

RAISING CHAMPIONS

INCH talks to INEOS parents of Olympians, Beth Tweddle and Max Hartung, ahead of London 2012



Q1 ISSUE 2012

INDEPENDENT THINKING

John Reece takes a look at INEOS' performance and financing

MANAGING TEAMS

How sports psychology applies to business

SHIFT THE FOCUS

Dr Adam Carey gives advice on diet, exercise and working shifts

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INEOS
THE WORD FOR CHEMICALS



Innovation: sustainable products with a future
Investment: in entrepreneurial employees
who are our future

Most of our employees arrived at INEOS from companies such as Amoco, BASF, Bayer, Borealis, BP, Degussa, Dow, Enichem, Hoechst, ICI, LANXESS, Norsk Hydro, Solvay and Tessenderlo with decades of experience to be handed on to the next generation of talent.

INEOS continues to be an exciting and challenging place to work. A place where entrepreneurial and empowered people enjoy greater rewards for the autonomy and responsibility that is essential in our industry.

INTRODUCTION

I am pleased to say that the first edition of INCH was well received around the Group. For the first time we are able to tell you directly about recent INEOS financials, to inform you about some exciting developments around the Group and to highlight news that shows how we are making a difference around the world.

People from outside the company have also shown an interest in reading the magazine, so we have decided to remove the password and make it freely available to everyone.

Doubtless you will have noticed that Quarter 4 trading was quite thin and there was a general air of uncertainty as people tried to gauge the impact of the Euro crisis on the world economy. In addition the Chinese government restricted their money supply to bring inflation under control.

Thankfully the Euro crisis has eased somewhat but nervousness still exists and it seems clear to me that a single European currency cannot accommodate economies that are as diverse as Germany and Greece. In time something will have to change, but today the world markets seem to be moderately comfortable with the 'sticking plaster' solution which the European governments are gradually agreeing to. On the other hand, we can see very positive signs from the USA. Unemployment is falling, new houses are being built – albeit from a low base – and shale gas looks like it will underpin cheap energy for USA manufacturing for many years to come.

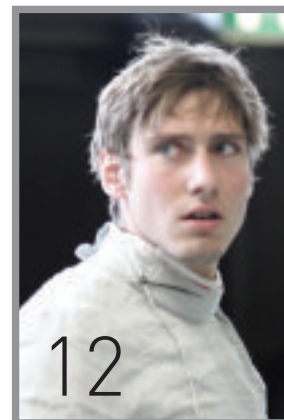
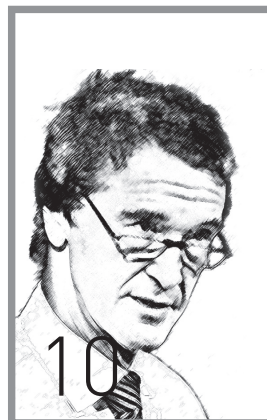
And then we have China. Whilst not at early 2011 rates, the brakes have certainly come off following the Chinese New Year celebration in January. Demand continues to pick up in China although they are still sat on quite high stocks.

How has all this affected INEOS trading? January was an encouraging month with pick up in most businesses. Refining posted a healthy profit as did Styrolution and PQ, our three joint ventures around the world.

February has continued the positive trend as the markets have regained confidence. O&P USA is the top performing business of the month as the American economy has continued to gain strength. Phenol also had an excellent month, as did Enterprises and Oligomers.

We have had a good start to 2012 both in terms of the market improvement but also the very positive response we received in February when we began to refinance some of our borrowing. We are starting off on the right foot and I hope that through INCH you are able to see how the year unfolds and begin to get a clear perspective of our business, our culture and what sets us apart from our competitors.

JIM RATCLIFFE



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NO INJURIES – OUR ULTIMATE GOAL

Last year INEOS’ safety record improved from 0.25 classified injuries per 100,000 hours to 0.21. It was the fourth year in a row that the company had been able to show continuous improvement. Steve Yee, Business Safety Health & Environment Manager, takes a look at the company’s approach.

COMMUNICATION works for those who work at it; so said British composer John Powell who has written the scores to more than 50 films.

And in terms of its communication of safety, it’s an area in which INEOS excels. Some would say it’s become somewhat of an obsession, but with exceptionally good reason.

INEOS operates in a hazardous business with potential to cause harm if control is not of the highest standards. This is why no job will ever be seen on its sites as so important that anyone’s well-being should be put at risk. And ‘anyone’ includes those living or working close to INEOS’ plants.

Steve Yee is the man responsible for collating the Group’s safety reports.

“If there’s an incident on any one of our sites, I will know about it,” he said.

He often compares INEOS’ safety performance with similar chemical companies around the world.

“I do look at the top 10 best performing companies and you should always do that. We compare very well but you must not get too focussed just on the statistics,”
Steve Yee

“Our ultimate goal is not to harm people, so understanding the statistics is only part of the solution to help us to achieve this goal. Understanding how to keep the chemicals inside the process is key to our business.”

“What the figures do tell us, though, is that we can never become complacent, improvements are always achievable. It takes a long time to improve the safety performance and a short time for it to fall back. We can never take our eye off the ball for a second.”

Last year, INEOS’ safety record improved from 0.25 classified injuries per 100,000 hours to 0.21. It was the fourth year in a row that the company had been able to show continuous improvement and it reflected the hard work and commitment that exists at every level to prevent accidents.

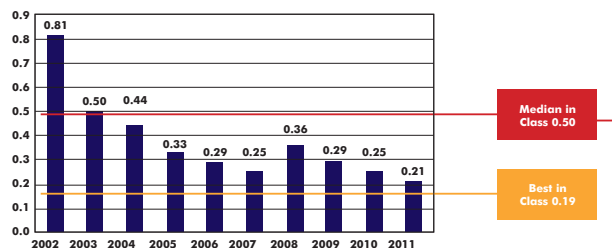
Steve said, looking at human factors at work – and identifying how we can work on them to improve was a major focus of last year.

“Most of our injuries are not chemically related,” he said. *“Most are slips, trips or falls.”*

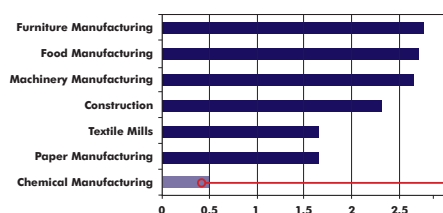
“Our performance is very good but we can never become complacent. If we are to continuously improve we must all critically assess what we do, avoid taking short-cuts and do the right thing even if it takes a little longer. It is about changing behaviours so that we all become increasingly more careful.”



Classified Injury rate Per 100,000 hrs: INEOS Employees + Contractors



OSHA Recordable median injury rate



Key principles that will set the standard across the company – 10 based on human factors which we have named behavioural safety and 10 on process safety – these principles are all based on learning from incidents or “near miss” safety alerts.

PROCESS SAFETY

1. The asset operating manager is responsible for its overall integrity
2. The asset engineers are responsible for maintaining the asset and protective systems’ integrity
3. The responsibilities in the organisation for defining and maintaining the correct operating envelopes must be clear
4. Operating procedures and envelopes must be observed. Deviations must be reported and investigated
5. Any changes must be properly risk assessed and subjected to MOC procedures
6. Process hazards are systematically identified, risk assessed, reviewed and managed
7. All assets must be subject to periodic inspection designed to ensure their integrity and the reliability of their protective systems
8. Operations must always place the safe operation or shutdown of the asset ahead of production
9. When in doubt the asset must always be taken to its safest state
10. We have emergency plans based on assessed risks which are regularly tested

HUMAN FACTORS

1. We believe all incidents and injuries can be prevented
2. Everyone’s first responsibility is to ensure they work safely
3. Everyone has the duty to stop work if they feel the situation is unsafe
4. The expectations and standards are the same for everyone on the site
5. Rules and procedures must be observed and respected
6. We should look out for each other’s safety and unsafe situations
7. All injuries and incidents / near misses must be reported and investigated
8. Risk assessment must be carried out prior to, during and on completion of work
9. All team leaders have a special responsibility for promoting and upholding these principles
10. We must always work within the limit of our competency and training

‘All of life is a risk. In fact, we’re not going to get out alive. Casualness leads to casualties. Communication is the ability to affect other people with words.’

Jim Rohn (1930 – 2009)
American entrepreneur, author
and motivational speaker

Changing our behaviours, though, isn’t as easy as it sounds.

“It can take years to change it but you can lose it within six months because people will do what they have always done,” he said. *“People are human.”*

At INEOS, we expect the same high standards for everyone, whether they are employees, contractors or visitors. Not unlike the rest of the chemical industry we see a different incidence compared with employees. Over the years we have seen improvement, but we still wish to improve upon that.

Like all Chemical majors, INEOS tracks and reports more than is required by local laws.

“We see each ‘near miss’ as a warning sign, and a source of valuable information that we can learn from, whether it is in INEOS or in other companies,” said Steve.

“We continuously improve our systems with the help of ‘near miss’ reports. By tracking, monitoring and sharing these across the Group, information from all ‘near misses’ helps to prevent actual incidents from happening. It is pretty obvious really. Waiting for accidents to happen is just not an option for us.”

“Each incident that is serious or has content that is good for learning is reported as a SHE Alert and the findings are then issued to all businesses within the Group.”

“These SHE (safety, health and environmental) Alerts could potentially help to avert similar problems at another site.”

Improving Safety is a commitment that starts with INEOS Capital, through the Boards of each business and throughout the organisation.

There is a chain of command through each business that ensures, by the end of the process, that every single employee will have been kept in the loop.

“Each INEOS business is clearly accountable for its performance,” said Steve.

