

INEOS WHO?

A look at the INEOS Brand



Q4 ISSUE 2011

INEOS CAPITAL

Jim Ratcliffe speaks frankly about his priorities for INEOS and how he sees the future

OUT OF REACH

James Cracknell, Olympic and World Champion rower, shares his view on achieving the impossible

WATCH YOUR STEP

Barclays Capital takes a look at Europe and the impact of recent events

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INEOS
THE WORD FOR CHEMICALS



WELCOME

WHAT IS THIS? AN INEOS MAGAZINE? SURELY NOT...

It is true. We've come a long way since the first days in Antwerp in 1998. Our business focus continues to work well with independent business units all trading under the INEOS brand, accountable for their own strategy, performance and communication. The focus and speed of response that this approach gives us helps us to stay ahead. As a company, we have done well and we have grown quickly but as we have grown up we also need to improve the way we communicate.

So we have a new magazine, to reflect the company we are today. It will not replace site or business magazines and intranets but will build on them. It will cover a range of thought-provoking topics in an interesting way. Its articles might not feature INEOS directly but will be relevant to our businesses, sites or markets.

INEOS is often described as the biggest company that you have never heard of. As employees how often do we hear "INEOS? What do they do then?" This new magazine over time will, I hope, help to provide some answers.

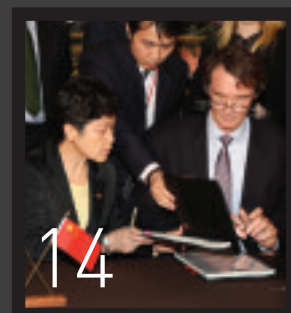
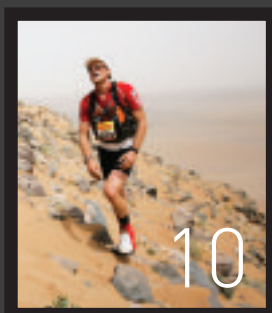
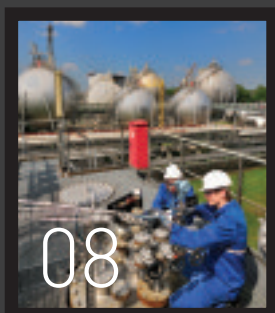
As you have seen we've called it INCH. Why INCH? There were many reasons but initially it came from the newspaper term "Column Inch", the way of measuring text in newspapers. But it also stands for INEOS Chemicals. A reflection our new strapline: "INEOS The Word for Chemicals", more of which is covered on page 13.

We want this magazine to be an interesting read. We have asked guest writers to contribute to the various articles to give an impartial and independent view. In the first edition we have interviews with Jim Ratcliffe and John Reece. We take a look at China, the European Economy, shale gas, nuclear energy and Safety First. James Cracknell, one of Britain's most successful athletes of all time, with two Olympic Gold Medals and six World Championship titles also talks about his approach to his many challenges and we have a round-up of business news.

INCH is available in print and online, with the main interviews filmed so that you can view them on your computer or mobile phone. Scan the barcodes that appear on some of the articles with an iPhone or QR reader to see video footage or click on the image to launch the video if you are reading the magazine online at www.inchnews.com. English, German, French, Dutch, Swedish and Norwegian versions will be available quarterly.

On behalf of the editorial team, we hope that you enjoy this first edition and through your comments and feedback we look forward to shaping the magazine, inch-by-inch, into something that is valued across the family of businesses that is INEOS.

RICHARD LONGDEN



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INTERVIEW WITH JIM RATCLIFFE

INEOS continues to grow and to develop. It came out of the downturn stronger, its businesses are growing organically and it is forming strategic joint ventures in new and emerging markets. The company that was said to have "slingshot out of the recession" has undoubtedly performed well through 2010 and the first half of 2011 but now faces difficult markets towards the end of the year.



In this interview, Tom Crotty, Group Director for Corporate Affairs and Communications talks frankly to Jim Ratcliffe about his priorities for INEOS, the issues facing the company and how he sees its future.

TC: How can it be that despite being one of the world's leading chemical companies and number 318 in the Fortune 500, INEOS is still frequently referred to as the biggest company the world has never heard of?

JR: I suppose the reason nobody has ever heard of INEOS is simply that we don't have any consumer products, so we don't touch the man in the street as obviously all the well known companies such as the Coca Cola's of this world or companies that are similar in a way to an INEOS such as BP or Exxon, which have their retail petrol stations. We did come out of the shadows when we acquired BP chemicals, which was a large transaction and inevitably because of our size we have become well known. So I think it is beholden on us to work a little bit on our image. It is something that we didn't have time for before because we were always focused on our business. For the likes of politicians and graduate recruits it is quite important really that people probably know the INEOS name a little more than they do at the moment.

TC: So our revenues fell sharply in the downturn of 2008/2009 but we came through well how do you see INEOS today?

JR: Well we obviously saw our revenue and profitability drop substantially during the crisis but then pretty much everyone in manufacturing did. We came out of that quite well as you say. We made changes and we reduced costs and I think that we came out of it better than many companies, certainly in our industry. Many people did not survive that downturn. The worst, certainly that we have seen in our working lifetimes. Today the company is in much, much better shape; debt has come down, trading in the first half of this year has been extremely good and it was pretty good last year. So I think we are looking quite positively to the long-term future.

TC: We have come out of the downturn of 2008/2009 but just as we are getting back on our feet there is another financial crisis. So what do you think this holds for INEOS?

JR: It is difficult to look into the future. I don't think we will see a 2008 again. I think the view we have held now for a couple of years is that we will see steady improvement following the 2008/2009 crisis but it won't be a straight line. There will be the odd wobble along the way and I think that this is one of the bigger wobbles but I don't think it will be the same as a 2008/2009. I think that we are in better shape to handle the bottom of the cycle. Chemicals are always going to be cyclical. Really in a way it is fruitless to predict when the world will be up and when the world will be down. If we could do that there are easier ways of making a living! I think that we just need to make sure that we are in good shape at the bottom of the cycle and I believe we are in pretty good shape.

TC: Now the company grew very quickly through acquisition, but we are now in a very different world with much less credit available. How will this change our business model going forward?

JR: Well it has undoubtedly changed the business model because the credit is less available in the western world. But the other change we are seeing in the world is that much of the economic strength is moving from the West to the East. So you will see INEOS looking much more in the direction of the East. Where we have enormous trade deficits in the West, the East has enormous trade surpluses and some of that trade surplus finds its way into the banking system and becomes available as credit so I think you will see INEOS looking Eastwards, to a number of different projects.

TC: So we now have JVs with PetroChina, with Styrolution and potentially with Sinopec. Do you think we would now look to move into the Middle East and would Joint Ventures work there?

JR: If you are going to these parts of the world which are very different to our experience base then you need a partner. If you don't, you finish up in trouble because the learning curve is quite steep and can be very long. I think it is appropriate for us to have partners in a place like China.

We have looked many times at the Middle East. If we ever did choose to proceed there I am sure that we would have a partner but the thing to bear in mind is that there are no end markets there. The desert is not an obvious place to make chemicals. It is quite a difficult environment. And you then have to ship the end products out. So there have to be good reasons to start investing capital in the Middle East and that really means access to very competitive raw materials. That's really the foundations of development in the region and of course it is not as easy as you think to access those cheap raw materials. Most of our work in the region has been developing relationships and identifying secure sources of raw materials.

TC: The Company is working on an opportunity to make Bioethanol from Waste. How big an opportunity is that for INEOS?

JR: That is the most exciting opportunity in INEOS at the moment, certainly our most exciting new project. Key to that particular technology is that it is extremely flexible. It will take pretty much any type of organic waste and it will convert it into ethanol, a fuel, and export some electricity to the grid. That is quite exciting. Firstly, there is a lot of organic waste around in the world. If you take, for example, the sugar cane industry, they produce sugar from sugar cane but two thirds of the waste is the rubbish that is left over. That rubbish can be turned into a fuel. There is obviously a lot of household waste in the world, there is a lot of construction or forestry waste and so on. Secondly the world has a problem with fuel, as oil becomes more expensive, as it becomes scarce, because it is difficult to get at. The INEOS Bio process solves both issues – turning organic waste into fuel and in addition, will also export some renewable electricity.

We are in the process of building a plant in the States at the moment to the tune of about \$150m. This world first plant will come on-stream next year (2012) in Florida

and if that is successful, if you were very, very optimistic, you could see these plants being built like Starbucks all over the world converting waste of one kind or another. Waste from small towns in Germany or England for example can be converted into the fuel that could be used in cars. Alternatively, very large facilities could convert the waste of large cities, such as Chicago into huge amounts of fuel or electricity. So it is a very, very exciting project if it turns out to be successful and we should know that in 2012 or 2013.

TC: Looking to the future how do you think INEOS can attract the right calibre of people to continue to grow the company?

