THE INTERNATIONAL MAGAZINE OF THE BP GROUP ISSUE 2 2012
BPDNAGAGAZINE

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PEAK PERFORMANCE

BP Magazine reports on the role the company is playing at this summer's Olympic and Paralympic Games.

Welcome. Ever since London won its bid to host the 2012 Olympic and Paralympic Games, the city has been hard at work building venues and preparing to accommodate millions of visitors. As an Official Partner of London 2012. BP is playing a wide-ranging role, from supplying advanced fuels to a 5,000-strong official fleet and bringing art and culture to a wide audience as Premier Partner of the London 2012 Cultural Olympiad and London 2012 Festival; to supporting athletes from nine countries, promoting the Games through our retail network and providing mentors for a group of young people making a difference in their local communities. We feature this and more in our London 2012 section (page 6). Elsewhere, we meet the team sharing lessons learned from the response to the 2010 Deepwater Horizon accident (page 68); BP's three chief scientists discuss the role of science and technology in the energy industry (page 78); and we learn about the critical questions BP's operational leaders ask as they observe work and talk to frontline staff. Lisa Davison> Editor

BP MAGAZINE

The international magazine of the BP Group – ISSUE 2 2012

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Cover image: Britain's Jessica Ennis – one of BP's six UK athlete ambassadors (bottom of image) competes in the 100 metre hurdles in the heptathlon at the IAAF World Championships in South Korea, August 2011. **Photograph by Getty Images**

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For the record

the quarter in numbers

2.5%

Global energy consumption growth in 2011, according to the BP Statistical Review of World Energy 2012.

100

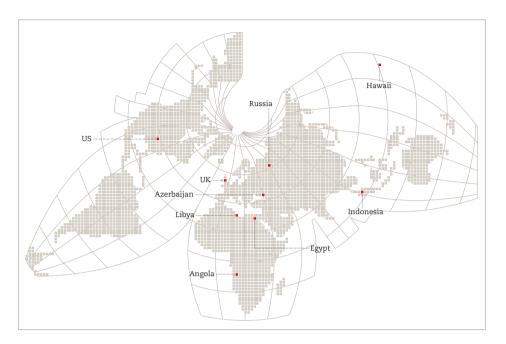
The number of basketball wheelchairs BP has donated to the Angolan Paralympic Committee, to meet the growing demand for one of the nation's most popular sports.

+1,000

The number of wind turbines BP now has spinning across seven US states.

2 billion

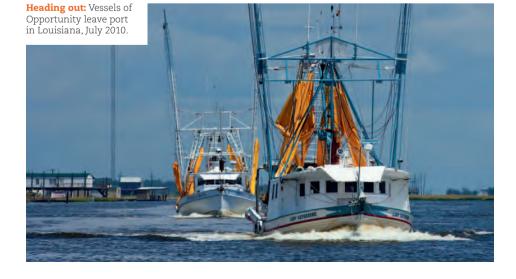
The number of barrels of oil BP Azerbaijan's Azeri-Chirag-Deepwater Gunashli platforms have produced in 15 years of operations.



US: Deepwater Horizon agreement

BP has reached definitive and fully documented agreements with the Plaintiffs' Steering Committee (PSC) to resolve the substantial majority of eligible private economic loss and medical claims stemming from the Deepwater Horizon accident and oil spill in 2010. The parties have filed for preliminary court approval of the two settlement agreements, one resolving economic loss and property damage claims and the other resolving medical claims. As part of the motions seeking preliminary approval, the parties have

asked the Court to approve proposed plans to notify class members of their rights under the settlement agreements and schedule fairness hearings. Once these hearings have taken place, the Court will decide whether to give final approval to each settlement agreement.



US GoM start-up

BP has begun the initial start-up of the Galapagos development in the deepwater US Gulf of Mexico, one of a series of new major upstream projects that the company expects to bring into production this year. "The start-up of this project is one of BP's kev operational milestones for 2012, one of six highmargin projects we expect to come onstream this year," said Bob Dudley, BP group chief executive.

Azerbaijan **Pipeline route** evaluation

The Shah Deniz consortium has now concluded its evaluation of potential gas export routes towards southeast and central Europe. Following the selection of the Trans-Adriatic Pipeline as the potential route for southeast Europe, the Nabucco West project with a route running from the Turkish-Bulgarian border to Baumgarten has been selected as the single pipeline option for the potential export of Shah Deniz Stage 2 gas to central Europe.

Russia TNK-BP announcement

BP has announced that it has received unsolicited indications of interest regarding the potential acquisition of its shareholding in TNK-BP. In light of these unsolicited approaches and consistent with its commitment to maximising shareholder



value, and its obligations under the shareholder agreement, BP has notified Alfa-Access-Renova of its intention to pursue a potential sale. There can be no guarantee that any transaction will take place.

Egypt First gas

BP has reached first gas at the \$334 million Seth development, approximately 18 months after project sanction and 15 weeks ahead of schedule. The Seth field is located 60 kilometres (40 miles) offshore in the Ras El Bar concession in the East Nile Delta Mediterranean.

Libya

Force majeure lifted

BP has lifted *force majeure* in respect of its Libyan exploration and production sharing agreement (EPSA) with the National Oil Corporation (NOC). Discussions between NOC and BP have agreed how the impact of *force majeure* will be mitigated in BP's existing contract terms. Michael Daly, BP's executive vice president for Exploration, said: "The lifting of *force majeure* is a significant milestone in BP's plans to return to the exploration of onshore and offshore blocks in our existing EPSA contract."

Indonesia LNG supply

On behalf of the Tangguh PSC partners, BP has signed a memorandum of understanding (MoU) to provide long-term LNG supply to Indonesia's state electricity company, PT.



PLN (Persero), for domestic Indonesian needs and also to support PLN in providing electricity for Teluk Bintuni Regency, Papua Barat province. The MoU was signed as part of an expansion plan for the Tangguh LNG project in the province.

UK

Asset sale BP has agreed to sell its interests in its southern gas assets in the UK North Sea to Perenco UK Ltd for \$400 million in cash. Perenco has made an initial payment of \$100 million in cash and the remaining \$300 million will be paid on completion, expected before the end of 2012. A further \$10 million may be paid in the future, contingent on the prevailing gas prices. Completion of the sale is subject to a number of thirdparty and regulatory approvals.

Hawaii Wind development

BP and its partner Sempra US Gas & Power have announced plans to jointly develop the Auwahi wind farm in Hawaii. This is the fifth project developed under a strategic partnership between the two companies that includes more than 1,000 megawatts (MW) of windgenerating capacity in operation or under construction. Located in southeastern Maui, the 21MW wind farm will utilise eight Siemens wind turbines to generate enough renewable power for approximately 10,000 average Maui homes.

London 2012 Olympic and Paralympic Games

3



LONDON CALLING

BP is proud to be an Official Partner of the London 2012 Olympic and Paralympic Games. The company has spent the past four years preparing for the sporting and cultural celebration and will play a vital role throughout the Games. As the Official Oil and Gas Partner for London 2012, BP will provide fuels, biofuels and lubricants for more than 5,000 official vehicles, as well as fuel for generators. As London 2012's Sustainability Partner and the Official Carbon Offset Partner with BP Target Neutral, BP will give all ticketed spectators the opportunity to offset their carbon footprint as they travel to the Games. And as Premier Partner of the London 2012 Cultural Olympiad and London 2012 Festival, BP has worked with the London Organising Committee of the Olympic and Paralympic Games (LOCOG) and its long-term arts and cultural partners to create a programme that ranges from art lessons for teenagers to free opera screenings in open-air locations. Over the following pages, BP Magazine finds out about all these activities and brings you a special guide to the international athletes whom the company has supported as they prepare for London 2012.

The spirit of the Games

Since 2008, when BP first announced it was to become the Official Oil and Gas Partner for London 2012, the company has developed a broad programme of activities designed to bring the spirit of the Games to millions of individuals around the world. BP global marketing director, Luc Bardin, explains why supporting London 2012 was the right thing to do.

Report> David Vigar **Photography>** Richard Davies/Stuart Conway





Why BP is backing London 2012

A big decision, but a simple one – this is how BP's choice to support the London 2012 Olympic and Paralympic Games is described by Luc Bardin, who has led the company's involvement since BP first became an official partner in 2008.

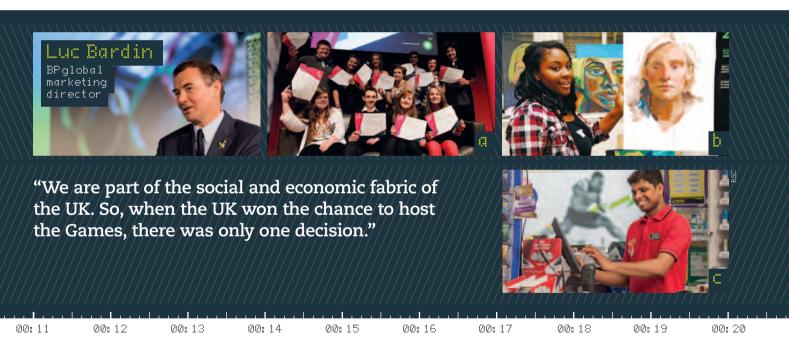
Bardin says: "BP was founded in London more than 100 years ago. We are part of the social and economic fabric of the UK. So, when the UK won the chance to host the Games, there was only one decision. It was our country. It was our city. It was simply the right thing to do. It was an intuitive decision that we should play our role and do everything we could to help make the Games a success."

That initial decision to take on the role of Official Oil and Gas Partner at London 2012 has since led BP to invest in a varied programme of Games-related activities that include organisational, technological, artistic, cultural and educational projects, as well as sporting ones, reaching millions of individuals worldwide. "Second, we could help with resources. The Games and their associated activities require many types of resources – financial resources, organisational capability – and, above all, people and their skills. So, this was another obvious way to help.

"Third, as well as bringing people to the Games, we can bring the Games to people. We have a network of assets – in particular, thousands of retail stations and major arts and cultural partnerships, especially in the UK – that provide us with opportunities to create excitement for people around the Games.

"Finally, we are a global company and we are part of society in many other countries besides the UK, so we could help some of their national teams and athletes on their journey to London, and try to bring the spirit of the Games to those places, too."

BP has put these four forms of support into action through a diversity of activities, ranging from high-profile



In developing the programme, BP has applied its usual approach to business – gathering information and analysing how best to deploy its resources and strengths.

How BP is supporting London 2012

Bardin, BP global marketing director, says: "The first question was – shall we support the Games? And the answer was a clear 'yes'. The second question was slightly more complicated: 'how can we support the Games and make a difference?' and we decided this really had four strands:

"Firstly, BP has a natural role in mobility – moving people around – and this is needed at the Games, for example, in transporting athletes to their events. The Games need vehicles and vehicles need fuel – and not any fuel or oil but the best we can provide. TV communication to social media programmes, promotions at its service stations and cultural events. Bardin says: "Our intention was to do a few things and do them well. We also aimed to only do things that created mutual benefit – for the Games, for the countries, for the teams and athletes, for our customers, for the public and for BP and our people."

Using BP's mobility expertise

BP's expertise in mobility is being showcased through its role as Official Oil and Gas Partner, fuelling the 5,000strong Games vehicle fleet, which includes high-efficiency BMW cars and motorcycles (see page 12). Bardin says: "The task was really to set an example of the best possible use of energy in terms of vehicles, fuels and lubricants, for now and the future. Some of the vehicles will trial BP's latest advanced biofuels that are not yet available on the general market. This has involved considerable research over several years by BP alone and in collaboration with others and, then, with BMW to test the products." These advanced fuels and lubricants help reduce emissions from the fleet, and those that remain are being offset through BP's not-forprofit carbon management programme, Target Neutral (see page 62). "Through these actions, we are supporting the London 2012 Organising Committee's aspiration to make London 2012 the most sustainable Games possible," Bardin adds.

During the Games, BP is taking opportunities to explain its work and showcase its technology, including specialist briefings for partners and a public exhibition – 'Fuelling the Future' – at the Olympic Park. Bardin says: "We want to make full use of this opportunity to share the breadth of things that BP is doing to produce and use energy in better ways – and that includes developing and applying the latest technology in all that we do." BP has also provided human resources in the shape of the company's people and their skills. In the UK, for example, one of the pledges made when the country won the right to host the Games was to set up a Young Leaders Programme. This initiative provides young people from disadvantaged backgrounds new opportunities to develop their interpersonal and leadership skills, while making a difference in their community. BP has become the main corporate participant, with employees acting as mentors to the young people. Bardin says: "Our people are making a significant commitment and this is helping these young people improve their opportunities. This is not the most visible part of our participation, but it will be one that has a lasting impact."

Using BP's assets and reach

BP is also using its global reach to stimulate enthusiasm for the Games around the world. In the UK, BP retail stations are selling sets of collectible medallions featuring Olympic and Paralympic legends, with profits going to the British Olympic Association and British Paralympic Association. Each



Using BP's resources

The BP London 2012 advertising campaigns have featured the athletes whom BP is backing in the UK, US and seven other countries. Bardin says: "We chose to do advertising early on, which helped raise the profile of the Games and the Olympic and Paralympic movement by bringing the Games to people's attention before the main build-up began." In the UK, peaktime TV advertising slots featured Paralympic and Olympic athletes and resulted in BP winning the annual film and video award presented by Ability Media International, for 'positive representations of people facing major challenges'. Extensive social media programmes have helped drive consumers to the websites of Olympic and Paralympic Committees, for example the US Olympic Committee, building the profile of the Games and generating resources for Team USA.

medallion buyer also has the chance to win one of 500 pairs of tickets to the Olympic Games.

In the US, BP has organised a programme that enables BP's marketing partners who distribute and sell BP fuel to make a difference in their community by supporting their local Paralympic sports clubs and widening opportunities for people with physical disabilities to take part in sport (see page 20). Bardin says: "The marketers have been fantastic and really keen to help with this and it has been a very inspiring part of the whole effort. Our network gives us a great platform to communicate with consumers, getting people interested in the Games and supporting the Olympic and Paralympic Committees."

When it comes to reaching large numbers, the Games have also provided a chance for BP to build on its 30-year



history of supporting access to arts in the UK by becoming a Premier Partner of the four-year Cultural Olympiad and its finale, the London 2012 Festival. BP is helping to involve millions of people in celebrating the Games, from Shakespeare performances and open-air screenings of opera and ballet, to a multi-media experience of Olympic history. Bardin says: "This is about bringing the excitement of the Games, the Cultural Olympiad and London 2012 Festival to as many people as possible." (see page 42)

Using BP's global scale

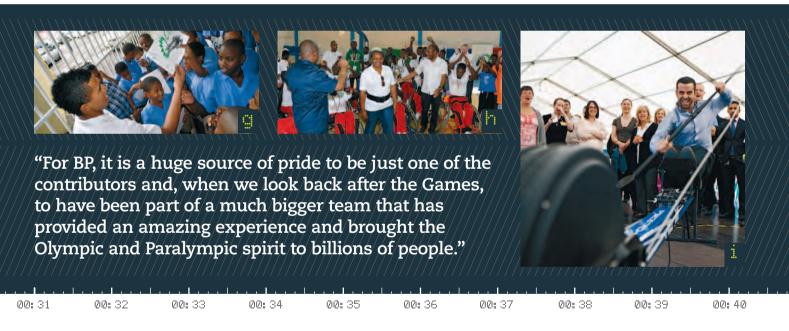
BP's support for the Games has by no means been confined to the UK and US. It has supported athletes in seven other countries, Angola, Azerbaijan, Egypt, Georgia, Trinidad and Tobago, Turkey and the UAE. The aim has not only been to support athletes on their 'road to London', but to generate excitement in the countries concerned, working closely with the National Olympic and National Paralympic Committees (see page 52 for a full guide to BP's athletes).

While the advertising has been high-profile, the links

different parties, BP is providing tangible support for the Games in the form of resources, fuels, project management and the capacity to reach millions. Meanwhile, the company is receiving benefits of less tangible kinds – such as the inspiration provided by encounters with world-class athletes. Many in BP have commented on the similarity between BP's values – safety, respect, excellence, courage and one team – and the Olympic values, which also include excellence and respect, as well as friendship, while courage is one of the Paralympic values.

Bardin says: "Like sport, business is about doing your best, day after day, individually and as teams and there is a lot that business people can learn and be inspired about from toplevel athletes in terms of these values. There is the dedication required to become excellent and world-class, the respect that you need to have for society and your teammates and the courage to stay committed and overcome obstacles.

"Above all, it is a story of people, partnership and teamwork. It's all about bringing people together to share, live and celebrate the Olympic and Paralympic spirit.



between BP and its athlete ambassadors have included many informal, behind-the-scenes contacts. Around the world, athletes have attended a range of BP events, including awards ceremonies and staff townhalls, meeting employees and getting to know the company that is supporting them. Stefanie Reid, a London 2012 British Paralympic Games hopeful and professional nutritionist, has recorded a video to provide BP staff with tips on healthy eating. In Trinidad and Tobago, athletes have visited schools at BP's request and in Azerbaijan, athletes joined staff at an energy exhibition, visited by the country's president, among others.

Similar values

The 'mutual benefits' Bardin describes take a variety of forms. For example, among the many benefits felt by

A large part of our communication and advertisements have been a tribute to the many people who have stood behind the organisation of the Games and the athletes, to help them shine – what we call 'the team behind the team'. Other initiatives have simply aimed to bring a little Olympic and Paralympic atmosphere to places around the world far away from London. I am deeply thankful to the thousands of BP employees who have stepped up to support the Games, very often well beyond their duties and with extraordinary enthusiasm (see page 32). In general for BP, it is a huge source of pride to be just one of the contributors and, when we look back after the Games, to have been a part of a much bigger team that has provided an amazing London 2012 experience and brought the Olympic and Paralympic spirit to billions of people." Fuelling London 2012

Report> Helen Campbell **Photography>** Stuart Conway/Joshua Drake/Graham Trott/Frank Hom



ULTIMATE PERFORMERS





As the Official Oil and Gas Partner of London 2012, it is BP's job to supply fuel, biofuels and lubricants for the official Games fleet of cars, buses and motorcycles, as well the fuel to run the generators that will keep the Olympic venues fully powered throughout the Olympics and Paralympics. It's a huge task, but one for which the BP team is ready. **Right blend:** BP is supplying some of its innovative fuels and lubricants to the London 2012 fleet, including BP Ultimate. It will also be trialling three advanced biofuels. A focused attitude, disciplined training and the right 'fuel' are as vital to the performance of a world-class athlete as natural ability. Together, these are the foundations for a great performance, and perhaps a world record or two. There is always something further to strive for; after all, 100 years ago, running the men's 100-metre race in under 11 seconds was the order of the day... In similar fashion, BP has spent several decades developing a portfolio of advanced fuels. Today, thanks to its investment and strategy the company is at the forefront of the forecourt with its advanced fuels and engine oils. No surprise then that BP is the Official Oil and Gas Partner of London 2012, a role in which it will deliver some of its innovative fuels to a fleet of cars, buses and motorcycles.

