middle East) for customers at our service stations. The *Consommer moins* [Save on Fuel] initiative for professional drivers and holders of our GR fuel card promote more responsible driving.

There are many ways to make buildings more energy efficient. In France, our heating oil solutions and Totalgaz's *Éco-Déclic* line offer homeowners **custom heating solutions** that in some cases pair fossil fuels and renewable energies and in others come with incentives for home upgrades. Examples include *Éco-Déclic Solaire* + and, since 2010, *Éco-Déclic Bois* for wood inserts, *Éco-Déclic Condensation* for condensing furnaces and *Éco-Déclic Isolation* for insulation.

We are stepping up the services we offer to industry, such as **energy conservation audits** for our heavy fuel oil customers. We are also developing products like Total Petrochemicals' Lumicene® polypropylenes and polyethylenes that require less energy to produce and process (see page 49).

TOTAL ECOSOLUTIONS: CATALYZING OUR INNOVATION EFFORTS

Introduced in 2009 in Europe, Total Ecosolutions is a flagship program to promote smarter, more frugal energy consumption. It offers our customers innovative solutions that perform above market environmental standards, by curbing the use of natural resources and/or environmental impact while providing the same level of service. This approach leverages all our skills and expertise to drive continuous improvement and innovation.

In its two years of existence, the Total Ecosolutions label has been awarded to around 20 products and services that are particularly eco-efficient, including plastics, resins, adhesives, lubricants and heating or usage management solutions.

Total Ecosolutions products and services **save about 558,000 metric tons of carbon emissions a year,** or the per capita amount emitted annually by 55,800 Europeans[1].

The Total Ecosolutions line will gradually expand: new products and services are regularly submitted for consideration.

Eligible candidates are evaluated using a rigorous method that complies with the principles of the international ISO 14020 and 14021 standards for environmental labels and declarations. The guidelines and, in most cases, the process for labeling each product or service are audited by Ernst & Young.

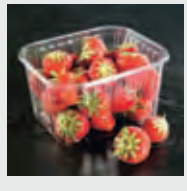
To learn more: www.total.com/total-ecosolutions.

TOTAL ECOSOLUTIONS

A Few Examples of the Solutions We Offer Our Customers for Shrinking Their Environmental Footprint

Fuel economy engine lubricants for passenger cars

They improve engine fuel efficiency by at least 2.5% compared to a standard engine oil.



PPH 4026 polypropylene

It is used to manufacture thermoformed trays for fresh food. This grade reduces the weight of trays 15% compared to the conventional polypropylenes mostly used in the market. Its environmental performance reduces energy consumption, the amount of raw materials used and greenhouse gas emissions.

1. *Source: European Environment Agency, October 2010,* Greenhouse Gas Emissions Per Capita of EU-27 Member States.

Improving the Energy Efficiency of Our Processes and Facilities

Total uses large amounts of energy, **about 557 million gigajoules in 2010**. Our energy use accounts for a large share of our greenhouse gas emissions, which totaled nearly 52 million metric tons of carbon equivalent in 2010. Making our operations more energy efficient to limit our impacts is a priority.

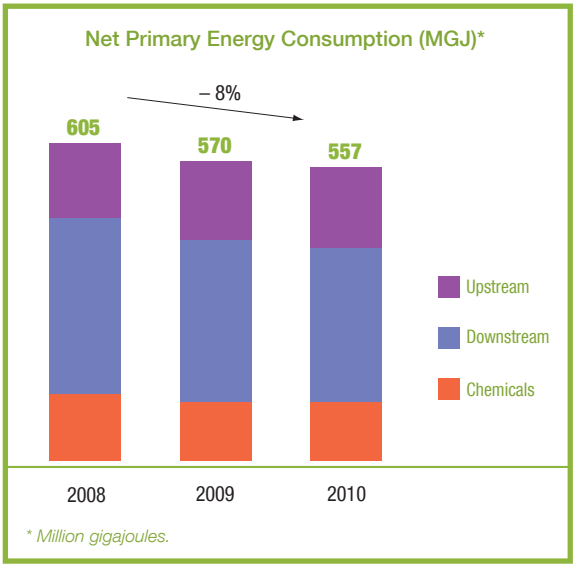
EXPLORATION & PRODUCTION: OPTIMIZING NEW PROJECT DESIGN

Our initiatives and technical choices in Exploration & Production are guided by energy audits being progressively deployed at facilities and by comparing the energy performance of our different types of installations, such as liquefaction plants and Floating Production, Storage and Offloading (FPSO) vessels. This helps us to enhance the design of new projects and continue working toward a 2% annual improvement in E&P's energy efficiency indicator.

DOWNSTREAM AND CHEMICALS ACTIVITIES: PURSUING OUR INITIATIVES AND DEVELOPING SYNERGIES

Key capital expenditure in the last few years at our major chemical complexes, including Gonfreville in France, Feluy and Antwerp in Belgium and Carville in the United States, have enabled our Petrochemicals business to reach its target of a 2% improvement each year since 2007. Continuing efforts to identify untapped energy efficiencies should keep upgrade initiatives going past 2012. Our smallest specialty chemicals sites are also pitching in: the Houston facility of Cook Composites & Polymers, a Cray Valley subsidiary, has managed to cut its energy use 14% compared to 2007. What's more, the U.S. authorities have recognized its successful completion of energy management certification.

Energy accounts for more than half of Refining's operating costs. The slowdown in activity at our refineries in the last two years does not help boost the overall energy efficiency of our installations. Significant progress will nonetheless be made, thanks to major upgrades under way, among them the deep conversion project at the Port Arthur, Texas refinery, the addition of three units to improve energy recovery at the Antwerp refinery, and the installation of an ultra-efficient Packinox® heat exchanger as part of the revamping of the Normandy refinery in France. Optimizing the management of units and a stronger energy culture are other important drivers of progress to achieve an improvement of 1% a year. An action plan incorporating them will target two or three sites a year. Energy teams from the technical support center set up in Dunkirk when the Flandres facility was repurposed will lend their expertise to the sites starting in mid-2011.



Energy Efficiency Targets to Be Achieved by 2012

+1% a year in Refining

+2% a year in Petrochemicals

+2% a year in Exploration & Production

Lastly, our businesses work in synergy to make sure we meet our objectives. Areas covered include turbine maintenance policy and optimizing product swaps between petrochemical units and refineries.

PICKING OUT THE MOST EFFICIENT ALTERNATIVE ENERGIES

Producing solar power equipment and biomass-to-energy, biomass-to-chemicals and carbon chemistry processes (see pages 18 to 21) are promising solutions, but also require energy. That is why our R&D encompasses improving the energy efficiency of processes. In 2010, our acquisition of an interest in the start-up AE Polysilicon gave us access to a purified silicon (used for solar panels) production technology that is far less energy-intensive than conventional processes.

We are undertaking a wide range of initiatives to improve the energy efficiency of our marketing and retail activities. They include a Europe-wide energy saving plan at service stations, audits of energy use and greenhouse gas emissions at representative fuel retailing units, and the design of high environmental quality (HQE-certified) highway outlets.

Other Steps We Are Taking to Cut Our Greenhouse Gas Emissions

In addition to our initiatives to improve the energy efficiency of our products, processes and facilities, we are also working on:

– Reducing the flaring of gas associated with oil production, which accounts for nearly 30% of our greenhouse gas emissions. We have made a commitment to cut flaring in half between 2005 and 2014. Since 2000, our new projects have been designed to eliminate flaring under normal operating conditions. This applies to Akpo in Nigeria and Pazflor, and CLOV in Angola. Depending on what is most feasible, the gas is reinjected into fields, recovered and sold as liquefied natural gas or used locally. All such operations strive to optimize the availability of the equipment involved. Since 2006, we have also been scaling back continuous flaring at our existing facilities by improving the reliability of the systems in place — the Obagi field in Nigeria being an example — or installing new equipment. These costly projects require the agreement of all partners, which can sometimes be difficult to secure and delay certain schedules.

– Expanding the use of carbon capture and geological storage (CCS). According to the Intergovernmental Panel on Climate Change (IPCC), CCS could account for nearly 20% of the reductions in global carbon emissions from energy combustion in 2050. Since January 2010, we have been experimenting with the first end-to-end industrial carbon capture, transportation and storage chain in Europe, in Lacq, France. In late 2010, we also signed an agreement with Bellona, an environmental NGO specializing in energy and climate change, under which Total will help finance its program to promote CCS processes around the world for two years (see pages 15 and 21).

– Developing lower-carbon energies (see Alternative Energies section, pages 16 to 21).

For several years now, we have factored a carbon cost of €25 per metric ton into our projects, a strong incentive to make them more energy efficient.