JR: Well I think predominantly INEOS is a capital intensive business. We don't, in reality, have that many people so the people that we have must be extremely well qualified, which typically means that we have a lot of graduates in the organisation. We inherited a lot of extremely good people from the various acquisitions that have always been made from blue-chip companies but during the process of bedding those companies into INEOS and due to the fact that we have been through the downturn of 2008/2009, we have obviously slimmed down the organisation and it was inappropriate during periods such as this to go out recruiting lots of new graduates. As of today it is certainly very important that we continue the process of recruiting top class graduates for tomorrow. INEOS is an exciting place to work because people get significant levels of responsibility and they can move very quickly through the organisation. Even more so because we have not recruited that many graduates over the past ten years.

TC: So how do you see the future for INEOS, where do you see the company in ten years time?

JR: Well I have given up trying to predict the future. It is too difficult, certainly ten years out. It is difficult to predict where INEOS will be, even though I run the company. We have been opportunistic through the last 12 to 13 years. I think the one thing that you can say about the coming years is that, by 2020/2025, in terms of its consumption of Chemicals China will be the same as the rest of the world put together. So it will be like a second planet Earth in terms of chemical demand. If they continue to grow at the current rate there is no question that is where they will be. So they will be as big as Europe plus America combined! If we look at our facilities we have got many Phenol plants we have got Acrylonitrile plants etc but they are all based in America or Europe. We have nothing within China so I think looking ahead, in ten years, I will be surprised if we don't have a presence and a reasonable footprint in China. It seems sensible to me, if we can find a sensible route into those territories.

TC: So one last question, what is it that actually keeps you awake at night?

Manchester United being thrashed by Manchester City at the end of October. 6 – 1!

But no, seriously the only thing that keeps me awake at night is safety. You can never be complacent. It is number one on the agenda for INEOS and always will be number one on the agenda for INEOS. It is always the first thing we talk about in board meetings. Safety will always be our highest priority.



CLICK TO VIEW VIDEO:
INTERVIEW WITH JIM RATCLIFFE

Financial Times

Following the economic downturn of 2009, 2010 saw a marked improvement in INEOS' trading results; a trend that has continued through the first half of 2011. But as confidence in the global economy has fallen in the second half of the year and demand has softened what does 2012 hold for the company? As 2011 draws to a close, **John Reece** shares his view.

INEOS knows how to handle itself in a recession. When the downturn hit in 2008/2009, the company moved quickly to manage its cash and costs. Anything that was controllable was tightly managed. The company was in reasonable shape when the economic downturn washed across most, if not all of its markets.

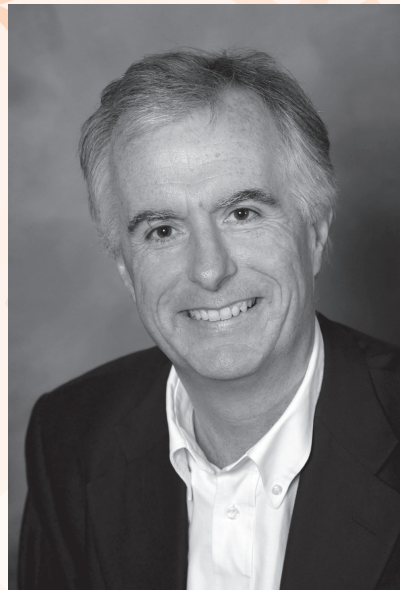
Having reduced costs, improved efficiencies and reduced levels of working capital, when things recovered it was said by some that INEOS "slingshot out of the recession."

"Between 2009 and 2010 we took €200m out of Fixed Costs and we have not let that come back, which is one of the reasons that we continue to be successful." John Reece, Financial Director, INEOS AG.

Performance in 2010 proved this to be true, with the earnings for the year 70% ahead of 2009. As demand continued to strengthen it seemed that 2011 would also break records. In fact the first half did. INEOS had two record quarters and by September it was already well ahead of 2010. Results for the first half of 2011 were better than the whole of 2009.

The structure of the company also fundamentally strengthened in 2011. In July the deal with PetroChina completed, setting up a Refining Joint Venture with one of the largest companies in the world. This was a hugely transformational deal for the group, paying down \$1bn of bank debt, which helped further reduce leverage from 4.4 times EBITDA to about 3.5 times EBITDA.

"The thing about refining is everything is ten times the size of our other businesses so the Working Capital swings are ten times the size, the CapEx is ten times the size. Taking Refining out of the group into a separate financing structure makes a huge difference, which is why PetroChina it is a transformational deal," said John.



CLICK TO VIEW VIDEO:
INTERVIEW WITH JOHN REECE

DM

INEOS put in a very strong performance in the first half of 2011, but this was to be turned on its head in the second half. As a significant proportion of the company's products go into consumer durables the business tends to track Gross Domestic Product (GDP). And as confidence in world economies began to fall in the summer it was no surprise to see demand, margins and earnings from INEOS products significantly reduce.

In Europe, concerns about Sovereign Debt and the potential impact on the Euro has created uncertainty and softened demand. Demand has also reduced in North America but the region continues to present good earnings, partly resulting from the availability of low-cost shale gas. 50% of this year's EBITDA has come in from the US and this is expected to continue to be the same going forward.

In China, manufacturing activity contracted for the first time in almost three years in November, adding to fears about the health of the global economy, but INEOS expects growth in this market to remain relatively strong by global standards. China's economy expanded 9.1 per cent in the third quarter, slower than 9.5 per cent in the second quarter but an enviable growth rate.

"We expect growth in Asia to continue long-term despite some inevitable slow down, currently," comments, John.

"Beijing has kicked off a new round of monetary easing after more than two years of progressively tighter policies. By cutting the amount of deposits that their banks must hold in reserve with the central bank it will ease constraints on lending; the equivalent of injecting around \$63bn into the economy."

INEOS is already well placed in Northern Europe and North America and is now looking to the Far East. Another advantage of the PetroChina deal is that the two companies now have a very good relationship and the two plan to broaden this further by looking to widen interest into other INEOS products.

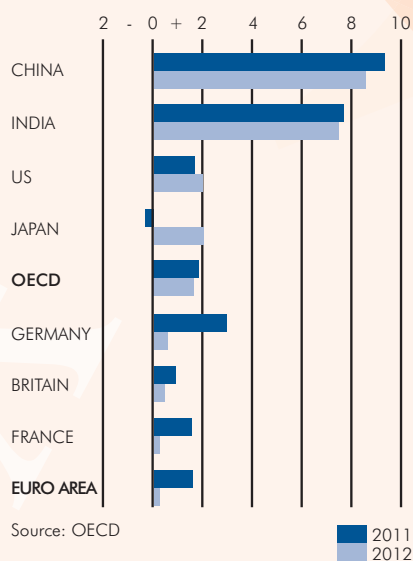
Global economic and political turbulence has created hesitancy in many markets, leading to a softening in demand in a number of sectors towards the end of this year. INEOS reported that EBITDA for the third quarter of 2011 was €371m, compared to €464m for Q3, 2010 and €576m for Q2, 2011.

"Demand in Q4 has continued to be weak and we expect more of the same in Q1 and Q2 before things slowly start to pick up, in the second half of the year," said John. **"At this point we see 2012 as a year of standing still on the headline EBITDA. But if you look at our numbers of reduced Capital expenditure and the benefit of reduced tax in Switzerland, we will still produce cash and pay down some debt which is our main objective."**

Another key objective, if we ever get a stable credit market, is to get out and refinance. We would certainly want to do that in 2012.

GDP Forecasts

% change on a year earlier



"I think once we get into 2012 we are focused on achieving a refinancing and that will be a function of the credit markets and it is difficult to call at the moment, as you have seen with what is going on in Greece, the credit markets are much more volatile than the chemical markets but we believe that they will improve. There is a lot of liquidity coming into the US High Yield Market and therefore we need to think about refinancing certainly Q2 of next year I would say."

John concludes: **"INEOS is a business that is closely linked to GDP. Our commodity chemicals either end up as consumables or durables so we are always exposed to global demand, but we have been stress tested in the worst recession that we have seen in 30 years and we are still here and our financial position is better today than it was going into that in 2008. We have to ride the economic cycle, there is no question of that but I think that we are in good shape to do it"**.

"It's really about instilling the right values and behaviours, so that people understand that we do not put production ahead of their safety."

Tony Traynor



SAFETY FIRST



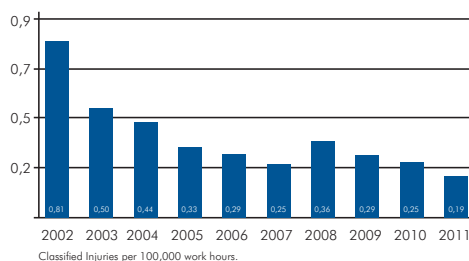
Interview with Tony Traynor,
INEOS Group Operations Director
By: John Baker, Global Editor, ICIS

Safety is the highest priority for senior management and employees across INEOS's 15 operating businesses. But continuous improvement needs continuous focus and from the start of 2012, the company is taking the level of commitment to another level.