Over the course of London 2012, official Games vehicles will be directed to a number of priority BP sites within the Greater London area, although they will be able to fill up at any BP site. In addition, the fleet





will be able to stay sparkling with a top-level car wash, available at certain BP sites.

As well as the latest generation of BP Ultimate fuels, BP will also trial a number of Games vehicles on advanced biofuels, which will be blended with fossil fuels – cellulosic ethanol, diesel made from sugars, and biobutanol. These cutting-edge biofuels will not be widely available on the forecourt for several years, but represent some of BP's best science and technology capability.

"We have been making smarter consumer fuels for decades," says Jackie Fionda, vice president of marketing for BP's



global supply and marketing fuels value chain (FVC), "In response to more stringent emissions targets, car manufacturers are making their gasoline and diesel engines more efficient and smaller in size, while maintaining performance. This means engines are working harder than ever and are under more stress. This requires a different quality of fuel."

The science behind BP's consumer fuels business is led by its global fuels technology product development division, which is working to hone the molecules that help motorists get the most out of their engine. Working with BMW, the Official Automotive Partner for the Games, BP is collaborating with one of the world's leading car manufacturers to ensure an integrated approach to meet LOCOG's objective "to minimise the carbon footprint of the Games and provide a platform for demonstrating long-term solutions for efficient transport and carbon impact mitigation."

BMW's role at London 2012 is to provide a diverse fleet of official vehicles, operating below the required carbon dioxide emissions target of 120g per kilometre, thus meeting the operational and lower-carbon requirements of the Games organisers. BP's role is to work with BMW to ensure supply of reliable and complementary fuels and lubricants for BMW's engines, requiring strong cooperation and innovation in supply, carbon mitigation and product development.

"Our innovation process looks at how engine technology changes and at what consumers want," says Fionda. "We then work with manufacturers at the forefront of engine technology and our fuels technologists to find smart molecules and smart blends that work very well with the new technology."

BP's research and development capabilities, together with the visibility of its existing retail network, make it the perfect partner for the London 2012 Olympic and Paralympic Games. BP's forecourt fuels are already a trusted brand. BP has a leading retail fuels and

Technical capability: a BP Biofuels technician in the analytical laboratory at BP's demonstration plant in Jennings, Louisiana, where 'cellulosic' fuels are manufactured from specially-grown energy grasses. These grasses can be grown in great bulk and absorb large volumes of carbon. convenience presence in the UK and, over the years, the company's supply and marketing division has established a 1,200-strong network of service stations. A high number of those stations are perfectly located to serve the Games fleet, ferrying athletes, officials and dignitaries between airports, hotels and, of course, the Olympic Park.

BP's role involves not only fuelling the 5,000-plus vehicle fleet of cars, buses and motorcycles but also the fuel for the generators that will keep the Olympic venues fully powered throughout the Olympics and Paralympics, and liquefied petroleum gas for catering.

eeting fuel needs such as these is what BP does every day from the UK FVC headquarters in Milton Keynes, and a large team has been working full-time for the past 18 months on the Games fuelling commitment. The reliability, efficiency and finesse of this operation will be crucial throughout the Games, and it is something BP is honoured to be doing.

"The commitment we have with LOCOG is that we will fuel all of the vehicles throughout the Games," says Neale Smither, UK supply and marketing FVC manager. "We recognise there is a huge responsibility to get this right. There is no gold medal for delivering fuel to the Games; we are doing this because we have the capability and the experience, and because we are expected to do it perfectly, safely and efficiently.

"We are one of the few organisations that can do this, because of the quality of the network that we have and the quality of our products. I believe that the Games will allow us a fantastic opportunity to do what we do best, every day of the year, and to enhance our position as a leading fuels retailer in the UK."

In addition to supplying all the transport fuel for the Games fleet, BP will also provide Castrol lubricants for the official cars. Lubricants are specially developed and selected to assist with



In service: throughout the Games the official vehicles will be directed to a number of priority BP sites for their fuelling needs, although they can fill up at any BP site. Some sites will also offer car washing services.



"Our innovation process looks at how engine technology changes and at what consumers want. We then work with manufacturers at the forefront of engine technology and our fuels technologists to find smart molecules and smart blends that work very well with the new technology."

Jackie Fionda

2532

BP in partnership> Fuelling London 2012

enhancing engine performance and, therefore, fuel efficiency and carbon mitigation.

BP's retail network is already easily recognisable for motorists, whether a vehicle is carrying the likes of Jamaican athlete Usain Bolt or not. During the Games period, customers and London 2012 visitors alike will be greeted at around 90% of the BP network with vibrant Olympic and Paralympic-themed imagery, including some unique and specially-commissioned sculptures adorning the canopies of around 50 of those sites. Special London 2012 merchandise and external and internal competitions and promotions have already helped to fuel enthusiasm.

uring the Olympic and Paralympic Games, BP will also be trialling advanced biofuel blends for some of the official London 2012 fleet. These include 'cellulosic' fuels manufactured from specially-grown energy grasses. Because these energy grasses can be grown in great bulk and absorb large volumes of carbon, cellulosic fuels have significant potential as a lower-carbon fuel when produced commercially at scale, as BP plans to do. The energy grasses can be grown in many regions, although the cellulosic ethanol that has been created for the official London 2012 fleet has been produced at BP's demonstration plant in Jennings, Louisiana, US. The demonstration plant is part of BP's long-term lower-carbon strategy to invest in the right feedstocks and technology 'to do biofuels well'. BP is also developing a commercial facility in Florida, where the first 2,000 of a future 20,000 acres of energy grasses are being grown.

"Our biofuels business is about accessing the most efficient feedstocks available and turning them into useful, value-adding molecules," says Philip New, BP's vice president, biofuels. "For biofuels to make the contribution that we believe they have the potential to make, they have to meet four fundamental criteria.

"They have to be sustainable and scalable, offer real carbon savings and, in time, demonstrate competitiveness with crude oil without subsidies.

"We are unique in being the only company in the world that is building endto-end advanced biofuels capability, including agricultural operations in Brazil and Florida, large-scale manufacturing in Brazil and the UK, biotechnology research in San Diego, US, and demonstration plants for cellulosic ethanol in Florida, US, and biobutanol in Hull, UK."

Biobutanol is a premium biofuel that has a high energy content. This means consumers face less compromise on fuel economy and can drive more miles per gallon, compared to a conventional gasoline biofuel blend. The biobutanol trialled for part of the official London 2012 fleet will come from ButamaxTM – a jointventure between BP and DuPont. The biobutanol was produced at a demonstration plant located in Hull, UK.

BP will also be supplying a diesel made

from sugar. The raw product is made in collaboration with DSM by converting sugar into lipids and turning those into a diesel fuel molecule.

Jean-Charles Dumenil is BP's venture manager for advanced fuels, charged with getting the fuel to the Games' pumps. "When we accepted this challenge, we had never tried to produce something at this scale," he says. "We needed to make products against a tight schedule, on specification, in the required quantities."

"These technologies have never been showcased together by the same company," says Philip New. "Fuelling the Games fleet is an excellent opportunity for BP to demonstrate to the world that these technologies are a reality."

The athletes, swimmers and cyclists that will compete at London 2012 will be at their peak in terms of preparation and performance, and many will demonstrate, in front of the world, that they are the best of their kind. Just like the fuels that will go into the cars, buses and motorcycles that will get them to their venues on time, there is always something more to push for.

Ultimate opportunity: BP Ultimate is one of the advanced fuels that the official Games fleet will be able to fill up with. BP will also trial a number of Games vehicles on advanced biofuels, which will be blended with fossil fuels. Opposite, energy grasses growing in Florida, US.







"Fuelling the Games' fleet is an excellent opportunity for BP to demonstrate to the world that these technologies are a reality." Philip New

THE USA: FUELING THEIR FUTURE

With its combination of support for Team USA athletes and Olympic- and Paralympicrelated grassroots activities, BP is making every effort to bring the spirit of London 2012 to communities across the US.

Report> Matthew Payne

LOLO JONES

Photography> John Harrington/Corbis





P's support for the Olympic and Paralympic Games in the US follows the pattern the company has established worldwide – combining support for athletes

with a wealth of grassroots activities to bring the spirit of the Games to communities across the country.

BP is supporting nine athletes from Team USA this year (see page 52) – but the story doesn't end in London. Having become the US Olympic Committee's (USOC) official energy partner in 2010, BP extended its partnership in September 2011 to include the 2014 Olympic and Paralympic Winter Games in Sochi, Russia and the 2016 Olympic and Paralympic Games in Rio de Janeiro, Brazil.

But, according to Steve Williams, head of BP's US Olympic and Paralympic programme, the sporting events are only a part of a much broader programme. "We don't gear our efforts solely toward the Games themselves," says Williams. "We gear our efforts toward a longer-term strategic relationship and the Games themselves are just milestones along the path of supporting Team USA."

In addition to working with the athletes, BP is supporting a US-wide effort among retailers, distributors and employees to bring the Games to life for millions of Americans. This includes retail promotions and support for local charities and Paralympic Sport Clubs. It includes promoting educational initiatives in schools – such as teaching the value of healthy eating habits and the importance of diversity and inclusion. BP is also supporting veterans through its sponsorship of the USOC's Warrior Games – an annual multisport competition for wounded, ill and injured servicemen and women.

PARALYMPIC MOVEMENT SUPPORT

Among BP's most unique initiatives is its support of US Paralympic Sport Clubs. The US is home to around 21 million Americans with physical disabilities, including activeduty service members and veterans. So, the USOC has set up a programme to help local community organisations develop a network of Paralympic Sport Clubs, providing opportunities for young people and adults to get involved in sports and physical activity, regardless of skill level. In many instances, they also offer members the chance to participate in competitive sports leagues. All the programmes and activities are based in the community and run by the local organisation. However, their association with the USOC gives these clubs access to grants and scholarships to help host Paralympic experiences, to expand their programmes and send coaches to the USOC Paralympic Leadership Conference.

These clubs are the main component of a growing grassroots network of Paralympic programming and they occasionally identify an athlete who has the potential to someday compete for Team USA. But in a lot of communities they are underserved, which is why BP's support is crucial. BP's retail network provides one of the biggest opportunities for supporting the clubs. BP has a network of branded retail stations across the US, although in many instances it does not own or operate the retail stores. In fact, many are run by multigenerational family businesses with deep roots in their community. The owners are also often local civic and business leaders. And they want to help their community.

When BP partnered with the USOC, local retailers had the opportunity to help local Paralympic Sport Clubs through initiatives such as fundraising drives at retail locations and events that raised awareness for the clubs. Through a programme called Fueling Communities, BP also helped these retailers support the clubs financially. In one case, a local BP retail network raised \$222,000 for Metro-Area Paralympic Sport Clubs.

BP's marketers have also had an opportunity to help support the Paralympic movement locally. Through grants and fundraisers, they are able to make a meaningful impact in the communities they serve. A recent event in Washington DC's Union Station highlights this relationship (see page 32). Distributors





from Baltimore and Washington got together with their respective Paralympic Sport Clubs to create a partnership. That partnership included a \$15,000 grant to benefit the clubs. It also created a fundraising drive that will take place at 250 BP retail sites in the Baltimore and Washington regions.

"The partnership focuses BP's outreach efforts into an area where a story can be told about how BP's values are put into action at the local level across a broad geography," says marketing executive manager Barney Shirreffs. "It taps into the public passion for the Olympic and Paralympic Movement and Team USA in a way that is locally relevant."

BRINGING THE GAMES TO MILLIONS

The importance of this local relevance is also reflected in the way in which BP has worked to bring US sports stars together with local communities. As well as BP's nine athlete ambassadors, former Team USA legends, such as 100-metre Olympic gold medallist Gail Devers, Bob Beamon, gold medal winner in the long jump at the Mexico City 1968 Olympic Games, and gold medal-winning heptathlete and *Sports Illustrated*'s greatest female athlete of the 20th century Jackie Joyner-Kersee, have all played a significant role in helping BP take the spirit of 2012 out to communities across the US. As well as visiting BP offices to meet "We gear our efforts toward a longer-term strategic relationship and the Games themselves are just milestones along the path of supporting the teams."

Steve Williams

employees at events such as a Disability Awareness day in Chicago and an employee picnic at the Texas City refinery, athletes have taken part in community-based events.

Meanwhile, if you've been out on the road, you may have seen a traditional red London bus passing by. The bus is part of a USOC cross-country tour called 'The Road to London' and is supported by BP. The tour is aimed at bringing local communities together to create a sense of excitement in the run-up to London 2012 and includes an interactive fan zone, in which children and adults can try their hand at any number of Olympic and Paralympic sporting simulators to find out what it's like to compete at an Olympic level. Athletes have also taken part in the tour, with hundreds of appearances at events across the US to sign autographs and talk with fans.

BP is also offering a number of retail promotions for customers who want to experience the Games for themselves. In fact, eight will be at London 2012 in person, courtesy of BP. The company is also giving away thousands of prizes, including free fuel for a year, free fuel for a week, autographed Team USA posters, Team USA fan packs and collectable BP Team USA pins (see page 26).

These promotions are an invaluable part of bringing London 2012 to life for US fans, but they also help BP to create value for distributors and retailers.

"We have around 3 million customers that use a BP service station," says the leader for BP's East of Rockies fuels value chain Doug Sparkman. "We can actually reach out and touch a customer every day at one of our sites."

SUPPORTING CHAMPIONS

Of course, without the athletes themselves, there would be no Olympic and Paralympic Games, and an important part of BP's role has been to provide support to a number of athletes with dreams of winning gold in London this summer.

Athletes around the world are all driven by the same thing – a desire to excel. But many of them have had to overcome adversity in order to do so, and BP's Team USA athletes are no different.

"All athletes face adversity," says BP's marketing and sponsorship director for US Olympic and Paralympic Games George Bauernfeind. "That, plus the athletes' commitment level and being part of the





"Fueling Communities' taps into the public passion for the Olympic and Paralympic movement and Team USA in a way that is locally relevant."

Barney Shirreffs





same communities where BP staff live and work, were several reasons why we were initially attracted to partnering with these athletes."

Team USA hurdler Lolo Jones knows about setbacks. The athlete was favourite to win at the Beijing Olympic Games in 2008, but a minor miscalculation while navigating the next to last hurdle sent her to the ground and out of medal contention. And yet, faced with this crushing disappointment, Jones simply became more determined to succeed. "The fact that I messed up in Beijing has only been motivation to get to the London 2012 Olympic Games. The missed hurdle and lost medal at Beijing just add to my arsenal," she says.

Four years on, Jones says she has more confidence than ever: "Every struggle I face successfully makes me stronger and more certain of myself and my abilities. I chose the harder path instead of giving up."

In some cases, BP's support gives athletes the chance to train and compete on a full-time basis. Take, for example, US Paralympic archer Matt Stutzman. Although he had participated in shooting for many years, Stutzman took up archery just two years ago. In that time, he has not only honed his skills enough to compete, but also managed to make the US Paralympic Archery Team on his first attempt. He also broke a world record for the longest accurate archery shot. And he did it all without arms.

It's a challenge to get around without the use of arms, but Stutzman does it without any prosthetics or special equipment. It can also be hard to make a living. But BP's sponsorship allows him to practise and showcase his incredible skill by sending him to archery competitions around the world. It also allows him to support his growing family.

Team spirit: top left, US Paralympians capture media attention during the 100 Days Out celebration in Times Square, New York; top right, BP athlete ambassador Sanya Richards-Ross shows off her autographs from fellow ambassadors; and left, members of the public try out BP's wheelchair racing simulation at an event in Union Station, Washington DC. BP is helping its athletes, as well as London 2012 spectators, find more sustainable ways of travelling to the Games via its Target Neutral programme (see page 62). And the company is helping the USOC develop and implement its sustainability strategy known as 'Green Ring'. As part of the programme, BP upgraded the USOC's Colorado Springs Training Center's fuelling station with new energy-efficient LED lights. The lights will save 50% in energy costs – the savings going directly to help support athletes.

BP's sponsorship is also important for the athletes' charities. Each of the nine athlete ambassadors supports at least one charity. In some cases, BP helps by directly donating to those charities. In others, BP helps athletes promote their charity through local retailers, distributors or the company itself. For example, BP donated \$50,000 to the Bryan Clay Foundation last year, which the company presented to the athlete at a five-kilometre (three-mile) event organised by the foundation – an event BP also helped to promote locally.

Bauernfeind believes all nine athlete ambassadors embody traits that go far beyond athletic ability. "They are not only top athletes, but show clear confidence and determination to make it onto the US Olympic and Paralympic Teams, and win. They all understand struggles, setbacks and obstacles and it takes significant courage, determination and a plan to be great again."

THE TWITTER GENERATION

And in an age when more than 900 million of us have an active Facebook account, it's little surprise to learn that social media has provided another powerful tool in helping bring BP's athletes closer to millions of US Olympic and Paralympic fans. Since its creation, the BP Team USA Facebook page has received more than 194,000 'likes' and each athlete has their own section, which shows everything from past accomplishments and videos of their current training routine, to 'a day in the life' and what they like to do for fun. The page also posts updates on the athletes as they prepare for the Games. All of this makes it easier for fans to get to know their sporting heroes a little better.

BP Team USA is also engaging people through Twitter, where athletes can more directly interact with fans. BP Team USA's Twitter account is similar to its Facebook page, providing updates on the athletes. But it also promotes the athletes' personal Twitter accounts. All nine ambassadors often use their pages to tweet things that mention BP's relationship with the team. As a result, a combined 200,000 'followers' of the nine athletes are exposed to BP's support of the Games. It's a mutually beneficial relationship that helps promote BP's involvement with London 2012 to hundreds of thousands of fans in just a few minutes.

A POWERFUL IDEA

When BP agreed to partner with the USOC, it didn't do it with the intention of making it a typical corporate sponsorship. It aimed to create a comprehensive programme that not only supported Team USA and athletes, but also gave BP retailers and distributors the tools they needed to help support their local communities. So far, they've succeeded. And that success is largely due to how seriously BP takes the Olympic and Paralympic spirit.

"The Olympic and Paralympic ideal is something that is very powerful," says Sparkman. "BP's affiliation with the Olympic and Paralympic dream is something that creates a tremendously positive impression on people." And it's an impression BP will have the opportunity to work with for years to come.

