BP Magazine reports on the company’s new global wells organisation tasked with standardising the way its upstream business operates.
Welcome. Physicist Albert Einstein once said, “The important thing is not to stop questioning.” It is a philosophy that could easily be applied to BP’s upstream Developments division, whose head, Bernard Looney, is currently visiting drilling rigs around the world to find out what is on people’s minds and to see the operations for himself. He talks to BP Magazine on page 6 about creating an environment of continual enquiry and learning. On page 28, we find out how this is being put into practice with the creation of a new global wells organisation, which has been set up to develop a set of standard processes and procedures for drilling wells. Inquiring minds are also on display on page 20, where we meet some of the BP people working closely with academia in internationally-renowned universities to tackle some of our biggest energy challenges. We also take a look at the role BP’s Integrated Supply & Trading organisation plays on page 42; find out more about the $1 billion investment programme to rebuild parts of Texas City refinery on page 14; and meet William Sharman – another BP-supported athlete preparing for London 2012, on page 60.

Lisa Davison> Editor
20 **Living laboratory:** BP’s university partnerships, such as the one at the University of Illinois with its 320-acre energy farm (pictured), are helping BP tackle energy challenges of today and tomorrow.
the quarter in numbers

31
The number of new blocks around the world to which BP has gained access in the past year.

45
The area, in square kilometres, of the Valhall field in Norway, that is covered in seismic cables. The cables supply important data that helps BP understand how the reservoir is behaving.

100
The number of real-life driving situations filmed to create eDrive – a computer application on sale at BP retail sites in New Zealand to raise motoring safety awareness.

130,000
The number of barrels of oil per day that the new Schiehallion FPSO will be able to process and export when production begins in 2016.

Global: Second-quarter results
Announcing its second-quarter results, in July, BP told investors that it expects future cash flows generated by its worldwide operations to grow faster than output. This growth is expected in both the upstream and downstream businesses, as the company delivers its strategic priorities, increases investment in future growth opportunities, and portfolio work continues. BP reported underlying replacement cost profit of $5.6 billion for the second quarter of 2011, an increase of 13% on the same time last year. “BP is making rapid progress against our priorities,” BP chief executive Bob Dudley said in July. “In February, we said we expected 2011 to be a year of consolidation, as we reset the focus of the company. This is going well, while it is having the expected near-term impact on our volumes and costs.”
US

GoM settlement
BP has reached agreement with Weatherford US to settle potential claims between the companies related to the Deepwater Horizon accident in the Gulf of Mexico. BP and Weatherford have agreed to mutual releases of potential claims against each other, and BP has agreed to indemnify Weatherford for compensatory claims resulting from the accident, including claims brought relating to pollution damage stemming from the accident. BP’s indemnity excludes civil, criminal or administrative fines and penalties, claims for punitive damages, and certain other claims. The agreement is not an admission of liability by any party regarding the accident.

Russia

Cultural partnership
BP is to support Mariinsky Theatre opera, ballet and orchestra tours in the UK over the next three years. The renowned St Petersburg opera and ballet company will make a series of trips to the UK until 2013 to perform at a variety of events, including the Mariinsky Ballet residency at the Royal Opera House, London, in July/August 2011, and opera/orchestra tours to Cardiff, London and Birmingham in 2012. Additional plans are being developed and will be confirmed for 2012 and 2013.

UK

Redevelopment plans
An agreement between BP and its co-venturers will see a major redevelopment of the Schiehallion and Loyal oilfields, located to the west of the Shetland Islands. The two fields have produced almost 400 million barrels of oil since production began in 1998, and an estimated 450 million barrels of resource is still available. The investment of around $5 billion will take production out to 2035, and possibly beyond.

Belgium

Production approval
BP has entered into agreements with JBF RAK LLC under which JBF will build a new 390,000 tonne-per-year polyethylene terephthalate (PET) production unit in Geel, Belgium, subject to required approvals. The agreements give JBF the right to build and operate the PET unit on BP’s existing petrochemicals complex in Geel, adjacent to BP’s purified terephthalic acid (PTA) facility. BP will, in return, supply PTA directly to this new PET manufacturing unit. Start-up of the unit is scheduled for 2014.

Angola

Paralympic support
BP Angola is to support the Angolan Paralympic team on its journey to London 2012, following an agreement with the Angolan Paralympics Committee. Under the agreement, BP will be the exclusive oil and gas partner of the committee and the official carbon offset partner, via its Target Neutral programme.

Trinidad and Tobago

New access
BP has been awarded two deepwater exploration and production blocks in Trinidad and Tobago. The company will have a 100% interest in Blocks 23(a) and TTDAA 14, both located in deepwater offshore east coast of Trinidad. The success follows detailed subsurface research and evaluation by BP, whose Trinidad operations account for more than half of Trinidad and Tobago’s natural gas output and 12% of BP’s global oil and gas production. The awards will double the acreage held by BP-controlled companies in Trinidad and Tobago.

US

Wind agreement
BP Wind Energy has entered into two long-term power purchase agreements (PPAs), totalling 105 megawatts (MW), from its proposed Mehoopany wind farm in Wyoming County, Pennsylvania. One PPA is for 75MW with Old Dominion Electric Cooperative, and a second with Southern Maryland Electric Cooperative Inc for 30MW. The Mehoopany wind farm is expected to generate up to 144MW of energy.
Interview with Bernard Looney
Since becoming executive vice president for BP’s new Developments division, Bernard Looney has spent much of his time visiting the company’s drilling teams around the world, to hear what is on people’s minds and inspect operations for himself. As he explains to *BP Magazine*, it’s all part of his drive to create an environment of constant enquiry and learning.
We had a teacher at school who used to say that asking a question was the quickest way to learn. But it would only really work if you were prepared to truly listen to the answer."

So recalls Bernard Looney, BP's executive vice president of Developments – one of the three new upstream divisions created by the company in November 2010. It's a lesson that has an acute bearing on what he considers the single most important element of his job – to create an environment that encourages constant enquiry and learning.

This is not surprising, given that Looney is now responsible for the part of the business in which last year's tragic accident in the Gulf of Mexico (GoM) occurred. To show he takes this responsibility seriously, Looney has spent much of 2011 visiting teams and carrying out inspections at operating sites around the world.

"I wanted to listen to what is on people's minds, to get a sense of how people are feeling in the organisation, and understand what will help people do their jobs as well as possible," he says. "I also wanted to inspect the operations, to see for myself, because how do I really know from my office in London?"

Many of the enhanced processes and systems that are being put in place within Developments have been created to help provide such assurance. By getting out onsite, Looney himself is demonstrating it's okay to ask questions and that to do so can only have a positive impact on the business.

What Looney has seen as he travels around BP's operations has given him real confidence, describing the teams he meets as "amazing people doing extraordinary things." One of his big priorities is to ensure that BP has the right skills in place over the long term. "We're going to hire around 2,000 new people across upstream this year and in Developments, we are recruiting specialists with a range of capabilities. Most importantly, however, we need to make sure the 19,000 people who already work for us have what they need to do their jobs safely and effectively and feel that we're supporting them. We're putting a lot of
work into understanding their career aspirations and developing 10-year career road maps to help them reach their goals.”

As a driller by background and former head of BP’s North Sea business, Looney knows the challenges that face his division and takes the responsibility of leading it very personally. “I spent four months in Houston last year working with our response teams, and I would say that having been through such an experience has left me with a very real emotional connection to the journey we are undertaking. The whole team has a deep commitment to never experiencing something like that again in our careers or our lives. So, first and foremost, my job is to make sure that our wells and projects are built safely,” he says.

To do that, Looney is overseeing a number of significant structural changes, including the way that wells are drilled for BP. For the past two decades, BP’s upstream business has been organised on a regional basis, meaning that within an overall management system, different local organisations created their own systems and processes for designing, constructing and managing wells. That, says Looney, has been changed with the creation of the global wells organisation.

“Now, all our drilling and wells activity in the world is conducted through one single organisation,” he explains. “We have a single head of the global wells organisation – Richard Lynch – who is there to drive standardisation and compliance with our standards and procedures into everything we do. That is what we believe will make a fundamental difference.”

In 2010, BP also created a central developments organisation, following success in driving consistency and standardisation into the construction of facilities in regions, such as Trinidad and Azerbaijan. The decision was taken at the end of last year to expand the concept, creating the global projects organisation – led by Neil Shaw.

“This has changed the way BP’s major projects are delivered,” says Looney, “allowing the global projects organisation to implement a standard approach to contract procurement, risk management, inspection and review, as well as creating new standard metrics to measure success. The global projects team is developing a single local Operating Management System (LOMS), something the global wells organisation will emulate.”

“OMS is a structure that works well,” he continues, “and will help us be more systematic in the way we learn and improve. We don’t want to just fix things once. We want to be able to share across regions and projects. The whole principle is that we improve every year, and that those improvements sustain for decades.”

The benefits of this more centralised approach are already starting to show up in specific projects. Over the next few years, BP expects to install around 300 subsea ‘Christmas trees’ – pieces of equipment that are attached to the tops of wells to control the flow of hydrocarbons – in its operations around the world. It’s a huge piece of work and the first time that the global subsea hardware team will be responsible for worldwide delivery of subsea equipment to the project teams in each region. “I think this is quite different for the industry and we believe it’s going to mean significant standardisation of processes across our global operations. This will change the game,” says Looney.

Global perspective: remotely operated vehicle controllers on the Deep Ocean Clarion rig in Brazil (opposite); a drilling rig on the North Slope of Alaska (left); at work on the Central Azeri rig in Azerbaijan (below left) and Bernard Looney in conversation with staff onboard the Clarion (below).
Operating essentials: worker inspects risers onboard the Deep Ocean Clarion, Brazil (opposite). Above, construction workers on the North Slope in Alaska. Below, a drilling rig at the Khazzan onshore field in Oman.
Another area of significant improvement is expected to come from implementation of the recommendations contained in BP’s report into the Deepwater Horizon accident. Published in 2010, the report made 26 recommendations designed to help prevent an accident such as the Gulf of Mexico tragedy from occurring again. The recommendations relate to the work of the Developments division, and Looney has ultimate responsibility for ensuring they are implemented. With 185 specific actions and more than 700 milestones to meet, it’s a big task. So where do you start?

“You have to start with getting the right team in place,” he says. “Then, it’s about agreeing a plan and making sure we are all crystal clear on the expected outcome. So that when the recommendation says ‘we must do x’, we all actually understand what x means and what actions need to be taken to ensure that we’ve done what was recommended.”

BP’s newly-created safety and operational risk (S&OR) team plays a key role in all this, helping the Developments division create standards of work, write protocols and eventually carry out audits as it completes each action. The idea is that if accountability for the standards lies with S&OR, then any decisions to allow deviation can be taken by someone with an exclusive S&OR lens. “I think that’s healthy,” says Looney. “It ensures that people making the final decisions are in the best, and most informed, position.”

Looney’s top priority is to deliver safe and compliant wells, as well as safe design and quality-build projects. Clearly, well control remains one of the division’s key risks. “Implementing BP’s internal report recommendations and creating the global wells organisation are both crucial in mitigating that risk, but if the GoM accident proved anything, it’s that we must be prepared with the appropriate equipment and resources to respond quickly should another incident occur.”

This is where BP’s new global response team comes in. Led by Richard Morrison and reporting jointly to Looney and Lamar McKay, head of BP America, the team has spent much of the past year travelling to more than 20 countries to share the lessons learned on relief well drilling, spill response and how to manage thousands of potential responders.

The aim is to ensure that BP’s businesses around the globe are even better equipped and ready to handle a worst-case scenario. Many have already begun turning those lessons into physical action, transforming their ability to respond to a crisis. In Angola, for instance, agreements have been executed ensuring access to vital equipment and a full-scale capping stack has been built and deployed in preparation for drilling.

Meanwhile, a package of response tools has been constructed and is now housed in Houston in climate-controlled facilities to maintain the equipment’s integrity, with plans in place so that it can be deployed anywhere in the world within 72 hours. “We have contracts in place to make that happen and we have others in the industry coming to us asking for the specifications so that they can do the same,” says Looney.
BP has also been sharing its lessons learned with governments around the world in order to help make drilling safer. In May 2010, the Brazilian regulator – National Agency of Petroleum (ANP) – approved a deal between BP and Devon Energy that will see BP move into eight of the country’s deepwater blocks. At the time, ANP general director Harold Lima said that “BP had proved itself to be one of the best-prepared companies today in operational safety in deep waters.”