“A lot of big companies operate in a different way to us. Other Chemical Companies may take a lot of direction and auditing from a central SHE organisation. My belief is that if you do that then you take away the responsibility and accountability from the people that can make the improvements. That won’t work.”

So, as INEOS seeks to continue its improving trend and better 2011 performance, it is rolling out one of its most ambitious projects to date.

To drive improvements in safety performance, Tony Traynor, the INEOS Group Operations Director led 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 – 10 based on human factors which we have named behavioural safety and 10 on process safety – these principles are all based on actual incidents or “near miss” SHE Alerts.

“They are based on best practice from across INEOS and from other chemical companies from around the world. We have taken a massive amount of information and consolidated it into something that people will understand and that will help us to go beyond the excellent performance we have seen this year.”

When asked if 20 is too many, Steve is pretty clear. *“I don’t think so. They are what they are. These key principles come from the knowledge we have acquired over the years, we believe they cover all incidents. Had someone followed these principles then all of the incidents we have seen in the past few years, be they INEOS or other companies could have been prevented. So I believe it is the right number.”*

Part of the problem for the chemical industry is, though, the perception of the public. It is just the way it is, which is why we work hard to make sure that our local communities understand us and how our safety and environmental performance is continuously improving.

“Most chemical incidents, large or small, make the headlines. Yet the chemical sector safety performance is far better than many other industries. That is a fact.”

“Looking at the injury rates across many other manufacturing industries the chemicals sector is by far one of the best performers. Don’t get me wrong, there is always room for improvement. For me, even a single injury across the whole sector is an injury that could have been prevented.”

“I know I can sleep at night because each of the Business Boards monitor the safety systems, procedures, people and emergency responses are all designed (and continuously checked) to keep the risk levels low. If there is a deviation from that I would see it in the safety reporting.”



It will be business as usual for Britain's Beth Tweddle when she takes on the world at London's 2012 Olympics. Not so, maybe, for Mum and Dad who will be watching nervously from the stands. But Beth knows what it takes to be the best, be it in business or sport. It's about belief, passion, talent and keeping calm under pressure.

BETH IS SET TO RAISE THE BAR – AGAIN

ON the face of it, Beth Tweddle is an unlikely heroine. At 5ft 3 inches, she's tiny, modest and incredibly unassuming.

But this 26-year-old stands tall to make history at London 2012.

For Britain has never won an Olympic medal in an individual female event.

Arguably, though, Beth has already made history. She is, after all, the only non-teenage woman to win the World Championships three times.

But it's an Olympic medal that still eludes her – and it's the thing that still drives her. Dad, Jerry Tweddle, Business Manager INEOS Compounds understands that desire, but says after coming so close at Beijing in 2008, this time Britain expects Beth to do well – and that adds to the pressure.

"Most of the athletes are just pleased to get to the Olympics but for people like Paula Radcliffe, where there is an expectation of a gold medal, it is just trauma," he said.

"The run-up to the Olympics will be hard."

But Beth remains remarkably calm and says, if anything, she is looking forward to competing in front of a home crowd.

"It is a once-in-a-lifetime opportunity and that's how I want to think of it," she said. "Not as massive pressure."

At 26, she knows she is a veteran in the world of gymnastics but plans to use that to her advantage.

"I may not have the body of a 16-year-old but I have a lot more experience on my side," she said.

Experience is something she has acquired over the 18 years she has been competing.

"Most athletes compete in one Olympics," said Jerry. "This will be Beth's third."

The ability to come back year after year is a quality Beth admires in other athletes. *"I know how much dedication it takes to remain at the top," she said.*

Athletes she admires most are marathon runner Paula Radcliffe and Olympic gold medalist Kelly Holmes.

"Both of them have had a lot of injuries throughout their careers but they have both still managed to achieve amazing things," she said.

"I have also had my fair share (of injuries) but think: If they can do it, then why can't I?"

Beth's parents have also been a wonderful source of support and inspiration.

"The greatest thing they have ever taught me is to never give up and to treat everyone the way you would like to be treated," she said.

As with all true champions, she believes that practice makes perfect.

Sometimes it can take her three months to master one skill – even before she has weaved it into her routine.

"It's basically a question of doing it over and over again until it's perfected," she said. "It can get a bit tedious but that's what you have to do."

"Champions work hard and are willing to keep at it even when things are going against them." One of the hardest things for gymnasts is that if they take three months out from training, their height changes, their technique changes and their timing changes.

"Unfortunately, if you're half a second out in gymnastics, that's when it all goes wrong. And I've found that out many a time."

"If you let go of the bars too early or too late, you're on your face. It's milliseconds that make the difference."

When she takes to the floor – and bars – at London 2012, she will have performed her 140-second routine hundreds of times in the gym.

But, knowing Beth, who now has a move named after her, there will be a few surprises in store for those watching. In short, she will be taking risks.

"If I hold back and do a safe routine, I won't be in with a chance of a medal," she said.

"It's as simple as that."

Those 50 seconds on the bars, she said, are like being on a rollercoaster.

"The only difference is that I am in control of it," she said.

Whatever happens at London 2012, Beth, who plans to retire from the sport, has already raised the bar for gymnastics in the UK. Hugely.

"I do find it a little bit strange when others describe me as an inspiration," she said. "But it is an honour."

"To me, I am still the same person I used to be. I am just in the gym training the hours I used to train."

"The only difference is that I now have a few more titles to my name."

Mum and Dad, though, are immensely proud of her achievements to date – and will be, whether she wins or loses at London.

"Sometimes someone wins an Olympic gold but you cannot remember their name," said Jerry. "But Beth's name will forever be linked with raising the standard of British gymnastics and inspiring youngsters to follow in her footsteps."

CLICK TO VIEW VIDEO:
BETH TWEDDLE
TOKYO 2011



WORLD CHAMPIONSHIPS

Gold	2006 Aarhus	Uneven Bars
Gold	2009 London	Floor
Gold	2010 Rotterdam	Uneven Bars
Bronze	2003 Anaheim	Uneven Bars
Bronze	2005 Melbourne	Uneven Bars

WORLD CUP FINAL

Gold	2006 Sao Paolo	Uneven Bars
Silver	2004 Birmingham	Uneven Bars
Silver	2006 Sao Paolo	Floor

EUROPEAN CHAMPIONSHIPS

Gold	2006 Valos	Uneven Bars
Gold	2009 Milan	Uneven Bars
Gold	2009 Milan	Floor
Gold	2010 Birmingham	Uneven Bars
Gold	2010 Birmingham	Floor
Gold	2011 Berlin	Uneven Bars
Silver	2004 Amsterdam	Uneven Bars
Silver	2007 Amsterdam	Floor
Silver	2008 Clermont-Ferrand	Floor
Silver	2010 Birmingham	Team
Bronze	2002 Patras	Uneven Bars

COMMONWEALTH GAMES

Gold	2002 Manchester	Uneven Bars
Silver	2002 Manchester	Team
Silver	2002 Manchester	Allround
Silver	2006 Melbourne	Team

CHALLENGER CUP

Gold	2012 Doha	Uneven Bars
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"Beth Tweddle – arguably Britain's most successful gymnast of all time"

PARENTS NEED NERVES OF STEEL TOO

It's hard to know whose nerves will be tested most when Britain's top gymnast Beth Tweddle goes for gold at London 2012 Olympics.

Will it be Dad's, Jerry Tweddle Business Manager INEOS Compounds, Mum Ann's? Or their daughter's who, at 26, is now considered positively geriatric in gymnastic terms?

If history is anything to go by, though, it's unlikely to be Beth.

"When you are standing waiting for your turn, you have to be 100% confident that it is going to work," she said.

"If you are even slightly nervous or worried that you might hurt yourself, that's when accidents usually happen."

"Gymnastics is 90% mental."

Mum and Dad know that but it doesn't stop them worrying.

"I am so nervous that I want to talk to anyone who'll listen," said Ann. "But Jerry goes very quiet."

As a result, they rarely sit together during major competitions and apart from a good luck text to Beth, they leave her alone.

"There's no room for us just before a competition," said Jerry.

Ann said some parents did attempt to talk to their children, but they had always blended into the background.

"Beth knows we are there but she never acknowledges us before she starts her routine," she said. "She's got her own nerves to deal with without trying to cope with mine."

Although Ann and Jerry do not necessarily share the same row of seats, what they do share is a passion for the sport that has taken them to all corners of the globe over the past 20 years.

"Over the years we've taken our holidays, to different places that we would not have picked as typical tourist destinations," said Jerry.

"But what could be better than travelling around the world watching your kid?"

That support has meant the world to Beth.

"My parents have played a massive part in my success," she said.

"When I was younger they were my support team in every way – both financially and mentally."

"They had to play the nutritionist, the parent, the taxi driver, and they were always there to console me or to celebrate with me."

The two of them, though, may be as proud as punch of their daughter's achievements and staying power, but they take little credit for the fact that Beth has changed the face of gymnastics in Britain.

She has, they say, always been a determined little soul with an iron will and the desire to be the best.

"Beth has always been very competitive," said Jerry. "As a child she absolutely hated losing at anything."

"Many a time we had to play another game of crazy golf on holiday so she could eventually finish triumphant."

"But she's never been aggressive with it."

Jerry and Ann first took Beth to Camm Street Gym in Crewe when she was seven because she had so much energy.

"She never sat still and she was always upside down," said Jerry.

Mum, Ann, used to regularly find her on top of units in the kitchen.

Coaches quickly spotted her potential.

"Beth just had no fear and before you knew it, she was doing 25 hours a week in the gym," said Jerry.

"She knew she had to train hard if she wanted to get the results so she was driving herself."

"Even today she knows that if you want to win, you have to risk losing."

Disappointments – she never won the British Junior Title and has yet to win an Olympic medal – have simply spurred her on.