"The Olympic and Paralympic ideal is something that is very powerful. BP's affiliation with the Olympic and Paralympic dream is something that creates a tremendously positive impression on people."

Doug Sparkman

BP in partnership





Retail transformation: since May, BP has added London 2012 branding to more than 900 service stations across the UK. The temporary new look features all six of BP's UK athlete ambassadors, including Jessica Ennis (main image) and Richard Whitehead (inset).

BRAND AMBASSADORS

Over the past few months, BP has been bringing the spirit of the London 2012 Olympic and Paralympic Games to its customers via its network of service stations in the UK and US and its UK tanker fleet.

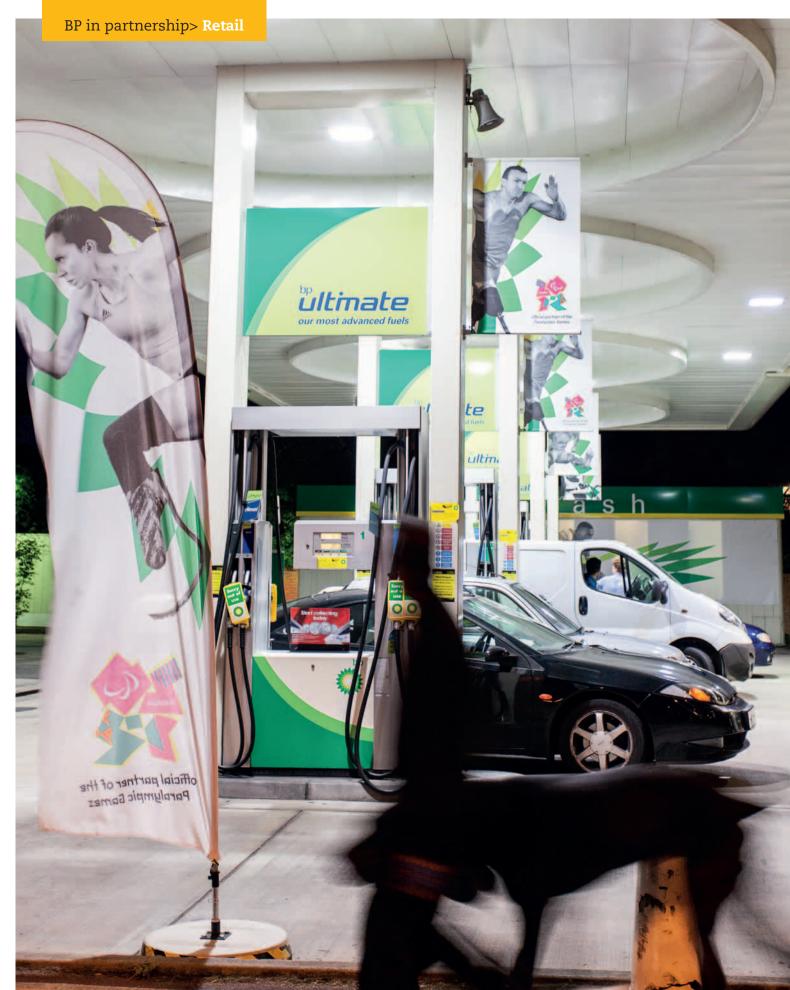




Photography> Stuart Conway/Richard Davies











On the road: (from top clockwise) since June 2011, 90 BP tankers have taken to the UK roads with London 2012 branding. Like the service stations, the branding features the six UK athletes that BP is supporting; British Olympic rower James Cracknell holds up one of 12 Legends Collection medallions that UK customers can now buy and collect from participating BP service stations; in the US, BP is also running London 2012 retail promotions, including collectible game cards offering customers the chance to win a range of Team USA and BP prizes. There are nine different cards in total, each depicting one of the BP-supported Team USA athletes. Opposite, one of BP's service stations with the new London 2012 displays.

TEAM GE

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MORE THAN

in total prizes available!

or more of BP fuel, get a game card Each card gives you 2 chances to y

gas for a year, a



Winning ways: (from top) Team USA sprinter Sanya Richards-Ross is one of nine Team USA athletes that BP is supporting. Along with her teammates, Sanya is featured on BP promotions across its US service stations; four of the 12 collectable medallions available for BP's UK customers to collect. Each medallion has been specially produced by the Royal Mint and features a British sporting legend. All profits from the sale of the Legends Collection will go to the British Olympic Association and British Paralympic Association. The collection is one of two 'iconic London 2012 items' helping to raise money for the associations. The other item is a commemorative scarf sold through the UK clothing store Next. **Medal hopes:** the London 2012 branding will remain at BP's UK sites until September, once the Paralympic Games have come to a close. Wheelchair racer Shelly Woods (foreground) and hurdler William Sharman are two of the six British athletes that BP is supporting.









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→BP in partnership

London 2012 people

Report> Martin Thomas Photography> Graham Trott/John Harrington



It takes thousands of volunteers to bring the Olympic and Paralympic spirit to life – whether they're helping the Games themselves to run smoothly or helping people in their local communities to connect with sport. BP has its own fair share of these volunteers, all eager to support London 2012 in their own way. BP Magazine meets six of them.











Team effort: Shlinda Bell (main image) stands outside the Olympic Park Aquatics Centre. In the background to the left is the 115-metre-high ArcelorMittal Orbit sculpture, designed by by Anish Kapoor and Cecil Balmond for London 2012. Inset from top, Joe Antonelli, Gunesh Aliyeva, Julie Amos, Danielle Jones and Sarah Bishop.



BP in partnership> London 2012 people



1. Joe Antonelli Supporting local Paralympic clubs, US

Fuel services company Carroll Independent Fuel works with 110 BPbranded service stations in the mid-Atlantic area of the US – in Washington DC, Baltimore and their surrounding states. Carroll acts as a BP-branded distributor: supplying fuel and other products, branding the stations, and ensuring they all live up to BP's standards.

The team at Carroll was inspired by BP's efforts to support London 2012 – particularly the Paralympic Games – and decided to get involved. So, in August, it will sell London 2012-branded wristbands in its stations to raise money for two local organisations that help physically challenged people to get involved with sports: the National Rehabilitation Hospital in Washington DC, and a Baltimore charity called Baltimore Adaptive Recreation and Sports (BARS).

Director of marketing Joe Antonelli explains: "We have supported a lot of charities over the years but we didn't even know these guys were in our backyard. When we found out about BP's London 2012 partnership, it really opened our eyes. We thought it was such a worthy cause that for the first time ever we have teamed up with one of our local competitors here in DC – Petroleum Marketing Group (PMG) – to really promote this. They have 190 stations, so we'll be able to offer the wristbands in around 300 stations overall."

Carroll and PMG kicked off the promotion with a joint \$15,000 donation to the fund, made possible through the BP Fueling Communities programme, which provides grants to education, youth, health, food and housing initiatives. Joe hopes the campaign will be a big success. He says: "It's heart-warming when you meet these kids and their families. It's sport at its purest level. They're out there because they want to be; there are no major stars. Most of them have amazing stories about the obstacles they've overcome in their lives and this really sets them apart."



2. Shlinda Bell Volunteer to support athletes at London 2012

Shlinda Bell, personal assistant to Paul Reed, chief executive of Integrated Supply and Trading (IST), is expecting to have to call on all her professional skills in her role as an assistant in National Olympic/Paralympic services, the organisation that looks after the day-today needs of the visiting Olympic and Paralympic teams.

Shlinda will be one of six assistants looking after the Cameroon team – which numbers 60 people, including officials. She says: "The life of a PA is all about being able to plan ahead and organise things at the drop of a hat. I could be asked for anything, from finding out previous times for a particular event, to arranging for the president of the Cameroon National Olympic Committee to be transported across London for a meeting, or finding 10 tickets for *Les Misérables.*"

Shlinda will be restricted to the athletes' village throughout the Games – and all the time she spends there will come out of her annual holiday entitlement, so why volunteer? She says: "When BP moved to Canary Wharf [in London's Docklands], there was a community affairs programme



3. Gunesh Aliyeva Organising Olympic and Paralympic activities, Azerbaijan

I got involved with that helped local school kids with their maths and reading. I have a son who's now 21 and I went back to work when he was six months old, so I was never really able to do that sort of thing for him, so it appealed to me.

"I helped out for 45 minutes every Thursday during term time and I really enjoyed giving back something to the community. It was so fulfilling – it made me feel very warm inside. The kids were always so pleased to see me. But now my role is co-located here and at St James's Square [in central London], so I could no longer commit to it.

"When this came up, I saw it as a great opportunity to give back something in the same way that I used to. I also thought it would be amazing to be part of this oncein-a-lifetime opportunity. Even though I won't be able to watch the events live, I'm really looking forward to seeing the athletics and the swimming and diving events, in particular from inside the athletes' village." Gunesh Aliyeva is an external affairs adviser in Azerbaijan, responsible for helping to manage BP's relationship with government agencies. Since last July, she has also been responsible for BP's Olympic and Paralympic-related activities in the country.

She has worked extensively with Azerbaijan's National Olympic Committee (the president of which, Ilham Aliyev, is also the president of the country) and the National Paralympic Committee. BP is supporting three Olympic and four Paralympic athletes, financially and through promotional activities.

Gunesh says: "One of the highlights of the build-up to the Games has been a big celebration we organised to mark 100 days before the Opening Ceremony. One of our special guests was British Olympic hurdler Colin Jackson. The event generated lots of media coverage – including live TV.

"It's been lots of work, but I'm really pleased I volunteered. I feel so lucky to have this amazing opportunity to meet so many people from all over the world. And now, I can't wait for the Games to begin. I've always been interested, but this year I'll be watching our athletes and supporting them from a distance – I know them now, so it's much more personal and significant for me than it would have been otherwise. We're setting up plasma screens in as many of the offices in Azerbaijan as we possibly can, too, so everyone can join in."

"It's been lots of work, but I'm really pleased I volunteered. I feel so lucky to have this amazing opportunity to meet so many people from all over the world."

4. Julie Amos / Hally Nguyen

BP mentor and Young Leader, UK

Two years ago, Hally Nguyen was one of 100 young people around the UK to sign up for the BP-supported London 2012 Young Leaders Programme, designed to inspire 16 year-olds to engage with the Games and develop their skills.

Hally's BP mentor is Julie Amos, a team leader in the Integrated Supply and Trading (IST) organisation based at Canada Square in London's Docklands. She says: "I've been at BP for almost 22 years, and I've never done much for my community before, so I decided to volunteer. When I joined BP at 18, a lot of opportunities came my way and it felt like a good time to help bring that kind of opportunity to someone else."

Hally is one of 10 Young Leaders who live in Newham, the borough in which the Olympic Village was built. She and Julie have worked together to prepare Hally's community project and to prepare for an

interview to become a volunteer or Games Maker, as they are known. Julie also organised some work experience with IST for Hally.

The community project – a talent show in a local community centre featuring 13 acts – was a success, thanks to Hally's efforts.

Hally, who had never volunteered for anything before, says: "Julie's helped me so much. She really went out of her way helping me to develop my project management and leadership skills, and building my confidence. If I have a problem, she's always there to smooth things out. The experience has brought me out of my shell and I'm more punctual and patient, too.

"Julie's really inspired me to not give up on what I want. She didn't go to university but look at her now – she's an inspiration to me. She's showed me that if you work

hard you'll get where you want to be. Being part of this has made me realise how much work goes into delivering something like the Olympic Games – for the organisers and for the athletes, who have to train so hard to qualify. I feel part of it and very proud to be part of it."

Julie says: "It's been such a pleasure to work with Hally and see her grow up and come out of her shell over the past two years. It's really rewarding to work with someone so focused and motivated.

"Although the work we've been doing doesn't relate directly to the Games, I definitely feel more involved and I can't wait for the Games to begin."

Hally was successful in her application to be a Games Maker – she will be working in the accreditation team, checking people's credentials and issuing passes to athletes and officials. She managed to get tickets, too, for the basketball.





5. Danielle Jones

Organising Olympic and Paralympic activities, Trinidad and Tobago

BP Trinidad and Tobago (bpTT) has signed up to support the Trinidad and Tobago Olympic Committee and Paralympic Committee until 2016. In common with BP teams in the other eight countries supporting athletes, the bpTT team promotes BP's involvement with the Games and supports athletes – four of whom will be competing in the Olympic Games and two in the Paralympic Games. So far, the team's promotional efforts have resulted in 34 media stories and a greater understanding of BP's values among staff.

Leading the team working on activities for BP is corporate communications manager Danielle Jones. She says: "It's been a great example of working as one team – both with the Olympic and Paralympic Committees and with our colleagues around the world supporting other countries.

"BP is not as visible to mass audiences in Trinidad and Tobago as it is in the UK – we don't have service stations here, for example, so we ran a larger than usual high-profile advertising campaign about our involvement with the athletes to really get people talking, in government and business, as well as the general public."

Just like all the other countries supporting Olympic and Paralympic athletes, Danielle and the bpTT team organised a send-off event for the athletes. Unlike the others, however, they decided the best way to do this would be to hold a parade and street party and to commission a local music star to compose a song to mark the occasion.

Danielle says: "I think most other places organised formal receptions, but that would not be meaningful here. We wanted a public event that would get the attention of the general public, so we asked Kees Dieffenthaller, lead singer with Trinidadian soca band KES THE BAND, to write us an inspirational song called *We Are Conquerors.* We wanted the whole world to see our passion and our energy."

The event was a great success, with thousands of people lining the streets of Port of Spain as the parade made its way to Woodford Square, where Kees finally took to the stage with athletes from the Trinidad and Tobago team – not just those sponsored by BP – to celebrate them and the Games in song. Sarah Bishop will join BP's UK graduate programme in September having completed her degree in physics at Durham University this year. The 22 yearold, from Buckinghamshire, near London, was offered the chance to apply for an opportunity to work with the London 2012 Organising Commitee (LOCOG) when she was accepted onto the programme. Following an interview with LOCOG, Sarah was made a fleet team leader in the transport team.

6. Sarah Bishop

BP graduate/LOCOG intern

She says: "I'll be working at one of the hotels where the dignitaries and officials from the Olympic family will be staying. I'll be outside on a radio organising the official vehicles to get them where they need to be. It's quite a scary responsibility really because if these people aren't where they need to be on time – if there are no judges or starters at events because I've not done my job properly – everything could fall apart!

"I'm really looking forward to the Games. I also applied to be a volunteer ages ago, so I've always wanted to be involved, but this makes it so much easier because my accommodation is being provided by BP and they're really looking after us. It just makes it so much easier to get involved with this truly amazing event."

Although she will be based offsite, Sarah will still get to see some live competition. She says: "I've managed to get tickets for the gymnastics, so I'll need to make sure I'm not working that day, so I'll finally be able to see something that I've always loved watching on the TV – I can't wait for that." ■





AIMING FOR A **MAGNIFICENT SEVEN**

BP is supporting six British athletes, and many other international sportsmen and women, as they prepare for the London 2012 Olympic and Paralympic Games. When heptathlete Jessica Ennis won her first athletics prize at the age of 10, she was presented with a pair of trainers. She may not have known it at the time, but it was the start of a sports career that would see her become world champion in her multievent discipline, aged 23. That achievement came after she was forced to take several months out of competition and watch the 2008 Olympic Games in Beijing from her sofa, due to a foot injury. She was told she may never compete again. Since making a comeback, her success in the stadium has placed her firmly in the UK media spotlight; in 2009 and 2010, she took third place in the prestigious BBC Sports Personality of the Year, voted for by the public. Last year, she was awarded the MBE (Member of the British Empire) for her services to athletics at Buckingham Palace and her waxwork was unveiled at London's Madame Tussauds. No wonder Jessica is often described as one of the 'faces' of British sport, but – as she tells BP Magazine-it's a label she is keen to share with her fellow athletes.



Report> Amanda Breen Photography> Getty Images











Flying high: Jessica Ennis competes in the high jump of the women's heptathlon event at the IAAF World Athletics Championships in Daegu, South Korea, 2011 (main image). Above from left, with her gold medal at the 2009 World Championships, Berlin; competing in the javelin event at the 2010 European Athletics Championships, Barcelona, Spain; winning the 60 metre hurdles at the Aviva European Trials & UK Championships in 2012, Sheffield, UK.

JESSICA ENNIS

Sport: athletics **Event:** heptathlon – personal best 6906 points

Age: 26

anna

Main achievements: 2009 gold medallist at World Championships in Berlin; 2010 gold medallist (pentathlon) at World Indoor Championships in Doha, Qatar; 2010 gold medallist at European Championships in Barcelona; 2011 silver medallist at World Championships in Daegu, South Korea; 2012 silver medallist (pentathlon) at World Indoor Championships in Istanbul, Turkey; 2012 British record holder, Hypo event, Austria

On competing in seven track and field events...

I almost fell into doing multi-events because when I met my coach, Toni Minichiello, at the age of 13, he did combined events and was really keen for me not to specialise in a single event while I was young. When you're a teenager, you might enjoy hurdling, you pursue that and then it's all you want to do. But you may have a real talent in the long jump or 200 metres. So, we kept those options open and explored all the different events.

My first memories of athletics are at a summer camp in my hometown of Sheffield and trying many different things. I remember having water fights on the field of the stadium – at that stage, I didn't realise it might be my future career.

Now, I particularly enjoy training for the hurdles – it's one of my favourite events and quite technical. I absolutely hate sessions for the 800 metres as they're so painful. To make sure my body recovers from the amount of training that I do, I have weekly physiotherapy and soft tissue therapy.

Record breaker: Jessica celebrates victory and a new British heptathlon record at the Hypo Meeting, Austria, 2012 (right). Above, competing in the long jump at the IAAF World Athletics Championships, Daegu, South Korea, 2011.



On missing the 2008 Olympic Games due to injury...

I think being unable to compete in Beijing has definitely made me more determined this time around. Having such a huge setback in an Olympic year was really difficult to deal with, but it gave me a different perspective on training and my athletics career. It's also helped to motivate me these past few years.

After picking up those fractures in my right foot, I decided to change my takeoff leg in the long jump to

offload some stress after the injury. It's difficult to make that change - like altering the hand you write with. I was so used to doing everything on the right side of my body, that's all I'd ever done. To swap over to the other leg. which is slightly slower and less reactive. and to coordinate the body and movement patterns through the air on the opposite side, took a long time to adjust. I'm still getting to grips with it and trying to perfect that event, so it's been tough.





On being a BP London 2012 athlete ambassador...