INEOS continues to see an improving trend in its safety performance across its individual business units but in January, INEOS Group operations director Tony Traynor will take on responsibility for health, safety and environment (HSE) at a group level, with a key oversight role for process safety and safety culture. "My role", he says, "is all about enabling things to happen and making sure we get the most from shared best practices from across our businesses and others in the industry."

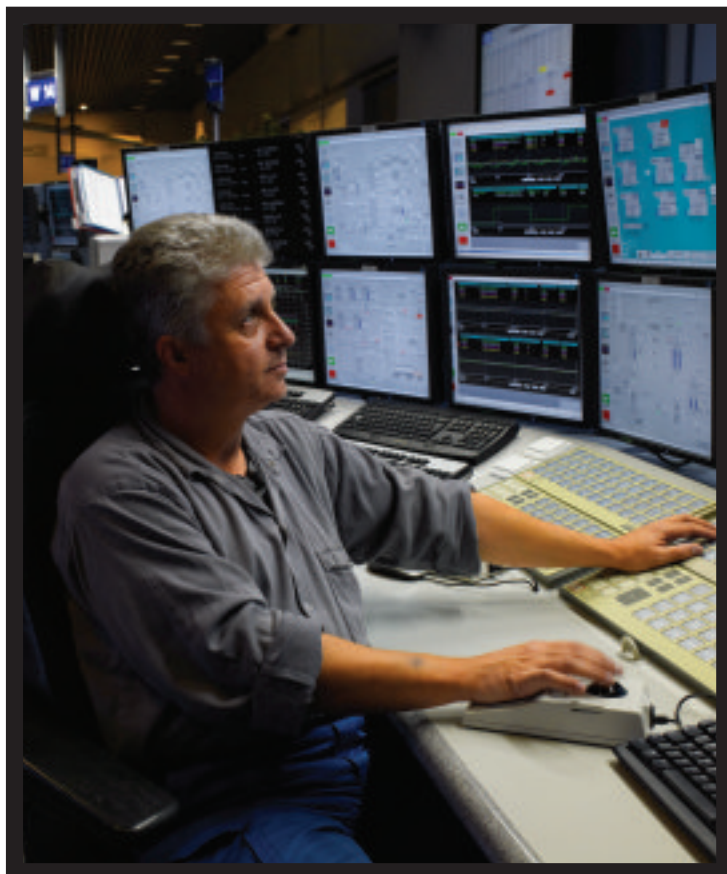
Traynor will be in a position to take a view across the entire company. So that, "if we identify some trends that need to be addressed, then I can engage with the operations directors [in the businesses] and work together on any problems." He will also review the results of investigations into any near misses or incidents that do happen and ensure that any concerns are addressed and learning shared.

INEOS Group CLASSIFIED Injury Rate (employees and contractors)



He explains, that it has always been essential that all INEOS businesses report monthly on all critical safety matters and reliability of assets, with operations directors responding to the CEOs of each business. This focus has already paid off, with the injury rate for INEOS employees and contractors, for example, having halved twice over the past decade, from 0.81 classified injuries per 100,000 work hours in 2002 to 0.19 in 2011.

In terms of key parameters, INEOS focuses most closely on personal injuries, environmental performance, non-compliance with regulations, asset integrity and loss of containment, inspection rates, and incidents/near misses. For the latter, says Traynor, there is a vital system in place for reporting and measuring near misses. "The more near misses we know about the greater the chance of us learning from these and preventing real incidents from happening. For this reason we actively encourage our staff to report every near miss."



Traynor, who gained a background in manufacturing with ICI Acrylics before becoming operations director, first at INEOS Chlor and then INEOS Refining, explains that as a business INEOS has three critical success factors: "Number 1 is to operate our plants safely; Number 2 is to run the plants as hard as we can and number 3 is to operate at the lowest sustainable cost base. Efficiency, reliability and safety of operations are all linked and are critical to the success of all our businesses."

To drive improvements in safety performance, Traynor has been leading an initiative of the INEOS process safety management team to develop two sets of 10 key principles that will set the standard across the company. These have been developed using experience and learnings from within INEOS over the years, but also with regard to external learning, gained from well known incidents such as BP's Texas City explosion and the Buncefield storage tank explosion in the UK.

Traynor is well placed to bring this external learning to bear, as he was chair of the UK's Process Safety Leadership Group, set up in 2007 after Buncefield and tasked with driving forward high standards in process safety leadership and to complete the implementation of the Buncefield investigation's recommendations across the industry.

One set of principles, explains Traynor, deals with process safety management, while the second set addresses human factors, or safety culture and behaviour. "These are not procedures that we are issuing," he stresses, "but principles that describe the way we operate." These will be shared with everyone in the company over the course of this year.

The process safety principles are aimed at the technical level to ensure the right leadership and values are in place, to maintain asset integrity, says Traynor. "For safe operation we want to keep the plant always in the safest possible state, this will always mean putting safety ahead of production. There are a number of things you have to have, such as experienced people with the right training. It is vital to maintain the assets properly and to do the right amount to ensure their integrity. We want to avoid loss of containment, as that is the basis of the safety of our plants."

On the human factors side, he adds, "it's really about instilling the right values and behaviours, so that people understand that we do not put production ahead of their safety. We don't expect individuals on the plants to take risks and so we need to encourage the right culture and ensure proper risk assessments are in place."

Traynor adds that the principles apply generally, so that everyone who works on an INEOS site will be protected. "We don't want different values on individual plants, and we don't want INEOS employees and contractors to be regarded any differently from one another."

Given INEOS's history of growth by acquisition, there has been a broad range of cultures across the Group. But, says Traynor, "Safety is our highest priority and from this basis we establish common values and principles. How these are ultimately delivered will be influenced by culture, but the key thing is that they are delivered."

Traynor knows that he is building on an already creditable safety performance and one that is still improving. INEOS operates well within the first quartile of petrochemical companies in terms of classified injury rates. Some producers, he adds, have rates twice as high as INEOS. But then again, he remarks, "We see Exxon Mobil as best in class we are not as good as them yet, but we are not that far behind!"

For the coming year in his new role, Traynor stresses his passion for seeing continual improvement in Safety, Health and Environmental performance. His main priority is to visit INEOS sites to discuss his views and to share his thinking behind the two sets of principles. "I want people to understand them, take them on board and implement them", he notes.

Of course, he acknowledges, the businesses are not starting from a blank page. All the businesses already have their own safety management systems in place. "What I want them to do is take the new principles and hold them up against their existing systems and see how they measure up. They can then learn and move forward. With the group-wide oversight, I think we can accelerate our learning and continue to see an improving track record" concludes Traynor.

James Cracknell earned his place in history when he won two Olympic Gold medals, in Sydney 2000 and Athens 2004 in the coxless fours rowing team. He also holds six World Championship gold medals for rowing. Since 2004 he has undertaken all manner of challenges, including the Marathon des Sables across the Sahara Desert in 2010.



My honest response to "What's winning the Olympics really like?" always appears to leave the recipient looking slightly short changed. Judge for yourself; firstly despite setbacks I never doubted I'd win a gold medal and secondly the confidence that winning has given me in setting and achieving targets in other areas of life has been invaluable.

Admittedly, stating that you're going to win the Olympics indicates a certain level of self confidence but whatever you aim for without constructing a robust to get there, it's never going to happen. Building a staircase from your current level to one that will enable a championship winning performance has given me the belief that if you plot out a route then anything is possible.

I realised those answers aren't that emotional and racing in front of 100,000 people is a phenomenal experience but I can also relate to the final scene of Rocky 3. Apollo Creed and Rocky Balboa with a win each from their previous bouts fight in an empty gym just so they can know who the best really is. I appreciate that's not the most "classy" analogy but for me it's more about the personal satisfaction rather than public attention.

When I left school I went to row at the same club as Steve Redgrave (who already had a couple of Olympic Golds in his locker) figuring if I could beat him once a month, increase that to once a week and ultimately every day I'd prove I had the talent to win at the Games. The big fella also needed some persuading, he'd coached me in the build up to the Under 18 World Championships. During the first training session I capsized so didn't think it was the best time to tell him that in ten years time we'd be racing at the Olympics together.

That scenario still wasn't looking likely seven years later due to an unhelpful setback. I'd been selected for the 1992 Barcelona Olympics but broke my shoulder playing a game of rugby. I was subsequently offered travelling reserve but unlike a substitute in football once the competition starts you can't exactly be parachuted into the boat if it's not going to plan. So I chose not to go, on the one hand

I had a fun summer, on the other I lost my funding so had to combine training with a job as I prepared for the 1996 Atlanta Olympics.

The difference between being a full-time athlete and combining work with training is not the volume of training but the available time to let the body rest and recover. I went to the Atlanta Games and caught tonsillitis (probably due to a suppressed immune system) on the day of the opening ceremony so spent the Olympics in quarantine. Those were the second Games I'd been selected for but I'd yet to make the start line.