The Brazilian government’s vote of support is key for a company that had made it clear that its future still lies in the deepwater. As well as Brazil, BP has announced new deals in Australia, the South China Sea and India, all of them located in deep water. Meanwhile, it has begun drilling in both Brazil and Angola, and will drill a deepwater well in the UK next year. BP is also in discussions with the US government to demonstrate its continuing commitment to meeting all of the government’s requirements in order to get back to work. The Gulf of Mexico remains a critical part of BP’s business.

In deep water or elsewhere, projects such as these send a strong signal that BP is determined to keep its promises, delivering safe, reliable operations that add shareholder value. “We will operate safely and deliver on expectations,” says Looney. “We have wells we need to drill, and projects to bring onstream and run reliably. History has taught us that those two things go hand in hand – operate safely and we will deliver good results for our shareholders.”

**The role of the division:**
The Developments division is often described as the ‘construction arm’ of the upstream business and is responsible for most of BP’s capital investment. Once the Exploration team has decided which sedimentary basins BP is going to explore in, Developments – through the global wells organisation – will provide the services to drill an exploration well. If a discovery is made, the global projects organisation begins construction work on the necessary equipment, such as platforms and flowlines. Production wells will also be drilled by the global wells organisation. Once constructed, the whole project is handed over to the Production division.

“We will operate safely and deliver on expectations. We have wells we need to drill, and projects to bring onstream and run reliably. History has taught us that those two things go hand in hand – operate safely and we will deliver good results for our shareholders.”
A FRESH OUTLOOK

How a $1 billion investment programme and a lot of hard work from staff is breathing new life into BP’s Texas City refinery site.
New horizons: Mitchell Elgin, an operator on the fluid catalytic converter unit three, looks out over Texas City’s east plant (main image). Inset from top: an operator inspects the steam system; a process control technician ensures mechanical integrity at the distillate desulphurisation unit; and the west plant aromatics unit two.
The phrase ‘turnaround’ is a common one in business, usually used to denote a reversal of fortunes for the better. In the oil industry, it has a very specific meaning, describing a period of necessary maintenance. Both descriptions apply to BP’s Texas City refinery, where its workers have helped transform the way the site operates.

It’s been a tough few years for the refinery. In March 2005, tragedy struck when an explosion killed 15 people and left many others injured. It also destroyed a major processing unit, resulting in millions of dollars of damage. Later that same year, the arrival of Hurricane Rita forced the refinery to shut down as a precautionary measure, leaving it with difficulties during the subsequent restart.

Despite this, the refinery’s leadership team decided to take the opportunity to plot a fresh course, embarking on a five-year investment programme, totalling more than $1 billion. The project involved replacing and rebuilding equipment, improving operational efficiency, and strengthening staff training. The goal was to return to full operations, with greatly improved safety and efficiency at the heart of the project.

The result has been remarkable, with significant improvements in safety, operations and finances, all while under the most intense scrutiny. So, it was something of a surprise when BP announced in February this year that it was putting the refinery up for sale, along with its southern west coast US assets, which include Carson refinery in California.

Although unexpected, the announcement was a strategic one, says Refining & Marketing chief executive Iain Conn, and not a reaction to the Deepwater Horizon incident in the Gulf of Mexico. “We have been looking at every one of BP’s positions since 2009, and decided that we want to invest in positions where refining and marketing are integrated, flexible in the feedstock they can run, and optimised to turn them into high-value products. Texas City is not strongly integrated with BP’s marketing assets and we would need to increase the footprint around it to improve logistical issues.”

Nevertheless, there is no doubt in Conn’s mind about the quality of Texas City as an asset for a new owner. “I am very proud of the team at Texas City and what they have achieved as they faced the challenges of the past four years. The refinery is also one of the largest and most capable ever built. Assets like Texas City rarely come to market. These are strategic decisions and not to do with worries about its history,” he says.

History is something Texas City has in abundance. For more than three quarters of a century, the refinery has supplied much-needed fuel to the US population. Today, it is the third-largest refinery in the US, and home to 2,000 employees, and up to 5,000 daily contractors. It has the capacity to refine 475,000 barrels of oil every day and can process 3% of the nation’s gasoline supply – enough to fill seven cars every second.

In many ways, the investment programme of the past five years has turned Texas City into a new refinery. Its scale is all the more impressive given that much of it was conducted while maintaining safe and reliable daily operations. “We were taking assets out of service for rebuilding sections that were equal in size to the average US refinery,” says Keith Casey, who became the Texas City business unit leader in 2007. “Over the five-year period, our Texas City team and contractors were dedicated to rebuilding the third-largest refinery in the US. We are now set as a reliable and compliant operation, with constant improvements in safety and people, and assets that make this refinery an exciting prospect for a new owner.”

The refinery’s location on the Gulf of Mexico coast is another benefit, allowing it to bring in crude oil from multiple sources and transport refined products to a variety of markets globally. In addition, the rebuilding project has expanded the facility’s flexibility to process almost any type of crude oil into a full slate of fuels and other products.

At the start of the rebuild, the leadership team decided to renovate the refinery’s 43 kilometre (27-mile) steam system, followed by a series of modernisations of the facility’s critical units, as well as overhauling 100 major pieces of rotating equipment and more than 1,000 pumps, turbines and compressors. In addition, two units that did not fit Texas City’s strategic future were taken out of service. In all, the physical rebuild programme, completed in 2009, required more than 75 million worker hours.

“Our completion of the projects coincided with the beginning of a normal turnaround cycle, based on a five- or six-year schedule,” says Casey. Six units successfully completed turnarounds in 2011 and several more are scheduled for completion by 2013. “The maintenance work we do in normal turnarounds will complete the renewed refinery, but hardware improvements are only part of the ongoing changes,” he adds.

Texas City refinery has also implemented BP’s Operating Management System (OMS), which, among other components, identifies best operating practices and codifies them as the standard procedures for operations.

Casey sees the results in both staff attitudes and operational performance. “At past employee meetings, I frequently fielded questions on whether the refinery would survive. Today, I don’t get those kinds of questions,” he says. “And in contrast to our experience with Hurricane Rita in 2005, we successfully recovered from Hurricane Ike in 2008 and, this year, managed a local area power outage with minimal operational disruptions.”

While equipment and systems are one part of the renovation process, the refinery has also improved its training of staff. People working at the refinery have averaged a cumulative 70 days of training to improve workplace safety and enhance competency. “We continue to look forward, even in developing our future workforce,” says Casey. “We have partnered with the United Steelworkers and the local community College of the Mainland to...
“Over the five-year period, our Texas City team and contractors were dedicated to rebuilding the third-largest refinery in the US. We are now set as a reliable and compliant operation, with constant improvements in safety and people, and assets that make this refinery an exciting prospect for a new owner.”

Keith Casey

develop a process technology degree programme to train unit operators,” he explains. “After successfully completing the two-year course, graduates are qualified to begin work as apprentice operators.”

And while the refinery has made extensive internal changes, it has continued to make significant contributions beyond its gates in the local community.

The investments made since 2005 have brought jobs and economic activity to the area, says Don Gartman, president and chief executive of the Galveston County Economic Alliance and Galveston County Economic Alliance Foundation. “As the largest private sector employer in Galveston County, BP in Texas City is a vital economic engine for our communities, providing good-paying jobs for generations of area residents and spin-off benefits to county residents.”

This economic impact ranges from local restaurants and catering businesses that experience a surge in demand for meals, to construction crews, area welding shops, trucking firms, metal fabricators and other small businesses.

Texas City Mayor Matt Doyle lists a series of projects where BP, through the refinery, has lent support. These include community centres and a multi-use youth sports complex. “BP volunteers, along with financial support, have also helped us develop the 160 hectare (400-acre) Central Park, which will provide a beautiful and safe place for citizens to enjoy nature,” says Doyle.

While financial contributions and volunteer participation in community projects are appreciated, community leaders cite the active participation of Texas City employees in day-to-day community work as equally valuable.

“What’s impressive is the amazing depth of talent that BP employees bring to the community,” says Shawn Bailey, chairman of the Texas City-La Marque Chamber of Commerce. “In addition to the two BP representatives on our board of directors, we have citizens who work for BP on most of our city committees.”

One such employee has, in fact, been named Volunteer of the Year by the Chamber in January 2011. John Amato is a process safety management coordinator at Texas City and a representative of refinery employee commitments to the community, and was given the honour for his commitment to a range of organisations and causes.

The five-year recovery and rebuild project, enhanced employee training programmes, and a history of strong community support are strong assets, adding to the strategic business location of the plant.

BP hopes to sell the refinery by the end of 2012, subject to the necessary approvals, but until that happens, says Conn, the company’s commitment remains steadfast. “I’ve been very clear that they will not see a difference to the commitment to the assets or the people while they are still a part of BP.”

And according to Mayor Doyle, BP has made a difference in the region. “I truly hope that the new owner, as well as all industry players, will maintain the standards that BP has set for refinery operations, corporate and, equally important, individual participation in our community.”

Close inspection: turnarounds assure process and mechanical integrity at Texas City (left); operators work together to fulfill procedures at the aromatics unit two.
Texas City> Safety Focus

TEXAS CITY REFINERY

The facility began operating in 1934 on a 485-hectare (1,200-acre) site on the Houston Ship Channel, around 50 kilometre (30 miles) south of Houston. In the years since, Texas City has grown to become the third-largest refinery in the US.

The major rebuilding programme completed in 2010 caps eight decades of changes, expansions and process improvements at the refinery. These include inauguration in 1940 of the first commercial hydroforming unit that boosted yields of gasoline and other products. Although the refinery processed only domestic crude oil until 1972, a massive conversion permitted it to run more than half of imported feedstock by 1980. Other investments have enabled the facility to produce upgraded gasoline blends and low-sulfur diesel fuels.

The BP Texas City refinery employs more than 2,000 full-time workers, supplemented by up to 5,000 contract employees. With the capacity to process 475,000 bpd, the site can produce more than 7 billion gallons of products annually. The refinery supplies 3% of the entire US gasoline supply.
UK BRIBERY ACT: GOOD GOVERNANCE = GOOD BUSINESS

On 1 July 2011, the UK government’s new Bribery Act came into effect, overhauling existing laws that date back as far as 1889. The Act creates a new corporate offence of failure to prevent bribery, either within a company or by its associated third parties. BP’s group general counsel, Rupert Bondy, discusses the implications for BP.

The UK government has said it wants the country to take a leading role in the global fight against bribery. Certainly, its new Bribery Act is the most significant piece of legislation on the subject to come out of the UK in decades.

BP is determined to act in accordance with the highest standards of ethical conduct and, for many years, we have taken a strong stand against any form of bribery or corruption. In February 2002, for instance, we banned all facilitation payments – small sums paid to public officials to encourage them to provide goods and non-discretionary services to which you are entitled – and our Code of Conduct lays out simple rules by which we expect all our employees to abide. We also adhere to the US Foreign Corrupt Practices Act.

But while the Bribery Act does not represent a sea change in the way we do things in BP, it does highlight the need for constant review of our anti-bribery compliance programme, and to continuously monitor its implementation. This new legislation has thrown a spotlight on two key areas: corporate hospitality and third-party activity.

**Relationship building**

Many organisations use corporate hospitality as a legitimate way to build and strengthen relationships with key customers, business partners and public officials, and BP is no different. As a major sponsor of next year’s Olympic Games, we will, of course, take the opportunity to promote BP’s products, technologies and capabilities. It is also an opportunity to recognise and reward our employees, but we have to be absolutely clear that this should never be used with the intent or expectation of business advantage in return, or even the appearance of it. We must be clear in our own minds that we are using this tool for legitimate relationship building, not to try and win specific business. To do that, we have very clear guidelines and structured processes that are all auditable, reviewed by external counsel and benchmarked against other sponsors. Forms must be filled in and the appropriate approvals sought. With all eyes on the London Olympics, we have taken our existing policies and procedures and customised them specifically for the event.