Together we expect these measures to **reduce the greenhouse gas emissions of our operated activities by 15% in 2015 from 2008 levels.**

Can plastic packaging ever become totally sustainable?

Jay Gouliard, Vice President, Global Packaging Development and Design, Unilever

We believe in the environmental advantages of plastics. For example, they help improve the environmental footprint of packaged products by preserving food better and lightening transportation loads. But I agree, this footprint can be made even smaller. We're working on it. Our primary target is improving the properties of plastics, to offer our customers eco-efficient solutions. The magazine *EPPM* recently presented us with its "Award for the Most Innovative Company 2010" in recognition of our efforts. Another focus is using alternative, non-fossil-fuel-sourced feedstock rather than naphtha. Here again, we're making progress: our polylactic acid (PLA) pilot demonstrates that plastics can be made from sugar. And there's a wide array of virtuous pathways to avoid dumping our plastics in landfills, including recycling and waste-to-energy technology.

Christian Marchand, Global Packaging Development Manager, Total Petrochemicals

2% a year energy efficiency improvement target for our petrochemical facilities between 2007 and 2012

6 plastics were awarded the Total Ecosolutions label in 2009-2010

In the 20th century, plastics allowed billions of people to share in the benefits of growth. In the 21st century, they are taking on a new dimension, reinventing themselves to save resources and create fewer nuisances. We are stepping up innovation to respond to the challenges of a sector undergoing profound change.

Through Total Petrochemicals, we are one of the world's leading petrochemical producers, supplying plastics to a number of domestic and industrial markets, including packaging, construction, automaking, and electrical and electronic equipment.

Plastics are very necessary, but heavily criticized. We have a number of challenges to meet, including economizing resources, finding new, innovative solutions to retrofit existing facilities, minimizing the environmental impacts of our operations and products, and managing the entire life cycle of plastics. And we must meet them now and all at the same time.

In particular, **bioplastics**, which we are developing with a number of partners, have a genuine role to play in the petrochemical industry of the 21st century. But satisfying fast-growing demand, especially from emerging economies, will not be enough. Bioplastics are forecast to make up around **1% of all plastics produced in 2020**. Their growth will depend on factors such as implementing incentive policies, making strides in production technologies and improving their technical properties. Only one thing is certain: oil will still be the primary feedstock for plastics at that time.

Eco-Efficient Solutions Already at Work

Total Petrochemicals has been developing a Total Ecosolutions line of products since 2009 (see page 43). The product of ceaseless research, these eco-efficient solutions are a practical, immediate response to the expectations of customers, who are eager to be better consumers and lessen their environmental footprint.

Six eco-efficient Total Ecosolutions plastics were exhibited in late 2010 at the Düsseldorf K Trade Fair, the biggest international trade show for plastics professionals:

– A polypropylene used to manufacture thermoformed trays for fresh food packaging. The 15% reduction in weight decreases resource use, energy consumption and greenhouse gas emissions by the same amount.

Pivotal Plastics: Erasing the Stigma Once and For All

– According to a 2009 study by McKinsey & Company, "Pathways to a Low-Carbon Economy," insulating buildings is the easiest and cheapest way to cut carbon emissions. Across the life of a building, one kilogram of plastic can save as much as 755 kilograms of carbon.

– A billion people lack access to running water: implementing the UN's 2010 resolution making access to drinking water a universal right will take hundreds of thousands of kilometers of plastic pipes.

– According to a June 2010 study by Denkstatt AG, "The Impact of Plastics on Life-Cycle Energy Consumption and Greenhouse Gas Emissions in Europe," eliminating plastic would quadruple packaging weight. Greenhouse gas emissions would jump 61% and energy consumption, 57%.

– Future cars and aircraft will have to be lighter to reduce their fuel consumption. Some 50% of car components are already made of plastic, while accounting for just 10% of vehicle weight.

– Plastic packaging preserves food, helping to feed billions of people and enabling developing countries to expand their production.

– Researchers are currently developing a polymer electrolyte fuel cell, expected to produce practically no greenhouse gas emissions.

These are just a few examples that fly in the face of the negative public perceptions of plastics in developed countries. They show that plastics will be increasingly important in responding to the looming oil supply crisis one or two decades hence.

In May 2010, the world's biggest ethane cracker was inaugurated in Ras Laffan, Qatar. It will produce 1.3 million metric tons a year and supply a new polyethylene unit nearby. The gas comes from an offshore Qatari field. Long used in the United States, ethane has confirmed its growing importance in plastics manufacturing.

– A polypropylene used for the injection molding of food packaging and pails. It reduces weight by 5%.
– A Lumicene® polypropylene used to make non-woven fabric for wipes and surgical masks. The 17% savings in raw materials decreases energy use and greenhouse gas emissions by the same amount.
– A high-density polyethylene for pressure pipes for water and gas: the extremely crack-resistant pipes can be placed directly on the ground, without adding sand first. Eliminating the use and transportation of sand cuts energy use and greenhouse gas emissions by about 10%.
– A Lumicene® polyethylene used to produce transparent blown film for fresh food packaging applications. The 20% reduction in weight decreases resource use, energy consumption and greenhouse gas emissions by the same amount.
– A polystyrene used to make extruded board for building insulation. Energy use is reduced roughly 11% during the production and use of the plastic, without sacrificing insulation and compressive strength performance.

Combining Options for Managing End-of-Life Plastics

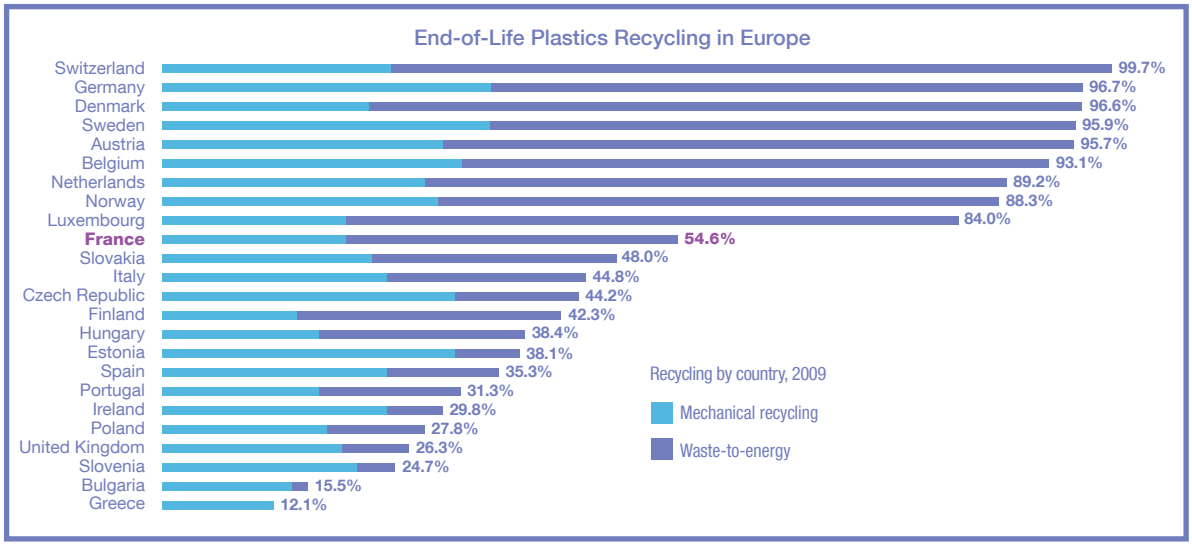
As users grow increasingly concerned about what happens to their waste and regulatory pressures mount, we are focusing on "end-of-life" options, adapting our proposals to different plastics, local cultures and current or future regulations.
We believe that **the wave of the future will be combining the different end-of-life options for plastics**, including mechanical recycling, chemical recycling and, at the very end of life, conversion to energy, as plastics have the same heating value as fuel oil.
Besides working with industry to prune excess packaging and supporting trade associations such as PlasticsEurope and the American Chemistry Council, we are developing a pragmatic strategy to devise appropriate, efficient solutions for avoiding landfills, on our own or with partners.
In 2010 we explored two approaches in mass consumer niches, where the savings in tonnage are immediate and spectacular.
The first angle of attack is **product packaging**. The world's fifth-largest maker of lubricants, we use large amounts of plastic to package our products. Each year, our Le Havre-based subsidiary Normanplast produces over

SOME FIGURES

20%
of our chemicals R&D dedicated to "green" chemicals

430
people working in five of our research centers to develop the plastics of the future

1,500
metric tons, the annual capacity of the pilot unit operated by our Futerro joint venture



30 million 0.5- to 20-liter containers. In 2010, it **introduced 290 metric tons of recycled high-density polyethylene (HDPE) into the production cycle,** or 15% of the material used to make the containers. The purchase of a new extrusion machine and the multilayer method will increase that figure to 60%. Normanplast will use 600 metric tons of recycled HDPE for this application. It will also cut the amount of dyes used to color the containers by more than half.