1996 was a terrible Olympics for Team GB, we won one gold medal and that was Messrs Redgrave and Pinsent. Aside from throwing down the gauntlet testing anyone's shooting skills who saw him in a boat again, Steve announced that he was going to do a coxless four at the Sydney Olympics. Even my elementary mathematical skills worked out they needed another two people. The selection process is objective rather than subjective, rather than a case of seeing who fit best alongside Wayne Rooney in attack. If I performed in all the selection criteria despite being an "unlucky" athlete in the past it would be impossible for me to be left out. The criteria included speed tests on the rowing machines, weights in the gym, racing in boats on your own from which you'd get put in a pair with someone of similar speed and then the top two pairs would make up the four.

Our four that raced at the 2000 Sydney Olympics took to the water for the first time in April 1997. Our coach said "There's one race you will be judged on that is September 23rd 2000 at 10.30am. To guarantee winning, your worst has to be better than anyone else's best."

That was the mantra that we trained with viewing every race we won as though we'd lost, forcing us to keep progressing. We didn't have rules believing in personal responsibility. If you couldn't trust someone to look after themselves away from training then you wouldn't trust them halfway through the Olympic Final when your body is screaming at you to stop.

We won in Sydney and Steve just about managed to hold it together on the podium. When we got back to the boatshed our coach said "That wasn't very good" and asked to score the race out of ten. The highest of which was six, if we're honest we hadn't elevated our worst race to be good enough to win but by setting tough standards our average was.

I wasn't sure if I was going to carry on for the Athens Olympics. Our coach detected as much and came up to me at Sydney Airport and in his unobtrusive manner simply said "Anyone can win once, real champions do it again." So that was me signed up for another four years.

As Steve Redgrave had finally hung up the lycra baby grow, Matt Pinsent and I raced in a pair. We were successful for a couple of years winning two World Championships and breaking the world record in the process of claiming the second. It was at this point we disobeyed our golden rule and viewed a win as a win. We'd set a new level that our competition believed was possible but we didn't progress during the long winter training, consequently we got out backsides handed to us the following year. I like to think that if I'd trained well and raced well but still lost I'd accept the opposition were better but it was not having given ourselves the best chance of winning that was unacceptable.

Usain Bolt with a 9.69s showed the other sprinters what was possible in the 100m at the Beijing Olympics. The following year he won the World Championships with a 9.58s, if he hadn't improved America's Tyson Gay would have beaten him as claimed silver with a 9.69s.

Back to life on the water, after being defeated at the 2003 World Championships our coach felt that our best was good enough to win but we hadn't proved our worst or even our average performance was. So Matt and I were moved back into a coxless four only three months before the 2004 Athens Olympics and with six weeks until the Games we had to make a crew change due to injury so the Olympic heat would be our first race together.

We had a limited period to learn to trust each other and not use the injury induced reshuffle as a reason to lower our expectation. To ensure we got every bit of speed possible out of the boat we created an environment of total honesty where critical comments were encouraged and acted upon with no tit for tat grudges. Matt and I had probably become too focused just on winning so made sure we put our heads up, appreciated and used the scale of the Olympics to raise our performance.

On the day of the Olympic Final I believed our best was good enough but as we hadn't raced together before couldn't be sure. If we'd listened to those who imposed a ceiling on our potential performance we'd never have won and as we snuck home by 0.08s there wasn't much margin for error.

Away from sport I've learnt about the danger of imposed ceilings. I was knocked off my bike by a fuel truck in the States a year ago and if I'd accepted the "experts" projected level of recovery that's where I'd have ended up. But by believing I'd get back to being as I was before I gave myself the best chance of getting there.

So if I've learnt anything in my rowing career and subsequent challenges such as the Marathon des Sables it is: always have a clear plan, make sure your worst is better than their best, treat a win as a loss and don't let anyone impose a ceiling on your potential.

OUT OF REACH

By James Cracknell



THE EURO AREA "DISEASE" AND GLOBAL IMPLICATIONS:

WATCH YOUR STEP

By: Julian Callow – Head of European Economics and Sreekala Kochugovindan
– Vice President, Global Asset Allocation Strategy at Barclays Capital



The European economy has significantly slowed down over the past two quarters. We look for GDP to contract slightly in 2012. The European Central Bank has cut its policy interest rate by a further 0.25% in December, and we expect further reductions in 2012.

The sluggish rate of economic growth across the euro area masks notable growth differences between member countries. We expect Germany, Finland, Austria and other so-called 'core' countries to outperform growth in southern countries such as Italy, Spain, Greece and Portugal. The main reasons for this growth divergence are (a) differences in economic competitiveness (b) the degree to which the government and parts of the private sector are indebted and (c) the differing nature of the financial market shocks. The prevalence of substantial current account deficits still in Greece, Portugal and Spain is an indication that further significant adjustment is needed, given these countries' substantial levels of externally held debt.

Government financing costs vary substantially between core countries and the southern countries. For example, in Italy, the two-year government funding costs exceeded 7% in November before falling to the current level near 6%. Comparable German rates are hovering around 0.3%. Consequently, businesses in Italy and other southern countries will also face substantially higher funding costs relative to their German, Dutch or Austrian peers. Companies considering future growth of their businesses are likely to be cautious towards investing in southern Europe until governments are able to demonstrate control over fiscal policy and substantial economic liberalisations.

The causes of weak growth in the euro area and the divergence between countries are numerous and intertwined. That said, these are the most important underlying causes at present:

- Foreign demand growth has slowed considerably in the past few quarters: the sharp rise in global inflation pressures in the first half of 2011 eroded real purchasing power of consumers. Also, rising interest rates impacted global demand adversely, particularly in most large emerging markets. This slowdown in foreign demand was particularly notable in leading euro area export economies such as Germany and is well documented in, for instance, German factory orders (Figure 1).

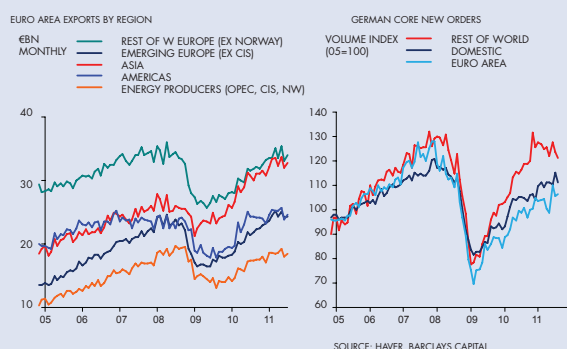
- Over the summer and autumn, it became evident that Spain, Italy, Portugal, Greece and France had to announce additional austerity measures to address rising investor concerns about the sustainability of public finances. We estimate that this will reduce real economic growth in 2011/2012 by around one percentage point.
- The intensification during Q4 2011 of the sovereign debt crisis has brought parts of the euro area to the brink of significant tightening in credit standards.

Nevertheless, despite these adverse developments in the euro area, at a global level other regions have been showing greater stabilisation (such as the US and much of Asia).

Some of these effects are temporary, such as the reconstruction-related surge of activity in Japan. However, the reduction in global inflation should have the effect of encouraging demand growth going forward, while also giving scope for central banks in emerging economies to ease policy (such as is already being seen with a reduction in Chinese bank reserve requirements). The rise in retail sales growth in the US in recent months is one example of this. Given the modest recovery in global demand growth, it seems likely to us that the euro area could avoid a deep recession if the problem of financial sector contagion from Greece and Italy/Spain can be arrested by decisive action.

In conclusion, we continue to be very cautious concerning the European outlook, including central and eastern Europe (which is materially intertwined with the euro area). Investors and global corporates should keep their focus on those faster growing emerging markets in Asia and Latin America with stable political environments. Amongst the developed countries, investors are likely to focus on Canada, Australia/New Zealand and the Nordic countries.

Figure 1: Demand developments in the euro area



"Although INEOS manufacturing is well positioned in Northern Europe, concerns about Sovereign Debt, particularly in Southern Europe is having an impact across the broader Eurozone."

"Demand has also reduced in North America but to a lesser degree and the region continues to present good earnings, partly resulting from the availability of low-cost shale gas. Around half of INEOS EBITDA has come in from the US and this is expected to continue going forward."

"With our manufacturing base well placed in Northern Europe and North America we are now looking to the Far East. PetroChina and INEOS have a very good relationship and the two plan to broaden this further across other INEOS products."

John Reece, Financial Director, INEOS AG

'INEOS WHO?' A LOOK AT THE INEOS BRAND



In the next couple of months we will see the introduction of the Group's new website and development of the INEOS brand identity. Tom Crotty, Group Director for Corporate Affairs and Communications and Richard Longden, Group Communications Manager, tell business writer Joe Calderara what it's all about.

JC: These are tough times. Why spend any time and money on this sort of change now?