One of the most important things as an athlete is to know the people around you, who are supporting you, and working with BP has been like joining a with the other ambassadors. The experience has also been fun and enlightening; I've been involved in the Target Neutral programme and it was interesting to learn about my driving style during an eco-test and find out how that affects the carbon dioxide emitted.

On life away from the stadium...

When I started out in athletics, never for one moment did I think I'd be in the position I am today, with all the other opportunities that arise away from the track. Obviously, I just wanted to be an athlete and achieve all that I can and win gold medals – I didn't think about things like photo shoots and advertising campaigns. It's very surreal, but I get to do some fun things and meet many people.

If I have a day off, I just like to stay at home, relax, catch up on the television shows I've recorded and see friends. I get a chance to do the normal things that everyone else does on their weekends.



On coping with the pressure of expectation...

Despite the labels describing me as the 'face' of these Games, I don't see myself as the only one in that position; there are some amazing British athletes, across different sports, and a number of people who are hopefully going to achieve great things. It's nice to know that I have support behind me and after missing out on Beijing, it's exciting to be part of an Olympic Games at home.

To cope with such a level of expectation from the media and the general public in the UK, you have to be confident and comfortable in yourself. I'm the one who trains with my coach day in, day out, and I know what I can realistically achieve. I need to remain focused on that and not get caught up <u>in everyone else's opinion.</u>

It will take a lot to win this summer – it's a great achievement to even take part in the Olympic Games, but to actually take the gold medal will be a really tough ask. I imagine it will require a personal best, probably around 7,000 points, which is a huge score.

→BP in partnership

Child's play: more than 35,000 children helped to create the Tate Movie project *The Itch of the Golden Nit.* The film was given pride of place in London's Trafalgar Square during the 2011 Open Weekend. Cultural Olympiad

STARE TO



TAKE YOUR SEATS

With the Olympic Games opening on 27 July, London is the place to be this summer, and not just for the sports enthusiasts. The London 2012 Festival is now on, marking the culmination of the four-year Cultural Olympiad. With more than 12,000 events and performances taking place, you will need the stamina of a top athlete to make the most of it.

Report> Hester Thomas **Photography>** Richard Davies/ Stuart Conway/Jon Challicom Featuring 12,000 cultural activities across the whole of the UK, the London 2012 Festival marks the culmination of the four-year Cultural Olympiad. As a Premier Partner of the London 2012 Cultural Olympiad and London 2012 Festival, BP is supporting a number of high-profile events with its four arts and culture partner institutions – the British Museum, Tate Britain, the Royal Opera House and the National Portrait Gallery.

The company's relationship with these institutions stretches back more than 30 years and the theme of BP's involvement has been bringing the nation's cultural excellence and diversity to as wide an audience as possible. "When London won the bid to host the 2012 Olympic and Paralympic Games, we knew the accompanying Cultural Olympiad would be a great opportunity to celebrate UK arts with a much larger audience," says Des Violaris, BP's director of UK arts and culture.

So, after BP was appointed a Premier Partner, Violaris immediately began talks with BP's four arts and culture partners to develop a programme of activities that now ranges from art lessons for teens to free opera screenings in open-air locations.

The concept of a Cultural Olympiad was established by Baron Pierre de Coubertin, the founder of the modern Olympic movement in 1896. He believed, like the Ancient Greeks, that mind, body and spirit should be celebrated and between 1912 and 1948, the Games included arts competitions, with the winners awarded gold, silver and bronze medals. In 1952, a series of cultural events was launched and, when the Games arrived in Barcelona, Spain, in 1992, the Cultural Olympiad became the four-year event that we know now.

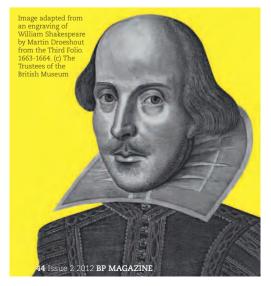
London's own Cultural Olympiad claims to be the largest arts celebration in the history of the modern Olympic and Paralympic movements and has been designed to give everyone in the UK a chance to be part of London 2012 and to inspire creativity, especially among young people.

BP's involvement first began in 2009, with the launch of the annual London 2012 Open Weekend event. This three-day, UKwide festival also ran in 2010 and 2011 and has been the Cultural Olympiad's main annual event. Featuring everything from art and dance, to film and sports events, around 3.5 million people have taken part in almost 3,700 events during its three years.

BP got involved in another early programme, thanks to its longstanding relationship with the National Portrait Gallery. For the past 23 years, the company has supported the annual BP Portrait Award and in 2010, extended its involvement, with the development of the BP Portrait Award: Next Generation project. Now in its third year, the programme offers opportunities for 14-19 year-olds to find out more about portraiture through free taster sessions and three-day summer schools. Budding young artists make their own artwork, as well as meeting and gaining insights from BP Portrait Award artists. By 2011, the project included digital online content, with more than 60,000 people visiting the website.

eanwhile, at Tate Britain, BP has supported the Tate Movie Project. "The goal was to make the firstever movie by children and for children," says Violaris. Youngsters aged 5-13 years participated online, attended gallery workshops around the UK, or visited the mobile animation studio that toured the country.

One of the aims was to involve children who would not usually join in an arts event and a total of 35,000 children actively participated, helping to create *The Itch of the Golden Nit*. The film was given pride of place in Trafalgar Square during London Open Weekend 2011 and has won eight







Medal winner: British Olympic triple jumper Jonathan Edwards holds a gold medal and an Olympic torch at an event to announce a collaboration between BP and the Royal Opera House to create a free exhibition telling the Olympic story. Called The Olympic Journey: The Story of the Games, the exhibition includes artefacts, film and audio from The Olympic Museum in Lausanne, Switzerland. Visitors will be able to see all the Olympic Medals since 1896 and all the Olympic Torches since 1936.





"When London won the bid to host the 2012 Olympic and Paralympic Games, we knew the accompanying Cultural Olympiad would be a great opportunity to celebrate UK arts with a much larger audience."

Des Violaris



Cultural partnerships: above, the Tate Movie Project's mobile animation studio toured the UK, allowing thousands of children to help create *The Itch of the Golden Nit*; left, participants at the 2010 Open Weekend; opposite from top, BP announced its support of the London 2012 Olympic and Paralympic Games at the British Museum in 2008, where visitors were greeted by judo, gymnastics and archery displays; wheelchair racer Shelly Woods poses for aspiring artists at a BP-supported summer school at the National Portrait Gallery. awards, including a Guinness World Record for the most individual contributions to an animated film and a Children's BAFTA 2011 for best interactive project.

While all this was going on, plans were being made for the 12-week London 2012 Festival. It opened on 21 June and runs until the 9 September, the final day of the Paralympic Games. It's believed to be the UK's biggest-ever festival, and will feature 25,000 artists, 12,000 events, 900 venues and 10 million free opportunities to get involved.

BP's involvement in the programme is extensive. Highlights include *Shakespeare: staging the world* – a major exhibition at the British Museum that also makes up part of the Royal Shakespeare Company's (RSC) World Shakespeare Festival; the annual BP Portrait Award exhibition, plus BP Portrait Award: Next Generation at the National Portrait Gallery; *The Olympic Journey: the Story of the Games* at the Royal Opera House; and the Tate Movie Project, with *The Itch of the Golden Nit* being screened on British Airways flights and in Picturehouse Cinemas Kids' Clubs. Shakespeare: staging the world is a fascinating exhibition, offering fresh insight into how London emerged as a world city in playwright William Shakespeare's time – opening up to cosmopolitan influences through travel and trade. This process is reflected in Shakespeare's plays with their range of international locations and references. London, as it was 400 years ago, is brought to life through objects drawn from the British Museum collection and other institutions, as well as contemporary performances by the RSC.

ora Thornton, curator of Renaissance Europe at the British Museum and exhibition curator, talks eloquently about the links between exhibition artefacts and Shakespeare's plays. Asked to pick just one notable object, she selects, "a gruesome relic: the right eye of the Jesuit priest, Blessed Father Edward Oldcorne." The priest was executed in public for his faith and wrongly perceived part in the gunpowder plot against King James I. A sympathiser in the crowd retrieved the eye and placed it in a silver reliquary.

"The spectacle of brutality was real for people in those times. Indeed, the Duke of Cornwall's relish in plucking out the Earl of Gloucester's eyes in *King Lear* – 'Out, vile jelly! Where is thy lustre now?' – owes its force to the experience of torture. Shakespeare shows us how life was lived."

As founding presenting partner of the World Shakespeare Festival, BP is supporting a number of RSC productions, including the What Country Friends Is This? trilogy of The Comedy of Errors, *Twelfth Night* and *The Tempest*. BP is also supporting myShakespeare, a new, interactive website created by the theatre company. The site aims to attract audiences from around the world who may not be able to attend live events but who wish to participate in the festival. People can share their thoughts, experiences and interpretations of Shakespeare and his work from a 21st-century perspective and join in global, online conversations.

LONDON 2012 FESTIVAL BP SUPPORTED EVENTS AND DATES

SHAKESPEARE

Staging the World, part of the World Shakespeare Festival, British Museum, 19 July-25 November

Royal Shakespeare Theatre, Stratfordupon-Avon, 12 July-6 October; and at The Roundhouse, London, 5 June-5 July

THE COMEDY

Royal Shakespeare Theatre, Stratfordupon-Avon, 16 July-6 October; and at The Roundhouse, London, 1 June-4 July

THE TEMPEST

Royal Shakespeare Theatre, Stratfordupon-Avon, 13 July-7 October; and at The Roundhouse, London, 9 June-5 July

BP PORTRAIT AWARD AT THE NATIONAL PORTRAIT GALLERY 21 June-23 September and then on tour to Edinburgh and Exeter



At the Royal Opera House (pictured below), a completely different experience is set to take place. *The Olympic Journey: the Story of the Games* is a unique, free exhibition run in collaboration with The Olympic Museum in Lausanne, Switzerland. The history of the Olympic Games is told through the endeavours of ancient and modern Olympians. Artefacts include all the summer Olympic medals since 1896 and summer Olympic torches since 1936. It was BP's suggestion to host the exhibition at the Royal Opera House, considering it an ideal location.

"We wanted the Royal Opera House to be a venue that people could enjoy during the Games," says Tony Hall, chief executive of the Royal Opera House and also chairman of the Cultural Olympiad. "This specially created experience gives us the perfect opportunity to welcome many thousands of people to our building."

Meanwhile, this year's BP Portrait Award is also part of the festival and features 55 brand new portraits. The top prize was announced in June and awarded to the Brooklyn based artist, Aleah Chapin for her portrait, *Auntie*. Her painting is of a close friend of the family and Chapin comments, "Her body is a map of her journey through life."

It is estimated that some 14 million people have already experienced some aspect of the four-year Cultural Olympiad, and millions more are expected to enjoy this summer's festival. The programme has helped BP strengthen existing partnerships, says Violaris, as well as develop new, innovative ideas for encouraging more and more people to get involved in something creative, such as the Tate Movie Project. "We're reaching a greater number of people, including younger audiences," she says. "For instance, within a week of its launch, myShakespeare reached 500,000 people."

The legacy extends to every participant in the Cultural Olympiad, some of whose lives have been transformed. Bryan, a student who had never visited the National Portrait Gallery, heard about the BP Portrait Award: Next Generation project and went to a taster session, followed by a summer school. Its impact has been significant. "It's encouraged me to enter next year's BP Portrait Award and also pursue a career in the creative industries, both of which I'm very excited about," he says.

While some projects, such as the BP Portrait Award: Next Generation, were created for the Cultural Olympiad, their impact has been substantial and will continue to develop long after the athletes have returned home. In fact, BP's commitment to UK arts and culture was reiterated in December 2011, when the company announced it would invest almost £10 million over the next five years in its four partner institutions – representing one of the most significant long-term corporate investments in UK arts and culture.

"Most of all, the Cultural Olympiad has given BP and its partners the opportunity to connect with a far greater number of people, especially young people," says Violaris. "They now know there's a world of arts and culture out there that they can tap in to – and many of them will."

THE OLYMPIC JOURNEY: THE STORY OF THE GAMES Royal Opera House, 28 July -12 August

OPERA: FALSTAFF also part of the World Shakespeare Festival, 30 May, part of BP Summer Big Screens

BALLET: METAMORPHOS

16 July, part of BP Summer Big Screens

FHE ITCH OF THI GOLDEN NIT

film showing on British Airways flights from 1 May-30 September

THE ITCH OF THE GOLDEN NIT

film showing at Picturehouse Cinemas Kids' Clubs from 16 June-1 September. Eight pre-film Tate Movie children's workshops also taking place Report> Amanda Breen Photography> Getty Images

GREAT EXPECTATIONS

For a small, dual-island nation in the Caribbean, with a population of some 1.2 million people, Trinidad and Tobago punches above its weight when it comes to generating world-class athletes.

print stars past and present include Ato Boldon, who appeared on the medal podium alongside world record holder Michael Johnson for the 200 metres in Atlanta 1996, and Richard Thompson, silver medallist in Beijing four years ago in the 100 metres, behind a certain Jamaican. It's a similar story among the women too; Kelly-Ann Baptiste picked up the bronze medal in the 100-metre final at last year's World Championships in Daegu, South Korea.

It's a record of which the president of the Trinidad and Tobago Olympic Committee, Michael 'Larry' Romany, is proud – not only for what it says about individual achievement, but for the impact such success can have on others.

"For us, the Olympic Games are very significant, because they point to the highest level of achievement in sport by people who have come from grass roots," he says. "As a committee, we consider the Games as the pinnacle of our efforts to share the principles of the Olympic movement with the country. Our focus is not only on elite athletes, but also on education and community development to spread those values."

BP Trinidad and Tobago (bpTT) is partnering with both the national Olympic and Paralympic committees until 2016, to support the organisations' work in bringing sport to all levels of society, and to generate national pride in the teams as they compete on the world stage.

"A small organisation like the Trinidad and Tobago Olympic Committee is always thrilled to have a big name like BP as a partner," says Romany. "It brings to the table a level of organisational skill and management that we wish to demonstrate in our activities and when trying to shape the minds of young people, it's important to display values that they would wish to emulate."

Community events

As for bpTT's support of six athlete ambassadors – four Olympian and two Paralympian – that brings benefits to the individuals involved, according to Romany.

"We're keen to stress with all athletes in our team the importance of image, presentation and communication skills. These are important as they represent the country, but also for their personal development. With BP supporting six athletes here, they receive training that prepares them to feature in national campaigns and undertake speaking opportunities around the country."

Young audiences across both islands also reap the benefits of interacting with the sports stars at community events, says bpTT's regional president, Norman Christie. "Having these athletes visit schools and interact with children is a fantastic thing. When youngsters meet these heroes, it stimulates their minds and makes them want to be like them. That's why the values displayed by our athletes are so important, because they are role models for the next generation."

The Paralympic movement for the two islands is young; the Paralympic Games in **Olympic hopes:** BP is supporting six Trinidad and Tobago athletes, including shot putter Cleopatra Borel, pictured here at shot putt finals, Zurich 2010.



Beijing in 2008 saw Trinbagonian athletes compete for the first time. Four years on, the country has its own National Paralympic Committee, too. "Their main aim is to raise awareness here for Paralympic sport and it will be very interesting to see how media coverage from this year's Games will make a difference with helping those with disabilities see the opportunities open to them," says Romany.

Trinidad and Tobago athletes are likely to compete in two Paralympic events and four Olympic sports. In the four-year cycle between each Olympic and Paralympic Games, the teams attend a series of major championships – the Central American and Caribbean Games, the Commonwealth Games and then the Pan American Games – where athletes are whittled down from around 400, entering at various levels of



competitiveness, to around 50, who provide the best medal chances in Olympic year, in just a handful of sports.

Historic links

Expectation is high in those events. "In track and field, we would expect around three-quarters of our team members to make it into semi-finals and about half into the finals of their events," says Romany.

As for the wider public following of the 2012 Olympic and Paralympic Games, Romany believes this year will attract even more attention in Trinidad and Tobago, thanks to the islands' historic links to Britain.

"It's a very big deal for us, especially as many people here have family or friends in London," says Romany, who attended the Olympic and Paralympic Games in Beijing, Athens and Sydney. "What we expect from the London Games is a very high cultural



"For us, the Olympic Games are very significant, because they point to the highest level of achievement in sport by people who have come from grass roots. Our focus is not only on elite athletes, but on education and community development to spread those values."

Michael 'Larry' Romany

input, as well as the best technology and phenomenal facilities.

"As a nation, we are so tied to the British and I expect it to feel a lot more homely for the team – we think it's going to be the best Games ever. Also, the first Olympic Games that we attended were in London in 1948 – so this year will be nostalgic for us, too."

A BP-sponsored song is currently playing on radio stations across the islands.

Performed by soca artist Kees Dieffenthaller, *We Are Conquerors* is dedicated to the athletes who are on their way to London, as well as the nation as a whole, to mark its 50th anniversary of independence.

"I hope the song becomes an anthem for the team, as it is a great way to generate national pride and bring people together, which is what these Games are all about."

SUPPORTING BP'S LOCAL TEAMS

BP is supporting athletes from nine countries (open these pages to see them all). Over these following pages we look at the business highlights from each region.



US

Over the past five years, BP has invested more than \$52 billion (excluding \$14 billion spent on the Gulf response in 2010-11) in the US – more than any other oil and gas company. **Upstream includes:** it is the number one oil and gas producer in the Gulf of Mexico and operates 15 oilfields on Alaska's North Slope and its North America Gas business has assets in seven states.

Downstream includes: currently operates five refineries (plans to sell Texas City and Carson refineries were announced in 2011), three petrochemical plants and markets more than 17 billion gallons of fuel every year. Alternative Energy investment since 2005: \$4 billion.

Employees: around 23,000 people. **Community:** since 2006, the BP Foundation has invested \$180 million in US initiatives.



Origins: the UK is BP's home country and its operations span the length and breadth of the nation.

Upstream includes: accounts for around 5% of BP's global production and includes 45 producing fields, 33 platforms and 10 pipeline systems.

Downstream includes: its Hull petrochemicals plant is one of the region's largest employers and now includes a new

largest employers and now includes a new biofuels facility. **Employees:** more than 15,000.

Community: for the past 40 years, BP has supported the provision of science, technology, engineering and maths subjects in school. BP also has relationships with British art and cultural institutions stretching back 30 years (for more information on BP in the UK see page 60).

TRINIDAD AND TOBAGO

Origins: through its heritage companies, BP has had a presence in Trinidad and Tobago for the past 50 years. In that time, it has grown to become the country's largest hydrocarbon producer, accounting for more than half of national oil and gas production. Contribution to government revenue:25% Business activities include: shareholdings in Atlantic LNG's trains 1, 2, 3 and 4 and partnerships with Powergen, Repsol and Trinidad & Tobago Electricity Commission. Employees: around 2,000 full-time staff and contractors - more than 90% of whom are Trinidad and Tobago nationals. **Community:** a diverse programme that includes education, arts and culture, environmental awareness and enterprise development.



