

THERE IS NO SECOND TO LOSE

INEOS invests £110 million in Britain's bid to win the world's oldest and most coveted trophy – The America's Cup

ISSUE 14. 2018

PLASTIC CAN BE FANTASTIC

Why life, as we know it, would not exist without plastic

A WELL-OILED MACHINE

The wind is changing and it's all good news for INEOS in America

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INEOS
THE WORD FOR CHEMICALS

INEOS | TEAMUK

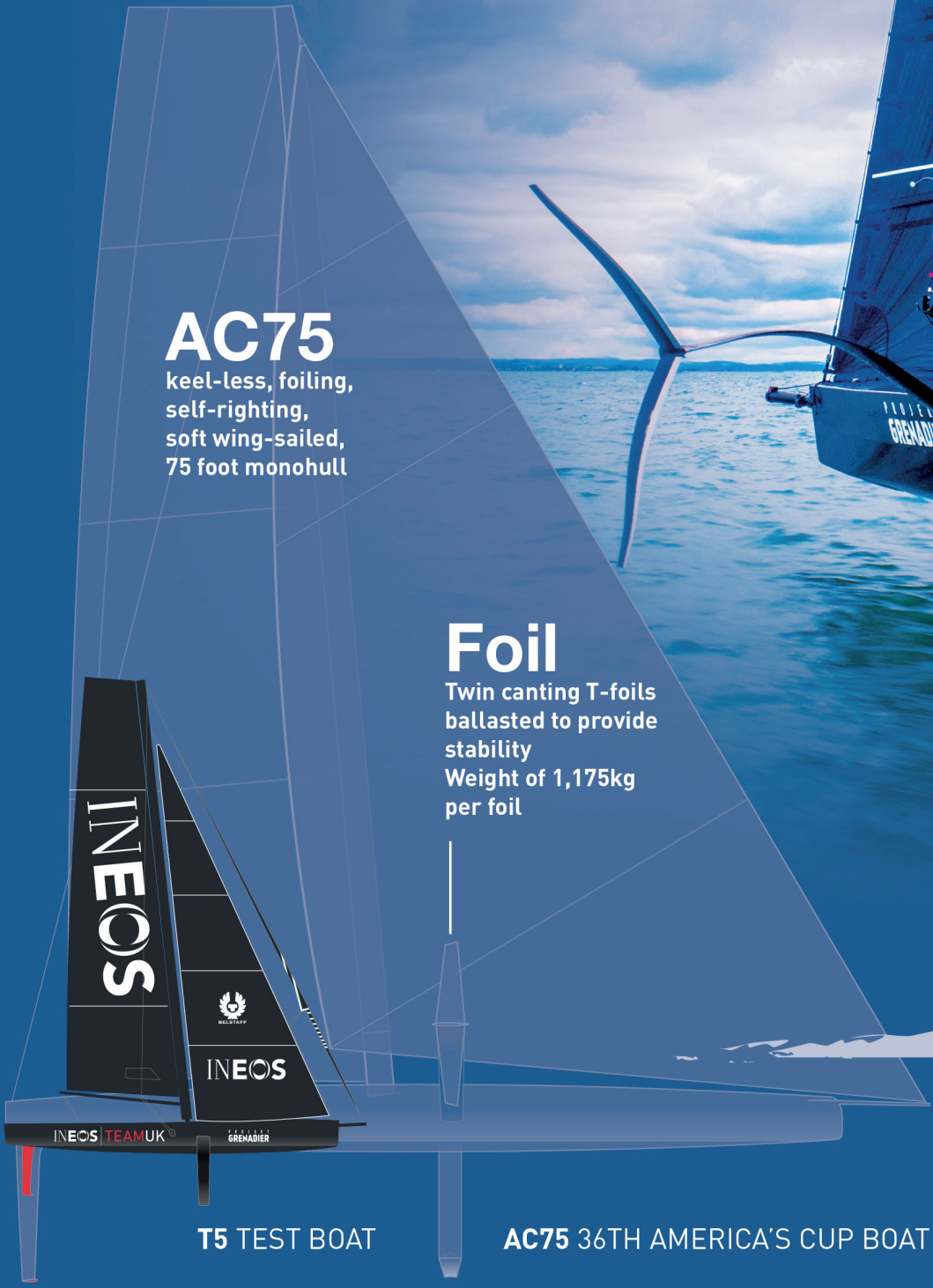
BRITISH CHALLENGER FOR THE AMERICA'S CUP