TC: Earlier this year we ran some research to find out more about how we are seen. We had interviews with people, both inside INEOS and outside – important customers, opinion formers in media, potential investors and so forth. We keep our eyes and ears open, so we didn't think we'd get too many surprises, but one thing did stand out. INEOS has grown so rapidly that the perception people have of us hasn't kept pace. We pride ourselves on the decentralised structure, individual business autonomy and the rest, but the downside is you have to make sure important people understand the scale and strengths of the Group. Even some customers were saying they thought we were a bit reticent, considering our size, putting forward our views on the market. We also had some playback from investors and media on the need for INEOS to open up a bit. They found us good people to deal with, but not always as accessible as they thought we should be. So it's time to raise our game....

RL: There are other areas we identified, where being better known for what you do, and how you do it, produces benefits. Recruitment, for example, if you want to get the best students as apprentices, or people at any level come to that, it helps if they have an understanding of INEOS attitudes and successes to start with. Local politicians can appreciate the values our business brings to their communities; national politicians to the countries where we have sites.

But in the main it helps our sales teams if potential customers know more about who we are. And of course our own people, as not everyone can easily articulate everything about our quite complex businesses. It helps to have a clear expression of what we're about.

JC: So what exactly will be changing?

RL: It is important that our brand reflects our company. So it's important we don't compare this to the likes of an ICI or BP rebranding. In true INEOS style this will be very focused, straightforward and practical. So you won't see a change in the logo or the design of our company stationary for example. We see enormous value in leaving these things just as they are. But we do need this company-wide newsletter, to share information and news around our sites. And most certainly changes are needed to our website, which was originally developed in 1998. It is a genuine IT antique.

We're about to introduce a completely restructured and redesigned site. It will definitely make finding your way round the Group a lot easier. There will be a shorter, sharper vision and value statement. There will be a new corporate brochure which we think looks somewhat different for the market. Our brand identity has evolved. To answer the question what do you do and give people a definition for the whole business we have added a strap-line: **INEOS. "The word for Chemicals"**.

JC: Why did you go with that..?

TC: Well you can have strap-lines that simply tell people what you make, you can have lines that talk about what you want to be. This does both. We certainly didn't want to be pretentious or obscure, that's definitely not the INEOS style. We thought this was strong because it told people who don't know us at all, what business we're in, but it also has an aspiration: THE word for chemicals. Think Chemicals. Think INEOS. And the words that reflect our business; words beginning with IN... as you'll see in some of the material include: **Insight, Inspired, Informal, Innovative, Independent and International.**

JC: How did you go about it?

RL: We talked to a few outside companies and had some short presentations before deciding on one company. We thought it was important to have an objective view. At the same time there was a very tight brief, to keep everyone's feet – and the cost – on the ground. We also insisted the people involved went around a number of our businesses and talked to a whole range of our people. The solution needed to grow from what we are actually like as a company.

JC: How do you know you've got it right?

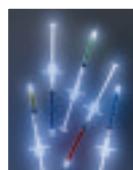
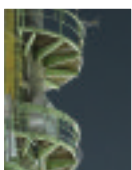
TC: We don't. What I mean is you can never guarantee creative elements in your marketing will work. But if you do your research thoroughly, and as I say, you're true to the brand, you maximise the chances. The important thing is to keep on assessing the brand, keep on talking to all the stakeholders, so that we know we're progressing in the right direction.

JC: When's the big launch?

RL: There isn't going to be one. That is not us. We see this as improving communication over time. It's not a "one-off", more something that we'll continually improve. It's inconceivable that we would spend money just to create the "impression of a launch". Given our focus on costs across everything we do, its incompatible with our values and we feel is just inconsistent and inappropriate. We have to be more – entrepreneurial – innovative and industrial.

TC: You've just used two INEOS words there, innovative and industrial...

RL: See – it's working already...





“If China continues to grow at the current rate there is no question that in terms of its demand for chemicals it will be the same size as the rest of the world put together, in the next ten to fifteen years.

Jim Ratcliffe



CLICK TO VIEW VIDEO:
ALL EYES ON CHINA

ALL EYES ON CHINA

Last week marked the tenth anniversary of China's accession to the World Trade Organisation. In his speech in Beijing on the 11th December 2011, commemorating the event, Pascal Lamy, Director-General of the WTO said: "Ten years is a long minute in China's millenary history. And yet these ten years have witnessed an unprecedented transformation of China's economy and society".

Both in China and around the world the anniversary is of far greater importance than simply reduced barriers to Chinese markets.

"China's growth miracle did not start in December 2001," Patrick Lamy continues. "It predates its entry into the WTO. But joining the WTO was seen as a means to anchor reforms and pursue the transformation. WTO membership has served as a stabilizer and accelerator in China's economic take-off."

In 1980 at the outset of its reform and opening up period China produced just 2% of the world's economic output. In 2010 this figure had risen to around 14% and China overtook Japan to become the world's second largest economy. By 2016 the IMF expects the figure to rise to around 18%, placing China above the US at the top of the table.

As China has developed into the world's most important trading nation, its trading data has also become a key indicator of the world's economic wellbeing. So it should be no surprise to see data highlighting its export and import growth showed a reduction in November; a clear reflection of the global economic slowdown.

Recent trade data shows China's exports grew 13.8% in November from a year earlier, slowing from a 15.9% increase in October. Imports grew 22.1% year-on-year, less than the 28.7% rise a month earlier. Whilst recent growth rates have cooled somewhat, the long term growth forecasts for the region remain impressive. According to estimates, in the next five years it is expected that China's total imports could exceed \$8 trillion, bringing with it enormous opportunities for business around the world.

It is not surprising that this rate of growth has brought about an unprecedented demand for oil and it is little wonder that the PetroChina oil and gas company enjoys one of the biggest sales revenues in China and is now one of the largest companies in the world.

Its recent acquisition of 50% of INEOS' Refining business provides PetroChina with the perfect springboard to expand its portfolio into Europe and for INEOS provides a new partner that has great influence in China. In a deal worth in excess of \$1 billion PetroChina and INEOS formed trading and refining joint ventures relating to the refining operations in Grangemouth in Scotland and Lavéra in France. The strategic partnership strengthens the long term sustainability of both refineries; providing further investment, enhancing security of supply, jobs, skills and competitiveness in the European marketplace. There are benefits for both companies and these are by no means confined to the \$15 billion refining business.

INEOS has been quick to build on the interest that the PetroChina deal has generated. The recent China Petroleum Chemical International conference in Tianjin saw a strong presence from many of the world's leading players including INEOS.

"China is really where the growth is in the world," commented Tom Crotty, Group Director for Corporate Affairs and Communications, INEOS. "We are looking at growth rates of 10 – 15% in the chemical industry and for a company such as INEOS this is where we have to be."

As well as giving a major address to the conference, Tom Crotty and INEOS Oxide CEO, Hans Casier, spoke with many of China's leading petrochemical industry figures. They also took time to visit the Tianjin Economic Technology Development Area (TEDA) development site just outside of Tianjin, where major multinationals such as Motorola, Toyota, and Samsung, already have a presence. The current construction programme in the Bohai Bay promises to be an ideal location for the country's burgeoning petrochemicals business.

Highlighting the pace of change Tom describes the TEDA site: "The new port development outside of Tianjin, is a classic example of what is going on inside China and the rapid rate of development that is taking place. The area was sea two years ago. Since then sea channels have been cleared and a new port constructed. A new 30 million tonne refinery and a whole chemical complex is to be built on the back of this infrastructure, which could present enormous opportunities for INEOS"

Whilst its limited natural resources and the environmental cost of its rapid development may prove to be restraining factors, for now at least China represents the true land of opportunity and for those with the necessary resources and expertise the door is clearly wide open.

"The Chinese Petrochemical industry has developed over the past 30 years, and we have a 1.3 billion population so therefore a very high energy demand and a very large energy market," comments Li Yongwu, Chairman of China Petroleum and Chemical Industry Federation. "INEOS has a very big influence on the global petrochemical industry and we welcome you to come to China, to invest in China and I look forward to cooperating more with you in the future."

Since 1973, the business that is now INEOS Technologies has been successfully licensing technology to meet the opportunity presented by increased chemicals demand in China. As the partner to a number of China's leading chemical companies, over this period it has licensed over 11 million tonnes of chemicals capacity. Today, INEOS Technologies knows China well, with over 38 years of experience, as a leading global licensor of polyolefin, polystyrene, nitriles, vinyls and chlor-alkali technologies in this major world market.

Other INEOS businesses are also aligning themselves to address the needs of China. At the beginning of this year (2011) INEOS Phenol signed a Memorandum of Understanding, with Sinopec to build and operate a \$500m phenol and acetone manufacturing site at the Nanjing Chemical Industrial Park in Jiangsu Province.

INEOS' Shanghai office is currently home to a sales division representing Technologies, O&P Europe and Phenol. But in a country whose skyline spans one huge construction project after another and is for now at least driving world economic growth, for Roger Wang, and the rest of the INEOS team in Shanghai, who knows what changes lie ahead.