Another focus is using polystyrene CPD 818R in television sets and computers. Recently developed by Total and a candidate for the Total Ecosolutions label, it is the first European polymer to **include a significant percentage of recycled polystyrene** and a perfect example of "cradle to cradle" design. The recycled plastic comes from end-of-life electrical and electronic equipment and the final product will be used for television set housings. It will **save about 10% on virgin plastic** compared to a market reference product, for an equivalent performance. That is no small impact given that the LCD (liquid crystal display) TV market in Europe alone is expected to consume 10,000 metric tons of plastics a year between now and 2013.

Steering a Course Toward Bioplastics

Some 4% of the oil currently extracted is used to make plastic. So although large quantities of plastic are produced, their environmental impact needs to be put into perspective. Nevertheless, replacing petroleum with renewable resources is a strategic

Articles made from PLA, a plastic manufactured from beet sugar pulp.

research focus at Total. We aim to prepare for the eventual oil crunch and, more importantly, to respond in the short term to growing demand for products with small environmental footprints made from renewable resources.

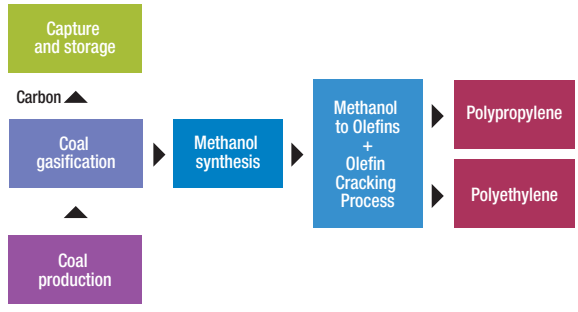
In 2010, we kicked off full-scale tests of two processes that are almost mature after several years of work.

In April 2010, Futerro became a reality. Three years earlier, Total had established a partnership with Galactic to develop a polylactic acid (PLA) production technology. The demonstration unit, the precursor of a commercial-scale plant, inaugurated in Escanaffles, Belgium, produces **1,500 metric tons a year of bioplastic by fermenting sugar, notably from sugar beets.** Buoyed by a capital investment of €15 million, Futerro is now conducting full-scale testing of each step in the technology, to improve and even extend them to other agricultural resources and to develop new products. The enhanced second-generation PLAs will eventually be used for sustainable applications involving textile fibers, the automotive industry and cell phone cases. In both instances, this revolutionary bioplastic will be fully end-of-life recyclable.

Another project initiated some time ago also ramped up. In November 2010, we signed an agreement with electric utility China Power Investment Corporation (CPI) to study the feasibility of building a plant in Inner Mongolia to produce plastics from coal. A highly strategic agreement in a country that has plentiful reserves and is expected to consume a third of the world's plastic in 2030. The proposed petrochemical plant could start operating before 2015, producing **a million metric tons of plastics each year for China's domestic market.**

SPOTLIGHT

The Coal to (Poly)Olefins (CTO) Process A Project in China



This would be the first commercial application of our Methanol to Olefins (MTO) technology, which has been tested since 2008 in Feluy, Belgium. The demonstration unit is currently the world's biggest pilot for the production of ethylene and propylene by means of methanol cracking. It enables Total to offer better yields and tighter process control than other existing MTO technologies. Our process uses less water and we have the polymer skills and expertise to create high value-added products, both of which are also advantages.

Bioplastics, a Burgeoning Sector

The main challenge of bioplastics will be developing new technologies that maximize carbon efficiency and minimize environmental impact in a cost-effective way. Needless to say, bioplastics require a full range of R&D resources, and not just our own.

We have a venture capital arm, Total Energy Ventures (TEV), that specializes in acquiring minority interests in innovative companies with the potential to meet the environmental and energy challenges of the future.

In 2010, we acquired new shares in Gevo, a Colorado-based company that is developing a process to produce isobutanol from renewable resources. Gevo could eventually help spawn a new generation of petrochemicals.

We also invested in Coskata, an Illinois-based company that is developing an innovative process for fermenting syngas made from cellulose, which can be based on waste and residual waste, including plastics.

We analyze hundreds of reports each year to spot and support the most promising solutions, especially involving plastics and green chemicals.

Recently, Nigeria's President Goodluck Jonathan, on a political visit to Northern Nigeria, swore he would find oil in a specific sector (Chad Basin) in that region. Does Total believe there is a scientific basis for the President's commendable optimism?

Wole Soyinka, Nobel Laureate in Literature 1986

Oil and gas have yet to be discovered and produced on the Nigerian side of the West African Inland Rift basins, unlike in Southern Chad, the Republic of Niger or Sudan. NNPC has already drilled 23 exploration wells in the Chad Basin, and exploration there remains very challenging. However, exploration activities have slowed down in the last few years, and most companies conducting exploration in Nigeria are currently focusing on other areas that have proved to be more prolific in the past.

Dr. Kingsley Ojoh, Executive Director, Corporate GSR & Business, Total Nigeria

24 million hours worked on our projects in Nigeria in 2010

x 3 Our Nigerian production tripled between 2000 and 2010

574 service stations

By helping to develop Nigeria's resources, we are creating value for all stakeholders in a country characterized by stark socioeconomic inequalities. We do our part to help the country grow sustainably through major efforts to spur local industry, improve living conditions, protect the environment, and ensure the safety of both personnel and facilities.

A Deep-Rooted, Steadily Growing Partnership

HIGH POTENTIAL, BALANCED BY MULTIPLE CHALLENGES

The Federal Republic of Nigeria is an African heavyweight, both in terms of size and population, which was given as 158.3 million in the United Nations Population Fund (UNFPA) *State of World Population 2010* report. Its 2009 GDP of $160 billion is the third highest on the continent. The country has phenomenal oil and gas potential, with **the majority of sub-Saharan Africa's crude oil reserves.** Despite these assets, Nigeria ranks **142nd out of 169 countries on the Human Development Index,** which looks at health, education and average per capita income.

Young Dealers Program

Since the 1960s, 368 Nigerians have taken advantage of our Young Dealers program to help young pump attendants advance to the position of Total service station manager. Some 72 young dealers opened their own service stations in 2010.

It is also racked by strong inter-ethnic and sectarian conflict, leading to endemic violence in the Niger Delta oil region. With such a broad range of needs to meet in such a complex environment, we strive to be irreproachable in the way we conduct business and help drive the country's development.

TOTAL, A MAJOR DRIVER OF LOCAL DEVELOPMENT

Total has been active in refining and marketing in Nigeria for nearly 60 years and in exploration and production for almost 50. Over the years, we have become a major stakeholder in Nigeria's oil industry, with **our operated production accounting for more than 15% of its oil and gas output.** We are also the top independent marketer of petroleum products in Nigeria, with a 15% market share. These activities make up a hefty proportion of the country's financial resources: counting tax revenue and national oil company NNPC's share, the oil industry generates around 80% of the government's revenue. Yet this substantial revenue has yet to bring the Nigerian people the hoped-for development or economic ripple effects. It is therefore our responsibility to practice financial transparency and promote sustainable development.

A Major Source of Revenue for Nigeria's Development

A member of the Extractive Industries Transparency Initiative since 2007, Nigeria achieved EITI compliant status in March 2011. Total has supported EITI since its inception. We have worked with Nigeria on transparency and, with the federal government's consent, we publish the amount we pay in taxes on our business operations each year in a financial transparency report. In 2010, the amount totaled $1.186 billion.

Nigeria is a major center of activity for Total, **accounting for almost 13% of our production.** We began operating onshore, then moved offshore in the 1980s and into the deep offshore in the early 2000s. Operations there are a remarkable success, with our operated production virtually tripling in the past decade. Thanks to recent discoveries and ongoing projects such as Usan, Egina and OML 58, the outlook is very bright. Our goal is **operated production of close to 800,000 barrels of oil equivalent per day in 2015.** This growth will be fueled by two main drivers: gas for domestic consumption or export and deep offshore operations.

Total is a shareholder of Nigeria LNG, which operates one of the world's biggest gas liquefaction plants — capacity of 22 million metric tons per year — on Bonny Island and pursues development projects dedicated to supplying the plant with feed gas.

In Nigeria, our proficiency in deepwater operations in the Gulf of Guinea recently culminated in the coming on stream of the Akpo field in 2009 and will continue with the projected production start-up of Usan in 2012 and Egina in 2015.

We are therefore poised to become an increasingly important player in Nigeria's development, through the promising outlook for our operations.