AC75
keel-less, foiling,
self-righting,
soft wing-sailed,
75 foot monohull

Foil
Twin canting T-foils
ballasted to provide
stability
Weight of 1,175kg
per foil

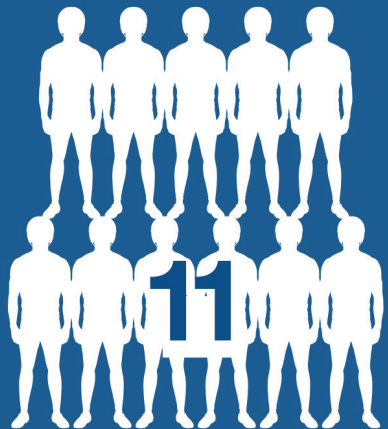
60mph
top speed



Up to
35,000kcal
expenditure per sailor
in physical training
and sailing per week



12-15 hours
per week
physical training



sailors will race on-board the AC75

100
team members

1851



“There is no second, Ma’am”
Reply to Queen Victoria as she watched the yacht America close
on the finish line in 1851 and enquired as to who was second.

2021

- | | | | | | | | | | | | | | | | | | | | | |
|---------|---------|---------|---------|-------------|--------------|------------|-------------|--------------|-------------|------------|-----------|--------------|---------|-----------|-----------|-------------|----------------|-----------------|----------------|---------------|
| Cambria | Genesta | Galatea | Thistle | Valkyrie II | Valkyrie III | Shamrock I | Shamrock II | Shamrock III | Shamrock IV | Shamrock V | Endeavour | Endeavour II | Sceptre | Sovereign | Lionheart | Victory '83 | White Crusader | White Lightning | Land Rover BAR | INEOS TEAM UK |
|---------|---------|---------|---------|-------------|--------------|------------|-------------|--------------|-------------|------------|-----------|--------------|---------|-----------|-----------|-------------|----------------|-----------------|----------------|---------------|

1851 • 1870 • 1871 • 1876 • 1881 • 1885 • 1886 • 1887 • 1893 • 1895 • 1899 • 1901 • 1903 • 1920 • 1930 • 1934 • 1937 • 1958 • 1962 • 1964 • 1967 • 1970 • 1974 • 1977 • 1980 • 1983 • 1987 • 1988 • 1992 • 1995 • 2000 • 2003 • 2007 • 2010 • 2013 • 2017 • 2021

British Challengers

Britain has never won the America's Cup

INTRODUCTION



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TO VISIT
INCHNEWS.COM

As our 20th anniversary year draws to a close, we reflect on another 12 months of unprecedented growth, strong underlying business and headline grabbing announcements.

Off-shore, INEOS is currently among the top 10 oil and gas operators in the North Sea but as INCH went to press we can confirm discussions with Conoco Phillips that will move us much further up the ranking.

And on land, we have confirmed that a manufacturing site to build our uncompromising 4x4 will be chosen by early in the New Year.

We have also announced the largest capital investment ever made by INEOS – and in the European chemical sector for a generation.

Our decision to build a new PDH unit and cracker will be a game changer for the industry and shows INEOS’ commitment to manufacturing.

As ever, opportunities continue to present themselves.

But the company’s achievements – in the UK, in Europe, in America and in Asia – are down to rigor and hard work, delivered by a team who are focused on what’s best for the customer and the company’s future.

As an energy-intensive business, which puts itself under pressure to cut energy consumption, and continually be more efficient, sustainability is critical.

As demands from the world’s growing population continue to be met, INEOS needs to find solutions to the seemingly impossible.

And it is doing this alone, if necessary; with others where possible.

You only need to see what we are trying to do – together in partnership with brand owners and recycling technology companies – to help tackle one of the greatest challenges of this century: plastic pollution.

Take also the EU-funded EPOS project.

Working together with different industries, close to our sites, we could very soon be reusing waste streams as fuels or raw materials with our neighbours.

INEOS’ Chairman and Founder, though, is not just focused on ensuring industry has a right sustainable future.

Jim Ratcliffe continues to be concerned about the plight of the Atlantic salmon in Iceland and the wildlife threatened by poachers in Tanzania.

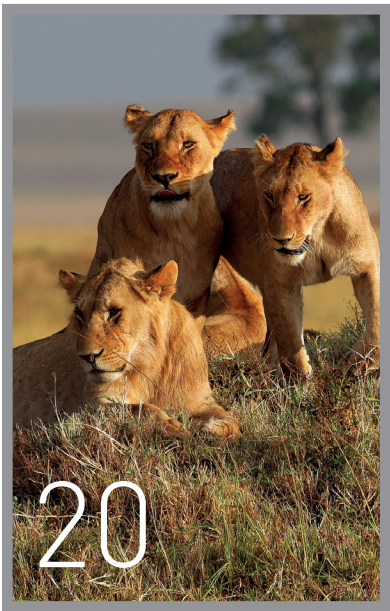
For both to survive, sustainable solutions have been found.