If anything Mum and Dad say they have learned from her.

"Beth has taught us such a lot about how to deal with disappointments in life," said Ann.

"Each defeat is logged and then she just parcels it up, puts it out of her mind and moves on. She never looks back."

An Olympic medal – she narrowly missed out at Beijing in 2008 – would be the perfect way for Beth to end her career.

But her legacy to a sport once dominated by the likes of Russian Olga Korbut and Romanian Nadia Comăneci is arguably more important.

"The Brits just never wan," said Jerry. "Now British youngsters look to Beth and think 'If she can do it, then so can I.'"

For Jerry and Ann, it has been an amazing journey through life's ups and downs, involving many hours spent sitting in various A&E departments.

"She once injured her foot playing netball," said Jerry. "You only want to be saying that to the coach once in your lifetime."

Looking back, Jerry and Ann know that parents can either be a hindrance or a help.

"Very early on her coach wanted to know what kind of parents we were," said Ann.

"I wasn't sure what he meant but he knew that if Beth were to do well, she would need our support."

That support extended to Jerry working late every night in the office at Runcorn for many years while Beth trained at Liverpool Gymnastics Club.

After her two-hour long session, he would pick her up and drive home for supper and homework before bed.

For Jerry, that hour-long car journey home to Bunbury in Cheshire was a blessing.

"How many parents with teenagers get to enjoy an hour-long chat in the car like that?" he said.

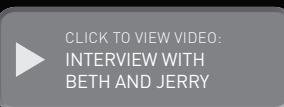
Beth learned to drive at 17, and passed her test first time.

But before that, she would catch a cab from Queen's School in Chester to Liverpool.

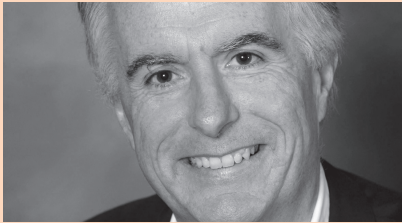
"Sometimes the taxi bill for the month was more than our mortgage," said Jerry.

"But we were lucky that we could choose to be able to do that."

"And to be honest, we have had a ball."



INDEPENDENT



*INEOS does business differently to others and it pays, especially when it comes to how the business is financed, as the first part of its refinancing deal – sewn up at the end of February – showed. **John Reece**, Finance Director, takes a look at INEOS financing and 2011 performance.*

“INEOS’ business model has shown itself time and time again to work very well.”

JOHN REECE

Sometimes it pays

MUCH has been written in the world’s media over the years about INEOS and its borrowing, but very little is written about the scale of the organisation, its growth, turnover or earnings (EBITDA).

Yet INEOS’ business model has shown itself time and time again to work very well. It is absolutely right for a commodity chemicals business and means the company remains very much in control of its own destiny. In short, it is not answerable to short-term demands of public shareholders.

John Reece says, *“INEOS has always had a choice in how it chooses to fund its business. It could look for finance in the equity market or continue to use the debt market. The difference is that one gives INEOS control; the other doesn’t.”*

“To finance INEOS in the equity market would mean we would have to do an IPO,” he said. “And that would mean we would be faced with the typical IPO cycle – each quarter needs to be better than the previous quarter because that is what equity analysts and investors are looking for.”

“And that is very difficult for a cyclical commodity chemical business, like ours, where we are more focused on long-term growth rather than quarter to quarter progression.”

Instead INEOS has always taken the view that if the debt markets are open – and the prices are attractive – then it is a better and more efficient way to finance its business.

And it’s worked well. INEOS has been operating that way for the past 14 years.

At the end of February, INEOS successfully refinanced a large chunk of its borrowing a year before it needed to.



The reponse from the financial market was better than expected. INEOS had hoped to raise about \$1 billion in the bond market but the response from investors was so positive that INEOS decided to increase the amount

it intended to refinance because the pricing was so attractive.

A game of two halves -

THE year 2011 turned into a game of two halves for INEOS; the company had a strong first half, with two record quarters but after the summer Q3 was significantly slower and Q4 ended up as a very weak quarter.

As a company, INEOS expects ups and downs that mirror the global economy. Most recently that has been difficult to predict from one quarter to the next, particularly in Europe.

But the main reasons for the weaker second half lay outside of INEOS’ control.

Apart from losses due to operational difficulties with the feedstock supply in Grangemouth, Scotland, and problems with a contractor in Koln, Germany, the company was hit hard by the Euro crisis and China’s

decision to apply the brakes.

“The trading environment in Q4 2011 was challenging,” said John Reece. “The global economic and political uncertainties did affect demand in a number of sectors.”

“And the Chinese government’s action definitely suppressed demand for some of our products in the Far East which led to declining product prices.”

America, though, was a different story.

While the Euro crisis affected businesses across the continent with many buyers seeking to reduce stockholdings – which, in turn, led to weakening demand and reduced operating rates – INEOS North American businesses were able to maintain its good margins



CLICK TO VIEW VIDEO:
INTERVIEW WITH
JOHN REECE

THINKING

“A pessimist is one who makes difficulties of his opportunities. An optimist is one who makes opportunities of his difficulties.”

Former US President Harry Truman

to be different.



“That’s certainly the plan,” said John.

“We are obviously focused on the cost of the borrowing and we are trying to make sure we do it in a way that reduces our interest cost over time.”

“But you really have to take advantage of the credit markets when they are there because they are very cyclical.”

He said the improving US economy had helped the credit markets in America get off to a great start – and that’s why INEOS had gone out there at the end of January and refinanced the earliest slice of the debt which would have matured in 2013. We now have no significant term debt maturing until 2014.

Financing a business the way INEOS does, though, would not suit every business.

“For a business that is cyclical and that has to be managed over a long time horizon, then it fits very well,” said John.

“For other businesses where the objectives are different perhaps, such as a private equity-backed business looking for an IPO exit, it might be different.”

John said INEOS would only ever consider changing the way it financed the business if the credit markets closed.

“If we could not refinance the borrowing then that would be something we would have to think about but it’s hopefully unlikely to happen,” he said.

“You do have to pick your timing but confidence in INEOS was high and we had very strong demand,” he said.

Most of INEOS’ borrowing is from financial institutions and funds. It stems from 2005 when it took out a series of loans to buy the Innovene business from BP.

Many of those loans are now coming to maturity over the next few years.

INEOS’ big goal for this year is to refinance the remainder of its borrowing (or senior facilities agreement) which amounts to around €2.4bn – when the time is right.

“Over the entire business, the four-week moving average of weekly order volumes for the first four weeks of January was the highest it has been over the past five years.”

INEOS Olefins & Polymers North America’s margins have benefited from the increase in the price of polyethylene, the decline in the cost of ethane and a tightening supply position caused by a heavy plant turnaround season in the industry.

All INEOS Olefins & Polymers Europe’s plants are running well and achieved substantial sales price increases in February.

In chemical intermediates, all four major businesses have also encountered improved trading conditions.

Phenol sales are 20% higher than December with improving margins from tight markets.

Nitriles’ plant operating rates have risen from about 60% in Q4 to almost 100% in February, with prices continuing to move upwards in all regions and demand recovery continuing with supply limited by a heavy turnaround season.

Market conditions for the Oxide business continue to improve too and Oligomers remains solid with good volumes and firm margins.

“It is encouraging,” said John *“It puts us in a good position to go back to the markets later this year to complete our refinancing.”*

2011 financial performance

because it continued to benefit from using cheaper gas feedstocks and an economy that was growing in confidence.

Trading conditions were solid in North America and its margins remained above mid-cycle. Ethylene derivatives also remained competitive in export markets.

Overall, though, 2011 was a good year, with INEOS Group EBITDA at £1.7 billion – slightly up on the previous year.

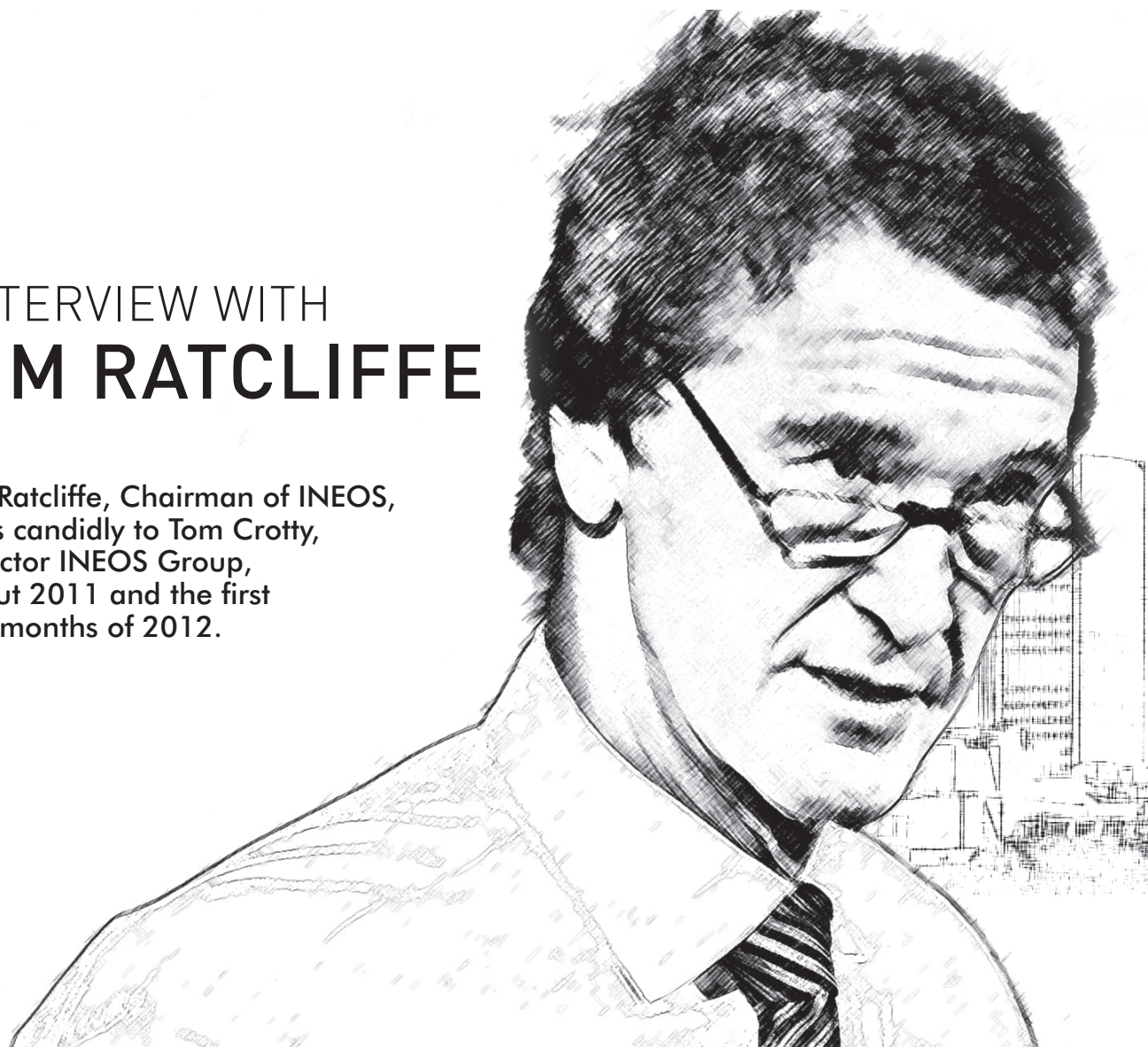
And so far this year INEOS is doing well.