Spurring the Economy and Developing Human Potential

Doing business with local companies comes naturally to Total. It is also a very strong expectation of the Nigerian authorities. Expanding the country's industrial capacity by using local content in our projects is an important ingredient in our social license to operate. We are hiring local contractors to do more and more work, while supporting and coaching them to meet higher standards for quality, safety and working conditions.

We aspire to be a major force in this virtuous process, a fact illustrated by the growing number of Nigerians working on our deep offshore projects. Local content accounted for 28% of the construction work to develop Akpo. Usan, launched in 2008, will boost that to 59%, or 11 million hours of work for local contractors. Egina will go even farther, with all front end engineering design (FEED) performed in Nigeria.

The expansion of our activities in Nigeria means a growing need for personnel. **More than 80% of our Exploration & Production subsidiary's employees are Nigerian,** as are close to 90% of the people working in our Refining & Marketing subsidiary. We conduct massive recruitment programs to attract young Nigerian graduates. As a result, around 100 new Nigerian employees join us each year. We provide substantial training and mentoring to onboard our new Nigerian employees and help them move up to positions of responsibility. Total's businesses in the country together **spent $11 million on training** in 2010.

KEY FIGURE

7,500

metric tons of equipment for the future Usan Floating Production, Storage and Offloading (FPSO) vessel is being fabricated at the Nigerdock shipyard in Lagos. The partnership includes 30,000 hours of training for yard employees.

In addition, we make sure that our non-Nigerian industrial service providers implement local development policies in activities related to our operations.

Supporting Communities Near Our Facilities

Wherever we operate, we have a particular responsibility to encourage the socioeconomic development of communities living near operations. This is the case in Nigeria, too. We are careful not to supplant authorities, instead working in concert with them to supplement or cascade their initiatives.

We derive our skills and expertise from the continuing professional development of our community development teams, whose training is planned with the help of French NGO Institut de recherches et d'applications des méthodes de développement (IRAM). Project planning, goal-setting, and tracking and assessment indicators are some of the tools that make our initiatives more effective.

Our process, backed by the findings of Total's Stakeholder Relationship Management, or SRM+, tool is based on listening to and consensus building with our stakeholders, to better understand and meet their needs through effective, long-term programs. This has enabled us to move beyond the "handout" mentality to a co-development approach marked by community ownership of processes, projects and programs. These basic principles underlie the Egi Master Plan, a 15-year development plan set up in 2009 with the Egi Clan, a group of communities numbering 80,000 people living near our Obagi and Obite facilities.

In the Niger Delta, a number of initiatives outlined in the various memorandums of understanding we have signed with communities are helping to permanently improve their standard of living. We have spent **more than $15 million** on education and training, agriculture, economic development and public health initiatives. Some of the money went to fund **8,000 education grants,** from the primary through higher education levels. In addition, 260 people received microcredit loans, whose real effectiveness is borne out by their nearly 77% repayment rate.

At the same time, to gauge the impact of our role in spurring community development, we support the work of a French research program called "Businesses and

The Institute of Petroleum Studies, a Local Talent Pool

Total was the prime mover behind the partnership with the French Petroleum and Alternative Energies Institute (IFPEN) and the University of Port Harcourt that led to the opening of the Institute of Petroleum Studies (IPS) in 2004. The IPS has already awarded master's degrees in petroleum engineering to more than 120 students, who represent a valued resource for their country's oil industry. A program for students from host communities was introduced in 2008.

Effective Assistance in Creating Microenterprises

Youth employment is a major issue for communities living near our facilities. At our Koko and Kaduna lubricant plants, we created a skills acquisition program in 2004 involving technical and practical training in various fields, including sewing, metalworking and information technology. When the training is completed, our subsidiary provides each young person with a "starter kit" — money to pay commercial rent and purchase basic equipment — to set up a microenterprise.

Entrepreneurs at the Koko market.

Emerging Economy Development", headed by Cécile Renouard and sponsored by the ESSEC Iréné Institute, to assess our corporate social responsibility performance in the Niger Delta.

Safety, Environment and Security: Zero Tolerance

In Nigeria, as elsewhere, safety is our top operational priority. We view safety performance as a good indicator of the quality of operations, reflecting their preparation, supervision and execution. The first thing we minimize is our environmental footprint. And in the area of security, we pay special attention to protecting our employees and their families, as well as contractor personnel, from physical attack. Such safety and security concerns are an integral part of our role as an operator.

INDUSTRIAL SAFETY IS OUR PRIORITY

Our safety efforts are paying off. In 2010, the Total Recordable Injury Rate (TRIR) and the Lost Time Injury Rate (LTIR) were down sharply from 2009. This is especially impressive given the strong upswing in activity at the many sites involved in executing our projects: we logged 24 million hours worked in 2010, against 17.4 million in 2009. Regrettably, the three deaths that marred our exploration and production operations highlight the need to do even more to instill the habits and practices of a shared safety culture.

WATER QUALITY AND GREENHOUSE GAS EMISSIONS, SIGNIFICANT PROGRESS

In six years, we have divided the average hydrocarbon content of produced water discharges by 3.5, to 15 parts per million in 2010. In addition, all produced water from onshore fields is reinjected into the reservoir, for zero discharges.

We work every day to reduce our flaring in Nigeria, which averaged 3.3 million cubic meters per day in 2010. That makes Total E&P Nigeria one of the country's top performers in this area. Retrofits at existing facilities will further reduce flaring: the start of Ofon Phase 2 in 2014 followed by the Flare Out project on OML 100 will cut our greenhouse gas emissions by more than half. This will be achieved by reinjecting the gas produced, processing it into LNG or using it to generate power. In addition, all our new projects since 2000 ban flaring under normal operating conditions.

SECURITY: A DUTY TO PROTECT

In light of the security conditions in Nigeria, particularly the enduring tensions in the Niger Delta, we have an obligation to take protective measures on behalf of personnel working at our facilities. We also have an obligation to protect production facilities, which are partly or fully owned by the federal government of Nigeria.

Our **ongoing dialogue with local communities** is critical in heading off violence and has enabled us to conduct our operations in reasonable security. Production stoppages as a result of outside disruptions have been falling steadily for the last several years; there were none in 2010.

Pollution Update

The scale of oil pollution in the Niger Delta is a genuine concern. In 2009, Amnesty International wrote a scathing report on the topic, blasting its impact on local living conditions, inadequate pollution cleanup efforts and a lack of information from some operators. Total practices transparency with respect to pollution, keeping local communities, Nigerian authorities and NGOs in the loop. Although we had no pollution incidents to report in 2010, we experienced 20 between 2006 and 2009 on our only operated onshore project, OML 58. Fifteen were caused by acts of vandalism and five occurred as a result of technical incidents. In 2010, we completed full cleanup of all contaminated sites. All of our cleanup operations were certified by the Nigerian authorities, except those at the Rumuekpe facility, which security risks kept them from visiting.

How does Total integrate diverse backgrounds in France to make them into a competitive strength that can be leveraged worldwide?

Henri de Reboul, Executive Director of IMS-Entreprendre pour la Cité, a French association that promotes CSR and diversity initiatives

We deploy a proactive, ambitious diversity policy. We strive to recruit people worldwide, from all backgrounds, with a special focus on integrating women and non-French nationals — as long as they're the right people for the right job. I transferred to Paris after working in Pakistan for three years. Total helped me adapt to the way things work in France, at both the business and personal level. Today, I recruit people from a wide variety of backgrounds and meet, face-to-face or by telephone and videoconference, candidates from around the world. Some of my colleagues even travel to distant locations to conduct interviews. That's how we find the best and the brightest. I also try to hire women for the most technical jobs — as the poster in my office says: "At Total, women are engineers too."

Fatma Z., Recruitment, Careers & Diversity Department, Total

10,000 new hires in 110 countries in 2010

92,855 employees worldwide

32% of new hires are women

72% of new manager hires are non-French nationals

While based in France, our operations are global. To sustain our performance over time and around the world, we need to foster cultural and gender diversity of talent and management, as this will determine our competitiveness, capacity to innovate and appeal as an employer. But integrating diversity does not mean looking for carbon copies; our corporate social responsibility includes factoring in specific local conditions and situations.

Promoting Equal Opportunity to Encourage Diversity

Total operates in more than 120 countries worldwide, making diversity a fact of life for us. More importantly, it's an asset we aim to cultivate. Diversity is high on our list of priorities, starting with hiring. We recruit employees with a wide variety of backgrounds and degrees. **In 2010, the 10,000 people we hired around the world were the product of some 500 universities.** Post-hiring, we make sure that our human resources management processes offer equal opportunity for career advancement and training opportunities for all.