Most recently, though, he has thrown his weight behind Britain’s bid to win The America’s Cup – the most coveted trophy in sporting history. INEOS TEAM UK is today the official challenger for The America’s Cup in a bid to bring it back to the UK for the first time since the competition was founded in 1851.

These are exciting times.

Perhaps Bill Reid, INEOS’ Head of Merger and Acquisitions, got it right when he said: “Sometimes we feel as though we have been on a rollercoaster. More recently it has felt more like a rocket and it would seem we are still on the way up.”

How right he is.



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Editor: Richard Longden, INEOS

Articles by: Sue Briggs-Harris

Design: Strattons (strattons.com)

Publisher: INEOS AG

Editorial address: INCH, INEOS AG, Avenue des Uttins 3, 1180 Rolle, Switzerland

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Global thinking

INEOS pledges its full support to help create a circular economy

INEOS shares many of Dame Ellen MacArthur's views on how to help tackle the plastics issue and has recently announced its own global plastics pledge to move towards a more circular economy for plastic packaging

INEOS has thrown its considerable weight behind global efforts to create an economy in which plastics are reused over and over again..

It has joined with other leading businesses and governments from across the world who want to transform today's take, make, dispose economy into one where plastics are designed to be used over and over again – and, in doing so, retains their value and keeps them out of the ocean.

INEOS has agreed four key pledges to be met by 2025.

"This isn't just a PR exercise," said Peter Williams, Group Technology Director for INEOS. "We are global leaders working on solutions to address a part of the root causes of plastic waste and pollution. Everyone has a role to play in helping to tackle this issue, Government, industry, NGOs and the public, worldwide. We are doing our bit."

Plastics play a fundamental role in modern life. They have transformed many of the applications in which they are used – for the better.

For example, lighter stronger vehicle components mean safer transport requiring less fuel or power. Packaging that protects and preserves food, reducing food waste and the need for preservatives. Sterile

packaging helps to improve healthcare in cities and inaccessible parts of our world whilst insulation makes modern buildings far more energy efficient.

INEOS produces high value plastic that transforms lives for the better.

100% of INEOS polymers are recyclable, but currently only about 14% of plastic gets recycled. Much of it ends up in landfill.

The cost to the environment is huge, and has been widely reported.

But, according to a report by the World Economic Forum and Ellen MacArthur Foundation, plastic packaging waste also costs the world economy about \$80 billion every year.

As part of its commitment to a New Circular Economy, INEOS has set itself four ambitious targets to meet by 2025.

We think it is possible – through innovation and partnership – to retain the value of plastic but rethink the way we produce, use and recover it at the end of their life.

"We want to inspire others and we are leading by example," said Tom Crotty,

INEOS Director of Corporate Affairs.

INEOS is already making progress.

It is currently working with brand-owners to simplify packaging design to make it easier to recycle.

And it is working with waste companies to explore the opportunities of mechanical and chemical recycling of plastics, and its own polymer scientists to find new products that can be made with larger amounts of recycled product without losing any of the quality.

"Plastic has no place in landfill and certainly not in our seas," said Tom. "It not only has a detrimental effect on the environment but it is also a terrible waste of a valuable resource that should be collected so that we can recycle it."

In this edition, INCH focuses on how plastics have changed the world for the better, what the plastics' industry is doing to combat plastic pollution and INEOS' innovative efforts to ensure plastic remains the material of choice for the 21st century.

Sir Ben Ainslie works with INEOS on its plastic pledge: Pages 6/7

“ This isn’t just a PR exercise. These are real targets that help to move our business to a more circular approach. It won’t eradicate the root causes of plastic waste and pollution but it will help change thinking about plastic waste, whilst making our business more resource efficient at the same time”

Peter Williams, Group Technology Director for INEOS



INEOS’ 2025 pledges

BY 2025, INEOS will:

Offer a range of polyolefin products for packaging applications in Europe containing 50% or more recycled content.

Use, on average, 30% recycled content in products destined for polystyrene packaging in Europe.

Incorporate at least 325kt/a of recycled material into products.

Ensure 100% of polymer products can be recycled.