*Bad men live that they may eat and drink,
whereas good men eat and drink that they may live.*

SOCRATES (469 BC – 399 BC)

DESIGN FOR LIFE

by Fred Wadsworth

There are broad principles of how lifestyle can be connected to wellness. Not just the long-term risk of the big Western diseases like heart disease and diabetes, but a lifestyle that drives everyday wellness. This is the kind of wellness that delivers both at home and at work, day in day out.

Stress management has recently become the leading cause of absenteeism in the UK labour market. Stress is the harmful physical or emotional response that occurs when the demands on a worker exceed the resources that person has to manage those demands. Many people exhaust a significant part of their resource by poor eating habits and a lack of exercise. If you are excessively tired or highly stressed you will benefit from focusing more on yourself by exploring the guidelines below.

A quick and easy way to establish the physical shape you are in is based on two factors, your body mass index (BMI) and your waist to stature ratio (WSR). Your BMI is a measure of your height to weight ratio and is easily calculated online (Google BMI calculator). A number of 24-25 in men is a good weight if your WSR is okay. For women they often prefer a number around 21-23. The WSR is an indicator of how high your body fat is. As a guide, experts suggest on average your waist should not exceed half your height. If your BMI is high or if it is normal but your WSR is high you could consider the framework below to get yourself back on track.

The Basic Rules of Eat Well Live Well:

1. Hydration; the popular press like to make this area controversial but it works. Drink two litres of water and decaffeinated hot drinks a day. Avoid sweetened drinks of any kind.
2. Three meals a day; get into the breakfast habit, give lunch half a chance, however busy you are and don't make the evening meal a massive catch up for missed food in the day.
3. Unrefined carbs are key. Whole fruit not juice, wholegrain not white. How close is it to how it grew? It is a long way from corn on the cob to Crunchy Nut Cornflakes. Too much sugar in our diets is a big, bad problem.

4. Less starch, more fibre. This will drop your body fat, your cholesterol and help your gut work properly. Less bread, pasta, potatoes and rice with more grow-above-the-ground veg instead.
5. Cut out the rubbish, snacks high in fat, sugar and salt dominate our eating between meals. If you get the meals right you won't be hungry and you will save the damage that is done eating rubbish between meals.
6. Very few people eat enough protein in the modern diet. It suppresses appetite and this is the key to reducing unhealthy snacking and dropping the overall daily calorie intake. It also slows the speed that the sugars in our gut hit our blood stream.
7. Fat has twice the calories by weight than carbs or protein. Much of the flavor in our food is locked in fat. We have moved towards a high fat diet because it tastes better. Processed meat (like sausages, ham and bacon), cheese and butter are often eaten in high volume. The less animal fat you eat the better.
8. Some of the treats and stimulants we take every day in our diet need to be properly moderated. Limit yourself to two caffeinated drinks a day, one bottle of wine (or five pints of beer) a week and no more than a can of fizzy drink a week. (If you smoke do yourself a favour.....)
9. Exercise; how much do you move? Get a pedometer and see if you take 10,000 steps a day. If not you are sedentary and need to gradually build it up. Everyone benefits from exercise wherever you start from. It is the best antidote to stress we have. Set an appropriate exercise goal that will take three to six months to prepare for. Anywhere from a 5k charity walk to a first marathon or mountain to climb. Find three hours a week to start and build in regular exercise. Take some advice from friends if you are not sure how to structure it properly.

SHALE GAS CHANGING THE GAME

Shale gas is burgeoning and with it so is American petrochemicals that use this new low-cost source of gas as its main raw material. Shale gas has changed the US energy market and is threatening to do the same for energy markets around the world. Production has soared from a meagre 1 to 2% of US output to nearly 25 percent since 2000 to a point where more than a quarter of the country's total gas output now comes from shale gas. By 2035 the proportion could rise to around a half. As more shale gas is brought to the market prices have come crashing down relative to rising oil prices. Not long ago, America depended on imports of liquefied natural gas. Today it is on the verge of becoming a gas exporter. Vast "Shale" rock formations with very high hydrocarbon content have been known to exist for nearly a century from geological mapping and drilling for oil and gas across the US. These rock formations were considered to be too "tight" to release oil or gas until new techniques were developed. The techniques have also been known for a while. "Horizontal Directional Drilling" put in practice widely in the 1970s and 1980s and "Hydraulic Fracturing" or "Fracking" first put into practice in the 1950s. But it is only in the past decade that it has become economically and technologically viable, to apply these together and get at these new deposits.

"Horizontal Directional Drilling" allows the drilling of an oil/gas well horizontally in the rock "seam" for up to several miles. "Fracking" is the practice of blasting the rock layers underground to fracture the rock allowing high pressure sand, water and chemicals to be pumped into the fracture to allow the oil and gas to flow. In particular a unique feature of "Shale" is that it often produces more natural gas than oil and the natural gas produced is often "wet" with Natural Gas Liquids such as ethane and propane. These materials can be recovered from the gas as feedstock to petrochemical operations.

Because of the abundance of new wells and production brought on line recently, both natural gas and the gas-based feedstock from the natural gas have fallen in price relative to traditional oil prices and oil derived feedstock such as naphtha used more widely outside of the US. There is no doubt that shale gas has stimulated the petchem sector in the US in the last two years, as can be seen from the many announcements of new crackers. But at the moment it is mainly seen as a US phenomenon.

"These developments of lower cost supplies of feedstock present significant new opportunities for our existing facilities in the US."

"INEOS is in a good position to benefit from the increased ethane production that comes from shale gas", comments Dennis Seith, CEO of INEOS Olefins & Polymers USA. "As more product comes available we can access this valuable feedstocks. Our crackers are flexible enough to take these lighter, natural gas liquid feeds, and process them into our primary product ethylene. Shale formations across Texas, the upper Mid-west and in the North Eastern part of the US are being developed and along with low-cost natural gas it is generating substantial quantities of "Natural Gas Liquids". These developments of lower cost supplies of feedstock present significant new opportunities for our existing facilities in the US. Earlier this year we announced that we are completing engineering studies to debottleneck ethylene capacity at Chocolate Bayou in Texas. Such an investment would add a further 115,000 tonnes/year. It would meet the needs of INEOS' commitments to the US Gulf Coast merchant ethylene market, while supporting our high density polyethylene [HDPE] unit at its La Porte, Texas, complex."

But "fracking" is not without its issues. Many fear that there is the potential to cause subsidence, geologic instability and contamination of ground water. As such it has been banned in some US states and countries in Europe until better understood so that better regulations and controls can be developed.

"INEOS is not in the business of Exploration and Production of shale gas industry but we see the value in a safe, well managed, well regulated extraction that secures a valuable and sustainable energy resource for the nation and its downstream petrochemicals industries," says Dennis Seith. "The extraction process is well understood and in our view, the natural gas industry in partnership with local and national governments should support 'common sense' regulation to ease public worries about potential issues from hydraulic fracturing and ensure that Safety, Health and Environmental concerns are the highest priority for this rapidly growing technology in the US". For now, the shale gas advantage belongs to the US

but for how long? In Europe gas prices are twice that of America. So it is no surprise that some European countries are keen to replicate America's shale gas boom. But it is not quite as straightforward. Costs are higher in Europe because of difficult geology. There is also a lack of political will and higher population density across many European countries making it more difficult to develop the necessary infrastructure for recovery and transportation of gas. All of which mean that it will take some time for this to become a reality. Current views are that the issues will be sorted out and that it is more of a matter of "when" than "if" the "Shale Gale" as it has been dubbed reaches beyond the US.