ANGOLA

Origins: BP has had a presence in Angola since the 1970s.

Investment to date: more than \$15 billion. Number of operated deepwater oil and gas blocks: 4

Number of non-operated deepwater oil and gas blocks: 5

Other business: BP holds a stake in Angola's first LNG plant.

Employees: 1,200 staff and agency contractors (based in Luanda and southeast England) to support its Angolan business, more than half of whom are Angolan nationals. **Community:** a wide range of programmes that focus on education and enterprise development.





TURKEY

Origins: in 2012, BP Turkey is celebrating its centenary year, having first opened an office in Istanbul in 1912. Its downstream businesses date back to the 1940s.

Business activities include: more than 500 service stations and a 68% share in ATAS, the largest fuels terminal in the Eastern Mediterranean. Castrol is the market leader in automotive lubricants and other businesses include BP LPG and Autogas. Air BP services four major airports through a joint venture. More than half of the length, and most of the facilities of the BTC pipeline are located in Turkey. Turkey has also been receiving Shah Deniz gas through the SCP since 2007.

Community: programmes include a road safety children's theatre, which aims to raise awareness and reduce traffic accidents, as well as social investment and income-generation activities in 330 villages along the BTC pipeline route.



GEORGIA

Number of operated oil and gas transit pipelines (on behalf of its partners): 3 – the BTC, the SCP and the Western Route Export pipeline. Business activities include: BP also operates the Supsa oil terminal, on the Black Sea. BP supports Georgia's energy needs with the supply of natural gas, while Air BP provides jet fuel to international customers at Tbilisi airport.

Employees: around 500.

Community: a range of sustainable development programmes that include community, energy efficiency and enterprise development initiatives.



AZERBAIJAN

Origins: BP has had a presence in Azerbaijan since 1994.

Investment to date: more than \$34 billion, together with a group of partners.

Upstream includes: BP operates the Azeri-Chirag-Guneshli oilfield development – the largest in the Caspian Sea – and Shah Deniz, one of the world's largest gas fields. Onshore, it operates the Sangachal terminal, the Baku-Tbilisi-Ceyhan (BTC) pipeline and the South Caucasus pipeline (SCP). **Employees:** around 2,500 Azerbaijani citizens on a permanent basis.

Community: programmes cover education, capacity-building, enterprise development, social infrastructure improvement and include a programme to help suppliers meet international oil and gas industry standards.



Origins: BP's relationship with the UAE can be traced back to the 1930s, when Air BP established a refuelling depot in Sharjah to serve the first aeroplanes en route from the UK to India. For the past 70 years, BP has also enjoyed a successful partnership with the Abu Dhabi National Oil Company. BP was at the forefront of the discovery of oil in Abu Dhabi in 1958 and since then, has made important contributions to Abu Dhabi's operating companies through people and technology. **Community:** initiatives include the Sustainable Schools Initiative, an environmental education partnership with the Abu Dhabi Environment Agency, and the BP Young Adventurers programme, which provides adventure training and leadership development for young people from the UAE and Oman.

<u>N</u>

EGYPT

Origins: BP has had a presence in Egypt for almost 50 years and is responsible for 15% of the country's current oil production. Alongside its partners, BP also meets 40% of domestic gas demand.

Investment to date: more than \$17 billion in the country, making BP Egypt's largest foreign investor.

Under development: the West Nile Delta gas project, expected to meet approximately 25% of Egypt's current gas demand and create up to 5,000 jobs during execution phase. **Employees:** directly employs 405 Egyptian nationals.

Community: since 2001, BP has supported approximately 600 Egyptian students of outstanding academic merit and financial need to pursue undergraduate and graduate scholarships.



DREAM TEAMS

Through its backing of several national Olympic and Paralympic Committees, BP is helping facilitate a number of athletes' journeys as they aim for gold at London 2012. Its support include providing fuel for vehicles, helping the athletes reduce their carbon footprint through Target Neutral and sponsorship. Below is a guide to all of the BP-supported athletes.



ANGOLA

1 Esperança Dala Gicasso Age in 2012: 20 Discipline: Athletics – 100m, 200m & 400m (T12 category)

2 Joaquim Francisco Manuel Age in 2012: 32 Discipline: Athletics – 100m & 200m (T12 category) 3 Octávio Angelo dos Santos Age in 2012: 30 Discipline: Athletics – 100m, 200m, 400m & Long Jump (T11 category)

4 José Armando Sayovo Age in 2012: 39

Discipline: Athletics – 100m, 200m & 400m (T12 category) 5 Maria Gomes da Silva Age in 2012: 20 Discipline: Athletics – 100m, 200m & 400m (T11 category)



EGYPT



Ibrahim Ahmed Age in 2012: 25 **Discipline:** Shot putt – medical (F38 category)



Mustafa Fathallah Age in 2012: 25 Discipline: Athletics (100m, 200m T37)



Aya Medany Age in 2012: 24 Discipline: Modern pentathlon



Hesham Mesbah Age in 2012: 30 Discipline: Judo, middleweight 90kg



Fatma Omar Age in 2012: 39 Discipline: Paralympic weightlifting





Tarek Yehya Age in 2012: 25 Discipline: Weightlifting (middleweight)

AZERBAIJAN

1 Farida Azizova Age in 2012: 17 Discipline: Taekwondo (women's under 67kg category)

2 Rovshan Bayramov Age in 2012: 25 Discipline: Greco-Roman wrestling (men's under 55kg category)

3 Jabrail Hasanov Age in 2012: 22 Discipline:

Freestyle wrestling (men's under 66kg category)

4 Olokhan Musayev Age in 2012: 33

Age in 2012: 33 Discipline: Athletics: shot putt (F55-56: double amputee)

5 Oleg Panyutin Age in 2012: 29 **Discipline:** Long jump, triple jump (F12: visually impaired)

6 Afag Sultanova Age in 2012: 25 Discipline:

Paralympic judo (B3: visually impaired, women's under 57kg category)

7 Ilham Zakiyev

bp

Official partner

Age in 2012: 32 Discipline: Paralympic judo (B3: visually impaired men's over 100kg category)



GEORGIA

1 Luba Golovina Age in 2012: 22 Discipline: Gymnastics, trampoline **2 Iago Gorgodze Age in 2012:** 36 **Discipline:** Powerlifting (90kg)

3 Varlam Liparteliani Age in 2012: 23 **Discipline:** Judo (90kg) 4 David Marsagishvili Age in 2012: 21 Discipline: Freestyle wrestling (84kg) 5 Shota Omarashvilli Age in 2012: 31 Discipline: Powerlifting (60kg) 6 Nick Tvauri Age in 2012: 29 Discipline: Swimming – S11 100m breaststroke, 50m freestyle Official partner

TURKEY

1 Nergiz Altıntaş Age in 2012: 22 Discipline: Table tennis

2 Özlem Baykız Age in 2012: 20 Discipline: Swimming

3 Mete Binay Age in 2012: 27 Discipline: Weightlifting

4 Semih Deniz Age in 2012: 23 Discipline: Athletics – 800m, 1,500m

5 Çiğdem Dede Age in 2012: 32 Discipline: Weight lifting

6 Nazlı Çağla Dönertaş Age in 2012: 21 **Discipline:** Sailing

7 Beytullah Eroğlu Age in 2012: 17 Discipline: Swimming

8 Doğan Hancı Age in 2012: 41 Discipline: Archery

9 Rıza Kayaalp Age in 2012: 23 Discipline: Wrestling

10 Gülşah Kocatürk Age in 2012: 26 Discipline: Judo

11 Kübra Öcsoy

Age in 2012: 18 Discipline: Table tennis

12 Suat Öner Age in 2012: 28 **Discipline:** Athletics - 400m

13 Göksu Üçtaş Age in 2012: 22 Discipline: Gymnastics



Turkey

Official partner





1 Lizzie Armitstead Age in 2012: 23 Discipline: Cycling – roađ

2 Jessica Ennis Age in 2012: 26 **Discipline:** Athletics - heptathlon

TEAM GB QQQ

> **3 Stef Reid** Age in 2012: 27 Discipline: Paralympic athletics - 100m, 200m (T44 category), long jump (F44 category)

bp

4 William Sharman Age in 2012: 27 Discipline: Athletics – 110m hurdles

5 Richard Whitehead Age in 2012: 36 Discipline: Paralympic athletics - 100m, 200m, 4x100m (T42 category)

6 Shelly Woods Age in 2012: 26 Discipline: Wheelchair racing (T12-L1 category)

USA

1 Bryan Clay Age in 2012: 32 Discipline: Athletics – decathlon

2 Jonathan Horton Age in 2012: 27 Discipline: Gymnastics

3 Lolo Jones Age in 2012: 30 Discipline: Athletics – 100m hurdles



Age in 2012: 24 Discipline: Athletics (Wheelchair -100/400/800/ 1,500m, marathon)

5 Sanya **Richards-Ross**

Age in 2012: 27 Discipline: Athletics - 200m, 400m, 4x400m relay

6 Jerome Singleton Jr

Age in 2012: 26 Discipline: Paralympic athletics – 100m, 200m, 4x100m relay (T44 category)

7 Rebecca Soni Age in 2012: 25 Discipline: Swimming -100/200m breaststroke,

8 Matt Stutzman

4x100m medley

Age in 2012: 30 Discipline: Archery

9 Rudy

relay

Garcia-Tolson Age in 2012: 24 Discipline: Swimming – 200m individual medley, 100m breaststroke. Athletics – 200m (T42)



Official Partner







Michelle Lee-Ahye Age in 2012: 20 Discipline: Athletics -100m, 200m



Cleopatra Borel Age in 2012: 33 Discipline: Athletics shot putt



Carlos Greene Age in 2012: 44 Discipline: Paralympic shot putt & weightlifting (visually impaired, 125kg class)



Shanntol Ince Age in 2012: 17 Discipline: Paralympic swimming (S9 category)



Age in 2012: 25 Discipline: Athletics – 400m



Age in 2012: 21

Cycling – keirin

Discipline:

and sprint

bp Trinidad and Tobago



Official partner

UAE



Mohammed Ahmed Ali Gharib Age in 2012: 23 Discipline: Football



Mohammed Al Hammadi Age in 2012: 27 Discipline: Wheelchair racing



Thuraya Al Zaabi Age in 2012: 42 Discipline: Shot putt and javelin



Mohammed Khamis Khalaf Age in 2012: 43 Discipline: Powerlifting





In preparation: Richard Whitehead prepares to compete at the Visa London Disability Athletics Challenge LOCOG test event for the London 2012 Paralympic Games at the Olympic Stadium, London, UK, 2012.



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RICHARD WHITEHEAD

Sport: athletics **Event:** 200, 100 and 4x100 metres (T42 category – double leg amputee) **Age:** 35

Main achievements: 400m

world record at Paralympic World Cup 2011, 57.06s; 200m world record holder, London Disability Athletics Challenge 2012, 25.50s; gold medal – 200m IPC World Championships 2011, 25.88s; marathon world record holder Chicago Marathon 2:42.52s; half marathon, Reading, UK 1:14.59s

COMETH THE CHAMP

BP is supporting six British athletes, and many other international sportsmen and women, as they prepare for the London 2012 Olympic and Paralympic Games. 'Cometh the hour, cometh the man' is tattooed on the arm of 35-year-old Paralympian and 'blade-runner' Richard Whitehead, whose time will come again this summer when the marathon world record holder tackles very different events – the 100, 200 and 4x100-metre relay. This elite athlete, who was born without legs from above the knee – known as a congenital double amputee – talks to *BP Magazine* about conquering a new event, challenging perceptions and changing the rule book.

On running the 2004 New York marathon with no experience...

"Some people thought I was crazy. My parents were apprehensive. I didn't know how I was even going to get there. But in the late 1980s, I had been inspired by Canadian Terry Fox. He lost a leg to cancer and while lots of people in hospital were being negative, he showed that by being positive, you can be successful. He attempted to run across Canada and set out to run 26 miles every day. Unfortunately, he died before he reached the end of his journey. He sowed that seed in my head – that one day I would accept one of those challenges that seem up there in the clouds."

Richard struggled with the training before he had running prosthetics as he ran on his knees using special running cups. "I was running late at night because of public perceptions. But I still decided this was going to change my life and have an impact on people who see me run. I wanted to show everyone that you can be successful and take achievable steps to reach that goal in the sky."

In 2004, Richard completed the marathon in five hours 30 minutes. Since then. Richard has run 25 marathons and in 2009, became the firstever double-leg amputee to complete the marathon in under three hours.

Marathon man: the marathon remains close to Richard's heart and he is photographed here taking part in the Beirut marathon, December 2009. Far right, Richard prepares for the



On running technology...

"The best kit I would recommend for any runner is a GPS watch. It has helped me and is something I recommend to everyone. It's self-evaluating and tells me if I'm on course for my goals. Everyone asks if the prosthetics give you an advantage. There's no advantage – they are not springy. They're made of carbon fibre. It's a resin used for aeroplane wings – there's no rocket boosters or anything like that. They replicate the hamstring that's in the leg. The forces that you get from your legs. The action of the flexes replicates the hamstring.

On changing events...

Richard wanted to compete in the London 2012 Games but there is no marathon event for double-leg amputees and the International Paralympic Committee (IPC) ruled he could not run against arm amputees. So, he is now preparing to compete in the 100, 200 and 4x100 metres events in the T42 classification. but the marathon is where his heart lies. "For me, it is an inclusive race with runners of all abilities and ages competing side by side.

"There's a bit of a difference between 26.2 miles and 200 metres, as you can appreciate. I sat down with my coach, Liz Yelling, who said: 'Richard, if you think you can do that, let's go for it.' I like people around me who don't put up barriers straight away.

On being a BP London 2012 athlete ambassador...

"BP supports my journey and it is important to have that relationship and platform to take and engage with the public. I was very keen to get involved with the company from the start and proud to represent it. In London 2012, hopefully I can share that success." "After I was told I would not be able to compete in the London 2012 marathon, I qualified for the New Zealand IPC World Championships where, in 2011, I went with no real experience."

Despite this, Richard won a gold medal and championship record and went on to break the 200-metre and 400-metre world records.

But he hasn't forgotten the marathon. "I want to go to the Paralympic Games and I want to support the next generation of athletes. I can't compete in the marathon, but hopefully, with my performance in 2012, I can change that ruling. I'm not going to sit back and take no for an answer." In the meantime: "I plan to smash the 200 metres."





On ability...

"People with an impairment don't come with baggage, they come with experience. I am a disabled athlete, but I see myself as a person who wants to perform at the highest level possible, overcoming barriers in whatever I do."

"My parents were pushy and got me involved in gymnastics at a young age. Gymnastics encompasses all the main skills involved in sport – balance, agility and coordination. They thought sport was important and introduced me to different environments – not just disabled specific gymnastics. I have had challenges to overcome and, even though I have had great support, I realised quickly the only person who was going to get me through those challenges was me."

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→ BP in partnership







RIGHT ON **TARGET**

As London 2012's Official Carbon Offset Partner, BP Target Neutral is giving spectators the chance to 'neutralise' their carbon emissions associated with travelling to the Olympic and Paralympic Games for free. *BP Magazine* finds out more about the not-forprofit initiative and the projects it supports.





Report> Colum Doyle **Photography**> Mehmet Binay/Aaron Tait/Marc Morrison





"I'm naturally very happy to support a way of reducing my carbon footprint and saving money at the same time – something BP Target Neutral calls 'reduce, replace and neutralise'. That means starting to do things like learning to drive more efficiently and replacing fuel with a kind that helps the engine run more efficiently." **Iessica Ennis**

hen one of the world's top athletes agreed to take on BP Target Neutral at the track, it wasn't a gold medal that was at stake but a green one.

Jessica Ennis – Britain's triple goldwinning medallist in the heptathlon – is used to competing in seven different disciplines. She met her match, though, in a head-to-head driving contest with expert 'eco-driver', Anthony Sale, where the goal was to use as little fuel as possible and keep carbon emissions low.

Both contestants drove Jaguar XF 3.0 litre automatics, but Anthony deployed 'eco-driving' skills, such as avoiding overrevving and coasting in gear when slowing down without touching the accelerator. The result was that while Jessica managed fuel consumption of 24 miles per gallon, Anthony achieved 38 – and won the challenge. For Ennis, it was a revelation that when covering an average 19,000 kilometres (12,000 miles) in her car each year, she could be spending as much as \$4,700 as opposed to Anthony's \$3,000 – and with an annual carbon footprint two tonnes higher.

The test was designed to highlight not only how emissions can be reduced, but also how those that remain can be offset through BP's Target Neutral programme. Now in its sixth year, Target Neutral is helping participants and spectators at this summer's London 2012 Olympic and Paralympic Games offset their carbon footprint. It forms part of BP's wider role in helping to develop a legacy beyond the Games, by raising awareness and promoting lower-carbon mobility.

Ennis is one of a number of London 2012 athlete ambassadors, as well as Olympic and Paralympics teams from the Angola, Azerbaijan, Egypt, Georgia, Trinidad and Tobago, Turkey, UAE, the UK and US, who have been working with BP in its role as both an Official Sustainability Partner and Official Carbon Offset Partner to London 2012.

Gracefully accepting her eco-drive defeat, Ennis has become an enthusiastic supporter of the programme: "My eco-driving test was great fun and I'm naturally very happy to support a way of reducing my carbon footprint and saving money at the same time – something BP Target Neutral calls 'reduce, replace and neutralise'.

"That means starting to do things like learning to drive more efficiently and replacing fuel with a kind that helps the engine run more efficiently. The remaining carbon emissions I'm responsible for can be offset or 'neutralised' using the not-for-profit programme that BP Target Neutral operates."

Travel is a major source of carbon dioxide emissions, with individuals in the UK emitting an average four tonnes per year from their journeys. Yet Ennis's potential two-tonne saving can come from





simple things such as driving differently, ensuring tyres are correctly inflated, reducing use of air-conditioning and using the most efficient fuels and lubricants.

In addition to providing information about more efficient driving, Target Neutral's website provides tools that calculate an individual's travel carbon footprint for each journey – whether by bus, train, plane or car – and offers advice on lower-carbon options.