“The trading environment at the start of 2012 has improved significantly in comparison to Q4,” said John.



INTERVIEW WITH JIM RATCLIFFE

Jim Ratcliffe, Chairman of INEOS, talks candidly to Tom Crotty, Director INEOS Group, about 2011 and the first few months of 2012.



TC: We last met in November when you explained that, although the year had started well, by the end of it demand had softened, on the back of uncertainty in Europe. Did the year end as you had expected?

JR: Yes. It was a quiet Q4 because of the Euro crisis and China's decision to tighten its belt and all our businesses saw orders dry up. There was a lot of de-stocking going on around the world.

We had similar Q4s in both 2009 and 2010 so it wasn't a disaster, more of a disappointment because the first half had been outstanding. But the chemicals' business does go up and down. We all know that.

Over the course of the four quarters of 2011 it all balanced out to be a very comfortable year for us and Q1 of this year has started strongly.

People are restocking and generally demand has picked up. America is going well and China has loosened its belt again. All in all we are quite pleased with Q1.

TC: How was the safety performance for the year?

JR: On the personal safety front we had a record year. Our safety statistic was .2 or .21, which was the best we've ever seen.

That, in itself, was very good but more importantly we have seen four years of progress, which shows that the systems we have put in place are working well.

We can safely say that we are probably now in the top decile of the chemical industry.

But we know that Exxon is at 0.16 and we are at 0.21, which means we can always get better, that improvements can always be made until we get it to zero.

The other aspect is process safety, which is more difficult to measure than personal safety because statistically there is not as much happening.

But we scrutinise very carefully loss of containment, and any loss is always discussed at length in board meetings. We look very carefully at the SHE critical trips and alarms so that if we ever get to the last line of defence, or there is ever an issue with one of these chemical processes, we can do something to prevent a major problem.

TC: In January you went to the financial markets to refinance borrowing. What was the response from potential investors?

JR: Surprisingly good. January was still a particularly difficult month because we were coming out of the Euro crisis, people weren't too sure because the Chinese had not come back from their New Year celebrations and, although we had seen some very positive signs coming out of America, we were still a little uncertain about how we would be received in the marketplace.

But we were heavily over-subscribed. We were raising just less than \$1 billion but we saw over \$5 billion of appetite. In the end we took out just over \$1.6 billion. But one of our exercises for the rest of the year is to completely refinance the business.

TC: Why was the demand to invest in INEOS so high?

JR: Well, apart from the fact that they liked us obviously,

and the presentations went well, INEOS has made a lot of issuances over the years. It has never let anyone down. We were severely tested in the crisis in 2008 and we obviously passed that test in the worst recession for the past 30 or 40 years.

Since then, investors have done very little investing and now sit on a lot of cash. They know that if they put their money on deposit, they will earn almost nothing so they are looking for ways to invest it.

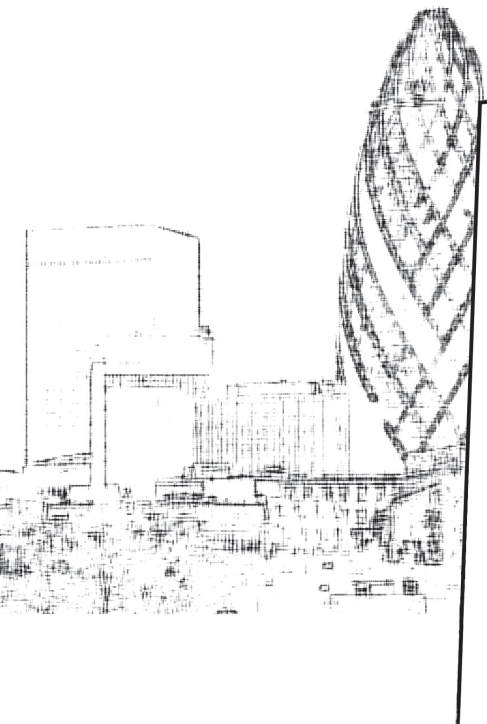
The bonds that we issue are paying 8% so they see INEOS as a good risk. And so far – over many years – our bonds have always performed well. Obviously they go up and down. If you have a crisis, bonds dip down but they have always come back and we have never defaulted.

INEOS' performance has always been strong apart from Q4 of 2011, but the first half of 2011 was the strongest we'd ever seen it so we have obviously bounced back from the recession well and our vision for 2012 is quite positive. All in all it was a very, very good result and we were delighted.

TC: Did it come as a surprise?

JR: We were pleasantly surprised. But we thought it would go quite well, otherwise we would not have gone out there in the first place.

There is an awful expression in America (sorry to all the US readers) called a 'blowout deal'. It does not sit well within the English language but it was a 'blowout deal'. Most of the money we raised was in the United States, in a market that is very strong. People are thinking very positively in America right now.



INEOS

▶ [CLICK TO VIEW VIDEO:
INTERVIEW WITH JIM RATCLIFFE](#)

TC: What does that now mean for the business?

JR: As you know we want to finish the refinancing. It is a thing that you do in bite-sized pieces because it is too much to do all in one go so we hope to be out there again in the first half of this year to complete the process. It just means that we will have a very settled balance sheet. We want to address the issues that arose in 2008 and 2009. I am sure people will remember that we finished up with some fairly severe penalties effectively from the financial markets because of what happened in the crisis, which was caused by the banks.

The banks obviously have the powers to inflict some quite hefty penalties on INEOS so we have to take ourselves away from that. Through the refinancing all of those penalties disappear.

TC: Do you see any change in the INEOS model – as a privately-owned group of businesses chemicals company?

JR: No. I don't think so. It is steady as she goes.

TC: Are the joint ventures that we established last year working well?

JR: Although Styrolution had a very quiet Q4, it had a good year overall. Like INEOS, it has also enjoyed a good first quarter, so it has started the year all guns blazing.

The Refining market in Europe has still not settled down following the 2008/2009 crisis. We still need to see more capacity coming out. Some capacity has come out as Petroplus collapsed a few months ago, although some people are still toying with the idea of rescuing some of

those components, which to us looks ridiculous, but it is a very difficult business to predict. In January, Refining had quite a good month but then February has been quite difficult. We need more time for it to settle down and for the supply and demand to balance out.

TC: What is your focus for the business this year?

JR: Number one is without doubt to complete the refinancing, which hopefully will go well. Then, I think our focus is largely on two areas of growth for INEOS.

Firstly we have shale gas in America which is opening up a lot of opportunities. Quite a lot of our time, attention and focus are spent thinking about whether we wish to take advantage of any of those opportunities.

The second growth story in INEOS is China where there is a lot of interest being shown in our intermediates businesses.

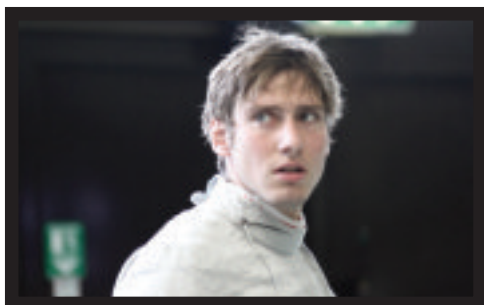
China has invested in its upstream, what we would describe as O&P businesses, so lots of crackers and polymer plants have been – and are still being – built in China. But China has not really moved into the intermediates area which is one step downstream of the upstream petrochemicals and INEOS has some very interesting businesses in Phenol and Acrylonitrile, Oligomers, Oxide, and some of our technologies businesses.

TC: In November, you said that there will always be ups and downs in business. How can INEOS ensure that it continues to do well despite such uncertainty?

JR: There are no easy recipes or guarantees. We know that our businesses are cyclical and there will be ups and downs. All you can do is be sure that you are as fit as you can be and that your fixed costs are very competitive so that, at the bottom of the cycle, we don't see any negatives on the P&L account. That means we have to have low fixed costs big units, we have to have efficient and reliable units, and efficient technology. A lot of that was road tested during the crisis in 2008/2009. Since then we have shut one or two things down and we have sold one or two things, so what you see in the INEOS portfolio today is a pretty lean and fit portfolio of assets and plants.