The second area of focus lies in our work with third-party suppliers, contractors and, increasingly, joint ventures. For a long time, BP has understood that it is not just the activities of our employees that matter. I believe there is a growing understanding among our suppliers and joint venture partners that we only want to work with those organisations whose ethical commitments are of the highest standard.

This is an ongoing challenge and we’ve tried to make it easier for our employees to explain our policies and procedures in a way that does not feel personal. For instance, in our shipping business, we provide ship masters with BP-branded laminated cards that explain it is the company’s policy not to pay bribes or facilitation payments. Then, like corporate hospitality, this new legislation makes it crucial that we re-evaluate our own policies to ensure that they are of the highest standard. As a consequence, we have a very specific project underway to look more carefully at how we can influence non-BP-operated joint ventures, so that they follow principles that are aligned with our Code of Conduct.

We fully subscribe to the idea that corruption damages economies and communities, and BP is committed to the principles of good corporate governance. We were early to recognise the growing expectations of society and our different stakeholders, and we pride ourselves on going beyond minimal compliance with the law and acting as a responsible corporate citizen – our employees expect no less of us. New legislation reinforces the need for constant vigilance, but, in the end, good corporate governance makes good business sense.
LEADING THE FIELD

BP has connections with internationally renowned universities across the globe, linking the oil company to fresh thinking on tackling the energy challenges of today – and tomorrow.
Field work: University of Illinois PhD graduate student Andy Wycislo (seated) gathers and takes notes on samples of Miscanthus – a species of tall grass that can quickly grow to more than three metres (10 feet) high in densely packed fields. The grass is grown at the University of Illinois’s 130-hectare (320-acre) energy farm for further laboratory testing in order to explore its potential as an advanced biofuel.
Listening to far-reaching views is becoming more important, as BP seeks ways to help meet growing demand for energy to developing the fuels of the future. “No one group has the lock on brain power, we recognise that,” says BP’s director of university relationships, Andrew Cockerill, who leads the company’s engagement programme. With relationships that span the globe, from the University of California, Berkeley, to Tsinghua University in Beijing, China, and including such intellectual powerhouses as the University of Cambridge, Imperial College London and the Massachusetts Institute of Technology (MIT), “there’s a wealth of talent and forward thinking in the energy world, and we want to hear those voices,” says Cockerill.

Every day is a school day for BP. From Berkeley to Beijing, the company is engaging with distinguished academics at top universities on topics of global importance, from how to meet growing demand for energy to developing the fuels of the future. “No one group has the lock on brain power, we recognise that,” says BP’s director of university relationships, Andrew Cockerill, who leads the company’s engagement programme. With relationships that span the globe, from the University of California, Berkeley, to Tsinghua University in Beijing, China, and including such intellectual powerhouses as the University of Cambridge, Imperial College London and the Massachusetts Institute of Technology (MIT), “there’s a wealth of talent and forward thinking in the energy world, and we want to hear those voices,” says Cockerill.

Listening to far-reaching views is becoming more important, as BP seeks ways to help meet the growing demand for energy, while also developing and delivering energy in socially, economically and environmentally responsible ways. BP’s head of research and technology, David Eyton, says: “What’s great about these relationships is the ability to access scientific reasoning and ideas, and apply these to existing and potential industry challenges.”

BP has relationship managers who look after each university partnership, with many embedded on campus, where necessary. Cockerill both directs BP’s university programme and is relationship manager, and resident, at the MIT. He likens BP’s ties with universities to a marriage, with the relationship manager acting as marriage guidance counsellor between BP’s business viewpoint and academic endeavour. He says, “With a marriage, you have to keep communicating to make sure you’re both on the right path.” And with the relationship managers based onsite, he says, “You get the day-to-day contact needed through shaking hands and sharing a cup of coffee.”

While BP has relationships with individual institutions, it also has projects that allow it to unite a number of universities together in wider collaborations. The Energy Biosciences Institute (EBI) was set up in 2007, with $500 million in BP funding to be committed over 10 years. It brings together two world-class US universities, a national laboratory and BP as a multinational company, all working side-by-side in purpose-built laboratories. In Berkeley, there is the University of California (UC Berkeley) and the Lawrence Berkeley National Laboratory. Meanwhile, 3,200 kilometres (2,000 miles) away is Urbana-Champaign, home to the...
**Relationship manager:**
BP’s director of university relationships, Andrew Cockerill (opposite) in front of the Ray and Maria Stata Center for computer, information and intelligence sciences at the MIT campus. Main image, technician at the EBI uses electric charges to visualise and isolate fragments of Miscanthus DNA. Ethidium bromide is added to the DNA, causing it to fluoresce under ultraviolet light.
By basing itself on campuses worldwide, BP is also gaining access to today's top students. Recruiting these stars of the future against such stiff competition is one of BP's major challenges. At MIT, BP has increased its visibility on campus, with BP ‘information nights' and short courses on refining, petroleum and bio-based fuels.

One student who made the switch from MIT to BP is mechanical engineer Elliott Perez. “A lot of kids I studied with went on to work on Wall Street,” he says. “Some went to graduate school and a few are working with start-up companies, who are always looking to hire fresh talent.” Perez chose BP after he’d spent a summer with the company. “It was a really interesting internship, working on a pipeline detection project. Seeing the sheer scale of BP’s work drew me to the company after graduating.”

With so many partnerships, BP has access to many students who may not work for the company in the future, but it’s the importance of the work they’re doing right now that could impact on its future. Will Herbert is a PhD student at MIT working with Professor Schuh on the corrosion research, while Bosola Oladeinde is studying the genome of Miscanthus at the University of Illinois.

University of Illinois, with its 130-hectare (320-acre) energy farm – the world's largest bioenergy crop research centre. Together, their focus is mainly on developing transportation fuels from non-food plants (lignocellulosic or next-generation biofuels). From its inception, the EBI was designed to take a broad interdisciplinary approach, covering not only the science, but also the potential socio-economic and environmental impacts of biofuels.

The two universities are situated miles apart, but it is no long-distance relationship. Engineers and scientists from BP are co-located at both universities and have acted as a bridge, bringing the two closer together.

BP’s Xiaomin Yang’s role is to work with scientists from the partner universities to uncover and transfer technologies to the marketplace. It’s this multi-disciplinary work that has led to a breakthrough in the development of a yeast strain that can simultaneously use all of the major sugars that make up lignocellulose (plant matter).

At the moment, 70% of available sugars can be used. Finding a process to release the additional 30% of sugars makes for a more abundant, sustainable and efficient fuel stock. It was while at a project review in Berkeley that Yang heard research results that he thought could fit together with the work of a team at the University of Illinois – and it did.

EBI associate director Paul Willems says, “This is not only a great technical advance, but also we think, it is an outstanding example of what we had hoped to accomplish through multidisciplinary collaborations in the EBI and the work has benefited directly from the involvement of a BP scientist.”

Having a team of engineers and scientists from BP living under the same roof as the academics is one reason cited for the success of the EBI, which, in its short history, has published more than 120 papers in scientific journals. But for EBI managing director Dr Susan Jenkins, sometimes it’s the work that doesn’t hit the...
“MIT is very good at, and interested in, doing science that has application potential. And speaking for myself and the team, we are committed to doing science that has a real impact.”

Chris Schuh

Campus life: MIT engineering graduate student Will Herbert (opposite) is conducting research in corrosion. Main image, an MIT sailboat on the Charles River with the campus in the background. Bottom left, graduate research student in chemical and biomolecular engineering Dawn Eriksen in the EBI laboratory at the University of Illinois. Bottom right, researchers at the University of Illinois’s energy farm gather samples of Miscanthus grass.
University partnerships

Headlines that is of real importance. She cites research that shows increased carbon sequestration in the soil from planting energy crops. “To me, that’s a success, because it’s an important statement to be able to make.”

But that research would not be possible without close ties and the absence of any sibling rivalry. She says, “We’ve succeeded in demonstrating how you can have partners at different campuses and work collaboratively and everyone comes out ahead in the end, because it isn’t a competition.”

The strength of any relationship is tested during a crisis and this was true for BP following the Gulf of Mexico accident in April 2010. As it already had longstanding relationships with academics, it was their support that helped get to the heart of the impact of the oil spill. Dr Terry Hazen, of the Lawrence Berkeley National Laboratory and the EBI, was keen to gather scientific data that would lead to a greater understanding of the effects of the spill. In mid-May 2010, Hazen had quickly mobilised a team to collect samples and carry out research on microbial biodegradation. With 200 field samples collected from 17 deepwater locations over several weeks, a paper was published in the leading peer-reviewed journal Science showing that naturally occurring microbes were consuming significant amounts of oil, both in the water column and at the surface.

Any good relationship will involve equal amounts of give and take. The benefits for BP are abundant, but what do its university partners get out of the deal? Undeniably, BP brings much-needed funding. For example, it aims to inject $10 million over five years into a strategic collaboration, which includes MIT and the University of Manchester, UK, to investigate science and technology related to materials and corrosion. One project is about understanding surfaces and the complex chemistry at play, while another is about changing the surface chemistry that can, for example, prevent localised corrosion. This long-term research relationship aims to enhance BP’s operational integrity and reliability in its upstream business.

But as well as funding, BP brings real-world problems for universities to grapple with, which gives them a window to work beyond their own research. MIT’s Professor Chris Schuh is directing one of the joint projects. He says, “We’re connected to exactly the right folks in BP who know everything there is to know about corrosion. Frankly, in a university, it’s really easy to get in a closed loop in an ivory tower, where you are talking to yourself and your colleagues and maybe to other university professors and when you start boring down on scientific details, it’s entirely possible to go down a dead end. Connecting with people who know the problems out in the field keeps us focused.”

“We bring a western perspective to China – it’s a mix for creating fresh perspectives on the big issues. Together, we are focused on delivering some deep insights into how China will handle its future energy based on the best available data and the best possible tools.”

Angelo Amorelli

Work and play: Bosola Oladeinde (top left) is studying the genome of Miscanthus at the University of Illinois’s EBI laboratory. Above, MIT track and field teams practise at the Steinbrenner ’27 Stadium, located on the MIT campus. Right, professor Chris Schuh leans on a truck bumper – his corrosion studies have led to the development of a process that prevents corrosion occurring so quickly on these bumpers. This is invaluable for trucks that frequently travel through a variety of harsh environments.
One of the milestones of the project is set at five years, when it's hoped a concept will be ready for scale and, ultimately, deployment. The idea of embarking on a union that will one day spawn a commercial concept appeals to the university. Schuh says, “MIT is very good at, and interested in, doing science that has application potential. And speaking for myself and the team, we are committed to doing science that has a real impact.”

It's not only the exchange of ideas that reaps rewards, but also the exchange of values. At Tsinghua University in Beijing, China, where BP has a 10-year programme underway, the Chinese academics and researchers also value the company’s international outlook. BP’s Angelo Amorelli is the partnership’s relationship manager, most recently overseeing the start-up of a five-year programme to systematically model China’s energy system. “We are digging more deeply into issues such as transport, power generation and unconventional gas. Given China’s record growth, the insights will not only inevitably have an impact on the global energy system, but also BP’s strategic planning,” he says.

“We bring a western perspective to China – it’s a mix for creating fresh perspectives on the big issues. Together, we are focused on delivering some deep insights into how China will handle its future energy, based on the best available data and the best possible tools.”

Amorelli also thinks the Chinese academics place importance on hearing external views. “Our Chinese partners value contact with international experience. There is no shortage of Chinese perspectives, but there is a thirst to learn from people outside the country,” he says.

As the hunger for knowledge continues, creating ties that bind is fundamental to the ongoing success of BP’s relationship with world-class universities.