But Target Neutral goes a considerable step farther than measurement and advice, says Andrea Abrahams, its global director: "We have to be realistic. Many journeys are essential, which is why Target Neutral also offers a carbon 'offset' option to tackle those hard-to-avoid emissions. Offsetting or 'neutralising' carbon involves making a small payment – around £25 per year for the average UK motorist – for those carbon emissions that they cannot easily or costeffectively reduce by themselves. The good news for those travelling to London 2012 is that BP is going to foot the bill."

Target Neutral uses the funds to support projects around the world that either remove carbon dioxide from the atmosphere, such as forestry, or provide lower-carbon energy, such as wind farms, landfill gas power stations and micro hydro-electricity initiatives. Unlike other carbon offset programmes, BP pays for all Target Neutral administrative costs and makes no profit.

As Official Carbon Offset Partner, BP's Target Neutral has put together a special international portfolio of projects that are being supported to help offset carbon emissions associated with spectator's travel to the London 2012 Games. There are six projects in the portfolio, one for each continental region participating in the Games, and together they highlight the range of ways in which carbon emissions can be cut.

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Eco driver: British Olympic athlete Jessica Ennis (far left) tested her 'eco-driving' skills at a special driving contest in July 2011; farmers in Kenya plant trees as part of a Target Neutral reforestation project around the slopes of Mount Kenya; and in Brazil Target Neutral is supporting a biomass project.



For example, in the US, Target Neutral funds are supporting the capture of methane from a large dairy cattle operation and using it to generate renewable power for a local town in Wisconsin.

In China, a project is replacing coal power energy generation with clean electricity from biomass. The biomass consists of a range of matter, including rice husk. Previously, this husk was left to decay, but now has a tangible fiscal value for local farmers. The project generates employment as well as power, with 172 jobs created to run the biomass power generation plant and the collection of the rice husk and biomass in Anhui.

In Africa, a Kenyan farmers' reforestation project in Meru and Nanyuki involves more than 8,000 small-hold farmers in a tree-planting initiative around the slopes of Mount Kenya. These lowcarbon development projects also create additional local environmental, social and economic benefits. This can range from how to harvest seeds from local trees and raise a nursery, to the environmental significance of tree planting to protect against drought and erosion.

Other projects in the portfolio include a green energy landfill gas programme in Turkey, biomass power in Brazil and cyclone-resistant wind farms in New Caledonia in the Pacific.

It's estimated that carbon dioxide released into the atmosphere by London 2012 spectators will be the second largest source of emissions related to the Games and two thirds of these emissions – estimated at more than 400,000 tonnes – will arise from spectator travel to and from Games events.

This is why BP Target Neutral has offered to offset the carbon footprint of all ticketed spectators travelling to London 2012 who participate and sign up with the programme – free of charge. That offsetting programme will be carried out through the 2012 portfolio of projects.

Lord Coe, the chair of the London Organising Committee of the Olympic Games, has described the initiative as "a fantastic opportunity [for people] to offset their carbon footprint and help London 2012 to inspire positive social, economic and environmental change for the future."

Abrahams explains how it will work. "We are inviting all spectators travelling to the Games to sign up free of charge on the Target Neutral website. We then calculate their Games travel carbon footprint and organise the equivalent offset funding in support of the 2012 project portfolio. For fun, we have challenged Games ticketholders to set a world record for the most people to have offset their footprint when travelling to a single event. The Games are about setting records and this is also about spreading the word about the role that carbon offsetting can play."

US Olympic gold medal swimmer Rebecca Soni, who is also a London 2012 athlete ambassador, knows all about setting records. She won a gold medal and set a world record in the 200-metre breaststroke at the Beijing Olympic Games four years ago. She is travelling to London to defend her title this summer and is enthusiastically supporting efforts to reduce the carbon footprint of the Games:

"Tm really excited that Team USA and the whole London 2012 Games are focusing on conserving and reducing everything involved in bringing so many people into one place. Making everyone more conscious of that is such a great step. If you are going to London, then sign up for BP Target Neutral to offset your travel – why wouldn't you?"

The Target Neutral offer isn't confined to London 2012. Working with BP's fuels marketing business in the UK, cardholders



"Many journeys are essential, which is why Target Neutral also offers a carbon 'offset' option to tackle those hard-to-avoid emissions. The good news for those travelling to London 2012 is that BP is going to foot the bill."

Andrea Abrahams





in the Nectar customer loyalty programme who calculate their carbon footprint and pay to offset it will collect 500 Nectar points, and will also have the chance to win a further 50,000 points.

Meanwhile, BP's major fuels customers have also shown interest in the programme. For example, BP Target Neutral has signed an agreement with FedEx – the world's largest global express transportation company – that will offset the carbon footprint associated with shipping 200 million FedEx[®] Envelopes around the world every year.

Mitch Jackson, vice president for environmental affairs and sustainability at FedEx, said: "We chose BP Target Neutral based on how thoroughly it vets and researches its projects, the added oversight of the independent assurance and advisory panel that monitors Target Neutral and the affordable rate structure."

Carbon offsetting has had its critics in the past, with concerns raised about whether projects actually meet their objectives and reduce or prevent carbon emissions. Others feel that offsetting distracts from individual responsibility. Today, the sector has matured and changed, as Abraham explains: "Our work is governed by an independent advisory panel of prominent environmental and industry experts that ensures all policies and activities conform to best practice in carbon management. We recognise that offsetting is not the only answer to the challenges of rising carbon emissions – but it is one among many that, as a company, we pursue."

Jonathon Porritt, the environmentalist, sits on the panel and poses a typically blunt question about offsetting: "When you've done everything you can to reduce your own carbon footprint through changing your lifestyle and being super-efficient at home, work and play, what are you going to do about the rest? Ignore it – or deal with it by finding the best possible offset product on the market?"

For individual athletes such as Jessica Ennis and ticket holders who will flood into London for the Olympic and Paralympic Games this summer, an answer is being provided by Target Neutral.

To find out more about Target Neutral, visit http://www.bptargetneutral.com

Clean power: Target Neutral is supporting a project in China to replace coal power energy generation with electricity produced from biomass made from matter such as rice husk; in the Pacific, Target Neutral is helping to construct cycloneresistant wind farms in New Caledonia; and in the US, Target Neutral funds are supporting the capture of methane from a large dairy cattle operation and using it to generate renewable power. Global deepwater response

Report> Lisa Davison **Photography>** Rocky Kneten











READY TO RESPOND

In 2011, a group of BP engineers built a new deepwater well cap and tooling package designed and modified based on their experience during the response to the 2010 Deepwater Horizon accident in the Gulf of Mexico. The package, pictured here, is just one of a number of actions BP is taking to further strengthen its abilities to help prevent and respond to an accident. BP Magazine finds out more.

Upstream> Global deepwater response



t's not every day you meet someone in BP who can tell you exactly how much weight the runway at Azerbaijan's Heydar Aliyev International Airport can withstand, which roads in Egypt require permits, or the maximum height that a piece of equipment can be if it's going to fit on a jumbo jet. But then Geir Karlsen is not just anyone.

Norwegian-born Karlsen is, in fact, the man who leads the team in charge of more than 250 individual pieces of equipment that make up BP's new global deepwater well cap and tooling package. Built in 2011 by engineers who capped the leaking Macondo well in the Gulf of Mexico (GoM), the biggest piece of equipment is the 100tonne, two-part capping stack, which stands almost 10 metres (32 feet) tall. Other tools include debris removal tools, a remotely operated vehicle (ROV) tool kit, oil dispersion tools, a subsea hydraulic power unit, a hydraulic accumulator system called a 'six-shooter' and massive shears to cut through drilling riser pipe. Located at a facility in Houston, the whole package was designed and modified based on lessons learned during the oil spill response in 2010, following the accident on the Deepwater Horizon rig.

Together, the equipment weighs some 500 tonnes, requires 35 trailers to move it and seven heavy-lift aircraft to ship it. If needed, the equipment can be transported anywhere in the world within 10 days; which is where Karlsen's newfound logistical knowledge comes in. As part of the team that managed simultaneous operations (SIMOPS) during the oil spill response, he has a unique understanding of how much effort goes into moving equipment around.

"Our mandate is to have this package ready so we can begin arrangements to transport it on a 24/7 basis," says Karlsen. "So, we have carried out logistics surveys in a number of locations to understand airport capabilities and make sure they have the equipment we need to offload the package. We know that runways have to be a certain width and able to withstand a certain weight. We know that only certain airports can service the Boeing 747-200 series and the Antonov An-124 heavy-lift aircraft. We look at roads, permit issues, height and weight restrictions, bridges and tunnels to understand how to get the kit from the airport to the BP site." The level of detail is immense, and as each of BP's businesses around the world develops its own detailed response plan, they must incorporate Karlsen's logistical needs.

Being ready at a moment's notice means also being sure that the equipment itself works, and Karlsen is responsible for ensuring that it is regularly serviced. "Servicing and maintenance is critical," he says. "That means operating, testing and checking that everything works as designed."

To do that, Karlsen and his team carry out quarterly service checks. These include taking samples to make sure that temperature fluctuations aren't causing fluids in the system to age and disintegrate, testing components for corrosion and understanding how many times a valve needs turning in order for it to open and close properly. Any slight variation between services is fixed and documented. According to Karlsen, "It's important that we understand changes in the system and those tell-tale signs may indicate that something is not right."

Prevent and respond

Building this package is just one of a number of actions BP has been taking to further strengthen its abilities to both prevent and respond to an incident. Those actions have been divided into five areas (see panel) and are designed to help BP do everything it can to prevent another accident, while preparing itself for swift response should an incident occur. As head of BP's global deepwater response (GDR) team, Richard Morrison has been involved in developing BP's capability since October 2010 and believes the decision to build the package was the right thing for BP to do.

He explains: "Once we'd capped the well, our immediate focus was on developing a simple 'lessons learned' workshop that we could take to our teams around the world so they could understand what it took to be prepared for an incident like this. The global wells team was already incorporating lessons from BP's internal



Under review: opposite, Steve Eggert (far left) and Geir Karlsen by the lower capping stack located at ASCO in Houston. Below, reviewing posters that show diagrams of the package.

FIVE ACTION AREAS

- Prevention and drilling safety
- Containment
- Relief wells
- Spill response
- Crisis management

investigation into its drilling plans, but our focus was on preparation and readiness.

"When we sat down in those first workshops in October 2010, we realised that we needed the ability to cap a well in a certain amount of time. Industry bodies, such as the Marine Well Containment Company [MWCC – of which BP is part], had begun developing their own response plans and tools, but we'd made commitments around the world to drill wells, and we wanted to be sure in ourselves that we could respond."

While BP prepared to respond to an incident, it also took new action to prevent one happening in the first place. That prevention effort includes an 85-strong team from BP's global wells organisation (GWO) that is supporting implementation of all 26 recommendations from the company's internal investigation into the accident and oil spill. The GWO is also increasing standardisation in the way BP designs and drills its wells around the world and implementing a wells start-up checklist that has to be verified by relevant team leaders and operations managers.

BP has also made a series of specific voluntary operational commitments that go beyond the regulatory requirements, and is moving towards the use of subsea blowout preventers (BOPs) equipped with no fewer than two sets of blind shear rams on all dynamically positioned mobile drilling rigs and third-party verification of its BOP testing and maintenance.

In the GoM specifically, a new 24-hour monitoring centre has been set up, complete with a 25-screen video wall, realtime information feeds and instant communications between BP's offshore rigs and its experts back onshore. BP has also relied on the help of a former senior NASA manager to bring 24-hour monitoring experiences from NASA's Mission Control centre, also in Houston. "Tapping into this kind of experience is integral to the way in which BP is further strengthening its ability to help prevent another oil spill," says Mike Zanghi, vice president for GoM wells. "With the Houston Monitoring Center, we can now monitor for potential well control scenarios from onshore 24/7, along with having access to specialists who have key skills in well control and experience in offshore operations. Using standardised processes and procedures, the monitoring centre is an extra set of eyes to monitor key parameters of real-time operational data, including flow-in, flow-out, pit levels, tripping displacements and pressures."

Meanwhile, Morrison's GDR team continues to work across BP functions to help share lessons to further advance safety, as well as response capabilities. The group itself is relatively small – just seven full-time members of staff. Instead, it relies on a wide range of experts with specific experience in drilling and oil spill response to deliver the workshops.

According to Morrison, the team is kept deliberately small: "At some point, the need for my team to deliver these workshops will diminish, since those lessons will become the way we do things naturally. With that in mind, we thought wouldn't it be better if this content is delivered by those people sitting in the very teams that are working on prevention or containment or response? Many of our experts were involved in the GoM response and they know how to deliver these messages back to their teams in a way that is going to ensure they come to life for frontline staff."

Real solutions

So, while the need for a global deepwater well cap and tooling package was identified within the GDR team – which also led the project – experts in BP's global projects organisation and GWO contributed to the design and construction. Once built, the responsibility for maintaining the equipment was formally transferred to GWO. "That's important," says Andy Krieger, vice president for wells operations, "because it helps create a real, workable solution for our worldwide operations and that we own the accountability. As our business changes and develops in the future, we need to maintain the package's functionality."

That said, everyone in Morrison's team has been selected for the depth of their

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Team work: the upper capping stack being handled at the Cameron facility in Louisiana, during the 2011 construction phase of the project.

CAMER

-35

P&H

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E OBBAN

GLOSSARY

API: American Petroleum Institute. A national trade association with more than 400 members. Established in 1919.

OSPRAG: Oil Spill Prevention and Response Advisory Group (established by Oil & Gas UK). Participants include oil and gas producers, regulators and trade unions. Formed in 2010.

OGP: International Association of Oil and Gas Producers. Established in 1974, this global forum now has 74 members.

GIRG: Global Industry Response Group. Formed in July 2010 by OGP to ensure lessons from Macondo and other industry accidents were applied around the world. It is working in three areas: prevention, intervention and response.

SWRP: Subsea Well Response Project. A non-profit initiative between nine international oil and gas companies working to improve subsea well control incident capabilities. Established on the recommendation of OGP.

MWCC: Marine Well Containment Company. A US-based non-profit independent company with 10 member oil and gas companies. Established in July 2010.

IADC: International Association of Drilling Contractors. Established in 1940.

COS: Center for Offshore Safety. A US industry-sponsored organisation set up to enhance and improve the industry's safety and environmental performance, increase public awareness of that performance and stimulate co-operation within the industry to share best practice. The board comprises oil operators, service companies, trade associations and regulators.

OSRL: Oil Spill Response Limited is an industry-owned co-operative that exists to respond to an oil spill anywhere in the world. More than 120 companies belong to the co-operative whose activities account for more than 60% of global oil production.

WellCAP: Well control accreditation programme run by IADC.

experience. So, for example, GDR senior advisor Bill Grames has a wealth of operational experience that makes him the ideal person to help BP integrate and shape the industry's global containment and response efforts.

Like Morrison, Grames believes it is important that all this capability sits within the businesses and functions. "What we do is make connections and set challenges," he explains. "Each of our five capability areas falls within a specific business or function and so this small team bolts them all together with a single, coherent plan."

Lessons learned

The early workshops that Morrison and the team worked on have evolved over time from an internal, high-level, 'lessons learned' approach to a more detailed, external programme, that shows participants, such as regulators and governments, what actions BP is taking and what capability it has in place to respond in any given location. It has meant Morrison and his team spending time travelling to regions such as Brazil, Australia, the UK, China and India to provide more insight into BP's own expectations, as well as practical examples of its response preparedness.

Morrison is clear that these workshops are not about saying BP knows best, but sharing its experiences and providing an insight into the level of effort involved in responding to an oil spill. It is also continually adapting the workshops according to interest and, in May this year, the company ran a large SIMOPS workshop for around 150 industry, regulatory and government participants to better understand what it takes to manage a large fleet of vessels and rigs during a response.

As well as these one-off events, BP is involved in a variety of day-to-day conversations with industry bodies around the world, many of whom are looking to raise standards of prevention, while strengthening response capabilities.

One of those bodies is the MWCC, a USbased independent company that was set up in 2010 to be better prepared in the event that an operator lost control of a deepwater well in the GoM. BP joined MWCC in January 2011 and made a commitment to share its knowledge and Deepwater Horizon equipment with the organisation, to create an interim response system for the GoM, while MWCC got to work designing and building a brand new capping and containment package. The equipment BP has supplied includes the riser, manifold and containment systems that were deployed for use during the Deepwater Horizon response.

Greg Rohloff has been closely involved in the work with MWCC since November 2010. "Every piece of equipment that we have handed over comes with its own 'project' book, detailing the installation and operating procedures, drawings and photographs that were developed and used during the response," he says. "By providing our resources, we've filled a response capability gap for the GoM, while MWCC builds its permanent package."

Rohloff oversaw a group of around 30 BP engineers who recovered the equipment from the seabed, cleaned and refurbished it for potential future use. The team has also helped design and build new equipment for the MWCC to use in the GoM, acting, says Rohloff, almost like a small engineering company. "We've worked on two or three pieces of new equipment that will allow our industry a lot more flexibility should it ever have to respond again."

One of those pieces of equipment is a riser isolation and quick disconnect system, known as a fluid transfer system. This expands the capability of a drill ship when acting as a response vessel, by giving it the ability to connect to a leaking well via a flexible 'jumper' and subsea containment system. This capability was not available during the Deepwater Horizon response and BP had to use floating production storage and offloading vessels brought in from other parts of the world. This new system would allow the industry to begin collecting oil and gas more quickly in the event of another spill.

With an interim solution in place and a permanent package under construction, MWCC has turned its attention to preparing maintenance programmes for the new kit – like BP's own equipment, the MWCC package will need to be stored in controlled conditions and regularly serviced to ensure it is ready for deployment –as well as supporting members as they conduct response drills and getting very clear on what its remit is.

Rohloff says: "Early on, people had different expectations of the MWCC. So, early work was geared to create clarity on what MWCC is responsible for and what is expected of an individual operator in the event of an incident. This is something the regulators were very keen on as well, so we've developed a checklist that clearly identifies who is expected to manage each item."



Another key US entity is the Center for Offshore Safety (COS), created by the American Petroleum Institute (API) at the recommendation of the US president's National Commission on the Deepwater Horizon accident. It is mandatory that all API members working in the deepwater GoM join the centre. Launched in March 2011, its remit is to encourage wider sharing of best practice and lessons learned, and is already planning a safety forum in 2013 to encourage greater interaction between the industry.

BP plays a significant role in the COS: GoM regional vice president James Dupree is a board member, Brad Smolen is his representative, while Jeff Zinkham is on secondment to support the day-to-day running of the centre.

Best practice

Since its first meeting in August 2011, the board has met every month and approved a three-year strategic plan for the centre. Contained within that are 15 specific action plans, two of which BP leads on. "The first is putting together a practice on how to conduct offshore leadership visits," says Smolen. "This is what we would expect a leader to do when they visit a site, how they verify that things are being done according to safety management plans. The second is compiling and analysing 'leading' and 'lagging' safety performance indicators."