TC: And lastly, how is the team doing? I am referring, of course, to Manchester United.

JR: You had to spoil things. For those of you who are reading – or listening – you may know that Tom is also a fan of Manchester United. This part of the interview could last longer than the rest of the interview put together once I start. I mean we really are flattered by the appalling performance of the rest of the league in England. They are all hopeless – Liverpool, Chelsea, Arsenal are hopeless. All of the good players seem to have left the UK. United is sitting at the top of the tree but we have had to bring Paul Scholes back into midfield. He's 38 and we have had to bring him back into midfield. Barcelona has got eight or nine Paul Scholes and they are all 24 or 25 so we really are flattered. It is no surprise to me that we dropped out of the Champions League, and the rest of the English League has dropped out of the Champions League. I don't know what has happened. It's all very depressing. You have completely ruined the interview Tom.



Manfred Hartung, Leiter Instandhaltungsservice at INEOS Köln, has watched his son Max grow into a world-class swordsman over the years, but, in watching, he has also learned so much about managing teams, leadership and responsibility.

FENCER MAX CUTS A FINE FIGURE AS HE

TAKES ON T

FORMER American boxer Muhammad Ali said that champions weren't made in gyms.

They are, he said, made from something they have deep inside them – a desire, a dream, a vision.

Max Hartung has a desire, a dream, a vision – to bring home a gold Olympic medal for Germany.

If he does, no one will be more proud than his father, Manfred, Leiter Instandhaltungsservice at INEOS Köln, who learned shortly after his son took up fencing that he should never judge a book by its cover.

“Max was a rather awkward child and sometimes teased because he had to wear glasses,” he said.

“My wife and I thought he would be hopeless at fencing because he seemed so uncoordinated.”

“And I remember smiling when his coach said it would actually work to his advantage. He told us that his opponents would underestimate him.”

Manfred and his wife Roswitha listened but still weren't convinced, so when it came to forking out for all the equipment, they bought Max second-hand kit.

“Max wore a girl's fencing jacket which looked a bit out of place, but he wasn't bothered,” said Manfred.

Max, then just aged nine and battling with foam swords, repaid them by starting to win tournaments.

In February this year their 22-year-old son qualified for the London Olympics.

He will be part of the four-man sabre team (fencing), who, if they win, will go down in history as the first German sabre team to ever win an Olympic medal.

Only three of the team, though, will be able to compete as individuals. The fourth will be the substitute.

Manfred said Max was determined not to be on the substitute's bench.

Their coach is German national sabre trainer, Vilmo Szabo.

“His vision was to turn a team of young men and women into Olympic and world champions,” said Manfred.

“So far, he's produced six world champions.”

Manfred, who will be in London for the Olympics, says he will be nervous watching his son take on the world's best.

But it helps knowing that Max has developed an inner peace and confidence over the years.

“If you cannot cope with pressure in this kind of sport, you need to get out because fencing is very dangerous,” he said.

It is a danger Max is well aware of, having been stabbed during a training session many years ago.

“The sword went straight through his arm,” said Manfred. **“Thankfully Max survived without any significant scars, either mental or physical.”**

“He never worries about getting hurt.”

Over the years, Manfred has watched his son grow into a world-class swordsman but remains modest about the part he and his wife have played in his success.

“Probably the greatest gifts we have given our son are our love and the freedom to grow,” he said.

“He, on the other hand, has been my role model and helped me enormously in how I do my job at INEOS in Köln.”

Manfred said he had learned so much from Max about managing teams, leadership and responsibility.

“As a leader you have to provide a framework that allows your employees to make decisions on their own,” he said.

“It not only makes them more accountable for their own actions but it increases their self-confidence and belief and makes them feel proud of their achievements.”

Manfred said they were the fundamental building blocks for any successful company.

“On top of it, though, you do need to have someone who believes in you and your abilities and is willing to encourage you to achieve even greater things,” he said.

“Over the past 10 years I have realised that if you have a vision, the right set-up and the right people beside you, you can achieve anything.”



HE WORLD



Unlocking potential. Locks like these are produced by apprentices at Köln as part of their practical training.

UNLOCKING POTENTIAL:

INEOS MASTERS THE SKILLS TO FIND THE RIGHT PEOPLE

Finding people who understand a company's ethos is key to any organisation that wants to grow and prosper in today's competitive world. But sometimes, that's not as easy as it sounds. INEOS, though, has always viewed a problem as an opportunity to improve, which is why its search for the best starts early.

PEOPLE can make – or break – an organisation or a situation.

One only has to look at the incident where the captain of the Costa Concordia allegedly abandoned his ship, leaving his passengers and crew to fend for themselves after his cruise liner crashed into rocks off the Italian coast and capsized.

It's why finding people who, not only understand your company's ethos, but practise it by example, is vital.

That is why INEOS constantly takes steps to ensure a continuous supply of highly-skilled, highly-disciplined and motivated employees who acknowledge their responsibilities and are prepared to leave nothing to chance.

And the search starts early. In primary schools, colleges and science fairs.

"We are continually seeking new candidates and training our own people," said Patrick Giefers, site manager at INEOS Köln.

The reason is simple: INEOS knows it pays to invest in the best. It is an approach that is recognised by potential candidates in and around the Köln site.

Andreas Hain, head of apprentice training at the German site, said every year 2,000 young people apply for about 60 jobs.

"Our apprentice scheme is very successful and we have no problem filling those jobs with very good quality people," he said.

"We can focus on what we need, the professions we need and the personality of people we would like to have in the company," he said.

In Germany, it works.

In the UK, though, there is still a shortage of suitably qualified young people keen to pursue a career in the petrochemicals industry.

"There is never a shortage of applications for apprenticeships in towns where INEOS operates," said Tom Crotty, Director INEOS Group.

"It's very easy. Families have grown up working there and know it is a sound company that provides a good source of income so we are flooded with applications."

The problem – recently identified by Hans Niederberger, the man who used to run the plant in Köln – is the calibre of British students.

"He found there was a world of difference in the quality of the young engineers," said Tom. **"They were academically bright but lacked the practical skills necessary for the job."**

To bridge that gap – and to satisfy the demand for young skilled workers at the Grangemouth refinery in Scotland – INEOS has joined forces with Forth Valley College and Heriot Watt University.

Together they have launched **"Engineers of the Future"**, a five-year modern apprenticeship scheme that gives each student a full university education plus substantial and, more importantly, relevant work experience.

"It creates a work-ready person when they leave university as opposed to the traditional route where really the industry learning starts from day one," said Gordon Grant, CEO INEOS Grangemouth services and infrastructure.

He said the skills gap – identified by INEOS – was not unique to INEOS.

"It is a shortage that we see across the whole of the petrochemical industry and, in fact, the technology industries throughout the UK," he said.

He said he had been working closely with the Scottish Government and skills development agency to promote the INEOS model.

"It is one they should be considering for other industries and promoting the benefits of it," he said.

"For this model of combining university and college education with workplace experience is something that has advantages for everyone involved."

Of course, the concept of work experience placements, as part of a university education, is nothing new.

But what sets this apart is the thinking behind it.

"To have stopped and thought about what experience individuals get, and link it directly into their classroom learning throughout the programme is quite innovative," said Robin Westacott, director of the Engineers of the Future programme.

Forth Valley College runs two programmes. One is vocational; the other is academic.

In addition, college lecturers also explore INEOS' values, especially on safety.

"We want them to understand INEOS' culture so that when they go down to the site to do their on-site training, that culture is already embedded," said Kenny MacInnes, deputy head of engineering at Forth Valley College.

The students are equally as enthusiastic about the programme as INEOS.

"You get paid on the job, you get the hands-on skills that people at university don't get and you also get experience on the site as well," said one.

Another loved the fact that he already had an edge over his peers even before he had graduated.

"You already know a lot more than a typical graduate," he said.

And that is its aim.

"Hopefully we will see more and more of these schemes coming into place for technology industries to produce a high calibre workforce for the future," said Gordon.



COGENT IDEA TO ATTRACT NEW TALENT

INEOS is now indirectly helping small companies find first-class apprentices – through Tom Crotty.

Tom recently became chairman of Cogent, a group of leading businessmen empowered to raise standards in the chemicals, pharmaceuticals, nuclear, oil and gas, petroleum and polymer industries, and expand opportunities for young people in the UK.

“The problem isn’t in the big companies because they can afford to employ apprentices and train them,” he said.

“But if you are a small engineering company, you might feel it’s too risky to take on an apprentice, so instead you find a 35-year-old who works down the road.”

“With Cogent’s support, he hoped that would change.”

“Cogent would employ the apprentices on a three-year programme,” he said.

“The company would bear half the cost but they would not have the headache of employing the individual.”

“And if they didn’t like them, we would find them someone else.”

Tom said Cogent’s brief would include convincing school-leavers about the value of apprenticeships.

“We need to get rid of the perception that apprenticeships mean mud on your boots or oil in your hair,” he said.

Rising university fees were concentrating the minds of young people to appreciate that gaining skills in an industry was a clear path to a career and a prosperous future, said Tom.

Cogent is the Sector Skills Council for the chemicals, pharmaceuticals, nuclear, oil and gas, petroleum and polymer industries.

In the past, skills councils were awarded a fixed amount of money by the Government. Now they have to bid for it.

And Cogent is so far doing very well.



Cogent – Attracting new talent into the UK chemicals sector

UK NEEDS CLEAR, LONG-TERM ENERGY POLICY TO SAFEGUARD FUTURE OF MANUFACTURING

INEOS continues to have a significant presence in the UK, with around 4,000 employees across six sites.