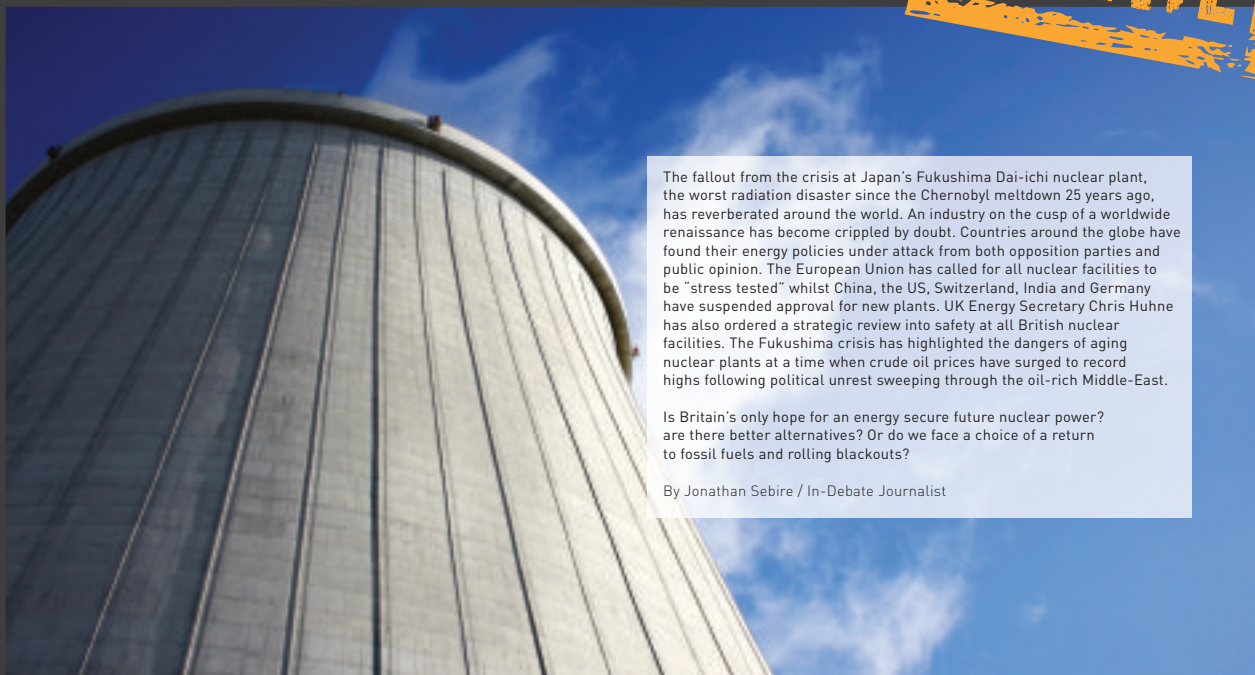
Within Europe INEOS will be in position to accept strategic imports of low-cost ethylene into our new deep sea storage terminal in Antwerp when construction of the facility is complete.

As demands on energy around the world continue unabated, it is inevitable that shale gas will play an important role. Initial surveys indicate Poland has enormous reserves of shale gas, as much as 5.3 trillion cubic metres – equivalent to 300 years of their domestic consumption. PetroChina hopes to produce 1 billion cubic metres of shale gas in 2015 in SouthWest China. There has even been a recent discovery of shale gas deposits near Blackpool in the North West of England.

INEOS has already positioned itself in the debate and as availability of shale gas impacts our markets we are already making efficient use of this valuable resource in the US as it develops. Within Europe INEOS will be in position to accept strategic imports of low-cost ethylene into our new deep sea storage terminal in Antwerp when construction of the facility is complete. With the opening of one of the very few existing deep water terminals in Europe early next year we will be well placed to take full advantage, of lower cost ethylene imports resulting from access to shale gas from across the world.

[CLICK TO VIEW VIDEO: SHALE GAS](#)

IS NUCLEAR POWER BRITAIN'S BEST HOPE FOR A LIFE AFTER OIL?



The fallout from the crisis at Japan's Fukushima Dai-ichi nuclear plant, the worst radiation disaster since the Chernobyl meltdown 25 years ago, has reverberated around the world. An industry on the cusp of a worldwide renaissance has become crippled by doubt. Countries around the globe have found their energy policies under attack from both opposition parties and public opinion. The European Union has called for all nuclear facilities to be "stress tested" whilst China, the US, Switzerland, India and Germany have suspended approval for new plants. UK Energy Secretary Chris Huhne has also ordered a strategic review into safety at all British nuclear facilities. The Fukushima crisis has highlighted the dangers of aging nuclear plants at a time when crude oil prices have surged to record highs following political unrest sweeping through the oil-rich Middle-East.

Is Britain's only hope for an energy secure future nuclear power? are there better alternatives? Or do we face a choice of a return to fossil fuels and rolling blackouts?

By Jonathan Sebire / In-Debate Journalist

FOR

THE ANTI-NUCLEAR REACTION TO FUKUSHIMA IS ALARMIST

No energy source can ever be 100% risk free, but dangers associated with nuclear power have been highly exaggerated by what The Telegraph's Brendan O'Neil calls "catastrophists". The Financial Times argues that "facts disappear into the cloud of fear that nuclear accidents produce," and it is clear that the Fukushima tragedy has tapped into a latent fear of nuclear power that has been festering since the 1970s. Panic created around incidents such as Three Mile Island have led to similar sweeping statements about safety but most of the calls to abandon nuclear power ignore the disparity in age, design and environmental risk between Fukushima and Britain. In the Guardian, George Monbiot, stated: "As a result of the disaster at Fukushima, I am no longer nuclear-neutral. I now support it. A crappy 40-year-old plant with inadequate safety features was hit by a monster earthquake and a vast tsunami. Yet no one has yet received a lethal dose of radiation."

NUCLEAR POWER IS VITAL FOR ENERGY SECURITY

The political unrest that has swept along the coast of North Africa and into the Gulf States poses a real threat for British energy security. Oil workers have been forced to leave Yemen and Libya as both countries fall into civil war. Libya was the UK's third highest importer of oil in 2010. Coupled with dependency on natural gas from a Russian government that has already proved it's willingness to shut off supplies and the case for continued domestic nuclear dependency becomes highly credible. A Department of Trade and Industry white paper on the future of nuclear power states that "nuclear fuel supply is a stable and mature industry" and that expansion of nuclear power in Britain, "may result in a reduced need for gas supplies which are more heavily concentrated in countries with political instability."

NUCLEAR ENERGY IS VITAL FOR CURBING CLIMATE CHANGE

Britain has proposed that it will reduce its carbon emissions by 80% by 2050. In order to achieve this nuclear power must be included in the mix of energy sources that Britain uses. The current long-term energy strategy is based on a three prong attack which includes: a commitment to nuclear energy; the development of more renewable energy, such as wind and sea power; and new carbon-capture technology to mitigate the damaging environmental effects of fossil fuel-fired power plants. Removing nuclear from this equation would require massive extra investment in renewable energy sources, as Tim Yeo, Conservative Party chair, points out: "Other forms of low-carbon energy, such as solar or offshore wind are more expensive than nuclear. Solar and wind are not reliable generators of electricity – on cloudy or still days they produce nothing. So they have to be backed up by reliable sources of power."

WE ARE OUT OF TIME FOR VIABLE ALTERNATIVES

All but one of the UK's 10 current nuclear facilities is scheduled for closure by 2023, with eight sites marked out as replacements. EU emission regulations mean that by 2015 most of the country's coal based power plants will also have to shut down creating a deficit in the national grid that could lead to rolling blackouts that plagued the country in the 1970's. Tim Yeo stated: "It is very likely that without new nuclear power stations we will simply not have enough reliable electricity generation in time to replace the contribution nuclear currently makes." The options available to post nuclear states are limited, and as George Monbiot argued in the Guardian the answer will be "not wood, water, wind or sun, but fossil fuel," and "On every measure ... coal is 100 times worse than nuclear power." Whilst exploratory investment in green technology is admirable, if we are going to meet our future energy demands we must build new nuclear power stations.

IT IS THE PATH THE GOVERNMENT MUST TAKE

John McNamara of the Nuclear Industry Association, which advises the government on energy supplies, believes that while the Government must listen to the public over their concerns following Fukushima, "all energy sources have risks attached and we must plan for a safe, robust and low-carbon future to power our economy going forward." He added that the current fleet of British Nuclear Power Plants has an excellent safety record and is a crucial part of our low-carbon power supply.

AGAINST

A FUKUSHIMA-LIKE MELTDOWN COULD HAPPEN HERE

It is folly to ignore the dangers the Fukushima disaster has highlighted. Nuclear power is not only a clear and present danger, but also a timebomb for our grandchildren. In fact as recently as September last year EDF admitted to not following correct procedures which led to "unplanned shutdowns" at two reactors at Torness in East Lothian. The event, which was highlighted in a report by the Nuclear Installation Inspectorate, show that you can never protect against incompetence and human error. "These are all events that should ring very loud alarm bells," said Pete Roche, a nuclear consultant. Brahma Chellaney, Professor of Strategic Studies at the Center for Policy Research in New Delhi, adds that rising sea levels pose a serious threat to coastal plants. "Many nuclear-power plants located along the British coast are just a few metres above sea level."

NUCLEAR POWER IS A SECURITY RISK

Ex-Soviet President Mikhail Gorbachev has spoken out about the terrorist threat posed to countries with nuclear power, he said: "After the heavy damage wrought by terrorists in New York, Moscow, Madrid, Tokyo, Bali, and elsewhere over the past 15 years, we must very carefully consider the vulnerability of reactor fuel, spent fuel pools and related fissile materials, and facilities to sabotage, attack, and theft." Whilst the UK does not have to contend with the environmental risks associated with the Pacific rim countries, such as Japan and California, it is a reality of the modern world that Britain is a target for terrorist attacks.