While BP has direct relationships with many universities, it also sees an important role in making connections between universities where their research overlaps. It has already done this with the corrosion project, linking MIT and the University of Manchester, as well as with the creation of the EBI (see main copy). However, it is now starting an ambitious project that brings together no fewer than 12 universities, separated by geography, but joined in one aim: to map tomorrow’s energy landscape. The Energy Sustainability Challenge is a multi-disciplinary research programme, headed by BP’s chief scientist, Ellen Williams, devoted to understanding how pressures on freshwater availability and increasing competition for land and mineral resources may influence and guide BP’s policy and investment in energy production technologies. The University of Oxford (UK) the International Institute for Applied Systems Analysis (Austria) and Stanford University (US) are helping BP navigate questions about the relationship between economic growth, population increases and energy demand. MIT and Tsinghua University are looking at the relationships between water for use in the energy sector and energy for use in the water supply and treatment sector. The University of Cambridge, along with Princeton (US) and MIT, are developing approaches to assess the global water-land-energy system, so that for different energy mix scenarios, there exists a scientific basis for understanding the quantities of water, land and critical minerals needed.
Since the tragic accident in the Gulf of Mexico, BP has made significant structural changes to the way it runs its upstream business. Perhaps the largest of these is the creation of the global wells organisation – designed to deliver safe and compliant wells across BP.

Report> Nic Welsh  Photography> Marcus Almeida Knoedt & BP Imageshop

Whatever an oil and gas company is looking for new sources of hydrocarbons, developing a new project to extract them, or already producing them, one thing is always present – the well that brings the hydrocarbons to the surface.

There are, of course, other, equally important, disciplines that link each of these stages – geology and economics among them – but it’s fair to say that more than a year after oil stopped flowing into the Gulf of Mexico from the Macondo well, the drilling of wells is the area currently under the most scrutiny.

Once the initial crisis response was over and the well capped, BP quickly made significant structural changes to the way it ran its upstream business. Perhaps the largest of these was the creation of the Global Wells Organisation (GWO).
Previously organised on a regional basis, with drilling teams reporting to separate business heads, the new wells structure is now led by a single vice president, who reports directly to BP’s executive vice president for developments, Bernard Looney (see page 6). The GWO’s remit: to deliver safe and compliant wells across BP.

Richard Lynch is the person tasked with delivering this objective. “Having this single, global structure means that we can standardise the way we operate,” he says. “Our aim is to be consistent and systematic in everything that we do.”

He’s not alone in the task, of course. He oversees a team of experts around the world and has divided his organisation into key operational and functional areas – including, among others, delivering the 26 recommendations from BP’s internal investigation report and restarting work in the Gulf of Mexico, as well as technology, finance and organisational capability. Each has been assigned its own vice president, including area vice presidents for four key operational areas – Gulf of Mexico; onshore; offshore; and deepwater. Meanwhile, a vice president of engineering has been appointed to ensure consistency and conformance in the organisation’s engineering standards, and to be accountable for making sure it has the right skills in the right numbers in the right places around the world.

“By creating area vice presidents, we can put common operational activities together, so that they can learn from each other more effectively,” says Lynch. “It allows us to continually learn, and gives us the ability to look at the common risks in each of those operations. That way, we not only understand how best to eliminate the risk, but we can also create standard mitigation plans for similar styles of activities.”

Morty Denholm is one of Lynch’s area vice presidents, overseeing BP’s non-deepwater offshore activities, and is acutely aware that this drive for standardisation doesn’t simply mean creating a unique way of doing things for each functional area. “Richard’s absolute intent is to first consider a standard approach no matter where we are in the world,” says Denholm.

This builds upon work BP had already done to standardise the overall framework used in its operations to ensure all areas of activity – from safety and skills to finance and community relations – are monitored, managed and improved. This framework is called the Operating Management System (OMS).

“The whole idea of OMS is to be systematic in the way we run our operations,” says Mike Zanghi, area vice president for the deepwater Gulf of Mexico. “That way we avoid inconsistent outcomes and ensure predictable ones.”

As the person responsible for wells in the Gulf of Mexico area, Zanghi knows how important this predictability is. BP has worked closely with the US regulator to enable restart of BP rig operations in the Gulf of Mexico. The team is taking the time needed to make sure this is done right, but each day brings a new milestone for one of BP’s most important regions. “I always say to people that if last year was the most difficult for BP, this year is the most important,” says Zanghi. “Getting this year right, not just restarting operations, but restarting them in a manner that is safe, compliant and sustainable, is critically important.”

Another milestone was reached in July, when BP wrote to the director of the US Bureau of Ocean Energy Management, Regulation and Enforcement, Michael Bromwich, committing to enhanced voluntary drilling standards in the Gulf of Mexico. The deepwater drilling standards go beyond current regulatory obligations and reflect BP’s determination to apply the lessons learned from the Deepwater Horizon accident. They include third-party verification every time a subsea blowout...
“Getting this year right, not just restarting operations, but restarting them in a manner that is safe, compliant and sustainable, is critically important.”

Mike Zhangi

context behind the recommendation, lists the activities required to support its implementation, and identifies the resources that a team will need to be successful. In addition, it identifies the challenges associated with the work, areas of linkage between different work streams, and key milestones. Each recommendation has its own programme manager to oversee the process, however, no action can be declared complete until the vice president of wells engineering approves it. But it doesn’t end there – each action is then independently audited and verified by a member of BP’s new safety and operational risk team. Only then can an action be considered ‘closed out’.

“It’s vital that we are crystal clear from the very start of the process, so we’ve spent a lot of time getting our requirements defined upfront,” says Haden. “We then have a verification process for every single action that has been developed.”

The approach is already paying dividends, with one example found in the way the GWO will enhance its management of change (MoC) process, through more systematic application. Whenever significant changes occur in a business or operation, a MoC document must be drawn up. In the past, individual teams and regions would produce their own documentation. However, everyone in the GWO will use one common tool, with standard documentation and training on how to implement the process.

Haden says: “By being systematic, we can assure ourselves that the procedures we are creating are of the highest quality, that they will be effectively implemented in the field, and that we can continuously improve as an organisation, because now we’re following one way of doing something, not several.”

So, what does systematic mean? First of all, a terms of reference is created for each specific recommendation, prior to any work being carried out. This provides the

preventeder is brought to the surface for testing and maintenance, and providing for the use of subsea blowout preventers equipped with no fewer than two blind shear rams and a casing shear ram when using rigs operating in dynamic position mode.

Like Denholm, Zanghi knows that he must think bigger than his own region. “One of my jobs is to ensure that we don’t create our own silo.” To that end, all the area vice presidents confer on a regular basis, sharing lessons learned, discussing risk and helping to develop consistent procedures and processes.

There is one very specific area that binds all of GWO’s operations and that is BP’s internal investigation report. Published in 2010, it summarised BP’s four-month investigation into the causes of the Deepwater Horizon accident and made 26 recommendations designed to prevent a recurrence. BP immediately accepted all 26 recommendations and it is now Steve Haden’s responsibility, as the vice president of wells engineering, to ensure that they are implemented across the GWO. The idea – like everything else in GWO – is to take a systematic approach to the way they are embedded within the organisation.

Haden says: “By being systematic, we can assure ourselves that the procedures we are creating are of the highest quality, that they will be effectively implemented in the field, and that we can continuously improve as an organisation, because now we’re following one way of doing something, not several.”

The approach is already paying dividends, with one example found in the way the GWO will enhance its management of change (MoC) process, through more systematic application. Whenever significant changes occur in a business or operation, a MoC document must be drawn up. In the past, individual teams and regions would produce their own documentation. However, everyone in the GWO will use one common tool, with standard documentation and training on how to implement the process.

“We’ve built this process using examples of best practice around BP,” says Haden, “so that we can have one, consistent approach. That means we can then continuously
improve it as the organisation begins to use it.”

Talk to anyone in GWO and one word will keep coming back to you – sustainability. While BP has also put a lot of effort into developing crisis response procedures based on its experiences in the Gulf of Mexico, no one wants to have to implement them if they can prevent it ever happening in the first place. Long-term prevention depends on the measures that are being put in place now enduring and being continuously enhanced in years to come. OMS provides the framework for a cycle of implementation, review and improvement, designed to deliver thorough risk management on a sustainable basis.

To be truly sustainable, though, Looney says the whole team – starting with him – must feel personally responsible for the piece of the business they work in. The only way do that, he says, is to ask one question – how do I know? Many of the procedures and systems in place are designed to help provide an answer, but sometimes, you can't beat the personal touch. So, like Looney, Lynch and his team spend a lot of time visiting facilities to see for themselves how the new organisation is working.

This could be a challenging experience, but the key is that the frontline remains accountable for delivering safe, compliant wells. “We cannot and should not micro-manage people,” says Zanghi. “Instead, I tell people that I want to have a ‘micro-interest’ in what is going on, that we will be probing how things are working, but being clear at the same time that I expect them to retain responsibility for conducting BP’s business.”

In turn, Looney and the GWO leadership expect the frontline team to ask their own questions and have created a charter that says if someone is unsure about something, they ask. “We have to make sure people know it’s okay to ask questions,” says Looney. “In fact, I want them to feel that it’s actually part of their job to ask.”

Ultimately, it is the people who must deliver the processes and procedures that will make the GWO successful and Lynch knows it is vital that they feel engaged. “Each and every person we have in this organisation is critical to our success. There’s a lot of work to be done and so we have a big recruitment campaign going on, but it’s critically important that we engage the workforce we have today.”

To do that, Lynch and his team are creating 10-year career roadmaps, designed to provide professional development for everyone in the GWO. The team is also in the early stages of forming a Global Wells Institute, which will build on the lessons learned from BP’s Operations Academy – a development programme created in conjunction with the Massachusetts Institute of Technology to support BP’s operational managers.

“We want to develop our professionals,” says Lynch. “We will take a proactive lead in actually creating a world-class, multi-curriculum facility, whether it be for technical, leadership, or business skills. It is more than just training. It’s about deeper professional development. It’s really important that each and every one of our people knows that they have an important job to do, all the skills to do it, and that they can see where their future in BP lies.”

“It’s really important that each and every one of our people knows that they have an important job to do, all the skills to do it, and that they can see where their future in BP lies.”

Richard Lynch
Holiday season: visitors enjoy the sunshine at Panama Beach, Florida, on 8 July 2011. The state’s tourism industry has worked collaboratively in order to draw people back to the coast for their vacations.
The message from the tourism industry along the US Gulf Coast is very clear and consistent: “The water is clean. The beaches are beautiful. Come back to the Gulf.” And this year, it seems that the tourists agree. Following the massive clean-up operation after last year’s oil spill, thousands of visitors have flocked back to the beaches during 2011, once again eager to enjoy the many amenities and entertainment options that the coast has to offer.

Jan Freitag of Smith Travel Research, says the outlook for the Gulf Coast tourism industry is promising, based on research that his firm conducts on hotel trends across the US, including its survey of almost 1,700 hotel properties with more than 175,000 rooms along the Gulf Coast. “Collectively, they have been consistent in saying ‘it’s safe to come back to the beaches along the Gulf Coast.’ The advertising has done a good job at keeping the Gulf Coast on the forefront when families are planning vacations.”

Armed in part with $179 million in tourism grants and commitments from BP, the four states most affected by the 2010 Deepwater Horizon spill – Florida, Alabama, Mississippi and Louisiana – have launched high-profile tourism campaigns, aimed at attracting visitors to the Gulf Coast.
Florida

With a background in marketing and having successfully run other business organisations, Dawn Moliterno was excited about being recruited to become the executive director of the South Walton tourism development council in the spring of 2010. Ironically, she officially started the job just two days after the Deepwater Horizon incident in April 2010 and had to quickly switch into crisis management mode.

She says the crisis helped to pull people together along the Florida coast. “It had been a long time since we had really collaborated as a region,” says Moliterno, who believes the region’s tourism industry will benefit from the new-found co-operative attitude for years to come. “Florida is a strong brand for tourism and northwest Florida’s whole economy is driven by tourism. While we are seven distinct areas, we share the same coast.”

As chairwoman of the newly formed seven-county northwest Florida tourism council, Moliterno says she has worked to encourage her colleagues in other tourism development councils (TDCs) to share their marketing plans and strategies with each other. The non-profit organisation is responsible for managing the $16 million that BP is funding to promote tourism along the northwest Florida coast.

Moliterno says the goal is to use the funds as efficiently and effectively as possible. The challenge, she adds, is finding the right balance between promoting the entire northwest Florida coast as a destination, while at the same time allowing each area to highlight their unique attributes.