For us, promoting diversity goes hand in hand with fighting discrimination. This means offering equal opportunities and hiring and retaining disabled individuals. In France for example, Mission Handicap, our team of disability advocates, oversees the onboarding of disabled employees and provides them with career coaching and support. For over 20 years we have opted for an official disability policy, by signing **seven agreements in succession with employee representatives to promote hiring of the disabled.** The most recent one was concluded in 2010.

Fostering Diversity at Even the Most Senior Management Levels

Though no one can dispute the diversity of our workforce, there is still some catching up to do in so-called "positions of responsibility." The strategy we have in place is

Access to Quality Benefits for All Our Employees

Total believes that offering all employees a quality benefits package is one aspect of promoting equal opportunity. Whatever their country of employment, all of them enjoy benefits — health insurance, life insurance, etc. — based on a common core of principles and procedures. In Africa and the Middle East, for example, Refining & Marketing offers a supplemental retirement plan to nearly 4,000 employees in 29 countries. In the same spirit, we have also worked hard since 1984 to encourage employee share ownership (see page 38). A global free share grant plan introduced in 2010 takes things up a notch, since it means that all employees will own at least 25 shares regardless of their level of responsibility, country or business sector.

ROAD MAP

	2005	2010	2015	2020
% of non-French senior executives	20	23	30	38
% of women senior executives	6	14	18	22

designed to remove roadblocks to career advancement for women and non-French nationals at Total. We firmly believe that **a real change in attitudes** is required to achieve diversity, which is why educating and raising the awareness of people at the highest management levels is critical. The other main thrust is to identify high potential non-French and women employees, so that we can coach and mentor them throughout their careers.

A DIVERSITY COUNCIL TO KEEP THE MOMENTUM GOING

In 2004, Total created the Diversity Council. Chaired by a member of the Executive Committee, it is a powerful tool to drive policies promoting equal opportunity. The Council has opted to focus on increasing the number of **women** and **non-French nationals** in our workforce, in every Total host country. This impetus applies to hiring and career management. The Diversity Council also tracks progress indicators in this area.

A SPECIFIC HR POLICY TO NURTURE THE DIVERSITY OF OUR TALENTS

Diversity is the purview of our Recruitment, Careers & Diversity Department, to keep it close to the centers of decision-making. Diversity managers in each business and country apply policies and define their own action plans to meet their own specific challenges. As a result, our global human resources policy helps us create talent pools in our subsidiaries that can be tapped both for local positions of responsibility and international careers.

Following up on our diversity focus in hiring, we have created a talent spotting process to identify "high potentials," making sure that non-French nationals and women are well represented in the mix. They account for 38% and 21% of this category respectively. We educate career managers and managers, who play a key role in identifying talent as well as promoting them during resource planning.

We have also followed through by devising dedicated training programs for this population. At headquarters and in some subsidiaries, including Angola, Indonesia and South Africa, mentoring programs have been introduced.

SUPPORTING THE CAREER DEVELOPMENT OF WOMEN

Women work in virtually all of our professional fields. However, they certainly do not make up a sufficient percentage of our workforce, either in general or at the highest levels in particular. Hence our decision to step up our efforts to attract more women employees.

We are particularly careful to hire women in numbers at least equal to the percentage of young women graduating from scientific and technical programs, or an average of 22% in France for example.

Encouraging Careers in France

There is nothing like personal meetings and discussions to educate young women about science majors and careers. In 2009, partnering with École Centrale Paris, Total took part in the Initiative for Women fair, bringing together some 500 high school students so they could chat with female students from the engineering school and women engineers at Total. Along the same lines, Total became involved with ***Elles bougent*** **[Women on the Move]** in 2011. The association encourages young women to consider careers in industry.

Participants in a Business Skills seminar.

On May 4, 2010, we took things up a notch with the signature of a new **workplace gender equality agreement at Total S.A.** Upholding the principles set forth in the 2005 Europe-wide agreement, it allows us to implement real-world measures related to hiring, compensation, career advancement and work-life balance. The initiatives deployed include:

– Closing the wage gap between men and women, by **raising the pay of 2,300 female employees by an average of 3.7% in 2010.**

– Covering the childcare costs of women during training or off-site assignments.

– Granting an entitlement of eight paid working days for both adoption and maternity, to be taken as needed.

A workplace gender equality committee has been set up in the units concerned to track, by consensus, implementation of the measures negotiated.

Our participation in the **BoardWomen Partners Program** is another landmark initiative. The program aims to sharply boost the percentage of women who sit on the boards of directors of major companies across Europe. We should be in compliance with the 20% requirement of the AFEP-MEDEF (French employers' associations) Code and French law by 2011, ahead of the scheduled deadline of 2013. We will then have until 2017 to reach the bar of 40% female representation on our Board of Directors.

We also have a women's network, **TWICE,** at Total. Set up four years ago, this internal and external cross-functional resource encourages women to share experiences and boosts their confidence in their ability to take charge of their own careers. Several times a month, TWICE members are invited to meetings on special topics with Total senior managers or to personal development workshops. In 2010, TWICE also kicked off a **pilot mentoring program** to provide women just starting their careers with a more senior mentor of either sex. Sixty women were enrolled in the program in 2010, and it is expected to be just as successful in 2011.

Each year, a number of women managers are also invited to complete a course entitled "Career Management for Women."

RECRUITING, ONBOARDING AND DEVELOPING ALL KINDS OF TALENT, ALL OVER THE WORLD

With roots in their host countries that go back many years, our subsidiaries are local businesses in every sense of the word. We therefore have an obligation to hire host country nationals. Today, **a full 80% of our hires are made in countries other than France.** But beyond hiring, taking steps to create a more international management staff is a strong focus of our diversity policy.

Training center in the Congo.

In general, we offer significant training — especially technical training — opportunities. The situation varies by region and type of activity. **Our African employees complete nearly nine days of training a year,** versus an average of just under six days for Total as a whole. In addition, to make non-French nationals feel perfectly at home, we offer them English and French language classes and intercultural seminars. In 2010, 1,800 learners (Oil France reporting scope) took **more than 65,000 hours of language instruction.**

With facilities in so many countries, having employees who are interested in national, regional and international **mobility** also fosters diversity and cultural mixing. It is, in fact, one of our hiring criteria. We also encourage personnel exchanges across subsidiaries: the transfer of knowledge and skills and the development of competencies and adaptability contribute to employees' personal growth. Total currently has more than 4,100 expatriate employees from 100 nations assigned to our host countries.

THREE QUESTIONS FOR

Élisabeth Proust, CEO, Total E&P Indonésie

What are you doing to promote diversity?
Our emphasis is on putting more Indonesians and women in management positions. For instance, we have increased our recruitment of women; for positions of responsibility, it exceeds the percentage of women who graduate from Indonesia's universities. But a lot of work needs to be done. Most women are secretaries and assistants in our support functions and there are very few women technicians and engineers at our production facilities. We have successfully made the transition to being Indonesian, with 140 expatriate and 1,976 local employees. The spotlight now is on positions of responsibility. In a vast country with myriad ethnic groups, cultures and traditions, we also focus on specific local features, such as which island employees come from. We will eventually hire even more people locally, with skills as the main criterion.

What are you doing to move forward?
Above all, we communicate — with employees and with universities, schools and technical institutes that offer scholarships. We are also developing educational programs in our host regions, to improve teaching standards and help students from Kalimantan continue their education at leading universities.
A succession plan encompassing more than 1,100 jobs that are reviewed annually allows us to promote our talented women to senior positions.

What career advice would you give other women?
I've always believed that success in the business world has nothing to do with whether you're a man or a woman. Our diversity strategy aims to ensure people enjoy equal opportunity, not to promote them solely on the basis of gender or nationality. People are promoted on merit. Every year, on International Women's Day, I tell the women I work with: "Think of yourself as just another professional, not as a woman in a man's world."

Our Inclusion in the Main Environment, Social and Governance (ESG) Indexes

Total has been continuously included in the DJSI World Index since 2004 and the DJSI Europe Index since 2005. These indexes are published by Swiss asset manager SAM.

Total has been a constituent company of the FTSE4Good Index since 2001. The index is managed by global index provider FTSE Group.

Total has been continuously included in French rating agency Vigeo's ASPI Index since 2004.

In 2010, **Total ranked third out of 27 companies** — and was the top-ranked major — in the energy industry analysis conducted by Oekom Research, a German sustainable investment rating agency. We achieved a rating of "B" and "Prime Status" (recommended as a socially responsible investment).