'GREEN' NUCLEAR IS A MYTH

The claims that nuclear power is the 'green' option and carbon free are somewhat misleading, completely dismissing the greenhouse gasses generated by the construction of the plant itself, the storage of nuclear waste and the mining of the uranium ore that fuels it. A 2008 report by the International Energy Agency showed that if global nuclear production was quadrupled it would still only make up 10 per cent of the world's energy production by 2050. Greenpeace have stated that this level of expansion would only lower global carbon emissions by 4%. The issue of the waste legacy also presents a real environmental threat that will last for decades. In 2006, Gordon McKerron, chair of the Committee on radioactive Waste Management, warned the Government that: "We have a 50-year history of not finding any long-term management option for high-level, dangerous radioactive waste."

BRITAIN SHOULD LEAD THE WAY ON ALTERNATIVE FUEL

Britain has the potential to lead the world on renewable energy sources that would allow it to move beyond nuclear power without risking energy security. But we are lagging sadly behind nations such as Germany, who's rooftop solar panels produce more energy than the Fukushima plant. In October 2010 the Government dropped plans to invest in a 10-mile barrage across the Severn estuary which could be used to generate "green" electricity. Instead they approved the eight new nuclear sites that are currently under review. At the time Energy Secretary Chris Huhne said: "We urgently need investment in new and diverse energy sources to power the UK." Yet Chancellor George Osborne looks to have firmly thrown his weight behind the nuclear industry as in the latest budget they looked to subsidise the nuclear industry, by allowing the newly set up Green Investment Bank to make loans to companies looking to build new nuclear plants, and introduced a carbon pricing system that will see nuclear firms pick up a windfall of £1.3-3bn. Green MP Caroline Lucas called this: "A betrayal of our environment."

THE PEOPLE WANT RENEWABLE ENERGY, NOT NUCLEAR

A post-Fukushima survey commissioned by Friends of The Earth shows that 75% of people now want the Government to invest in energy efficiency or renewable energy, whereas a mere 9% want further investment in nuclear power. Craig Bennett, director of policy and campaigns for Friends of the Earth UK, stated that the poll showed the Government's nuclear expansion plans were "out of step with public opinion" and that they should "urgently refocus their energy policy", before proceeding with building eight new nuclear power stations.

IN THE HEADLINES

NEWS FROM AROUND INEOS



PRIME MINISTER VISITS INEOS

The Norwegian Prime Minister, Jens Stoltenberg made a visit to INEOS at Noretyl, when he toured the region of Telemark earlier this year. His visit was arranged by local trade unions and representatives from the Labour party in the region to coincide with the National election campaign in Norway.

This is not the first visit to the site by the Prime Minister, having visited

previously when he was Minister for Industry and Energy. He acknowledged the value of INEOS' site and understood the importance of secure feedstock availability, as well as competitive electricity prices and taxes.

Magnar Bakke said: "The visit to Noretyl was as a result of good work from our Union representatives. It gave us a very good opportunity to explain in person to the Prime Minister

and his advisors the challenges the chemical industry is currently dealing with in Norway."

Accompanying the Prime Minister were local politicians, including MP Terje Aasland (Head of the Industry and Trade committee in the Norwegian Parliament) and representatives from the media.

LAVERA HYDROCRACKER REACTOR REPLACEMENT

The Lavera refinery is currently in the process of installing two new reactors in its hydrocracker unit to replace three reactors that have reached the end of their useful mechanical life. The investment that represents almost €40m will help maintain the efficiency and reliability of the Lavera refinery.



The hydrocracker is a high added-value unit and a major contributor to refinery profitability, taking low value vacuum gasoil and converting it into high value diesel and aviation fuel.

The existing reactors are over 40 years old and have given loyal service in a high pressure, high temperature, hydrogen-rich reaction environment. Designed to operate safely and efficiently under these conditions the new reactors make the most of the latest advances in metallurgy and are made from forged vanadium and modified chromium steel with a stainless steel overlay.

To give you a sense of scale of this investment, the heaviest of the vessels weighs 420 tonnes and both are made from steel that is over 185mm thick. Huge cranes and special transportation was needed to manoeuvre the two reactors into place. Thanks to safe and highly precise operations, the reactors are now installed and ready for final tie-in. Start up is scheduled for June 2012.

SINOPEC SELECTS INEOS TECHNOLOGIES' INNOVENE PP PROCESS FOR MAOMING, CHINA

In October Sinopec selected INEOS Technologies' Innovene polypropylene process for its new project in Guangdong, China. The 200 KTA plant, to be located in Maoming City, will serve the South China markets, including the Pearl River delta region. It is the fourth PP licence signed by INEOS Technologies in China this year.

Sinopec is the largest polypropylene producer in China and produces a range of products using the Innovene PP technology. The Maoming plant, which is due to start up in 2013, will bring Sinopec's total capacity based on INEOS Technologies Innovene process to 1.2 million tons of polypropylene.

Peter Williams, CEO of INEOS Technologies, commented: "We are delighted that Sinopec has selected INEOS as their partner for this project, and look forward to working with them to ensure the success of the new facility. The repeat business from a customer with the stature of Sinopec is a testimonial to the overall excellence of the technology and the support INEOS Technologies provides to its licensees. INEOS has now licensed approximately 1.7 million tons of capacity in China this year alone."

INEOS GEEL, SUPPORTS AVALYMPICS

Avalympics is a non-profit organisation that offers a wide range of sports to mental or physically disabled people in and around the community close to our Geel site. These athletes can choose to train and compete in any of 14 sports including G-bicycle racing, an event that is coordinated by INEOS operator at Geel, Gert Verbiest. "We call it G-cycling" said Gert. "It all started three years ago during the annual

'Ride Together' activity where I was asked to assist in developing cycling activities. We received a donation of 10 racing bikes because not everyone had one, along with team cycling outfits with included our motto 'just sports together.' And we were away!"

"We started to give cycling training, twice a month on the former F1 race track in nearby Zolder. Our goal was to teach our cyclists to ride as a team, shifting gears, building confidence and competing in time trials."



Since then, G-cycling racing has come a long way. The highlight was definitely the climbing of the Mont Ventoux (France) last year. Six G-bikers were selected for this activity and all of them reached the top. Talk about pushing out frontiers and rising to the challenge!

This season Gert helped to organise two tours from Geel to Xanten in Germany, a distance of 160 km. The average speed of competitors varies between 10 km/h and 39 km/h. Finishing first or last is not important. Everyone finishes in style, hands up in the air, proud of their results.

"It is a uniquely rewarding experience working with these athletes and I feel incredibly privileged", Gert concludes. "It is so nice to do this with people that are so grateful and who simply enjoy every minute of these activities. All this is only feasible thanks to the sponsorship of many people and organisations, among them INEOS Olefins & Polymers in Geel."

If you want to know more about Avalympics please visit their website: www.avalympics.be

INEOS OXIDE NAMES 3 POTENTIAL SITES ON THE US GULF COAST AS IT CONSIDERS THE LOCATION OF ITS WORLD SCALE ETHYLENE OXIDE, GLYCOL AND ETHYLENE OXIDE DERIVATIVES UNIT.

INEOS Oxide has confirmed Plaquemine Louisiana, Battleground Dear Park Texas and Chocolate Bayou Texas as the three sites to conduct a final detailed study to expand its Ethylene Oxide (EO) and Ethylene Oxide Derivatives (EOD) capacity as part of its strategy to grow its global business over the next few years.

"Following our announcement earlier this year, we have narrowed down the potential location for a final detailed study on our EO and EOD investment," said Hans Casier CEO INEOS Oxide. "The work we have done since March has reaffirmed that the US is the obvious location for INEOS Oxide to consider its next expansion. It is a market we know well where INEOS Group already has a well placed manufacturing presence that is capable of taking full advantage of competitively-priced feedstock."

"We are very excited about the project, which will be of a world scale size of at least 500kt of EO with appropriately sized Glycol and derivative units. The Battleground, Chocolate Bayou and Plaquemine sites have proved to be front runners in the screening study, which we have carried out so far. We envisage making a decision on the final location early next year when we will proceed with detailed engineering. Startup of the new complex is foreseen at the end of 2014."

INEOS OXIDE TO EXPAND ETHYLIDENE NORBORNENE (ENB) CAPACITY.

On the 6th December, INEOS Oxide, confirmed that it is planning to expand its Ethylidene Norbornene (ENB) capacity. As part of its growth strategy it plans to build a new world-scale plant in South East Asia. Site selection studies and feedstock supply discussions are now underway with a view to the plant starting no later than 2015.

"We believe ongoing global growth and potential new build demand from ENB customers, particularly in EPDM, will require new ENB capacity and we believe South East Asia is the right location for us to access these growing markets", said Hans Casier, CEO INEOS Oxide.

"We are pleased to make this announcement that will enable INEOS to continue to support customers as their business grows. Timing of the unit depends on finalisation of feedstock supply agreements, permits and a full engineering design study."

ENB is used predominantly in the production of ethylene-propylene-diene rubber (EPDM); an extremely wear and weather resistant high performance rubber which is increasingly being used in cars, white goods and the construction industry. It is also used in the high-value fragrance and flavours industry as a scent carrier.