Part of the group’s effort is aimed at raising general awareness of the spectacular beaches in northwest Florida. “Many people in the US feel like they need to go to the Caribbean to find white sand beaches and emerald green waters. The reality is that they don’t have to leave the US. They can find all of that here.”

Dawn Moliterno
Executive director, South Walton tourism development council

“Many people in the US feel like they need to go to the Caribbean to find white sand beaches and emerald green waters. The reality is that they don’t have to leave the US. They can find all of that here.”

Dawn Moliterno
Executive director, South Walton tourism development council
about the impact of the spill. She believes the images of the spill were misleading in terms of the amount of oil actually affecting the Florida coast. “Television got us into this and I believe television will get us out of it.” As a result, Moliterno’s group is buying television air time to run commercials featuring recent images of Florida’s sugar-white sandy beaches.

“Without the BP funds, we would not be able to afford to buy television air time,” Moliterno says. With a strong call to action in the advertising, the commercials are having an impact, she says.

In addition, the group is pursuing online marketing. “In the past, 60% of our advertising would have been traditional media and only about 40% online. Now, those figures have reversed.”

The online efforts are aimed at nurturing customer communities on Facebook and other social media. “It’s been very valuable, because our guests are reading about Florida from real people, in their own words.”

Through mid-summer 2011, all the signs were very encouraging, Moliterno says. “We had a very strong spring break season, Memorial Day weekend was good, and we had an incredibly solid Fourth of July week. We’re seeing the return of our core customers, our guests who come here year after year.”

Alabama

In Alabama, Mike Foster, vice president of marketing for Gulf Shores and Orange Beach Tourism, believes the state made an important strategic decision early in the process, when state leaders decided to direct the majority of the tourism funds from BP to the coastal areas.

While tourism on the coast felt the greatest impact from the spill, the decision to funnel money to the coast was also based on the realisation that the coast is both a magnet and driver for tourism across the state. “We are fortunate to have a very progressive state tourism director who recognised that as the Gulf Coast goes, so goes tourism throughout the state.”

As Foster notes, the beaches and amenities of Baldwin and Mobile counties and the Dauphin Island area draw visitors to southern Alabama and during their drive south they spend money in other locations.

“We know our audience very well,” says Foster, who has been involved in Alabama tourism for more than 13 years. “There is tremendous brand loyalty. In fact, 70% of our visitors are repeat visitors. They come to the beaches of Alabama year after year. They have grown to know us and love us.”

As a result, the tourism campaign for Orange Beach and Gulf Shores has sought to capitalise on its loyal customer base.

“Our advertising is built around the message that ‘everything you remember is still here, so come on back.’”

Alabama officials also recognised the need to expand their market base. “We realised that there are lots of people who have never been here before and who didn’t even know that Alabama had sugar-white beaches and other amenities,” Foster says. “With the funds from BP, we have been able to reach people that we haven’t in the past.”

Foster’s group has also taken the opportunity to promote tourism along the Gulf Coast in “refreshing, unique and...”
creative ways that we would never have been able to do in the past. We want them to sit up and take notice.”

In addition to expanding the geographic reach of its tourism campaign, Foster’s group also implemented both traditional and digital programmes, to entice its greatest sales force: current visitors. During the 2010/11 ‘snowbird’ season, when thousands of visitors descend on the Gulf Coast from the cooler US Midwest and northern states, Alabama officials distributed 30,000 coffee mugs stuffed with postcards. Foster says snowbirds love getting freebies – and news about giveaways quickly spreads throughout this visitor segment. “We offered them free coffee mugs, with only one request: that they mail the postcard to a friend back home to tell them that they were having a great time here.”

Foster’s inventory of mugs was soon exhausted, and postcards extolling good times on the Alabama coast were on their way to friends and families around the US. The same basic strategy of encouraging visitors to share their beach experiences was also applied online. Through Facebook and online programmes, such as Foursquare, Foster’s expanded team of online specialists sought to encourage visitors to share their advice on the best places for seafood, quiet walks on the beach, or favourite fun things to do.

Foster says it’s amazing how willing people are to share their stories on Facebook and elsewhere online.

Looking back, Foster says he first began to feel good about the recovery in Alabama tourism when he visited with the first group of snowbirds to arrive last winter. “They were happy, eating well and having fun.”

Perhaps the biggest sign that tourism was returning to the Alabama coast was the hugely successful Hangout Music Festival in late May. The festival, which was sponsored in part by BP, drew more than 30,000 attendees and “brought in many people who had never been to the Alabama coast before.” To keep that momentum going and attract more visitors, another dozen or more concerts are scheduled this autumn and into 2012.

If the new visitors return at the same rate of the current tourism base, then Foster believes Orange Beach and Gulf Shores will be able to continue to expand its tourism business in the coming years.

**Louisiana**

As Louisiana’s official tourism ambassador, Lieutenant Governor Jay Dardenne is leaving no stone unturned in his efforts to attract more tourists to the state. Since taking office in November 2010, Dardenne, along with other state tourism leaders, has introduced a new tourism marketing theme for the state, worked the national media circuit in New York City, expanded the use of online advertising, and began writing his own tourism blog.

The state’s biggest tourism challenge, Dardenne says, is correcting the lingering misperceptions about the safety of Louisiana seafood, especially among people outside the region. That’s why, among other things, he has led two marketing trips to New York City to meet with national media, as well as food and travel writers. During one trip, he conducted 28 radio and television interviews in one marathon morning session.

He and other tourism officials are also working closely with the Louisiana Seafood Promotion and Marketing Board on a variety of programmes aimed at promoting the safety of Gulf seafood.

Dardenne says the two most significant developments in Louisiana’s approach to tourism promotion are the launch of a new marketing campaign theme – ‘Pick Your Passion’ – and a significant increase in online advertising and promotion.

In introducing the new marketing theme, “our thinking was that we are a passionate people about food, music and festivals.” He says that festivals are drivers for tourism throughout the state. “Festivals are..."
Party atmosphere: with its extensive seafood menu and a successful music festival held in May this year, the Hangout restaurant and music venue (above and far left) is popular with holidaymakers. Below, the Natchez is one of two steam-powered steamwheelers to travel up and down the Mississippi. It’s daily two-hour jazz cruises depart from near New Orleans’s French Quarter.

Alabama statistics ($ million)

$22m in tourism grants for 2010

$16m in tourism commitments for 2011-13

Louisiana statistics ($ million)

$15m in tourism grants for 2010

$30m in tourism commitments for 2011-13
a way for us to celebrate the culture and way of life in Louisiana. In fact, we have more than 400 festivals in Louisiana, and we like to say that if it walks, flies or swims, we have a festival to celebrate it before we throw it in a gumbo.”

The state also enhanced its tourism website, adding a virtual visitor centre and a blog written by Dardenne. He says the state is focusing both BP funds and other state tourism funds to advertise more intensively online.

“This is a new marketplace for us,” Dardenne says, and the state’s tourism groups are working to better understand how people decide where to vacation and how they search for information.” The state is also placing broader emphasis on social media as a marketing tool.

Since most tourists immediately think of New Orleans when they think about visiting Louisiana, Dardenne says he sees an opportunity for the rest of the state to capitalise on the Big Easy’s prominence as a tourist destination.

“We work in concert with New Orleans on tourism. They have a large budget and active marketing plans, so we look for ways to complement what they are doing,” as well as encourage visitors to New Orleans to add extra days to their trips to see other parts of Louisiana.

Visitors come to New Orleans, in large part, for the unique culture and the food, Dardenne says, but “we want them to have the complete south Louisiana experience,” including fishing, swamp tours, tours of former plantations, birding and other outdoor experiences.

Another focus for Louisiana tourism, Dardenne says, is the recreational fishing industry. “From a pure tourism perspective, the recreational fishing industry suffered the most from the oil spill, so we are working to dial it up a bit and help that industry grow again.”

Looking forward, Dardenne sees signs that the tourism industry is recovering more quickly than first expected.

“The pace of recovery is good, but there is still work to be done,” he says. The infusion of BP funds has enabled the state to accelerate its advertising and marketing efforts aimed at correcting misperceptions about the safety of Louisiana seafood.

The state’s tourism marketing effort includes targeting Louisiana’s traditional markets such as Texas, Arkansas and parts of Florida, as well as efforts to attract visitors from new markets, such as Atlanta and Memphis.

Helped in part by BP tourism funds, Dardenne also hopes to invest in national advertising opportunities on targeted television networks in 2012, where he believes there is a natural interest and receptiveness to messages about Louisiana culture, food and other attractions.

“Our greatest asset is the authenticity and diversity of our people. It’s what makes us unique and different from other travel experiences.”

Mississippi

In Mississippi, John McFarland, marketing director of the Biloxi Sun-Herald, believes the most significant development in tourism has been the creation of a regional approach to tourism marketing.

Noting that the individual tourism development councils in the three counties along the Mississippi Gulf Coast are each relatively small with limited funding, “this was the first time the Mississippi Gulf Coast region worked together,” McFarland believes the most significant development in tourism has been the creation of a regional approach to tourism marketing.
even though they were expecting to find everything under oil because of all the negative media coverage.

When surveyed again in October 2010, he says, most visitors had changed their perceptions about conditions on the beach. By the third round of research in February 2011, “most people didn’t even mention the oil spill.”

The group also discovered that many visitors were surprised by how much there is to do in the area. “They told us that our ads don’t brag enough about everything there is to do on the Mississippi coast.”

As a result, area business leaders have begun looking at how it can better promote all of the region’s tourism assets. As an example, McFarland cites the fact that the Pascagoula River is the longest undammed river in the country. “The Pascagoula River can be a focal point for ecotourism, which is one of the fastest growing segments of the tourism industry.”

In addition to its 42 kilometres (26 miles) of beaches, the region’s 12 casinos and 14 major golf courses have been the primary magnets for tourism. But McFarland and other area leaders see opportunities to also promote the region’s wealth of festivals and events.

“There is a festival or cultural event almost every weekend along the Mississippi coast, from Cruisin’ the Coast which features 4,000 vintage cars to fishing tournaments, music festivals and Mardi Gras. The Mississippi Gulf Coast has so much more to offer than many visitors expect.”

**John McFarland**
Marketing director, Biloxi Sun-Herald

---

**Mississippi statistics ($ million)**

<table>
<thead>
<tr>
<th>In tourism grants for 2010</th>
<th>In tourism commitments for 2011-13</th>
</tr>
</thead>
<tbody>
<tr>
<td>$18m</td>
<td>$16m</td>
</tr>
</tbody>
</table>
An art room isn’t the first place you’d expect to find one of the UK’s top wheelchair racers, but this summer, Paralympian Shelly Woods took time out from her hectic training schedule to model in a drawing class for a group of aspiring young artists. Fifteen young people from across London attended the first of two free BP-supported Summer Schools at the National Portrait Gallery. Over the three-day event, the artists were given support and advice on all aspects of portraiture from previous BP Portrait Award winners, including Jane Allison, who won in 1993. Shelly spent an afternoon with the group, sharing some of her experiences as an athlete, before holding a series of poses from which the group could sketch. Those sketches were later turned into full portraits. “I was very open-minded about the experience,” says Shelly. “They’re all very talented and my job was to hold each pose for as long as possible. It was fascinating to see how different people honed in on different aspects, and to see how they interpret you.” The Summer Schools are part of BP Portrait Award: Next Generation, a three-year project to encourage young artists of the future, and is part of the London 2012 Cultural Olympiad. “BP is delighted to be supporting this extension of the BP Portrait Award,” says Des Violaris, BP’s arts and culture director. “We want to provide opportunities for young people to work with practising artists to explore portraiture. Who knows, we might have a future BP Portrait Award winner in our midst.”