Sir Ben works with INEOS on its plastic pledge

Olympic sailor drowns out critics of INEOS' support

THE most successful sailor in Olympic history is leading the British challenge to win one of the oldest trophies in the world with INEOS' help. But that's not all INEOS and Sir Ben hope to achieve on this journey

SIR Ben Ainslie believes industrial companies, like INEOS, will be the ones to solve the problem of plastic pollution.

"They understand the problem better than anyone else and they can really make a difference," he said in a TV interview with the UK's Good Morning Britain. ***"And I know they are doing everything they can to tackle this."***

Sir Ben, who recently began campaigning with wife Georgie for better education to save our seas, was responding to a question from TV presenter Susanna Reid about why he had teamed up with INEOS to try to win The America's Cup.

"It's a weird situation you are in because your sponsor INEOS is a chemical company and plastics producer," she said. ***"And both Friends of the Earth and Greenpeace want INEOS to be banned from The America's Cup."***

But Sir Ben, who is Britain's most successful sailor in Olympic history, said that was one of the main reasons for partnering with INEOS.

"What better way to tackle this issue than go straight to the manufacturers," he said. ***"I know INEOS are committed to a 'circular economy', where all plastic can be recycled and reused. And I believe that working with INEOS I can make a significant difference."***

He added: ***"I think I have the best chance to bring The America's Cup home for the first time in its history, and at the same time I know I can do something to help address plastic in our seas."***

Sir Ben's wife Georgie told Ms Reid that innovation and technology would solve this global challenge.

"It is not just people at home not using plastics straws or plastic bags," she said. ***"It is going to come down to companies, like INEOS, and those big corporations to think big and really want to tackle the problem, and we know that they do, which is a huge, huge relief."***

Sir Ben goes for gold: Page 14



Plastic *can* be fantastic

Why life, as we know it, would not exist without plastic

Society would be lost without plastic. But we are not blind to the fact that our oceans are awash with plastic waste. We realise that something must be done. What's needed is a wave of change. But it's not about saying no to plastic. It's about saying no to throwing away plastic

PLASTICS are fundamental to modern life but plastic waste is an issue in sharp focus, like never before.

Campaigns calling for cleaner seas are sweeping the world.

The need to tackle marine litter is now on everyone's radar.

Powerful images of children playing on mountains of discarded plastic bottles and sea turtles, mistaking plastic for food, are all around us.

As one of the largest producers of plastic in the world, INEOS is as horrified as anyone at these images and the rising tide of plastic filling our oceans.

But plastic is not evil. Plastic waste is evil, especially when it is badly handled.

So giving up on plastic is not the answer.

What's needed is a wave of change.

We believe it is not about saying no to plastic, but saying no to throwing away plastic.

We also need to talk about how that rubbish ended up in those rivers, on beaches and in the ocean and what we can do about it.

Plastic is valuable. Just like glass, metal and paper.

It has changed the world like no other material and is fundamental to everyday life.

But it is hardly ever associated with sustainability, and how it has saved lives. And that is frustrating.

Plastic packaging, which keeps food fresh without preservatives and protected, free from bacteria, has also transformed the food industry by making it possible for people in developing countries to raise their living standards by exporting food cheaply to the developed world, with significant benefit to their economies. Trade, which is growing thanks to plastic, is better than aid.

Car body parts, dashboards, bumpers, engine parts and fuel tanks are all made from plastic to maintain their strength but, at the same time, reduce the weight of cars.

And similar items are enabling aerospace companies to make planes, trains and lorries lighter and more efficient.

That means transport need less fuel causing less pollution, reducing emissions of carbon dioxide and costs.

Even electric cars use less power the lighter they are.

Another result is fewer deaths and injuries on the roads because of the use of plastic in things such as car body parts used as 'crumple zones' and in air bag technology.

Your mobile phone, your iPad, your computer are all lighter, smarter, smaller and more durable, again thanks to plastic. Heart stents, catheters, syringes, blood bags, prosthetics, pill casings, MRI machines, incubators, dialysis machines, sterile pharmaceutical packaging, and operating theatres are all made of plastic. So too are mosquito nets, disease treatment kits, and water purification pouches, all needed when natural disasters strike.

The rotor blades and components for wind turbines are tough enough to withstand rough weather, on and off shore, because they are made of plastic.

Traditional materials, such as steel, are simply nowhere near as efficient.

In the early days of the industry, steel blades were shown to fail after only a few hundred hours of operation.

In some parts of the world, such as Mexico City, plastic pipes have been a godsend, bringing people clean, drinking water along durable pipes that were cheap and easy to install.