The company remains committed to its established manufacturing base but is concerned that the business environment does not support the needs of competitive international business.

Tom Crotty, Director INEOS Group, believes firstly Britain needs a clear, long-term energy policy if it is to stop the rot – and safeguard the future of manufacturing in the UK.

He says short-term thinking has already done significant damage.

“At the moment there is not a lot of joined-up thinking,” he said. *“But things need to improve if the UK is to reverse the trend of the past 10 years.”*

“Without a sound manufacturing base, the country cannot generate wealth, and without wealth generation, we cannot raise Government spending to maintain our schools and hospitals.”

He said, the countries that had fared best – Germany and Scandinavia – had invested heavily in manufacturing.

Those which hadn’t – Greece, Spain and Ireland – had foolishly relied upon the service industry instead.

Tom said the British Government and the energy industry needed to develop a coherent industrial policy so that everyone knew which sectors had to be maintained at all costs.

“That’s the most important thing and it is going to be critical,” he said.



“Our economy has become more and more unbalanced, with our fortunes hitched to a few industries in one corner of the country while we let other sectors, like manufacturing, slide.”
Rt Hon David Cameron MP, First Speech as Prime Minister, May 2010

“It is a huge challenge to change our economy for the future and the same old thinking will lead to the same old results: an economy too dependent on financial services, too many people stuck in low-pay and dead-end jobs and growing inequality.”
Rt Hon Ed Miliband MP, First Speech as Labour Leader, September 2010

“A definition of success is an economy with high rates of productivity growth that is not over-dependent on one or two business sectors.”
Sir Richard Lambert, former Director-General, CBI, Final Speech, January 2011

“If we have a long-term stable energy policy, industry can deliver against that.”

“At the moment we are lucky if we have policies that survive one term of government.”

Tom also urged successive UK governments to avoid imposing even more regulations – be they home-grown or forced through by the European Union – on an industry already drowning under the sheer weight of legislation.

He said the Germans and French had got it right.

“They interpret EU regulations differently to us,” he said. *“They impose the regulations in a way that they protect their industries.”*

“I think we need to examine the impact of all EU regulation on our industry before blindly implementing it.”

Between 1997 and 2007 the UK’s manufacturing industry as a percentage of GDP effectively halved, falling from 22% to 11%.

Germany’s – on the other hand – has barely been affected and about 50% of its energy still comes from coal.

During a recent dinner with the UK Government’s Business Secretary Vince Cable, Tom was asked what one thing the Coalition Government could do to help Britain’s manufacturing industry.

“I suggested a time machine so we could go back 20 years,” he said.

But Tom believes the mood may be changing.

“I think the downturn showed up sharply what needs to be done,” he said.

Graduates in the US know that if they get a job with INEOS Olefins & Polymers USA they will be given a challenging role with responsibility and accountability – very early on.

And the news is spreading.

“Top graduates are demanding more meaningful jobs and roles. They have a new perspective and expectation that we can tap into straightaway,” said Sam Scheiner, HR Director INEOS Olefins & Polymers USA.

“The first thing that we do is put our graduates into meaningful roles tackling real challenges from day one. Our newly-hired graduates don’t find themselves in a run-of-the-mill development course or staff job.”

“Putting our graduates into meaningful jobs, working with experienced employees, allows them to reach a fuller potential and make a significant contribution to the business much more quickly.”

Olefins & Polymers USA regularly attends job fairs to raise its profile among the universities, and, in turn, among the students.

“That is so important to us,” said Sam. *“And it’s one of the reasons that we put such a lot of time and effort into getting it right.”*

“Getting the right graduates is fundamental to the whole process. We want the right people with the right fit for our business who will flourish and grow in an exciting and challenging environment such as ours.”

Olefins & Polymers USA has dedicated recruiting teams at each university. *“This allows us to ‘get a feel’ early on for who is right for the company,”* said Sam.

Each team draws up a short-list and interviews the candidates at the universities before deciding who to invite to a two-day ‘super recruiting session’ at Marina View where the potential employees are taken on a tour of either INEOS’ Chocolate Bayou or Battleground site.

REFRESHING TALENT

INEOS’ campaign to recruit America’s top graduates is paying dividends

Bill Steiner, who joined INEOS as a chemical engineering graduate from Georgia Tech University almost five years ago, acknowledged the difference. *“I immediately had a lot of responsibility and I was able to make an impact very early on,”* he said.

The number of US graduates, employed by Olefins & Polymers USA, varies each year. How many depends on the business’ needs.

O&P USA launched its graduate recruitment drive six years ago. Since then, 35 college graduates, mostly with degrees in engineering, finance or chemistry, have joined the business.

“It is also important to note that most of them – 30 in all in the Houston area – are still working for the company, in a market where a high turnover is common,” said Sam. *“It means we have something people want and are staying on to get it.”*

“Our graduates know that their work is critical to the organisation. And word is getting around. We are building the INEOS reputation year-on-year at universities that we work closely with.”

Most of the graduates – and there is always stiff competition among companies for the best in the US – are drawn from core and tried-and-tested universities in Texas and neighbouring Louisiana.

What all these universities and colleges have in common is that they all have close links or ties to INEOS through employees who are alumni of these institutions.

“It is important to us that we have a strong relationship with the universities from where we recruit,” said Sam.

“Potential graduates also get exposure to the CEO and the Board Directors of our company when they visit our sites,” said Sam.

Dennis Seith, CEO for O&P USA, said the recruiting process was in keeping with how INEOS ran its business.

“Our approach is different to our competitors,” he said. *“Because we are a flat organisation, access to senior management is not only possible, it is common. It allows new hires to develop skills in working with senior managers and I believe it shortens the time it takes for top talent to be recognized.”*

“That’s good for INEOS because we get the most from our graduates. But it is also good for our graduates because they get challenged early on, rather than being weighed down with bureaucracy.”

The College Recruiting campaign has allowed INEOS to positively shape its own future.

“In short, we have been able to establish a talent pipeline,” said Sam. *“We have brought in and developed some terrific people who, no doubt, will be the leaders of our business in the future.”*

“Generally the petrochemical industry has to build on its expertise and knowledge base if it is to survive in highly competitive world markets.”

“If we are to grow a sustainable long-term business, which is aimed at meeting the needs of society well into the future, it is essential that we have a rich source of talent that we can tap into.”

“The long-term future of our business depends on the work we are putting in today to get the right people into our organisation to continue to shape our culture and secure the success of the INEOS business as a whole. And I think we are getting a pretty good return on our investment.”

SHIFT THE FOCUS; SEE THE BENEFITS

Shift work is a fact of life for millions of people around the world. But those who keep businesses afloat 24-hours-a-day can do more than they realise to make their lives easier, healthier and happier

SHIFT work is nothing new – as those who work in manufacturing will tell you.

Where some continuous production processes can take days to start up and shut down, it is just not practical to operate a regular 9-5.

Today, more and more people work shifts to cope with society's 24/7 demands and needs.

The crucial thing is how best to cope with shift work, to make the transition from days to nights and back again whilst maintaining normal energy levels.

Steve Gasser, who has been an operator at INEOS Joffre LAO plant for eight years, is one of 35 operators who looks after the day-to-day operations of the plant. He said his experience had shown that shift work affects different people in different ways.

"The older you get the more difficult it becomes for your body to adjust to shift work," he said. *"It can affect your energy levels, how you think and feel physically. Both at work and at home."*

"Some rotations are better than others. Winters here are the most difficult because of the limited daylight and cold weather."

The experience is not uncommon. It is very similar to jet lag. But employees can do more than they think to manage the body's internal clock by watching what they eat and drink, getting good quality sleep and taking exercise.

Steve, who has worked shifts on and off for 25 years, says most shift workers avoid caffeine and energy drinks, quickly learn to be able to sleep whenever they get the opportunity and often exercise.

"Many people sleep in rooms that are just too hot which will make it more difficult to get to sleep, or stay asleep, even when someone's tired" Dr Adam Carey

Dr Adam Carey, Founder and Director of Corperformance, gives his advice. *"In recent years, researchers have also found that certain types of food eaten at specific times can actually reduce the impact of changing time zones (jet lag) by up to 70% and much of this is applicable to changing shifts,"* he said.

"Eating more food, which is high in protein, makes people more alert and meals that are high in carbohydrates encourages sleep because of the hormones the foods produce."

"When diet is combined with exercise and good quality sleep in a cool, well darkened place, the impact can be dramatic."

There are a number of things that individuals, who are switching from working days to nights, already do. To reduce the impact of the first night, they often try to go to bed much later than usual – for example 2am – so that they sleep in and get up later than usual on their first day of nights, hopefully closer to 11am or even noon.

"Nutritionists have also found that reducing the body's sugar reserves before the switch can help," said Adam. *"In our experience, though, it must be done at least 24 hours before any changeover in shift."*

"We would advise an employee to cut out carbohydrates on the last day of his day shift change and eat protein-based meals instead."

"That essentially would mean no bread, rice, pasta, root vegetables, grains, sweets, chocolates biscuits and cakes on that day."

"On waking on the first day of nights, an employee should eat very lightly during the day and before starting the shift. Any meal should be high in protein and low in carbohydrates."

"During the shift – and to stay alert – all meals and snacks should again be high in protein and low in carbohydrates."

"It is also, though, very important to drink plenty of water."

"Many people get tired and suffer from poor concentration, solely because they are slightly dehydrated."

"At the end of the night shift, a spot of exercise can be helpful before eating a meal that is high in carbohydrates and low in protein, such as pasta, because that releases the hormone that helps one to sleep."

Adam also advises on getting good quality sleep and says where you sleep is critical.