The model sportswoman

An art room isn’t the first place you’d expect to find one of the UK’s top wheelchair racers, but this summer, Paralympian Shelly Woods took time out from her hectic training schedule to model in a drawing class for a group of aspiring young artists. Fifteen young people from across London attended the first of two free BP-supported Summer Schools at the National Portrait Gallery. Over the three-day event, the artists were given support and advice on all aspects of portraiture from previous BP Portrait Award winners, including Jane Allison, who won in 1993. Shelly spent an afternoon with the group, sharing some of her experiences as an athlete, before holding a series of poses from which the group could sketch. Those sketches were later turned into full portraits. “I was very open-minded about the experience,” says Shelly. “They’re all very talented and my job was to hold each pose for as long as possible. It was fascinating to see how different people honed in on different aspects, and to see how they interpret you.” The Summer Schools are part of BP Portrait Award: Next Generation, a three-year project to encourage young artists of the future, and is part of the London 2012 Cultural Olympiad. “BP is delighted to be supporting this extension of the BP Portrait Award,” says Des Violaris, BP’s arts and culture director. “We want to provide opportunities for young people to work with practising artists to explore portraiture. Who knows, we might have a future BP Portrait Award winner in our midst.”
Ten years after it was first set up, BP’s Integrated Supply & Trading organisation is still playing a vital role in ensuring the company has constant access to its core markets at competitive prices, while making sure its refineries and retail sites are fully supplied.
Gas matters: a gas trader at work at BP’s Canary Wharf offices, London. The IST organisation markets several times more gas than BP’s upstream business produces in North America.
When a magnitude nine earthquake and tsunami hit Japan in March 2011, it caused widespread devastation, knocking out the cooling systems at the Fukushima nuclear plant, and causing meltdown at three of its reactors. The impact of this second disaster has been felt around the globe, with Germany cancelling its nuclear programme and other governments delaying decisions on the future of nuclear in their country. All of this, says Paul Reed, head of BP’s Integrated Supply & Trading (IST) organisation, has fundamentally changed the liquefied natural gas (LNG) market for the next 20 years. “With so many other countries reconsidering their nuclear plans, suddenly, the long-term market for LNG has significantly shifted,” he says.

This is just one of dozens of examples of how world events can have a dramatic effect on the way that energy supplies are bought and sold around the world. Those doing the buying and selling have to adapt quickly to keep the supplies moving to the right places.

It was partly this need for flexibility that led to BP setting up its IST division 10 years ago, in July 2001. Prior to this point, the company’s oil, gas, power, chemical and financial supply and trading activities had been conducted by individual teams and businesses, creating numerous processes and systems, as well as presenting many different faces to the external traded markets.

The wider industry was changing as well, with banks and funds increasing their presence in commodity-trading operations, fuelling rapid growth in this market. The intention was that IST would act as a single face to the market, creating a streamlined service, with common standards on control, compliance and risk management.

History has left BP less integrated than some of its main competitors, having lost much of its production in a wave of nationalisations, in the late 1970s. With refineries around the world and little crude to fill them, BP was forced to become more entrepreneurial in its thinking. “The industry model was to be highly integrated across upstream and downstream, and, suddenly, we were non-integrated,” says Reed. “We had to buy crude and help develop a traded market.”

Today, it is IST’s job to ensure BP’s oil and gas production has constant access to a market at competitive prices, and that its refineries and marketing outlets are fully supplied. Or, as Reed puts it: “We sell everything that BP gets out of the ground and we buy everything that Refining & Marketing [R&M] puts into its refineries, airports and retail sites. We then sell any excess product from the refineries that isn’t going into one of BP’s fuels value chains.”

But it isn’t just about oil and gas anymore. The type of products that IST trades has expanded over the years to include foreign exchange, power, precious metals for catalysts used in BP’s refineries, and chemical plants, agricultural products for biofuels, and carbon dioxide emissions credits. “Anything that is traded on an open market comes through us,” says Reed. “That gives us a view of the entire market and enables us to take entrepreneurial positions.”

**Volatile business**

The challenge, of course, is that commodity trading can be a volatile business, particularly since the credit crunch in 2008, during which time oil prices have fluctuated massively.

But, says Reed, those fluctuations do not happen because a trader is speculating on price. “Oil is a volatile commodity; it can drop just as quickly as it goes up.” This was certainly true in May this year, when the price fell $10 – the largest single day drop in the history of oil prices. “Drops like that are usually caused by something like war or hurricanes,” says Reed. “On this occasion, no single event was the catalyst.”

Reed believes that trading helps create a transparent price that reflects demand and supply, so that countries and companies know at what level to sell their crude and customers to buy. Trading also helps anticipate regional needs. To return to the Japanese earthquake, IST quickly realised that with Fukushima offline, the country was going to need more LNG imports in 2011. “We were able to reconfigure our supply programme in a month and get extra cargos to them,” says Reed.

Likewise, during the US hurricane season, refineries along the Gulf Coast sometimes close, and, in the past, IST has brought in extra gasoline cargoes at short notice, to assist in adequately supplying the affected area. Providing this liquidity to market also helps smooth out price volatility caused by such events.

Nevertheless, there are risks associated with trading, as in any business, and in 2006, IST faced its own crisis, when BP and four of its traders were charged with manipulating and attempting to manipulate prices in the US propane market in 2003-04.

It was a difficult moment for the organisation. At the time, Reed was responsible for BP’s European oil trading, but was sent to the US to respond to the situation, which he describes as “a huge wake-up call. We realised we had to improve our compliance framework.”

BP eventually settled with the US regulator and set about taking a ‘root and branch’ approach to the problem, completely redesigning its compliance framework, with the aim of creating a culture where everyone at every level of the organisation is focused on control and compliance. The changes were significant, including substantially increasing the scope and scale of BP’s compliance programme, rolling out new global operating standards, and implementing rigorous training programmes. The independent US trading monitor – compliance expert and highly experienced
TRADING TERMINOLOGY

Physical – the tangible commodity, for example, crude, gasoline, soya
Paper – financial derivatives, for example, futures, swaps and options
Bullish – the belief that market prices will rise
Bearish – the belief that market prices will fall
Long – to benefit from prices rising
Short – to benefit from prices falling
Cargo – a standard size of crude or product traded on a market
Bid – the price at which you are prepared to buy
Ask/offer – the price being quoted at which to sell
Exposure – the extent to which a price change in the market affects your profit or loss
Futures – a contract for the purchase or sale of a commodity that is traded for future delivery at a price or pricing formula agreed at the time the contract is entered into
Liquidity – a market is said to be liquid when it has a high level of trading activity, allowing buying and selling of commodities with minimum price movement
Position – taking a position is to close a firm contract to buy crude oil or products, or to secure capacity, such as refining or shipping
Swap – a paper contract for a specific time period, quantity and grade, according to specified terms – for example, ‘swapping’ a fixed price for a floating price, or creating a payout based on the relationship of the price of a feedstock, versus the price of a product it creates
Hedging – to mitigate risk, for example, using offsetting futures contracts
Arbitrage – to trade the dislocation of prices between geographical areas or time periods
lawyer Bart Schwartz – who was appointed to review and monitor the effectiveness of IST’s compliance controls, played a key role in supporting IST, as it embedded the new compliance culture.

The impact of those events has left everyone deeply aware of the importance of working with the industry regulators. And while the two sides may not agree from time to time, both share an interest in making the market work. “If the regulations change, and we have to change the way we do business to remain in compliance, then we will adapt,” says Reed.

**Market changes**

Not only has IST changed dramatically, but so have the markets in which it operates. This is particularly true of natural gas. Demand for gas has risen as power companies have recognised its economic benefits in creating electricity, with fewer greenhouse gas emissions than conventional coal generation. This has meant an increase in the amount of gas that IST handles. Unlike crude oil markets, which tend to focus on a couple of key markets, such as Brent and West Texas Intermediate, gas is traded through many regional hubs, with more than 20 in North America alone. “This is because there was regional volatility in gas prices,” says Reed, “and trading mechanisms developed to reflect that.”

LNG has made it easier to move gas around the world, but the market for it is traditionally less ‘liquid’ than oil. “LNG historically relied on 30-year ‘life-of-field’ contracts,” says Reed. “So, gas would move from one region to another in a very fixed manner, unlike oil, which is sold flexibly on loading to its highest-value market. It is starting to change, though.”

While IST’s primary role is to service the needs of the wider corporation, it also uses its expertise to provide similar services for other smaller producers and refiners. Many do not have their own marketing division, so they call upon IST to manage the process for them. In natural gas, for example, IST markets several times more product than BP’s upstream business produces in North America.

IST also offers price risk management services to a range of customers worldwide. These allow an independent producer, for example, to lock in its prices for a fixed number of years, in order that a bank might lend it money to drill a well, or an airline to agree a fixed price for the coming year, to reduce price volatility for its customers. “IST is all about relationships,” says Alan Haywood, IST’s head of commercial development. “We’re always looking for solutions for our customers. Those solutions have to work for BP as well, but I think our skill in trading is recognised in the external world and people want to work with us because of it.”

Certainly, this seems to be the case in BP’s new partnership with Reliance Industries in India. As well as upstream co-operation, the two companies are set to create a joint marketing company. “One of the things we emphasised to Reliance was the skills we have honed in the European, Asian and American markets and how we can bring that to bear in the nascent markets of India,” says Haywood. “I think that was very appealing to them.”

It’s a model IST hopes to replicate, as it looks to continue growing its business. Like BP’s upstream business, renewal is critical to IST’s ongoing success. Old contracts expire, and new ones must be forged. “We are always in growth mode,” says Reed. “The challenge is to grow new business faster than the old contracts expire.”

IST also has particular areas of focus on which it plans to concentrate. “First is geographical expansion,” says Haywood. “We need to recognise the growth occurring in the eastern hemisphere, while remaining focused on the western hemisphere. Nonetheless, we need to be mindful of where the trade flows are going, and, increasingly, they are moving east. We also want to continue extending into new markets, particularly in biofuels, power and emissions trading. Finally, we want to do more trading of our financial products, and expand our hedging services for third parties.”

**Competitive edge**

This growth is vital if IST is to stay one step ahead of an increasing number of competitors. “There is no doubt that over the years, we have seen a lot more people come into our markets,” says Reed. “Oil companies like us, utilities, trading houses, banks – they’re all looking to expand into this space. So, the key is to be able to re-invent yourself rapidly.”

But reinvention must never come at the cost of compliance. “We want to ensure that this is a robust business, that we are making money, but that we are also using our resources wisely, that this is a place where people want to work and that we keep our focus on safe, controlled and compliant operations,” Reed concludes. “If we get that right, then it naturally creates a platform for growth, both for BP and IST.”

With that in mind, there’s every reason to believe IST will still be going strong in another 10 years.
MAKING CONNECTIONS

Sharon Rynders

Commercial and relationship manager, Energy Biosciences Institute (EBI)

Sharon Rynders’ calendar is full of birthdays, and her contact book bulges with the names of her co-workers’ pets. It’s just one way, she explains, of maintaining and building close relationships with the people she works with.

And, she works with hundreds of people in her role, as both commercial manager and relationship manager for the EBI, the $500 million BP investment that spans laboratories and farms from the University of California, Berkeley, to the University of Illinois. “Building relationships is a contact sport. If you spend time getting to know someone up front, then you find people are more willing to help when you need them,” she says.

Her commercial role covers the financial planning and communications side of the EBI, which is dedicated to using biology to find fuels of the future. But what motivates her most is using her technology background to bring together university researchers and subject experts in BP.

“I like making the connections – it’s what I get out of bed for in the morning,” she says. “I get a real kick out of connecting the technology I see in the field to the BP business, or seeing work that I know could really help someone else to make advances in their area.”

Making connections and seeing how the pieces fit is also a clue to one of Sharon’s hobbies outside work. “Jigsaw puzzles keep my mind active. People ask whether there’s a particular type I like, but I don’t care – I just like seeing the picture come together in the end.”

“I get a real kick out of connecting the technology I see in the field to the BP business, or seeing work that I know could really help someone else to make advances in their area.”
BP has embraced the concept of ‘corporate venturing’, making $125 million of investments over the past five years. Today, the company sees this activity as an important way to plug into innovation across its full spectrum of operations, acting as a catalyst for change in shaping its future strategic landscape.
Meticulous work: a scientist at Mendel Biotechnology extracts seeds from Miscanthus grass for testing. Mendel is one of a number of companies in which BP Ventures has invested.
ew great things are achieved without innovation. And precious little innovation is achieved without people sharing ideas, risks and opportunities.