Our Main Objectives

In 2010

		Objective	Achieved	Our Performance
ENVIRONMENT				
Exploration & Production hydrocarbon discharges to water	offshore	< 30 mg/l	25 mg/l	Our facilities performed well, significantly decreasing discharges from 2009 levels
	inshore	< 10 mg/l	19 mg/l	Results negatively impacted by operating problems Capital expenditure planned
Reduction in sulfur dioxide emissions by refineries		20%	48%	Target substantially exceeded thanks to significant capital spending of €170 million
SOCIAL				
Number of hires worldwide in 2010[1]	World	8,000	10,000	Overall target achieved
	of which France	1,500	1,250	
Percentage of non-French senior executives		25%	23%	No change from 2009 Action plan being deployed
Percentage of women senior executives		12%	14%	Objective exceeded

1. Managed scope.

For the future

		Objective	Our Performance
ENVIRONMENT			
Reduction in gas flaring in E&P operations		50% in 2014 versus 2005	Objective maintained despite implementation difficulties
Energy efficiency	Exploration & Production Petrochemicals	2% improvement between 2007 and 2012	Achievement in line with objectives
	Refining	1% improvement between 2007 and 2012	Energy intensity increased due to the low utilization rate of units Actions under way
ISO 14000 certification rate		100% of environmentally sensitive sites[2] in 2012	On course to achieve the objective
SAFETY			
Total Recordable Injury Rate		25% reduction over four years (2013, versus the 2009 TRIR[3] objective)	TRIR[3] improved by 16% in 2010 versus 2009
SOCIAL			
Percentage of non-French senior executives		30% in 2015	Objective raised
Percentage of women senior executives		18% in 2015	Objective raised
Percentage of employees entitled to death benefits		92% in 2012	New objective

2. Sites that account for 90% of the indicators for each business, including air emissions and freshwater withdrawals.
3. Total Recordable Injury Rate, or number of accidents reported per million hours worked.

Our 2010 Performance Indicators

ECONOMIC

Unit		2008	2009	2010
€M	Sales	179,976	131,327	159,269
	Adjusted operating income from business segments[1]	28,114	14,154	19,797
	Adjusted net operating income from business segments[1]	13,961	7,607	10,622
	Adjusted net income (Group share)[1]	13,920	7,784	10,288
€	Adjusted fully-diluted earnings per share[1] [2]	6.20	3.48	4.58
	Dividend per share[3]	2.28	2.28	2.28
%	Net debt-to-equity (at December 31)	23	27	22
	Return on Average Capital Employed (ROACE)[4]	26	13	16
	Return on equity	32	16	19
€M	Cash flow from operating activities	18,669	12,360	18,493
	Capital expenditure	13,640	13,349	16,273
	Divestitures at selling price	2,585	3,081	4,316

1. Net income using replacement cost, adjusted for special items and excluding Total's share of amortization of intangibles related to the Sanofi-Aventis merger and, from 2009, selected items related to Sanofi-Aventis.
2. Based on the average weighted diluted shares outstanding during the year.
3. 2010 dividend; subject to approval at the Annual Shareholders' Meeting on May 13, 2011.
4. Calculated based on adjusted net operating income and average capital employed, using replacement cost.

ENVIRONMENT

Unit		2008	2009	2010
number	Operated sites	858	863	854
%	Sites that responded to the environmental reporting questionnaire	97	99	98
number	ISO 14001-certified sites	224	279	287
	of which: Upstream	41	61	68
	Downstream	75	108	107
	Chemicals	108	110	112
%	ISO 14001-certified environmentally sensitive sites		89	92

Unit		2008	2009	2010
Mt eq. CO_2	**☑ Six greenhouse gases**	**56**	**54**	**52**
	of which: Upstream	26	26	26
	Downstream	22	21	20
	Chemicals	7.5	6.2	5.4
10^{15}J	**Net primary energy consumption**	**605**	**570**	**557**
	of which: Upstream	148	153	152
	Downstream	333	306	293
	Chemicals	124	110	111
Mtoe	**Flaring**	**5.8**	**5.7**	**5.6**
metric kt	**☑ SO_2 emissions**	**130**	**117**	**99**
	of which: Upstream	50	49	51
	Downstream	77	66	46
	Chemicals	3	2	2
metric kt	**☑ NO_x emissions**	**88**	**88**	**87**
	of which: Upstream	60	61	64
	Downstream	21	21	18
	Chemicals	7	6	5
hundred kt	**Non-methane VOC emissions**	**1.3**	**1.3**	**1.2**
	of which: Upstream	0.90	0.97	0.88
	Refining	0.14	0.14	0.12
	Marketing	0.15	0.12	0.12
	Chemicals	0.082	0.070	0.065
hundred million cubic meters	Freshwater withdrawal (excluding once-through cooling water)	**1.5**	**1.4**	**1.5**
hundred million cubic meters	**Discharges** (excluding once-through cooling water)	**1.5**	**1.5**	**1.4**
metric kt	**Hydrocarbon discharges in effluent**	**1.54**	**1.35**	**1.19**
	of which: Downstream and Chemicals	0.11	0.11	0.08
	Upstream	1.43	1.24	1.12
mg/l	Exploration & Production	27	23	22
metric kt	**Suspended solids discharges**	**1.10**	**1.06**	**1.21**
metric kt	**Chemical oxygen demand (COD)**	**5.12**	**4.94**	**4.54**
metric kt	**Hazardous waste treated offsite**	**333**	**286**	**263**
	☑ of which: Hazardous waste from routine operations	**249**	**232**	**241**
	of which: Upstream	28	21	31
	Downstream	128	121	114
	Chemicals	92	89	96
	of which: Special waste	**84**	**55**	**23**
number	**Oil spills**	**451**	**458**	**399**
cubic meters		**7,346**	**2,375**	**3,038**
	of which: Upstream	4,984	425	84
	Downstream	2,339	1,932	2,778
	Chemicals	23	19	177

☑ Audited indicators that obtained a moderate level of assurance from Ernst & Young and KPMG (see Assurance Report on pages 74 and 75).

SOCIAL

	2008	2009	2010
WORKFORCE – Consolidated scope			
☑ **Workforce by region**			
France	37,101	36,407	35,169
Rest of Europe	27,495	26,299	24,931
Africa	8,237	8,648	8,725
North America	7,379	6,845	6,237
South America	6,574	6,923	6,783
Asia	8,733	9,795	9,392
Other[1]	1,440	1,470	1,618
Total	**96,959**	**96,387**	**92,855**
☑ **Workforce by manager/other**			
Managers	25,397	26,149	25,998
of which senior executives	320	308	309
Other	71,562	70,238	66,857
Total	**96,959**	**96,387**	**92,855**
☑ **Workforce by age bracket**			
Under 25	7%	7%	6%
25-29	13%	12%	12%
30-34	15%	15%	15%
35-39	14%	15%	15%
40-44	14%	14%	14%
45-49	13%	13%	13%
50-54	13%	13%	13%
55-59	9%	9%	10%
60-64	2%	2%	2%
65 and over	0%	0%	0%
EMPLOYMENT – Consolidated scope			
☑ **Permanent hires by region**			
France	18%	14%	9%
Rest of Europe	22%	29%	22%
Africa	9%	10%	8%
North America	10%	8%	7%
South America	22%	19%	20%
Asia	15%	17%	32%
Other[1]	4%	3%	2%

1. Other: Middle East, French overseas departments and territories, Pacific.

☑ Audited indicators that obtained a moderate level of assurance from Ernst & Young and KPMG (see Assurance Report on pages 74 and 75).

	2008	2009	2010
DIVERSITY – CONSOLIDATED SCOPE			
☑ Women as a percentage of the workforce			
Women as a percentage of the total workforce	29%	30%	29%
Women as a percentage of the manager workforce	22%	22%	23%
Women as a percentage of the senior executive workforce	10.6%	12%	14%
Women as a percentage of permanent contract hires	31%	32%	31%
Women as a percentage of permanent contract manager hires	29%	26%	27%
Non-French nationals as a percentage of the workforce			
Non-French nationals as a percentage of the total workforce	62%	63%	63%
☑ Non-French nationals as a percentage of the manager workforce	58%	58%	58%
Non-French nationals as a percentage of new hires			
Non-French nationals as a percentage of permanent contract hires	82%	85%	91%
Non-French nationals as a percentage of permanent contract manager hires	69%	69%	74%
Number of different nationalities represented at Total	**133**	**132**	**136**
TRAINING – Worldwide Human Resources Survey scope			
☑ Average number of training days per employee by region (including on-the-job training from 2007)			
Africa	12.6	12.1	8.8
Asia, Middle East, Pacific, French overseas departments and territories	14.1	15.8	16.2
Rest of Europe	5.0	5.3	5.2
France	4.7	4.2	4.3
North and South America	6.1	7.3	8.7
HEALTH – Worldwide Human Resources Survey scope			
Percentage of Group companies that offer employees regular medical checkups	**98%**	**98%**	**98%**
BENEFITS – Worldwide Human Resources Survey scope			
Percentage of employees entitled to death benefits coverage > 200% of gross salary	**77%**	**80%**	**87%**
EMPLOYEE DIALOGUE – Worldwide Human Resources Survey scope			
Percentage of companies with employee representation	**87%**	**87%**	**86%**
Percentage of employees covered by a collective bargaining agreement	**74%**	**74%**	**73%**
Number of collective bargaining agreements	**166**	**178**	**176**
CAREER MANAGEMENT – Worldwide Human Resources Survey scope			
Percentage of Group companies with an annual performance review system			
For managers	98.9%	98.9%	98.9%
For other employees	97.8%	97.8%	97.7%
Total	**98.4%**	**98.4%**	**98.3%**

☑ Audited indicators that obtained a moderate level of assurance from Ernst & Young and KPMG (see Assurance Report on pages 74 and 75).