"Many people sleep in rooms that are just too hot," he said. *"But it is very important to get your core body temperature to drop slightly. If the room or bedding stop you from keeping cool, then it will be more difficult to get to sleep, or stay asleep, even when tired."*

Misti Jezek, shift operator team leader at INEOS' Chocolate Bayou Works' polypropylene manufacturing plant, has worked shifts for almost 19 years. She always makes sure her bedroom is quiet, cold and dark.

"I've actually found that I sleep best if the air conditioning unit is running because it blocks outside sounds," she said.

"Any room should be a maximum of 16°C (69°F) – even better between 12 – 14°C (53°F – 57°F). After a good sleep, it's important to drink plenty of water and then eat well."

"If in winter it is getting dark when you are supposed to be getting up, a timed light can be effective and will help you wake up more naturally," said Adam.

"Bright lights at work are also important."

What shift workers can do to make life easier?

- Eat high protein meals before work to make you more alert
- Eat meals, which are high in carbohydrates, before bedtime
- Sleep in a cool, dark room. The room should be a maximum of 16°C
- Exercise where possible
- Drink plenty of water

At the end of the four days of working nights, people tend to use one of two strategies. They either go home and sleep briefly, but get up earlier, or they try not to sleep and go to bed early. Either way, once awake, try to exercise, eat a meal that is high in protein and avoid starchy foods. When it is time to sleep, eating a starch-based meal will increase the chance of falling asleep.

Someone who does this is Kenneth Cockheijt, a young chemical field process operator based at Antwerp.

"I work out quite often in the gym, or ride my bike if possible, so that I'm always sleepy when I need to be," he said.

If he does ever struggle to get to sleep, he finds listening to music helps. He also watches his diet, changing what he eats to give him extra energy when he needs it.

Working environments are rarely perfect, but managing your diet and taking exercise will not only make you a happier and healthier individual, but they will also ensure you can make the most of your time when you are at home.

And that has always been important to Misti who started working shifts when her daughter was three.

"Working shifts has given me a lot more opportunities through the years to attend my daughter's school parties and events than most parents who work a strict day schedule," she said.



MANAGING TEAMS

THE WORLD OF SPORT HAS MUCH
TO TEACH THE WORLD OF BUSINESS



Understanding how teams work and enhancing performance is not just valuable on the sports field. Here Dr Phil Hopley explains why it is directly relevant to many of things we all do every day.

Winners – whether they work in an office, a factory, a control room or are world-class athletes – are not born. They are made.

It is understandable that some remain cynical. They feel that they have nothing in common with elite athletes. That elite athletes have no relevance to how they do their jobs or manage their teams.

But how often do other business leaders look out of their offices over to the track and field for inspiration to help them enhance their own and the performance of others?

Check out Sir Steve Redgrave, Sir Clive Woodward, or Sir Alex Ferguson's diaries and you will find your answer. Very often.

WHY IS THAT?

A chance for stressed executives to escape from the office?

Business leaders living their unfulfilled sporting dreams?

Or could it actually be that elite sportsmen offer an insight into a world where being the best in their field matters and, in turn, teach businesses some valuable lessons?

Listen to any great sportsmen talk and you will hear compelling evidence of how planning, team selection, strategy, preparation, leadership, teamwork – coupled with hard work – were the backbone to their success.

But, more importantly, listen to how that message is delivered. It will be inspirational.

Sir Clive Woodward, British Olympic Association elite performance director and 2003 Rugby World Cup winning coach, often talks about the ability to **"think clearly under pressure."**

Sir Steve Redgrave, a five-times Olympic gold medalist, writes about **"mental discipline and overcoming low self-esteem."**

What both show is that we're only human. All of us.

Yet many falsely assume that somehow elite athletes have bullet-proof minds. That they are not like the rest of us.

Over the years my work with Olympic rowers, professional rugby players, Premiership footballers and downhill skiers have shown me that this is not the case.

SO WHAT CAN WE DO TO IMPROVE OUR RESILIENCE AND PERFORMANCE?

And by resilience I mean an ability to deal with pressure, to recover and bounce back from set-backs and to be able to work sustainably at optimal levels.

On a simple level we need to establish common goals and link them to what is important to us personally.

We often manage the first, but not the second. And because of that, we miss the opportunity to build resilience. And without resilience we are more likely to get stressed.

But if we can establish common goals and link them to our values, we become motivated and believe in what we are doing and where we are going.

That said, don't expect overnight results or success because it is not that simple.



First we have to discover what might be getting in the way of improving someone's performance.

More often than not, it is a problem with how someone thinks – or perceives – things.

Good managers can usually spot – and deal with – issues in their team. But sometimes specific individual coaching is needed.

Just as in sport, we all need to be able to cope with pressure, negative thoughts and emotions if we are to perform at our best.

Cognitive behavioural coaching trains athletes and managers to keep focused on the job despite simultaneous difficult emotions.

Cognitive behaviour is thinking behaviour. Coaching helps to understand thoughts and feelings that influence attitudes and drive behaviours.

In an ideal world, managers and leaders should be allowing their teams to develop by giving them control and accountability for what they do.

It is about relinquishing control – and replacing it with support.

Managers who are too 'hands-on' are effectively micro-managing their teams and nothing can deplete morale faster than that because it says that you don't believe your staff can do their jobs properly.

Give up a bit of control and you will not only reduce stress but you will also see improved performance. Managers often ask about underperforming teams. In my experience things tend to stay the same if there is not a culture of honest respectful communication.

Once people start talking openly about their concerns, it then comes back to the control issue.

Research for sport and business clearly shows that with greater control and accountability for what we do, we work better.

It's about trusting each other to deliver. And for team leaders, supporting the team to deliver is the key.

In the run-up to the 2008 Beijing Olympics, the GB cycling team management took a long hard look at themselves. They decided that they had to change, so they gave up trying to control the athletes and instead created an environment which allowed them to grow.

And what a difference that made.

Much is written about leadership and getting the most from your team in sport or business.

But it was interesting how little attention was focused on head coach Jürgen Gröbler after Britain's stunning performance in the recent World Championships in Bled, Slovenia, when the GB rowing crews won 14 medals to top the table.

David Bolchover, co-author of *The 90-Minute Manager*, was one who did recognise the pivotal role played by Jürgen.

He described him as a quiet, unobtrusive man who was not interested in the limelight.

He wrote: **"His business equivalent is not the charismatic, rent-a-quote chief executive so beloved of the media, but rather the unsung middle manager who devotes his life to extracting the last drop of potential from the human resources at his disposal."**

COULD THIS BE AN EXAMPLE TO ALL LEADERS IN BUSINESS PERHAPS?

DOES THE 7 BILLIONTH BABY SPELL DISASTER FOR EARTH?

INEOS makes the basic raw materials essential for many products upon which society increasingly depends. Our business is driven by growth of Gross Domestic Product (GDP).

As the world's population grows, and as countries develop, the demand for the commodity chemicals that go into transportation, construction, electronics, agriculture and healthcare grow with it.

But after the birth of the 7 billionth baby at the end of 2011, many are predicting doom and gloom with unsustainable population levels and food shortages.

Should we be worried?

Or will society continue to adapt and benefit from new talent, new invention and a constant evolution of the human spirit?

We look at what commentators, journalists and politicians think.



WORRIED

- 1 The booming population growth accelerates poverty and is an indicator for worldwide environmental problems. Furthermore, population growth results in increasing world market prices.
Renate Bähr, working manager for the Deutsche Stiftung Weltbevölkerung (German Foundation for world population)
- 2 Population growth must be stopped. The world's resources cannot sustain current levels of population growth. There cannot be more people on this Earth than can be fed. The sooner we stabilise our numbers, the sooner we stop running up the down escalator – and we have some chance of reaching the top; that is to say, a decent life for all. Yet there seems to be some bizarre taboo around the subject. This taboo doesn't just inhibit politicians and civil servants who attend the big conferences. It even affects the environmental and developmental non-governmental organisations, the people who claim to care most passionately about a sustainable and prosperous future for our children.
Sir David Attenborough, Britain's best-known natural history film-maker
- 3 The world population is outrunning its basic support systems. That's why the world's forests are shrinking, its fisheries are collapsing, its grasslands are turning into deserts from overgrazing, why soil is eroding and why water tables are falling now in 18 countries that contain half the world's people. Land has become the new gold. It's an early view of the sort of thing we'll be seeing. It becomes an every-country-for-itself world – whether it's oil, water, grain or copper.
Lester Brown, president of the Earth Policy Institute, an environmental organisation in Washington
- 4 Our population is rising while our ability to sustain life on Earth is shrinking. We must change before nature does it for us. Every additional person needs food, water and energy and produces more waste and pollution, so ratchets up our total impact on the planet, and ratchets down everyone else's share – the rich far more than the poor. By definition, total impact and consumption are worked out by measuring the average per person multiplied by the number of people. Thus all environmental (and many economic and social) problems are easier to solve with fewer people, and ultimately impossible with ever more.
Roger Martin, chairman of the charity Population Matters
- 5 Although I am hard-wired to regard people as ingenious and society as resilient to change, my conviction that it had been disastrous to neglect efforts to reduce population growth crystallised when I visited Afghanistan and Pakistan. The struggles to build schools and clinics more quickly than the demand for them rose, seemed almost impossible, as did the battle to persuade people that government might improve their lives more than the Taliban. Sitting in Peshawar, listening to a woman in her mid-20s who had seven children and said with distress that she didn't want any more, it seemed only humane that she should have the means to bring about her wish.
Bronwen Maddox, editor of Prospect magazine