That's the simple philosophy behind ‘corporate venturing’, a term used to describe the investment by large companies in smaller, ‘growth-stage’ businesses, to help fund the development of new products or technologies. The mutual benefit is obvious: the recipient of the investment has the financial backing it needs to accelerate the development, while the investor has access to the resulting innovation.

BP's corporate venturing arm was established in 2006. Now called BP Ventures, the team comprises a cross-functional group of around 12 venturing professionals, based in the UK, US, China and India. Twenty-four investments totalling around $125 million have been made in the past five years, with further investments in the pipeline.

The head of BP Ventures, Justin Adams, explains that the team is playing an increasingly important role in shaping the company's future strategic landscape. “The industry is under pressure, like never before, to find new solutions and new opportunities in areas such as climate change, energy security and green jobs. But the days when our own research laboratories could experiment broadly have gone,” he says. “By investing in smaller, entrepreneurial companies, that are nimble and can move quickly, we are able to create deep strategic insight for the company around how the future may evolve, and develop long-term options, particularly in the lower-carbon space.

“Looking at these possibilities not only means analysing the opportunities that may emerge to help build new growth platforms, but also identifying the threats to the group’s core businesses so that its long-term value is protected.”

According to Adams, the group is more than just another business. “It’s a discipline, an attitude, a way of thinking, interacting and behaving,” he says. “As a group, BP’s collective mindset has long been one of extending what we know. In today’s energy landscape, among other things, this means focusing on new areas and activities, adjacent to oil and gas, which leverage many of our existing skills, capabilities and assets, but in different ways. In short, to act differently, we must think differently.”

Acknowledging that it should be investing in, and partnering with, companies and investment funds at this innovative frontier of energy is one thing. The big question is which companies?

The team scans around 1,000 businesses each year, rigorously evaluating the opportunities for investment against two clear and equally important criteria – the strategic value to BP and the commercial potential. In selected areas, such as energy efficiency, energy storage and low-carbon alternatives, initial experiments will be run – a small equity investment will be made in an entrepreneurial company to learn how a technology is evolving, for example, or participation in a third-party pilot project.

“Only then, when we have learned all we can and we are sure that it is right for BP, will we be confident that we can invest to build and scale a business,” Adams says. BP will typically invest $1 million to $5 million to acquire a minority stake in a company – rarely more than 20% – and

“By investing in smaller, entrepreneurial companies, which are nimble and can move quickly, we are able to create deep strategic insight for the company around how the future may evolve.”

Justin Adams
INVESTMENT PORTFOLIO

BP’s portfolio of strategic venturing investment spans three broad areas: carbon innovation, bioenergy and electrification. This includes a range of specialised innovations and technologies, such as waste-heat recovery, energy storage, carbon funds and land-carbon projects, new solar technologies, biofuels and bio-based products, and many other areas.

One example is Scotland-based Heliex Power, a spin-off from City University London, which is using its expertise in screw compressor technology to develop new waste-heat recovery solutions, that could offer significant power generation opportunities at refineries and other industrial sites where the potential is normally lost.

Around 50% of the primary energy consumed by BP operations is ‘lost’ as heat, which, if converted to electrical energy, would have a value of at least $650 million per annum. The Heliex Power technology is ideally suited to recovering useful energy from waste heat.

“BP’s investment has entirely enabled us to get the project going – setting up premises, hiring appropriate people, and getting to the point where we have almost completed our first machine,” says Heliex chief executive Dan Wright.

“Just as importantly, when we launched the project at this year’s Power-Gen Europe show in Milan, we were able to use the BP badge on our stand. The credibility that gave us is really important in generating interest and future funding.”

Another BP venturing investment is in Mendel Biotechnology of California, which is pioneering world-leading genetic and chemical solutions to enhance agricultural systems – boosting crop yield or improving drought tolerance, for instance. The company also has a bioenergy seeds division, which is developing new varieties of highly-productive energy grasses that won't compete with food.

“BP is potentially a large customer for Mendel in the emerging biofuel space,” says Justin Adams. “This project illustrates the role of venturing in helping to develop a feedstock for use by BP Biofuels, and for the emerging biopower and bioproduct sectors.”

The organisation has also developed an important new partnership with LubriGreen BioSynthetics, also of California, which is working to develop the world’s first truly effective bio-based automotive engine oils. This is BP Ventures’s first project with Castrol, BP’s lubricants business in Refining & Marketing.

“Our investment is helping LubriGreen grow, so that, ultimately, it can supply Castrol with feedstock products for its new ‘green’ line of lubricants,” Adams says.
then help its partner top up this with third-party capital, as necessary, through future fundraising.

"Of course, there's an element of risk involved with this kind of investment, because the project might not fulfil its initial potential," Adams says. "But our rigorous appraisal process and portfolio management means we are able to use our money wisely."

Corporate venturing has enjoyed something of a renaissance in recent years, as companies realise they have neither the resources nor the speed to keep up with the blistering pace of innovation. Investment in the 'clean tech' sector specifically has soared over the past decade, going from almost no investment even five years ago, to $250 billion today. Venture capital has played a crucial role in that rise. Innovation in the upstream is also rife, with several venture funds focused on commercialising innovative exploration and production (E&P) technologies, and several E&P companies and large service companies boast active venturing arms. Energy start-ups are now playing a crucial role in challenging the status quo, through new technologies and business models.

The energy sector is critically different from other industries where venture capitalism has been so successful in the past, however. The bill for transitioning to a sustainable energy future will run into trillions of dollars, is long term and, just as importantly, the large-scale innovation and organisational change required will need the sophistication, scale and reach of large corporates, says Adams.

"Everyone jumped on the clean energy bandwagon, but a lot of people just didn't understand the time-frames and costs involved in bringing these new technologies to market," he continues. "To a large extent, the venture capital community believed it would be the same...

"The key for us is to keep our finger on the pulse. If we can continue doing that, we can be a catalyst for change within BP and the entire energy industry."

Justin Adams
as the internet boom, and there would be huge returns in a short space of time. But, that will never happen in the energy sector, so many start-ups are struggling to get to scale and many venture funds are now sustaining losses on their investments.

“This makes the role of corporate investment increasingly important in this area. BP understands that it will take many decades to transform the energy sector, overall, and that innovations today could take 10 years to get to the market. But by being involved early, we can understand how the innovation might fit with our broader business. The energy sector is used to taking a long-term view. Having said that, we also expect to see the first of our investment projects coming to market in 2012, and the beauty is that, eventually, the cash flow generated by our investments will make BP’s venturing activity entirely self-funding.

“The key for us,” he concludes, “is to keep our finger on the pulse. If we can continue doing that, we can be a catalyst for change within BP and the entire energy industry.”

“These days, corporate strategy is about change, not stability, and the role of management is about industry leadership and the vision to drive change.”

Heidi Mason
Managing partner, Bell Mason Group

INNOVATION STRATEGY

The need for innovation and venturing as a means of corporate growth is becoming increasingly critical, spurred by globalisation and the ubiquity of technology advancements. That’s the view of Heidi Mason, co-founder and managing partner of the Bell Mason Group, which has helped numerous companies build effective and measurable innovation and venturing programmes.

“Innovation strategy is now the cornerstone of every board meeting, as corporations think through their targets for growth in the next decade and figure out how to ‘operationalise’ innovation as a means to that end,” she says.

“These days, corporate strategy is about change, not stability, and the role of management is about industry leadership and the vision to drive change.

“Teams such as BP Ventures are leading the charge to eliminate corporate silos and establish internal innovation networks.

“Working together with external partners, they target customer-centric opportunities and applications in adjacent markets, as well as platforms that can spawn multiple businesses and breakaway ventures. These have the potential to extend the runway of the established businesses, and create future business divisions for the parent company.”

INVESTMENT OPPORTUNITIES:
BP Ventures has made a number of investments, including Helix Energy (far left top), which has applications in any process that produces waste heat; Mendel Biotechnology (far left bottom and left), LubiGreen, which is developing bio-based automotive engine oils (facing page); and Verdezyne, which uses proprietary technology to create and improve metabolic pathways for the production of ethanol and adipic acid (middle left).
RESTORATION WORK GETS UNDERWAY

An agreement between BP and 16 government agencies that will see up to $1 billion pumped into early restoration projects across the four states affected by the Deepwater Horizon tragedy last year, marks the next stage in the company's efforts to restore the Gulf.
Environmental efforts: a worker from the Bon Secour Natural Wildlife Refuge in Alabama studies a crab covered in oil (below) in June 2010. Left, volunteers worked with the Coalition to Restore Coastal Louisiana, planting vegetation on Elmer’s Island to assist in stabilising and capturing sand to help build dunes, October 2010.
In an agreement that has been described as ‘unprecedented’, ‘ground breaking’, a ‘milestone’ and ‘a great step forward’, 16 government agencies and BP have jointly announced plans for BP to provide up to $1 billion to accelerate projects to restore areas of the Gulf of Mexico that were affected by the Deepwater Horizon accident. This is the largest restoration agreement entered into under the US Oil Pollution Act (OPA).

It allows projects important to the Gulf’s recovery to begin this year, rather than delaying restoration until the assessment of natural resource damages (NRD) is completed. Early restoration projects will undergo public review before they are funded, and priority will be assigned to projects that offer the greatest improvements in wildlife habitat and populations and the greatest increase in opportunities for recreational use of the Gulf.

BP believes early restoration will result in measurable improvements to wildlife, habitat and recreational uses in the Gulf, says Lamar McKay, chairman and president, BP America Inc. “Our voluntary commitment to this process is the best way to get restoration projects moving as soon as possible.”

McKay says BP’s voluntary agreement to accelerate restoration projects builds upon the co-operative approach BP has taken in working with Gulf communities and regulators since the Deepwater Horizon accident in 2010.

Public participation is an important part of the NRD process, and people living in coastal communities have been encouraged to submit ideas for early restoration projects. Meetings have been held in every Gulf coast state to explain how NRD works and the types of projects that would be considered eligible for early restoration funding.

People have responded with suggestions that include rebuilding coastal marsh and dune habitats, conservation of sensitive habitats, and building recreational facilities, such as fishing piers. BP’s website (www.bp.com/nrda) also provides a link for members of the public to submit their ideas to their respective states.

Restoration is not required by OPA at this stage of the NRD assessment process. OPA directs the federal and state Trustees to study potential damage, complete a report that identifies the injuries resulting from the incident, and develop restoration plans to address the identified injuries. The process typically takes years to complete.

Shortly after the incident occurred, BP began working co-operatively with federal and state agencies to collect data needed to assess damages to natural resources through the natural resource damage assessment (NRDA) process. More than 100 co-operative studies are underway to evaluate the potential for injury to all types of wildlife and habitat in the Gulf of Mexico, and to understand baseline conditions (the condition the Gulf would be in if the spill had not occurred).

BP also began discussions in 2010 with each of the designated Trustees, to explore how the company could accelerate the restoration process.

Under the expedited restoration framework made possible by this agreement, and to allow restoration to begin as quickly as possible, the Trustees will use the study data collected to date to identify injuries that are evident now. They will propose plans to restore those resources at the earliest opportunity, focusing on projects that can begin in 2011 and 2012. This will have the effect of speeding up restoration work that otherwise likely would have been deferred, potentially for several years, while the

THE ROLE OF TRUSTEES

The final selection of projects that will be implemented under the early restoration agreement will be a joint decision by all of the NRD Trustees and BP.

State and federal trustees are in the process of developing their own lists of proposed projects that the Trustees and BP will then discuss based on several criteria, including the extent to which the proposed project will restore resources, their cost, and the timeline for project construction and completion.

An important criteria, Robin Bullock says, is whether proposed projects will offer multiple benefits to wildlife, habitat, and other impacted resources and services. “An example of a project with multiple benefits is one that creates a wetlands habitat that also provides a bird habitat, and which might also have public use opportunities.”

Once the initial list of projects has been identified, the Trustees will seek public input from communities across the Gulf Coast.