SAFETY

	2008	2009	2010
Lost Time Injury Rate (Total + contractor employees) – LTIR	**2.1**	**1.9**	**1.6**
of which: Exploration & Production	0.6	0.6	0.5
Gas & Power	2.1	1.0	1.4
Refining & Marketing	2.5	2.4	2.3
Chemicals	3.6	3.1	1.9
Total Recordable Injury Rate per million hours worked (Total + contractor employees) – TRIR	**3.6**	**3.1**	**2.6**
of which: Exploration & Production	2.2	1.9	1.6
Gas & Power	2.1	1.8	1.9
Refining & Marketing	2.9	2.9	2.6
Chemicals	6.5	5.0	3.8
Fatalities	**8**	**21**	**17**
Fatalities per million hours worked (Total + contractor employees)	**0.018**	**0.046**	**0.037**

COMMUNITY DEVELOPMENT

Unit		2008	2009	2010
€M	Community development spending	151	210	247
%	Community development spending in non-OECD countries	87.5	91.15	93.88
number	Initiatives	2,619	2,234	2,420
€M	Total Foundation + corporate philanthropy spending	17	19.4	18.8
	French Community Development Fund for Youth, for 6 years (2009-2014): €50M			

In preparing our *Society and Environment Report*, we refer primarily to the International Petroleum Industry Environmental Conservation Association (IPIECA)/American Petroleum Institute (API) guidance, which is specific to the oil industry. To see a comparison with the Global Reporting Initiative (GRI), go to www.total.com.

ENVIRONMENT		Reporting elements[1]	Go to
Greenhouse gas emissions	E1	C+S+O	Indicators on page 67, Web site
Energy use	E2	C+O	Pages 40 to 45, indicators on page 67
Alternative energy sources	E3	C+O	Pages 16 to 21, pages 40 to 45, and pages 46 to 51
Flared gas	E4	C+O	Indicators on page 67, Web site
Biodiversity and ecosystem services	E5	C+S	Web site
Fresh water	E6	C	Indicators on page 67
Other air emissions	E7	C	Indicators on page 67
Spills to the environment	E8	C+S	Pages 22 to 27, indicators on page 67
Discharges to water	E9	C+S	Indicators on page 67
Waste	E10	C	Indicators on page 67
HEALTH AND SAFETY			
Workforce participation	HS1	C+S	Pages 28 to 33, indicators on page 70
Workforce health	HS2	C	Web site
Occupational injury and illness incidents	HS3	C	Indicators on page 70
Product stewardship	HS4	C	Web site
Process safety	HS5		Indicator not yet reported
SOCIAL AND ECONOMIC			
Local community impacts and engagement	SE1	C+S	Pages 4 to 9, pages 52 to 57
Indigenous peoples	SE2	C+S	Web site
Involuntary resettlement	SE3		Indicator not reported
Social investment	SE4	C	Pages 34 to 39, pages 52 to 57, indicators on page 70
Local content practices	SE5	C	Pages 4 to 9, pages 34 to 39, and pages 52 to 57
Local hiring practices	SE6	C	Pages 52 to 57, pages 58 to 63
Local procurement and supplier development	SE7	C	Pages 34 to 39 and pages 52 to 57
Human rights due diligence	SE8	C+S	Pages 4 to 9
Human rights and suppliers	SE9	C	Pages 4 to 9 and pages 52 to 57
Security and human rights	SE10	C	Pages 52 to 57
Preventing corruption	SE11	C	Pages 4 to 9
Preventing corruption involving business partners	SE12	C	Pages 4 to 9
Transparency of payments to host governments	SE13	C	Pages 34 to 39 and pages 52 to 57
Public advocacy and lobbying	SE14		Indicator not reported
Workforce diversity and inclusion	SE15	C	Pages 58 to 63, indicators on page 69
Workforce engagement	SE16	C+S	Web site
Workforce training and development	SE17	C	Pages 58 to 63, indicators on page 69 and Web site
Non-retaliation and grievance system	SE18	C	Web site

1. Reporting elements (see IPIECA Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, *2010): C = Common, S = Supplemental, O = Other.*

Reporting Scope and Method

GUIDANCE

Total's reporting procedures consist of:

- For environmental indicators and greenhouse gases, two *Corporate Reporting Protocols*, along with instructions specific to the businesses.
- For industrial safety indicators, the *Corporate Guidelines on Event and Statistics Reporting*.
- For social indicators, a practical handbook entitled *Corporate Social Reporting Protocol and Method.*

These handbooks are available to all Total subsidiaries, as are the procedures used to conduct the Worldwide Human Resources Survey and the twice-yearly Global Workforce Analysis. Abridged versions of the environment and social reporting handbooks can be downloaded from the Total Web site. The complete versions can be consulted at corporate headquarters, in the relevant departments.

SCOPE

In 2010, **environmental reporting** covered all Total-operated Upstream, Downstream and Chemicals sites at December 31, 2010.

A total of 98% of production sites responded to the 2010 reporting questionnaire. The data published in this report cover greenhouse gases, chronic and accidental emissions and discharges to the air and water, the amount of freshwater withdrawn from and discharged into the natural environment, waste, and certain data related to energy and to site management systems.

The ISO 14001 certification target given in this report covers environmentally sensitive sites that account for 90% of the main indicators for each business, including air emissions and freshwater withdrawals.

Safety reporting covers all Total employees, as well as employees of contractors with a specific volume of work at Group-operated sites or under contract to Total. Each site submits its safety reporting to the relevant business unit. The data are then consolidated at the business level and, every month, at the corporate level.

In 2010, the Group safety reporting scope covered 466 million hours worked, equivalent to around 268,000 people.

Social reporting is based on two resources — the Global Workforce Analysis and the Worldwide Human Resources Survey (WHRS).

The **Global Workforce Analysis** is conducted twice a year, on June 30 and December 31, in all fully consolidated companies owned 50% or more and included in the *Registration Document*. The survey covers worldwide workforces, hiring under permanent and fixed-term contracts, nationality, and employee hires and departures, to produce a breakdown of the workforce by gender, category (managers and other employees), age and nationality.

The **Worldwide Human Resources Survey (WHRS)** is an annual survey that comprises 96 indicators in addition to those used in the Global Workforce Analysis. The indicators are selected in cooperation with the businesses and cover major components of our human resources policy, such as mobility, career management, training, employee dialogue, Code of Conduct application, health, compensation, retirement benefits and insurance. The survey covers a representative sample of 88 consolidated companies with 66,644 employees. The statistics in this report are taken from the most recent survey, conducted in December 2010 and January 2011. A total of 88 companies accounting for 72% of the consolidated workforce and operating in 38 countries responded.

Both surveys are conducted using the Enablon application, introduced at end-2003, and undergo similar internal control and validation processes.

Consolidation Method

Environmental, industrial safety and social data are fully consolidated in these scopes.

Changes in Scope

Changes in scope are taken into account on the date they take effect. However, because environmental parameters are expressed in absolute values, all historical parameters are restated as of the year an asset is divested or acquired. Where relevant, data from previous years is recalculated in line with the new scope of consolidation, to facilitate like-for-like comparisons.

PRINCIPLES

Indicator Selection and Relevance

The data published in this report are intended to inform shareholders about Total's corporate social responsibility performance for the year in question. The indicators consist of corporate performance indicators and the principal indicators in the International Petroleum Industry Environmental Conservation Association's (IPIECA) *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting*, second edition, 2010. The indicators have been selected to track:

- Total's commitments and policies (safety management systems, environmental management systems, etc.).
- Performance relative to Total's principal challenges and impacts.
- The effects of Total's social policies.
- Legislative and regulatory obligations, such as those stipulated in France's New Business Regulations (NRE) Act.

Terminology Used in Social Reporting

Management staff refers to any employee whose job level is the equivalent of 300 or more Hay points.

Managed scope: All subsidiaries in which one or more Group companies own a stake of 50% or more, or 481 companies in 129 countries.