NOT WORRIED

- 1 We live on an over-crowded planet. One effect of this is that natural disasters, such as the tsunami of Boxing Day 2004, claim many more lives than they would have done in the past. Another is that conflicts tend increasingly to be for natural resources, such as oil and water. Only co-operation can save us – and for that we must depend on a reformed United Nations.
Martin Bell, the BBC's former Washington correspondent and ex-Member of Parliament
- 2 It is likely that the world's population will grow by about three billion between now and 2050, especially in the less developed countries. We have never experienced a comparable growth in such a short time. The 21st century will be remembered for its aging population – not only in Europe and Japan, but also in China, Latin America and, after 2050, also in India. But individuals and society profit from rising life expectancy. This is an improvement. Besides, our skills and knowledge will be available for longer. However, health care, the labour market and the welfare systems will have to be adapted.
Population scientist Rainer Münz
- 3 It has been a race between the exhaustibility of resources and innovation, and so far innovation has won. We have several thousand years of human history to support us on that, so I'm reasonably optimistic.
Willem Buiter, Citi's chief economist and son of Dutch economist Harm Buiter
- 4 Thomas Malthus, who predicted in 1798 that unchecked population growth would doom the Earth to starvation, has been proven wrong for the past 200 years, so why should he be right in the next 100?
Robert Aliber, a professor of international economics and finance at Chicago University
- 5 Population anxiety is usually ill-informed and often ill-intentioned – targeted against the poor who 'breed like rabbits' or immigrants who 'swamp' natives. In these circumstances, population fear-mongering is a kind of terrorism and the 'population bomb' is a hoax. The real danger is that as people multiply, we will value them less. We should prize human life and try to continue to count it as precious, no matter how much of it we have.
Felipe Fernández-Armesto, author of The World: A Global History
- 6 We welcome the 7 billionth world citizen. In my opinion, the key to improve the quality of life for people, born and not yet born, is in the hands of the women. Women can handle this only when they are not hungry, when they can go to school and plan their family. This is not possible when they are poor. We, in the West, have to make the choice of redistributing prosperity and wealth. We have to guarantee that the 7 billionth baby will go to school, can make her own choice of whom to marry and whether and how many children she wants.
Johan Braeckman, Philosophy Professor, University of Ghent

IN THE HEADLINES

NEWS FROM AROUND INEOS



INEOS colleagues shape up for the toughest race on earth

John Oivind Selmer, trade union leader, and Oyvind Skogen, mechanic, from INEOS in Norway both participate in Finnmarksloppe, the world's northernmost sled dog race.

As races go, it's possibly the coolest on Earth. But competition is hotting up for the start of the Finnmark sled dog race – a 500km race over frozen lakes and mountains in temperatures that can plummet to -45c.

Lining up at the start will be John Oivind Selmer and Oyvind Skogen, both from INEOS in Norway.

John's a veteran, having completed this race – regarded by many as the toughest in the world – 11 times. Oyvind's a novice by comparison, having gone the distance just once before.

But both men have been training hard for the race, half of which will be run in the dark. But they are not the only ones who need to be in great shape when they set off from Alta with 75 other teams.

"Our dogs must be well trained too," said Oyvind. **"And that means they must be in good physical shape as well as mentally sound."**

The men expect the conditions to be bad. Heavy snow and strong winds are what they fear most.

"Some mushers have described this race as a course in survival," said Oyvind.

But if the weather is good, he says it will be the most beautiful winter adventure ever.

"A great Northern Light playing over the sky is a fantastic sight," he said.

To keep out frostbite – and there is always a real danger of losing toes and fingers to the icy cold – both men will be wearing several layers of clothing.

"We can wear up to six layers," said Oyvind.

During the epic race, teams do have an opportunity to stop for a breather because their dogs must rest for 20 hours.

"I will be satisfied if I get five hours' sleep," said Oyvind.

Most important of all will be to keep hydrated and not to get lost.

"It is very easy to lose your way because there are so many snow scooter tracks in Finnmark," said Oyvind.

If all goes to plan, John and Oyvind would like to finish in under two days and three hours, which is John's personal best.

The fastest time ever recorded was two days and one hour.



Staffan heads off royal competition in gruelling 90km ski race

SHIFT operator Staffan Sandberg discovered he had something in common with the heir to the Danish throne on March 4 – a love of cross-country skiing.

For as he lined up for the start of this year's 90km Swedish race from Salen to Mora, Crown Prince Frederik of Denmark was among the thousands of competitors.

The gruelling Vasaloppet is regarded as one of the world's toughest cross-country skiing races. And with almost 16,000 competitors, it is certainly the biggest.

"At first it is always a little frantic because you are trying to get ahead as quickly as possible," said Staffan who works at INEOS in Stenungsund. **"And because there are so many who start at the same time, you can easily break a pole."**

Despite the sub-zero temperatures, the biggest problem during the race, which has one long uphill stretch, is exhaustion.

"Some people compare this race to a marathon because it's so long," he said.

"Whereas in cycling you can rest sometimes, you cannot during this race because you are constantly working."

"And near the end, when you have emptied yourself of everything, it becomes very hard."

But Staffan did himself – and INEOS – proud by beating his own personal best by just 29 seconds, crossing the finish line at Mora in four hours, 22 minutes and 31 seconds.

The Danish prince finished more than two hours after Staffan, reportedly tired but with a smile on his face and a twinkle in his eye.

"It's been a wonderful day in the tracks," he said.

The winner of this year's race was Jorgen Brink who trimmed 16 seconds off the course record with a time of three hours, 38 minutes and 41 seconds.



French staff fit in exercise with Sylvia

STAFF at INEOS' Lavéra site in France have been queuing up to get fit. More than 100 employees now attend Sylvia Moreau's weekly fitness classes.

"The sessions are not only good for the body but also morale," said one.

Sylvia, who is known for her enthusiasm and tenacity, launched the classes two years ago after she gained access to a spare room on the site.

INEOS has now provided an area, equipped with changing rooms, where Sylvia can coach three lunchtime sessions and two after work.

Children taught to reach for the stars

A FATHER, who manages an INEOS plant in Texas, has been helping children to aim high for years. And 2012 will be no exception for Bob Bradshaw.

This year he is coaching four Special Olympics basketball teams of players aged between 12 and 20 – and if the last three years are anything to go by, there could be a few more gold medals on the horizon for one or two of his teams.

But what's also special about his players is that despite all suffering from intellectual difficulties, they all have a tremendous desire to learn.

"Watching them develop skills and become part of something bigger than themselves is so very rewarding," he said.

Bob, who manages the battleground manufacturing complex in La Porte, Texas, decided to first help coach Special Olympics athletes in the late 1980s – almost 20 years after attending his very first Special Olympics at Soldier Field in Chicago.

"The experience of seeing those athletes and their joy in competing never really left me," he said.

Initially he coached volleyball, basketball and track events in Chicago for two years but gave it up when his two older children were born. The family then moved to Houston and in 1993 their youngest son Sammy was born. As fate would have it, Sammy was born with a special need himself. He had Down's Syndrome.

When Sammy was eight, though, Bob decided it was time to play ball again. And he has not looked back.

Over the past 11 years he has been teaching Special Olympics volleyball, softball, swimming and basketball.

His passion, though, is – and always will be – basketball.

"There are not many opportunities for these kids to be part of a team in any other setting," he said. **"To afford them that opportunity is so rewarding."**

There are now four million Special Olympics in 170 countries. The winners of the local trials compete in regional heats for a place in the national finals.

The very best then meet at the World Games. The next summer World Games will be held in Korea in 2014.

LAVÉRA invests €77m to reduce site emissions

Lavéra Refinery is investing €77m in developing a set of projects that will contribute to reducing significantly its SOx (Sulphur oxides) emissions by 50% and its NOx (Nitrogen oxides) emissions by 40%.

The first step has been reached end of February with the commissioning of the new Sulphur Recovery Unit (SRU) associated to a Tail Gas Treatment Unit (TGTU).

The construction of these new units has started in January 2010. The challenge came from the very tight space available to house the units and limited access which imposed a stringent design and construction sequence for the project engineers and those working in the surroundings. With over 150 people directly involved at peak times, the team imposed very strict Safety, Health and Environmental risk management for all works.

The new SRU and TGTU are Best Available Technologies enabling a final sulphur recovery yield of 99.5%, this will cut our SOx emissions by 25%. The second project will target the refinery steam production kit but that will be another story.

Pupils get the 'buzz' for science and technology at INEOS' annual SET fair

INEOS has helped to inspire yet another generation of children in the wonders of science.

Representatives from the Grangemouth site were once again on hand at the annual INEOS Science, Engineering and Technology fair to encourage primary schoolchildren to become engineers and scientists for the day.

"As an industry that uses science and technology every day, it is important that we do enthuse the next generation to take up these subjects at secondary school," said David East, communication manager at the Scottish site.

During the 12-day fair, almost 1,800 children, aged 10 and 11, from 53 local schools got a buzz as they passed through the doors of Grangemouth Stadium to enter into a world of wonder.

Through a series of interactive workshops, children were shown how to:

- **CONTROL** electricity.
- **CREATE** battery-operated circuit boards.
- **DESIGN** and build components for robots and, among other things,
- **PREPARE** rockets for take off – and design a parachute to ensure their safe return.

"This event is all about showing children that science and technology can be fun," said Mr East.

During the event, the Glasgow Science Centre team also highlighted the importance of science and how biology, chemistry and physics link into careers.

The event, which was supported by INEOS' partners Global Science, Scottish Power and Falkirk Council, coincided with National Science Week.

Frank McKeever, spokesman for Global Science, said the INEOS event was now recognised as the premier STEM (Science Technology Engineering Maths) event within Falkirk district.



SPREAD THE WORD

If you would like to contribute an article to a future issue of INCH or have a topic that you would like covered then contact us at info@inchnews.com

All submissions are welcome!