As well as being a conduit for sharing best practice, the centre is helping members implement new mandatory safety regulations and creating a more formal process by which those regulations can be audited.

Smolen says: "The idea is that we will provide accreditation to the third-party organisations that carry out those audits to provide a greater level of rigour to the process. In addition, although the regulatory requirement only states that operators have to conduct these audits, we're going to require that our contractor members do the same."

This kind of industry interaction isn't confined to the US. In the UK, BP participated in the Oil Spill Prevention and Response Advisory Group, created to provide a focal point for the sector's review of industry practices in the UK and which built its own capping stack for use in the North Sea.

Meanwhile, the company is also involved with the Global Industry Response Group (GIRG), which has been tasked with improving the industry's well incident prevention, intervention and response capabilities. BP is involved in both intervention and response and is one of nine participants in the GIRG-recommended Subsea Well Response Project (SWRP), which is working with Oil Spill Response Limited (OSRL) to build and maintain four capping systems and two hardware kits for the subsea application of dispersants.

Bill Grames participated in GIRG's intervention group and explains how SWRP came about. "GIRG assessed the work going on in the GoM with MWCC and decided it was ideal for the Gulf, but perhaps not for the variety of ocean conditions in which its global members find themselves operating. So, it was agreed that a range of tools, including capping stacks, debris-clearing tools and dispersant systems, would be developed and stored in Africa, southeast Asia, the North Sea and South America."

The level of activity is remarkable, and it is important that activity is coordinated even between industry bodies to ensure that the very best practices are implemented and that the people drilling the wells have the very best skills.

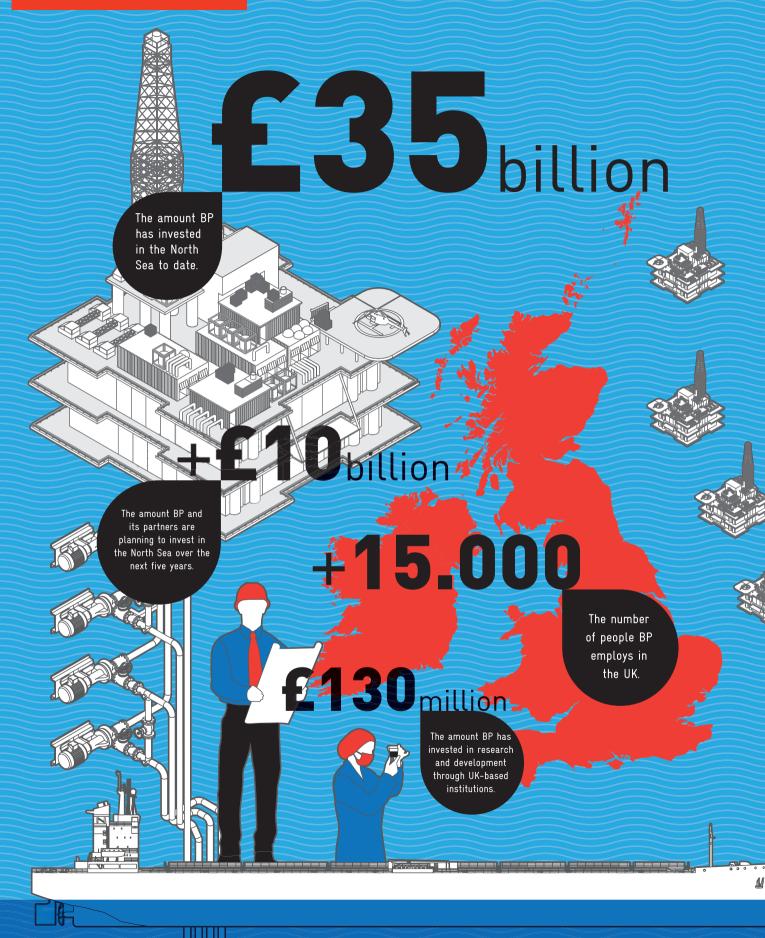
This is where the International Association of Drilling Contractors (IADC) comes in. IADC's mission is to improve Sharing lessons: Bill Grames (above, facing) discusses the company's focus on advancing global deepwater drilling safety and response capabilities with a delegation from Norway, one of several international groups that BP met during the Offshore Technology Conference in Houston, May 2012. Above left, the subsea accumulator system (six-shooter) at the ASCO facility in Houston. The accumulator can provide hydraulic fluid and pressure to activate and power the BOP or other subsea components.

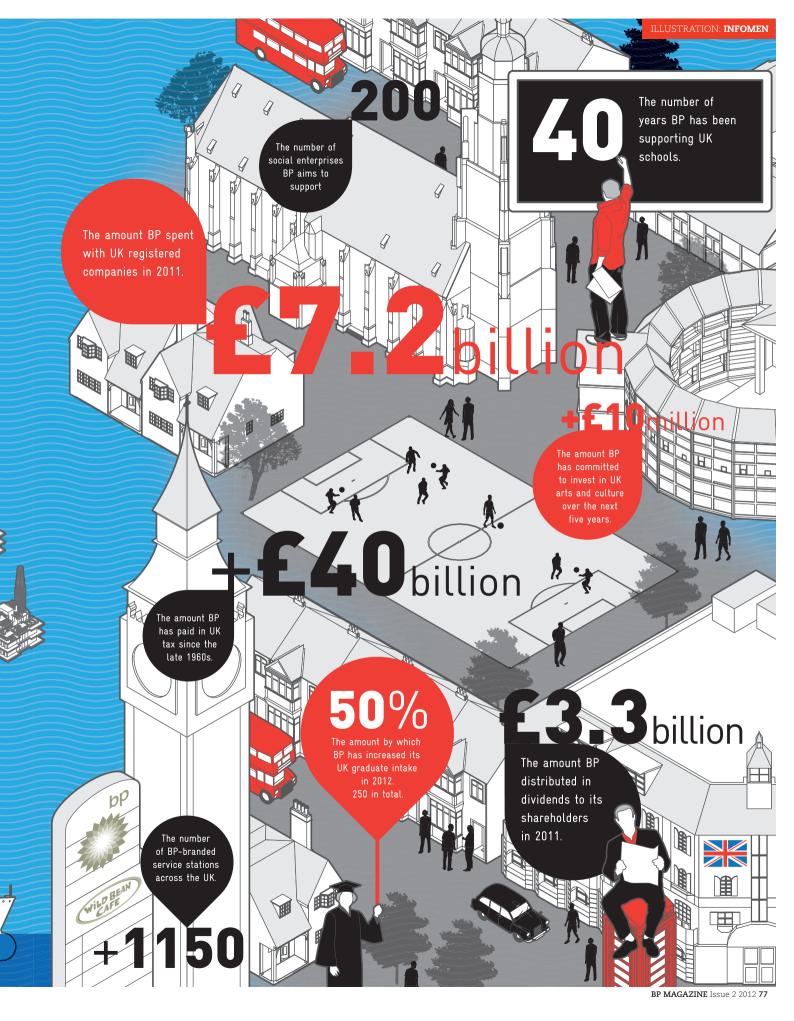
industry health, safety and environmental practices, advance drilling technology and champion response standards and regulations. It also runs an extensive series of conferences and training seminars, and produces communications material to help provide education to drillers.

Knowledge share

Andy Krieger is BP's liaison with IADC. He explains how BP is working with IADC to strengthen some of its training programmes. "We're currently helping it review its WellCAP programme, which delivers internationally-recognised well control training for operators and contractors and we've also agreed to support a new project that is focused on enhancing the IADC key skills assessments. It's early days, but the project will update the required skills for key positions on drilling rigs and may be extended to include training and assessment."

BP's involvement with all these industry groups and others is a key part of its ongoing future response strategy. To be successful, the process must be a live one, adapting as the industry changes, while ensuring that the best knowledge and experience is captured and shared by one and all. That way, BP and its industry counterparts know that the practical action that is being taken now will stand them in good stead for years to come.





BP chief scientists

Science and technology have always been vital in assisting the oil and gas industry discover and recover new sources of energy. At BP, three chief scientists are tasked with helping BP manage its technology strategy. They talk to *BP Magazine* about their experiences.

MEETING

Interview> Nic Fleming Photography> Graham Trott

In conversation: (clockwise from far left) John Pierce, chief bioscientist; Ellen Williams, chief scientist; and Vernon Gibson, outgoing chief chemist, share their views with journalist Nic Fleming in the Royal Society Library. Founded in 1660, the society is a fellowship of many of the world's most eminent scientists. Members have included Isaac Newton, Charles Darwin and Stephen Hawking. Vernon Gibson was elected a fellow in 2004.

OF MINDS

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Why is science important to BP and the energy sector?

Professor Ellen Williams: Science has always been critical in how we discover and recover more energy resources, as well as how we produce and use them in more responsible ways. Our scientists work on everything, from reservoir chemistry and how oil, water and rock interact at their surfaces, to the conversion of energy grasses into next-generation biofuels. Good science helps us to see things differently, improve existing practices, and give us the trusted evidence we need to make sound decisions.

Dr John Pierce: Energy can be an enormous technical undertaking, and as you go to more difficult places to get it, it creates challenging scientific and engineering problems. We try to focus our science and technology where they will make the greatest difference to BP's businesses. When you're in the energy business, you hear about extraordinary things over and over again, and there's a tendency to become blasé. But, frankly, it's amazing that one can go 100 miles out into the water, a mile-and-a-half down to the seabed, down another two or three miles through the rock to bring up hydrocarbons, and transport them across the planet, convert them, without adding a lot of cost, into high-energy fuels that can take you across the UK, for instance, on one tank.

Williams: Energy sustainability and the broad question of humanity's use of

natural resources underpins just about all the questions facing the future of our civilization. Primarily, because we have so many people on the Earth, and because they all want to improve their quality of life, we are stressing the planet. So, in everything we do as a society, we have to figure out how to meet the needs of these people and to do so without destroying our environment. The solutions are both political in terms of people's will to address them and technical in terms of our ability to figure out how to do more with less.

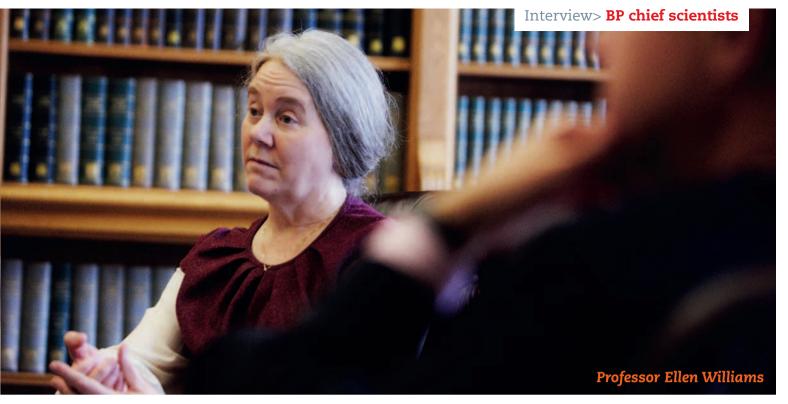
Energy is coming from increasingly challenging environments. What role does science play here?

Pierce: When you're developing new forms of energy, you may be using new technologies, so there's a very strong connection between the scientific underpinnings and the practical engineering and technology. The world's energy businesses have built up over time and a big service industry has developed that is capable of doing a lot of the stuff that used to be done internally. There's a traditional view in the market that says the technology is not really that important for oil and gas companies; you just go out there in the market place and get what you need, and the way you win is through getting agreements with governments and getting access to places. We believe, however, that as you go into more challenging environments, you also need

an understanding of what it's like in these very high-temperature, high-pressure regimes. You can't just go out and purchase the materials required. It requires a deeply rooted understanding, so my sense is I see technology having an even stronger role to play in the future.

As well as discovering more energy sources, it's obviously important to recover more from what you have already found. What are BP scientists doing in that area?

Professor Vernon Gibson: The problem comes down to some basic chemical principles about how two very different substances, oil and water, interact with rock surfaces. It's about understanding the nature of those interactions, the surface chemistry and physics, and how you might go about releasing the hydrocarbons from the surface of the rock. We're getting to a place where we do understand a lot more, and are starting to see significant increases in recovery potential. That's exciting because the value of the oil that is still locked up in the rock is incredible and it's the fundamental science that's going to actually release it. For example, for a long time, the industry has pumped seawater into reservoirs to push oil out. In recent years, it has been found that if you pump in lowsalinity water, you can get even more oil out. Although affording only single-figure percentage point increases in recovery of oil from the reservoir, when you bear in mind





the average recovery rate across major oil company portfolios is only somewhere in the mid-30% range, a few percent on top of that translates into an awful lot of extra oil.

And what role does science play in the development of alternative energy?

Williams: BP is constantly sampling and assessing new technical approaches to

producing energy and integrating different types of energy activities into our businesses. Each of those assessments has a big science and technology component. We are investing heavily in wind and biofuels, as well as taking a disciplined experimentation approach through our emerging business and ventures portfolio. We have an active low-carbon business, evaluating different types of low-carbon

>>

activities that could be integrated into the company, many of which relate to energy efficiency.

Gibson: One of the Holy Grails of this century is the conversion of sunlight into liquid hydrocarbon fuels. It's a long-term project rather than an immediate business opportunity, but it is something we're keeping a very close eye on.

Pierce: Traditionally, engineering, physics, geology and chemistry have been the backbones of energy production, but we are increasingly seeing how biology impacts that. When I came here two years ago, you could count the number of biologists at BP on one hand. Now, there are more than 100, not counting all the biofuels production work in Brazil, and we have a growing number of agronomists on staff, which is pretty amazing for an energy company.

Is it fair to say BP has brought more of its fundamental scientific research inhouse in recent years, and, if so, what's the rationale?

Gibson: Most large corporations moved away from standalone corporate research centres 20 years ago, or restructured them. At BP, we moved a lot of responsibility for research and development [R&D] out to our operating sites. Through them, we were connected to key universities. As a result, BP became really quite good at identifying major university programmes to support our science, but it meant our internal base thinned out. So, there has been a more recent dynamic towards pulling together a critical mass – not centralising everything in one building, but making sure the depth of internal activity is appropriate to serve the interface with the universities. We're not stopping doing the work outside, just deepening inside.

Pierce: We have excellent relationships with universities across the world, but the question of how best to benefit from those relationships is a separate matter. It requires a certain amount of talent and capability within the company. For example, I am responsible for the Energy Biosciences Institute, which is a 10-year \$500 million collaboration with Berkeley Labs [Lawrence Berkeley National Laboratory, University of California] for 10 years. We have about half a dozen BP people, including an associate director onsite. But what really made a difference was last year when BP purchased part of a company that we had been interacting with in biofuels, called Verenium. That brought in a large number of biologists. They are in San Diego, down the road from Berkeley, so now we have a number of people with the right talents, skills and backgrounds to appreciate and interact with the academics. You can just see the value of that investment increasing as our ability to interact and engage with the academics improves.

Cutting-edge science is increasingly multidisciplinary. Is that the case within BP?

Gibson: Absolutely. Over the past three to four years, we have observed how certain areas of science connect to others and cut across all of our businesses, leading us to think deeply about the way we connect up the science base of the company. As a result, we have established five science networks. the first of which was surface science, which is about interfaces between solids, liquids and gases. It pervades a lot of what the company does, whether in oil recovery, catalysis or alternative energy issues. So, we set up the surface science network to bring scientists together from different parts of the company to address problems and challenges that they wouldn't have otherwise looked at. We're seeing some great synergies and conversations taking place, leading to some interesting new approaches.

Two of you came to the company from academia and one from elsewhere in industry. What do you see as the pluses and minuses of those work environments?

Gibson: I spent more than 20 years in academia and all the way through I was working fairly closely with BP, so when I jumped over the fence I had a certain idea of what I was going to find, but it turned out to be quite different. Once you really get into the organisation and start to interact with the scientists and technologists on a day-to-day basis, you find a depth and richness that you can't appreciate from outside.

Williams: I do miss teaching – it takes a lot of time, but developing clear explanations and examples is a great discipline for deeply understanding technical material.

Esteemed company: Gibson, Williams and Pierce study signatures of past and present Fellows of the Royal Society, of which Gibson is one.

Pierce: Bringing an external view to a company like BP is a very useful undertaking. Companies inherently tend to be more closed than academic environments. When you are a professor, you get almost continuous comment on how well you are doing by people you respect. There is much less of that in companies for obvious reasons. But something we try to do at BP is to provide some form of external view on things to deal with that.

What motivates you in your work? Williams: A huge motivation in working for a big energy company is that there is so much opportunity to change things for the better because the nature of the business is changing so rapidly. BP has to be constantly advancing its technical and operational approaches and, so, every day there are opportunities to put in place new ways of doing things that improve our ability to produce energy and to do it more cleanly.

Gibson: As the energy challenge became more urgent a few years ago, it stimulated me to understand and work on the big issues, such as the costs of the energy challenge and where renewables fit in.

Pierce: From previous interactions I had had with the company, I knew there were some really smart, capable people here. From a biology point of view, it represented an opportunity to bring a new and potentially transformative technology into a large company. As you start mixing biology, chemistry and engineering, you start finding unexpected revelations and approaches that you wouldn't find if you stuck to a narrow disciplinary approach. Being able to do that in one of the major companies in the world, with a long-term view to bringing safe and more sustainable energy to the planet, is very exciting. ■

Nic Fleming, formerly of the Daily Telegraph, *is a freelance science and technology journalist.*



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Introducing Dr Mike Desmond

After three years with BP, Professor Vernon Gibson left the company in July to become chief scientific advisor to the UK Ministry of Defence. His role as BP chief chemist will be filled by Dr Mike Desmond, who, like Gibson, will work alongside the chief scientist and chief bioscientist to provide input into the company's technology and strategy programmes. Desmond is a wellknown face in BP, having spent more than 30 years working for the company in a variety of technology and commercial management roles in its downstream business. Prior to accepting the role as chief chemist, he was a distinguished advisor to BP's downstream technology team.



Natural choice

BP has signed two production-sharing contracts (PSCs) with the Trinidad and Tobago government to explore deepwater blocks located around 300 kilometres (185 miles) off the northeast coast of Trinidad. According to Norman Christie, president of BP Trinidad and Tobago, these blocks represent a new exploration area for both the company and the region. "We are excited to explore for new resources in this underexplored deepwater region. With these awards, we are pleased to see the confidence that the Government of Trinidad and Tobago continues to place in BP."