Consolidated scope: All subsidiaries fully consolidated as in the *Registration Document*, or 321 companies and 92,855 employees.

Methods

The methods may be adjusted to reflect the diversity of Total's activities, recent consolidation of subsidiaries, lack of standardized international regulations or definitions, practical procedures for collecting data, or changes in methods.

Continuous Improvement of Processes

There have been no significant changes to the definitions of social performance indicators. Certain environmental indicators were aligned to the new definitions in the IPIECA 2010 Guidance. Special attention is being paid to improving the method used to assess fugitive methane emissions in our coal mining business. Marketing and Specialties, which make only a minor contribution to certain indicators, have nonetheless introduced a gradual process of consolidating Group indicators.

Consolidation and Internal Controls

Environmental, social and industrial safety data are consolidated and checked by each business unit and business and then at corporate level. Data pertaining to certain specific indicators are calculated directly by the businesses. These processes undergo regular internal controls.

External Opinion

For the sixth year in a row, Total elected to have its main environmental and social performance indicators audited. These indicators are identified by the symbol ☑ in the 2010 *Society and Environment Report* table of indicators. External audits are performed at the Group and business levels, as well as in a sample of business units in and outside France, selected each year in line with their relative contribution to the Group totals, previous years' results and a risk analysis. The auditors' independence is defined by legislation and the French *Rules of Professional Conduct for Statutory Auditors*.

The units with the largest workforces and that contribute significantly to environmental indicators have been audited several times since 2005. Over the last five years, more than 90% of Total's air and greenhouse gas emissions have been audited externally.

Assurance Report

providing a moderate level of assurance on certain environmental and social performance indicators published in Total's 2010 *Society and Environment Report*.

Year ended December 31, 2010

At Total's request, we performed a review that allowed us to provide a moderate level of assurance on all meaningful aspects of certain environmental and social performance data selected by Total ("the data"[1]) for 2010, identified in this report by the symbol ☑. The data were prepared in accordance with:

- The *Corporate Environmental Performance Reporting Guideline*[2] and the *Corporate Greenhouse Gas Emissions Reporting Guideline*[3].
- The procedures used to conduct the Worldwide Human Resources Survey and the twice-yearly Global Workforce Analysis[4].

Hereinafter the "Guidance."

Two Corporate Affairs departments were responsible for preparing the performance data and establishing the respective Guidance: the Sustainable Development and Environment Department for environmental performance and the Corporate Human Resources Department for social performance. The Guidance can be consulted at Total's headquarters and are described in part on pages 72 and 73.

It is our responsibility to express an opinion of this data, based on our review, which was conducted in line with the professional standards applicable in France and the International Standard on Assurance Engagement (ISAE 3000), published in December 2003. Our independence is defined by French legislation and regulations and the French *Rules of Professional Conduct for Statutory Auditors*.

Our opinion concerns the relevant data only, not the complete *Society and Environment Report*.

The note on reporting scope and methods on pages 72 and 73 of the 2010 *Society and Environment Report* describes the methods used to collect the data and calculate the published indicators.

NATURE AND SCOPE OF THE REVIEW

We performed a limited review, described below, to provide a moderate level of assurance that the selected data are free of material misstatement. A higher level of assurance would have required a more extensive review.

For the data selected:

- We reviewed the Guidance with regard to its relevance, reliability, understandability and completeness.
- We met with the relevant persons at the corporate level, in the Exploration & Production, Gas & Power, Refining & Marketing and Chemicals businesses and at certain sites selected in line with their activity, their contribution to the consolidated data for the Group, their location and the findings of our previous reviews, in order to verify compliance with the Guidance. We also conducted verifications on a test basis.

Our review covered a sample of 13 sites and subsidiaries[5] for the environmental indicators and 9 sites and subsidiaries[6] for the social data.

- We also conducted tests of reasonableness concerning data consolidation.

The units selected accounted for 6 to 32% of the consolidated environmental data for Total and 9% of the consolidated workforce.

Our in-house environmental and sustainable development experts helped us conduct this review.

COMMENTS ON THE GUIDANCE AND DATA

We bring the following comments on the Guidance and data to your attention:

Total's Guidance appropriately describes the scope, indicators, steps and schedule, as well as the roles and responsibilities of the participants. It is updated annually and distributed in English and French to the various participants.

Environmental Reporting

- The corporate Guidance is cascaded to each business and segment, which adjust the reporting process to Total's various activities.
- Total is in the process of deploying a reporting tool that should improve the reliability of consolidation, at the corporate level, of data provided by the various businesses.
- In two Exploration & Production (E&P) subsidiaries, the equipment used to measure freshwater withdrawals is unreliable, resulting in uncertainty concerning the data reported. Actions are planned to upgrade the equipment.

• In one E&P subsidiary, the resources used to calculate the volume of associated gas adversely affect accuracy with regard to the quantities of gas flared and the resulting air emissions. The method has been revised and the new version is currently being tested. It should reduce this uncertainty.

Social Reporting

• Total's social reporting is based on a reporting application deployed at all units in the relevant scope. This application has made social data collection more reliable, in particular by automating checks and during consolidation.
• The review of 2010 social indicators revealed no meaningful reporting discrepancies.

OPINION

On the basis of our review, nothing has come to our attention that causes us to believe that the reviewed indicators have not, in all material respects, been prepared in accordance with the Guidance.

Paris-La Défense – April 18, 2011

Statutory Auditors

KPMG Audit
A department of KPMG S.A.

Jay Nirsimloo
Partner

Philippe Arnaud
Partner
Manager of the Sustainable Development & Climate Change Department

ERNST & YOUNG AUDIT

Pascal Macioce
Partner

Éric Duvaud
Partner
Manager of the Environment & Sustainable Development Department

1. Environmental performance indicators: greenhouse gas emissions (CO_2, N_2O, CH_4, HFC, PFC, SF_6), SO_2, NO_x, hazardous waste production treated offsite, freshwater withdrawals excluding once-through cooling water.
Social performance indicators: workforce (by age, manager/other employee, gender), hires, departures and balance, French and non-French managers, number of training days, guaranteed minimum wage, regular medical checkups, number of sick days, employee representatives, annual performance review for managers and other employees, death benefits.
2. Version 8.0, October 5, 2010.
3. Version 7.0, October 24, 2010.
4. November 2009 versions.
5. Exploration & Production: subsidiaries Total Gabon, TEP Nederland in the Netherlands and TEP Syria; Gas & Power: TCSA's Forzando mines in South Africa; Refining: Total Raffinerie Mitteldeutschland GmbH in Germany, Total Raffinage Marketing's Grandpuits refinery and Société Anonyme de la Raffinerie des Antilles in France; Marketing: Total Marketing Gabon and Total Philippines; Chemicals: Fina Antwerp Olefins and Total Petrochemicals Antwerpen in Belgium, Hutchinson SNC's Montargis plant and the GPN plant in Grandpuits, France.
6. Exploration & Production: subsidiaries Total Gabon, TEP Nederland in the Netherlands and Elf EP in France; Refining: Total Raffinerie Mitteldeutschland GmbH in Germany; Marketing Europe: Totalgaz SNC and Alvea in France, Total Deutschland GmbH in Germany; Chemicals: Hutchinson SNC and GPN in France.

To Learn More

You can learn more — and the latest — about each of our commitments and actions at the dedicated **"Our Challenges"** section of our Web site. You can also let us know what you think and ask us other questions via our **"Contacts" page.**

www.total.com

Created in 1992, the Total Foundation focuses on three core aspects of corporate philanthropy: community support and health, the environment and biodiversity, and culture and heritage. You can find out about the Foundation's projects, conducted in partnership with associations, institutions and NGOs, and about initiatives by Total employees on the Total Foundation Web site.

foundation.total.com

Since 2002, the ten principles of the UN Global Compact have served as templates for Total's business principles and corporate social responsibility initiatives. For more detailed information on our commitments and actions, go to the UN Global Compact page on our Web site.

www.total.com
CSR Analysts/Global Compact section

THE GLOBAL COMPACT
WE SUPPORT

Other Resources

■ **www.worldbank.org** ■ **www.bellona.org** ■ **www.cdainc.com** ■ **www.gret.org**
■ **www.code-afep-medef.com** ■ **eiti.org** ■ **www.ellesbougent.com** ■ **www.humanrights.dk**
■ **www.goodcorporation.com** ■ **www.ifpenergiesnouvelles.com** ■ **www.ilo.org**
■ **www.ipieca.org** ■ **www.iram-fr.org** ■ **www.ogp.org.uk**

We would like to sincerely thank the stakeholders who shared their questions and stories in this report. We would also like to thank everyone at Total who helped to prepare the report.

We welcome your comments at **total.com** to continue this frank and open dialogue.

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