NRD Trustees

The NRD trustees who are party to the early restoration agreement include representatives from all five states and federal government agencies:

- Alabama (Alabama Department of Conservation and Natural Resources, Geological Survey of Alabama);
- Florida (Florida Department of Environmental Protection);
- Louisiana (Louisiana Coastal Protection and Restoration Authority, Louisiana Oil Spill Coordinator’s Office, Louisiana Department of Environmental Quality, Louisiana Department of Wildlife and Fisheries, Louisiana Department of Natural Resources);
- Mississippi (Mississippi Department of Environmental Quality);
- Texas (Texas General Land Office, Texas Parks and Wildlife Department, Texas Commission on Environmental Quality);
- The US Department of Commerce through the US National Oceanic and Atmospheric Administration (NOAA);
- The Bureau of Indian Affairs;
- US Department of the Interior (DOI) through the US Fish and Wildlife Service;
- US Department of Defense.
“Our voluntary commitment to this process is the best way to get restoration projects moving as soon as possible.”

Lamar McKay

Capturing data: many types of data were recorded during the response, including collecting and examining sea turtles (below, September 2010) and testing water quality (bottom, Dauphin Island, Alabama, May 2010). Below left, barracuda photographed close to the Discoverer Enterprise – one of the many vessels involved in the subsea response – in July 2010.
NRDA continues to look for evidence of injury.

“We know that oil reached some parts of the shoreline and that some resources in the Gulf were affected. We also know that people did not have access to some of the recreational areas of the Gulf Coast where beaches were closed and where there were fishing bans,” says Robin Bullock, NRDA director for BP’s Gulf Coast Restoration Organization. “The extent of those injuries is an outstanding question, but we believe there is sufficient information to allow the Trustees to focus on the areas of known injury, and begin developing projects to help mitigate those losses.”

As part of the NRDA process, federal and state government agencies serve as Trustees for natural resources that the government owns or manages for the public’s use and benefit. At state level, these agencies have resource management responsibilities for fish and wildlife, state parks, state beaches and coastal waters, within the state’s jurisdiction.

The federal government is responsible for federal parks and other land owned by the federal government, federal waters, and the resources within them, including migratory birds, marine mammals, fish and other biological species that cross several different areas. For the Deepwater Horizon spill, the federal Trustees include the US National Oceanic and Atmospheric Administration (NOAA) and the US Department of the Interior.

“Each of the Trustees and BP wanted to find a way to begin restoring the Gulf as quickly as possible. There was an incredible sense of momentum to work co-operatively, to achieve significant, meaningful restoration of natural resources in the Gulf of Mexico,” says Bullock. Under the agreement, data that has been collected in the co-operative assessment process will be used to develop plans to restore impacted resources at the earliest opportunity.

---

Projects will undergo public review before they are funded. Priority will be assigned to projects that offer the greatest benefits to wildlife, habitat, and recreational use. The public is invited to submit ideas for restoration projects at:

http://www.gulfspillrestoration.noaa.gov/2011/05/suggest-a-restoration-idea/
or at www.bp.com/nrda
WHAT TRUSTEES AND ENVIRONMENTAL GROUPS ARE SAYING ABOUT EARLY RESTORATION

The agreement was welcomed by several environmental groups and in a joint statement, the Environmental Defense Fund, National Audubon Society, National Wildlife Federation, Ocean Conservancy, Oxfam America, and The Nature Conservancy noted that “restoration of these threatened resources simply cannot wait,” and described BP’s commitment to early Gulf restoration as unprecedented:

“This milestone agreement will allow us to jump-start restoration projects that will bring Gulf Coast marshes, wetlands, and wildlife habitats back to health after the damage they suffered as a result of the Deepwater Horizon spill.”

Ken Salazar
US Secretary of the Interior

“One year after the largest oil spill in our history, we take a major step forward in the recovery of the Gulf of Mexico, for the environment and the people who depend on it for their livelihoods and enjoyment.”

Jane Lubchenco
US Under Secretary of Commerce for Oceans and Atmosphere and NOAA administrator

“Ecosystem restoration is vital to the economic vitality of the Alabama Gulf Coast. Obtaining funding for these restoration projects is a major step forward in addressing the oil spill’s damage to our precious natural resources.”

Robert Bentley
Governor of Alabama

“Florida will be able to use this early restoration money to initiate greatly needed environmental restoration projects. Because we have worked diligently to assess the environmental damage resulting from the spill, we are well positioned to be able to quickly begin performing important restoration projects, and use Florida’s share of the early restoration funds to assist our coastal communities with their continued recovery from the spill.”

Herschel Vinyard
Secretary, Florida Department of Environmental Protection
BP is supporting six British athletes as they prepare for the London 2012 Olympic and Paralympic Games. The 110-metre hurdler, William Sharman, began his career in the multi-event discipline, the decathlon, but later chose to concentrate on the sprint hurdles and made his Team GB debut in 2006. Away from the track, he is a trained classical pianist and cornet player, and a former member of the BBC Youth Orchestra. He has a master’s degree in banking and finance, while he also appeared on the small screen as the timekeeper in the UK television show, *Gladiators.*
WILLIAM SHARMAN

Sport: athletics
Event: 110-metre hurdles
Age in 2012: 28
Main achievements: silver medal in XIX Commonwealth Games 2010, in Delhi; personal best performance in Madrid at 12.9 seconds (wind assisted), in July 2010; and fourth place at the 12th IAAF World Championships, in Berlin, in 2009.
On the countdown to London’s opening ceremony...

The excitement around the Olympic Games has definitely increased here in the UK, and when we reached the ‘year to go’ mark this summer, it was a public milestone. But for athletes, the milestones in our careers are the major championships and once you’ve cleared one of those competitions, then you see the next. This year, has been all about the World Championships in Daegu, South Korea. Once they’re over, everyone will turn their thoughts to London [BP Magazine went to press just as the World Championships began].

What I’m looking forward to most about next year is the sense of familiarity and the support that comes from competing at home. It’s the feeling that you’re not there fighting on your own, you’ve got the whole nation behind you. I don’t think that can be emphasised enough, how much it helps. Looking back in history, the home nation has always exceeded expectations, because of that support.
On performing in a stadium in front of thousands...

There’s plenty to learn from competing at the big competitions, where you race in huge venues and through several rounds. For me, the lessons have been about how to deal with those early races and how I warm up. I also think the experience you take away comes from the size and capacity of the stadium – once you’ve had a taste of it, on the next occasion, you’re not in so much awe of the roars and screams of the crowd, because you’ve seen it before.

On why the Cultural Olympiad is important...

Tracing the Olympic Games back to their origins, for the Greeks, it wasn’t just about sport – arts and culture were major parts of the event as well. I think it’s vital to develop this aspect in the modern Games, and through the activities of the Cultural Olympiad, we involve more people. The Olympic Games are the biggest sporting event in the world and by creating a legacy through art and culture, we’re opening up to a wider audience – it’s not just for sports fans, but for everyone.

It was really an honour to be involved with the Tate Movie Project as The Itch of the Golden Nit is a Guinness World Record holder, with the most individual contributions to an animated film. The fact that it has been made by children captures the essence of the Cultural Olympiad – allowing everyone to participate in these Games. I’ll be showing the movie to my little boy to see whether he likes it; he’s only two, so it might be touch and go as to whether he’ll sit still for the half hour!
On having other sports professionals in the family...

My older brother, Richard, is a bobsledder and pushes for Team GB, and my dad, David, played rugby for Northampton Saints. I found that having other members of the family involved in the world of sport has meant that everyone is always very understanding of what is required to make it to the top of your game – things like needing early nights and a good diet. I’ve always had people at home who understand what you go through with the various trials and tribulations in sport.

I first got into athletics at school, but as the curriculum was limited, I developed by visiting the local athletics club with Richard. His enthusiasm for track and field was passed on to me and I never looked back. At first, I was a high-jumper and then moved into multi-events. I think it’s important for children at a young age to try a whole array of events, to see where their talents will lie.
BP AND LONDON 2012

As the official oil and gas partner for the London 2012 Olympic and Paralympic Games, BP will provide fuels and engine oils for more than 5,000 official vehicles, as well as bottled gas for catering facilities at venues. BP is also a sustainability partner, with a key role in creating a lasting legacy after the Games end. Advanced fuel options will help power the Games’ fleets and vehicle carbon emissions will be offset by BP’s Target Neutral programme.

Arts, culture and education have played important parts in the Olympic movement since its foundation in ancient Greece. Through BP’s role as a premier partner of the London 2012 Cultural Olympiad, it continues the long-time support of these areas, during events such as the London 2012 Open Weekend and the Tate Movie Project.

Further details of BP’s London 2012 activities can be found at www.bp.com/2012

On how BP’s support makes a difference...

It’s a huge advantage for me to have BP’s support; not only does it increase my profile as an athlete, but it also provides me with many opportunities. Knowing that you have a solid brand behind you makes a difference, so when I step out on the line, I’m not just doing it for me, but for a whole team of people. They are genuinely interested in my progress and how I’m performing. I also consider BP’s fuel support and the offsetting of my carbon emissions to be invaluable assets.

Cultural connections: Sharman races Dayron Robles of Cuba at the World Athletics Championships in Berlin, 20 August 2009 (opposite). Below, Sharman is interviewed by Andy Akinwolere from the Tate Movie Project during the Open Weekend.
This year marks the 60th anniversary of the first evacuation of BP’s – then known as the Anglo-Iranian Oil Company – Abadan refinery. Located in Iran, the refinery was the world’s largest oil processing plant. An entire community had sprung up around the site, with BP building some 21,000 staff homes. However, in 1951, Iran nationalised its oil facilities and all expatriate employees had to leave, with the last 10 men shipping out on 4 October 1951. It would be three years before BP returned to the country and production resumed.
Opposite: British staff leave Abadan in October 1951. Some 268 people were transported to Basra in Iraq onboard HMS Mauritius, before being flown back to England. Around 300 employees from India and Pakistan sailed for home on a steamship. Above: locals remove an illuminated sign at Anglo-Iranian’s information office in Tehran, June 1951. Left: papers concerning the employment of John Law Gibb, a member of staff at Abadan. Below: staff families return to England, June 1951.
Top left: a commemorative tankard belonging to Mr D.R.Y Gibson – one of the last 10 people to leave Abadan. This group became known as the ‘Sixty-Six Pounders’, after their evacuation baggage allowance. The tankards were inscribed with quotes from BP management, the British government and the Prime Minister of Iran. The cutting above the tankard is from the February 1953 edition of The BP Magazine about Mr Gibson. Above: David Gibson photographed in Iran. He is seen crossing a river by raft with three local Iranians. Below: staff gather at the Gymkhana Club in Abadan, before boarding HMS Mauritius. Below left: more papers from John Law Gibb, this time a letter from the National Iranian Oil Company requiring him to leave the country by 4 October 1951.
Main image: changing the plaque at the entrance to the company’s headquarters at Britannic House, London, December 1954. The Anglo-Iranian Oil Company was now known as British Petroleum.
Parting shot

Photography > Marc Morrison

Numbers game

*BP Magazine* photographer Marc Morrison visited the Massachusetts Institute of Technology (MIT) campus for the feature on BP’s university partnerships (page 20). While there, he photographed Spanish sculptor Jaume Plensa’s *Alchemist*, currently on loan to the university as part of the celebrations to mark its 150th anniversary. Specifically commissioned for the commemorations by an anonymous MIT alumnus, the piece is formed of numeric symbols arranged in human form. Plensa created *Alchemist* as a homage to all the researchers and scientists who have contributed to scientific and mathematical knowledge.
BP Magazine was printed using vegetable based printing inks and low alcohol damping on press. The paper was manufactured using 50% de-inked post consumer waste fibre and 50% virgin fibre pulp sourced from well managed forests at a mill accredited for EMAS, ISO14001 and FSC.

The next edition of BP Magazine will be out in January 2012.

BP p.l.c
Chertsey Road
Sunbury-on-Thames
Middlesex
TW16 7LN
United Kingdom
www.bp.com/bpmagazine
Providing advanced biofuels for London 2012.

At BP we’re dedicated to fuelling the success of the 2012 Olympic Games in London. We’re supporting athletes like Stef Reid and also working to provide some of the official vehicles with advanced, lower carbon fuels made from energy grasses. Find out more at bp.com/2012