BP has operated in Trinidad and Tobago since the 1960s. It currently holds licences covering 3,600 square kilometres (1,390 square miles) off the east coast of Trinidad. In addition, its operations account for more than half of the country's natural gas production and 12% of BP's global production. Its facilities include 13 offshore platforms and two onshore processing facilities, including the one pictured here at Galeota Point, in the southeast of the country. BP also holds interests in all of Atlantic LNG's four liquefied natural gas production trains on Trinidad. For more on BP's Trinidad and Tobago business, look out for Issue 3 of *BP Magazine*, due out in October 2012.

→operational excellence

Eight lines of inquiry

SUPER 8

Asking the right questions is important in many jobs – teachers, scientists and lawyers among them. However, in some occupations, it can actually be a matter of life and death. Lives can be put at risk if doctors or detectives ask the wrong questions. And experience shows the same is true for people who lead high-hazard operations in the energy industry, such as oil rigs, refineries and chemical plants.

Report> David Vigar Illustration> Magic Torch BP's operational leaders follow an 'eight lines of inquiry' process when observing work and talking with frontline staff. Each line of inquiry corresponds to one of eight specific defects known to cause serious industrial accidents.

1

LAYERS OF PROTECTION -

do the people who are to conduct work understand the operating risks and know that the lines of defence and systems are in place and operational? How is this confirmed?

AFETY-CRITICAL EQUIPMENT AND INSTRUMENTATION

- are the safety-critical pieces of equipment and instrumentation functioning as intended and are they calibrated so as to protect against incident and injury? Is any safety-critical equipment or instrumentation bypassed, out of calibration or out of service during starting up or operations? How are these confirmed?

ROUTINE

3

HAZARD RECOGNITION AND RESPONSE CAPABILITY - are the people who are to perform each task trained, competent, experienced and mentally ready to perform the planned work or any unplanned or emergency work safely? How is this confirmed?

1.

1 ALLER TOTAL

PROCEDURES – are the safety critical procedures correct and are they being followed? How is this confirmed? Is there an easy process to upgrade procedures and is that followed every time a change is needed? How is that managed? What gives the leader a high degree of confidence that procedures will be followed? How is thic confirmed?

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5.

ABNORMAL OPERATIONS PREPAREDNESS – have the right procedures and risk reviews been carried out before a high-risk unusual or

and risk reviews been carried out before a high-risk unusual or 'abnormal' operation has been started? How is this confirmed?

6. BREAKIN

CONTAINMENT - are you confident that the people doing the work won't open closed systems without knowing how to respond if the contents are unexpectedly released? Are isolations and equipment preparation procedures in place and being followed. Are operators always present when making initial breaks in equipment and always present when draining or venting equipment? How is this confirmed?

NON-ROUTINE OPERATIONS

1.

OVERPRESSURE PREVENTION AND RESPONSE – is the right care being taken to prevent overfill, and a planned response in place should overfill still occur? Is all instrumentation associated with the activity calibrated and in service? Are all equipment line ups known to the board operator and are they properly instrumented so the board operator can "see" them? How is this confirmed?

5. RIGHT MATERIAL, RIGHT

PLACE – are operating systems (such as low and high pressure systems, or auxiliary systems) tightly controlled to prevent hazardous materials flowing into the wrong system? Is there an assurance programme in place to make sure that the right metallurgy material is installed? How is this confirmed? ohn Sieg, BP's group head of operations, has studied industrial accidents closely and says many can be traced back to one of eight specific defects in process safety. If managers had asked the right questions at the right time, he says, they may have had a chance to intervene and correct potential defects before an accident occurred.

This is why BP's operational leaders have begun using a technique called the 'eight lines of inquiry' when they observe work and talk with frontline staff. The 'eight lines of inquiry' mirror the eight defects and are a set of specific questions designed to help leaders identify potential problems (see page 88).

Examples cross the industry, for instance, the Piper Alpha accident in the UK North Sea in 1988 was largely a result of operators failing to spot the hazard involved in starting up a pump when its relief valve had been removed for maintenance. In the 'eight lines' tool, this is covered by line of inquiry number three – 'hazard recognition and response capability'.

A refinery fire in California in 1999 was primarily caused by opening a naphtha line that had a leaking block valve when the unit was in operation, resulting in an uncontrolled hydrocarbon release – this could have been covered by line number six on 'breaking containment'.

The 2005 Buncefield fuel depot explosion in the UK followed the overfilling of a tank when a switch failed to work – covered by line of inquiry number seven, relating to overfilling equipment. Sieg is a mechanical engineer by training who spent more than 30 years leading operations for chemicals giant DuPont, and at one time responsible for more than 30 major plants worldwide. He says: "All of my experience told me that some combination of these eight defects contributed to most accidents and, so, it was important to find a simple way for line leaders to ask the right questions to make sure that the relevant risks are managed."

A few years ago, Sieg discussed the eight defects at BP's Operations Academy – located at the Massachusetts Institute of Technology. One of the attendees, Curt Bakle, now an operations leader at BP's petrochemicals plant in Hull, UK, recalls how delegates at the Operations Academy meeting conceived the idea of 'eight lines of inquiry' to match the eight defects.

"We sat down and discussed how we could work with the information John had provided to create something very simple and useful that we could take to the field."

Sieg says: "We kept it simple – fewer than the fingers on both hands – but made sure it covered the really critical areas. The principle is that if the answers that a leader gets indicate that any of these defects might be present to the smallest degree, then he or she has an obligation to stop the work until it is investigated and resolved."

BP's executive vice president for safety and operational risk (S&OR), Mark Bly, emphasises the importance of leaders engaging with the organisation in observing the conduct of work to understand if it is achieving the expected conditions. "The eight lines of inquiry is a great tool that provides a systematic



"We kept it simple – fewer than the fingers on both hands – but made sure it covered the really critical areas." John Sieg

approach to help leaders do this," he says. "When I am in the field doing inspections, I carry a card describing the eight lines of inquiry in my shirt pocket."

The eight lines are divided into two groups of four. The first group is about routine operations. They relate to layers of protection; safety-critical equipment and instruments; the capability of people performing work; and following procedures.

The second group is about non-routine operations. They relate to preparedness for abnormal operations; breaking containment; avoiding overfilling or overpressurising vessels or containers; and 'right material, right place'. Right material, right place, for example, is about avoiding hazardous materials getting into the wrong part of a system.

The eight lines tool is part of the wider network of checks and balances that BP has intensified since the 2010 Deepwater Horizon tragedy, including the creation of its S&OR organisation, which has deployed teams working with each business to help drive safe and compliant operations.

BP's senior safety experts stress that primary responsibility for safety lies not



with S&OR, but with the line management at platforms, refineries, ships or chemical plants. They prefer to talk of 'assurance' rather than inspection – putting the focus onto the conduct of operations, not the inspectors – and describing assurance as "making sure that what is supposed to be happening actually is happening."

In BP, this process of assurance takes place within the context of the operating management system (OMS). Sieg and his team were instrumental in the development of the OMS, which provides a single set of operating procedures for every operating site in the company. It's designed to be relevant to every BP site and has been benchmarked against best practice in the energy industry and beyond.

"Simply put, OMS is the way we operate," Bly says. "OMS defines the operating conditions we expect in a holistic way. It addresses systems and processes but also equally the leadership and organisational factors required to deliver safe, compliant and reliable operations."

As well as using the eight lines, when Bly inspects operations, he is looking for consistency in what he hears. "My schedule varies from site to site, but, generally, I start off with the senior site leadership," he says. "I want to hear what they are working on, what their major risks are and what steps they are taking to mitigate those risks. Then I go and see the frontline leaders and test if they see the world the same way.

"Finally, I get out onto the floor or into the field and speak to the folks actually doing the work and see how what I have heard from the leadership is showing up in our operations.

"If any of that points to a gap in the management system, or any disconnect between the leaders and the frontline on safety and systematic operating, it is important that we take the opportunity to understand how that may have happened and what needs to be done to improve the system."

Sieg concludes: "It's very easy to write operating expectations such as procedures and standards. What is important is how that material is actually applied to work, day in and day out. S&OR provides vital checks and balances, but the first priority is for line managers to be the safety leaders. So, they need the right tools to enable them to observe and ask questions systematically. This is what the eight lines framework helps to provide."

THE EIGHT LINES – IN PRACTICE

1. Layers of protection. Risks in high-hazard operations are managed by multiple layers of protection or 'lines of defence'. For example, at BP's Toledo refinery, superintendent Jim Thomas uses the eight lines to confirm the multiple layers of protection applied to the massive drums used to produce petroleum coke. He says: "Opening a coke drum is a daily activity that poses significant potential hazards. To mitigate these, our layers of protection include both engineering and administrative controls, as well as personal protective equipment (PPE). The engineering controls start with 'delta valves' – the best available technology. They also include interlock systems that prevent the valves being operated without safe process conditions being met and mechanical pins to prevent movement when that is necessary. Administrative controls include procedures; training; regular preventative maintenance programmes and metal inspection; and emergency drills."

2. Safety-critical equipment and instrumentation. John Sieg says: "If I'm asking someone to perform work, are they – and am I – satisfied safety-critical instruments are operating as intended? For instance, if a tank is being filled, the level gauge is critical and we need to make sure it works. Otherwise, we could overfill the tank." In plants with large numbers of meters, gauges and indicators, such as Toledo, Thomas explains that the important thing is to identify any failure quickly and decide whether it can be managed, or whether the unit needs to be shut down. This is done by using two types of review. An operational readiness review (ORR) is carried out to check instrumentation before shutting down or starting up any system; and if a deficiency with instrumentation occurs during operations, an abnormal situation management (ASM) exercise is undertaken to identify hazards, develop a plan to mitigate them and decide if operations can proceed.

3. Hazard response. Sieg says this line of inquiry is primarily about people. "It means confirming that they are competent, capable, experienced and mentally ready to conduct that work. If I ask someone to do work and haven't satisfied myself they can do it safely, then I'm putting them in harm's way." At Toledo, operators must be fully recertified every three years – including a field assessment. At BP's Hull plant, control room operators are trained using process simulators in which they face the challenge of responding to a simulated emergency at their plant.

4. Adherence to procedures. At Toledo, procedures are reviewed each time they are used to check people have followed them. The refinery also has a procedure on the use of procedures – to make sure they are used effectively. It also has a formal process for gaining approval to deviate from a procedure when that is necessary.

5. Abnormal operations preparedness. As well as operating in non-routine ways during maintenance, energy plants exist in an atmosphere of constant change where new technologies, market demands and processes drive innovation in process. At Toledo, commercial opportunities occasionally arise where the refinery can benefit from supplying a certain mix of fuels by using a non-routine line-up of its equipment. In these situations, it applies the ASM process to determine whether or not it can temporarily operate under the proposed line-up.

6. Breaking containment. At Toledo, Thomas explains how staff follow BP's riskassessed procedures, not only for breaking containment prior to maintenance, but for draining and preparing equipment prior to breaking containment. Toledo also uses the Refining Defined Practice for isolating equipment. All of these procedures identify required PPE, tools, equipment, and techniques.

7. Overfill and/or overpressure prevention and response. At Toledo, Thomas says one potential hazard is over-pressurising coke drums when they are prepared for filling. A manager checking this is looking for the presence of multiple safeguards, including maximum pressurisation limits, air purge and steam pressurisation tests, alarms, warnings and, ultimately, relief valves that open upon reaching set pressure. Any minor deviations require a formal risk assessment and written approval.

8. Right material, right place. Bakle's example is using water to flush out a blockage in a process line that usually carries chemicals. This requires careful handling to ensure the pipe is in the right condition, set up correctly for the particular operation, with detailed preparation relating to elements, such as the quantity of water to be used and the pressure at which it will be sent through the line.

Report> Amanda Breen

Cutting EDGE

MeWA 3443

Triple world Formula One champion and motor racing legend Jackie Stewart named it 'Green Hell' in the 1960s; today, it's a one-way public toll road, where any driver brave enough can take on its 154 corners. The Nordschleife circuit at Germany's Nürburgring is steeped in motor racing history and hosts the annual 24-hour endurance event, with its neighbouring Grand Prix track welcoming F1 teams every other year.

BMW Driving Experience

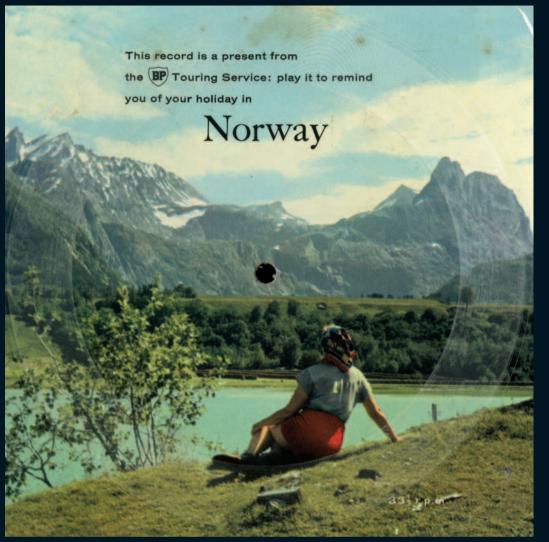
Castrol EDGE, one of BP's premium lubricant brands, teamed up with BMW Motorsport to offer global consumers and business customers the chance to privately drive both circuits in the latest BMW models, under the expert guidance of instructors from the motor racing giant. Guests undertook driving skills exercises, such as drifting and emergency braking on bends, in groups of six vehicles, and also learned more about the technology behind the lubricant.

"It's a great opportunity to bring to life the extremes of the environment in which our product operates," says Castrol's global sponsorship manager, Donald Smith. "We're able to showcase our association with BMW Motorsport, too, an ideal partner with whom we can test Castrol EDGE to the limits."

Castrol EDGE is a title sponsor to one of BMW Motorsport's six cars taking part in the 2012 DTM (Deutsche Tourenwagen Masters) international touring car series, with Brazilian driver Augusto Farfus behind the wheel.







Left: road maps and touring services information were the earliest forms of promotional items, and in the 1950s and 60s BP was offering motorists a pack that included, among other things, a road map, a conversation guide, and a handy guide to continental road signs. In the 1960s, BP was also offering records of music designed to remind you of your European holiday. **Opposite:** this collection of cards was released to commemorate England's participation in the 1998 World Cup finals. One card was given every time you spent £10 at a BP service station.

MEMORY MAKERS

From the moment service stations were conceived it was realised that customers needed to be coaxed back on a regular basis and free offers were found to be the best way. From road maps to glassware, to stamps and coins, the giveaways became a mainstay of petrol promotion. With London 2012 just around the corner, *BP Magazine* opens the archive on some of the company's best known promotions.



Dion Dublin

Teddy Sheringham

Gareth Southgate

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Above: during the 1960s, BP France was offering customers the chance to collect 'Treasure of the Kings of France' – coins depicting the heads of France's monarchs. **Right**: In the 1980s, BP and it associate companies used popular culture to promote competitions. Its most successful were based on two television programmes – Dallas (shown here) and Dynasty. **Far right**: BP's heritage companies have also shown their support for the Olympic Games in the past. This record was produced by ARCO for the 1984 Los Angeles Games to mark the 50th anniversary of the 1932 Games, held in the same city.



50th Anniversary of the 1932 Olympic Games at Los Angeles AtlanticRichfiedCompany o



A George Garabedian Production



LES CRACKS DU SPORT BELGE

une magnifique collection: 15 médaillons gratuits



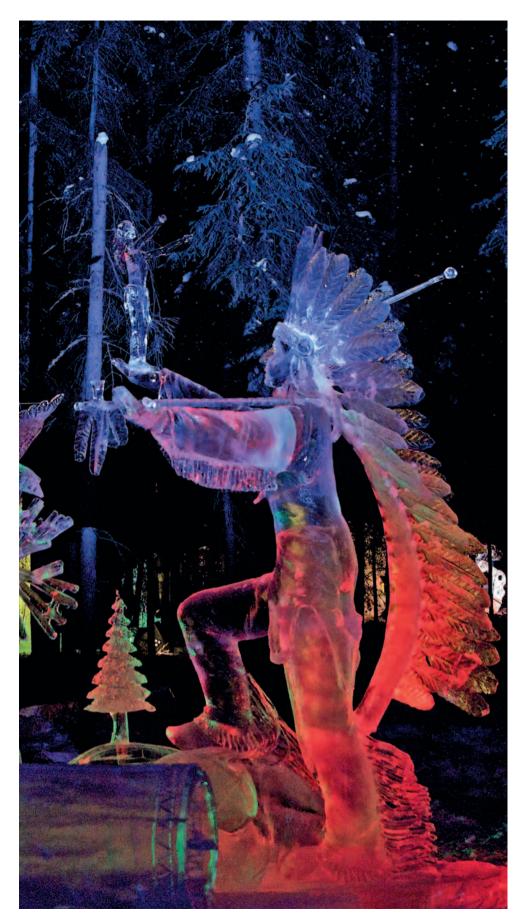
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LES CRACKS DU SPORT BELGE



Top: in the late 1970s, and early 1980s, BP's heritage company National ran one of the most successful promotions of all time – the Smurfs. Some items were giveaways but much of the merchandise was sold from forecourt shops. During the Munich Olympics in 1972, a special collection of Smurfs were introduced competing in their own Oilympics. Above: the Smurfs helped promote a wide range of merchandise, covering everything from radios, calculators, glassware, umbrellas, candles, chopping boards and watches (pictured). Left: BP Belgium promotion called 'Le Crack du sport Belge'. Like UK customers this summer, the offer gave customers the chance to collect a set of medallions depicting some of Belgium's greatest sporting heroes.

Photography> Ice Alaska, Inc.



Cool sculptures

Over the past 21 years, hundreds of competitors have demonstrated their sculpting techniques at the BP World Ice Art Championships, in Fairbanks, Alaska. The event is the largest of its kind and attracts thousands of visitors every year. BP Alaska has been the title sponsor for the past four years, although involved with the competition since its inception. This year's visitors have been treated to an impressive array of sculptures, including this one (left) called *Giving thanks to the great spirit*, which was placed seventh in the single-block category. The ice blocks are cut from a man-made pond in a nearby gravel pit and can sometimes weigh more than 3,000 kilograms (6,800 pounds). This year's first place in the single block competition was Prickly Reception, created by a Japanese team which shows a porcupine being stalked by a mountain lion.





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At BP, we're dedicated to fuelling the success of London 2012, providing advanced fuels and engine oils to help over 5000 Games vehicles run smoothly. We're also supporting British athletes like Richard Whitehead and helping him reduce his carbon footprint as he prepares for the Games. Find out more at bp.com/london2012 or find us on 🖪 ⊻



London 2012. Fuelling the Future.