Plastic is all around us. In buildings. In electrical goods. In underground pipes. In clothes and shoes. In toys. In contact lenses. In inhalers. In the cash in our wallets. Even in people.

Plastics are also now making great headway in enhancing the quality of life through implants, replacing worn-out hips, knees, even teeth.

To replace plastic with alternative materials would actually be a retrograde step that would be bad for the environment.

It takes more energy to make something out of steel, or glass, for instance, than it does plastic.

That results in increases in greenhouse gases.





Working with others

All the plastic INEOS makes can be recycled. But recycling becomes difficult when different plastics – and there are more than 50 types of polymer – are combined by manufacturers to make highly efficient but complex packaging.

That needs to be simplified if we are to improve the amount of plastic that can be recycled.

We are now working with packaging designers who blend those polymers for superior properties but, in doing so, make it harder for their products to currently be recycled.

Improving the quality of recycled plastic

There are issues too with recycled plastic. It can be used to make drainage pipes, bridges, fences, signs, seating, bin liners, and kerb stones to name a few but the quality of it can be a problem. Often it doesn't look, feel or perform as well as non-recycled plastic. People don't like it. More importantly for applications such as packaging, that comes into contact with food and drink, it is important to know where the plastic has come from.

We are working on these aspects so that one day recycled plastic or products made from recycled plastic will have the same or similar properties to virgin polymer.

Tackling the world's plastic waste mountains

Sadly only a fraction of the tonnes of plastic currently produced in the world is recycled or burned to recover their energy.

The rest ends up as landfill.

And that, particularly in Asia, is a major contributor to marine litter.

Last year China, which was previously the world's biggest importer of plastic waste for recycling, closed its borders.

Europe and its Member States now have to rethink regulations and policy to encourage investment in their own plastic recycling technology, to deal with the issue closer to home.

But mountains of rubbish have already been exported from Europe to China and other parts of Asia – where there is no infrastructure to cope with their own waste let alone waste from other countries.

The rubbish is stored in huge, open landfill sites in densely-populated areas close to rivers where it often ends up before being carried into the ocean.

In December 2017, it emerged that just 10 rivers carry a significant amount of the plastic waste polluting our oceans.

Two are in Africa; the rest are in Asia.

The worst of these is the Yangtze River in China, which

researchers revealed can carry up to 1.5 million tonnes of plastic into the sea every year.

Governments around the world need to help Asia tackle this mounting problem.

And Europe needs to stop exporting its waste to these countries because, quite simply, it is irresponsible.

We should be finding our own solutions to the problem of what to do with all our unwanted plastic.

The holy grail

One of the most exciting projects, which INEOS is now working on, could rid the world of all plastic waste by diverting it from landfill sites to chemical plants where it can be used as a raw material.

Currently only certain types – and clean – plastic can be recycled. But we are trying to develop the technology with others to take plastic back into its original, chemical form. In essence, the very molecule it used to be.

That will mean waste plastic will become a valuable raw material.

If it were easy, it would have been done already. We have already tried. In 2012 we invested hundreds of millions of dollars into INEOS Bio, which attempted to convert household waste into ethanol that could have produced ethylene for the production of plastic.

But INEOS is a company which thrives on innovation and has a history of achieving the impossible.

That said, no one should underestimate the importance of what we are trying to do.

It is seen as the holy grail because it will mean we can create a truly sustainable world.

Zero tolerance

Of course, there will always be those who drop litter even if every piece of plastic can be recycled.

So we all have a role to play to make sure plastic is not littered and governments need to get tough with offenders. Adopt zero tolerance policies.

It is a global issue and governments need to work together.

We need a cultural change – and education is at the heart of it.

We all need to be aware of the damage that is being done to the world's oceans.

In the meantime, as we seek solutions to this global challenge, we are getting our own house in order through **Operation Clean Sweep®**, which is designed to ensure that none of our plastic pellets at our production sites or in the supply chain, end up in the ocean.

It is an ambitious 'to do' list. We intend to do it.

INEOS creates a wave of change

We are working with others – and alone – to tackle this global problem

INEOS strongly supports a transition to a circular economy, where the benefits of plastics are maximised, and the negative environmental impacts are minimised. And the reason is simple. It makes both environmental and business sense

INEOS thrives on innovation.

It likes to show the world what's possible especially when others say it cannot be done.

In 2012 it built the first commercial plant in the world using technology it had developed to turn household waste into renewable energy and advanced biofuel. The bioethanol from waste could also have been used to produce plastic.

The Indian River County BioEnergy Centre in Florida also produced enough energy to run the plant and power up to 1,400 homes in the area.

The technology worked at laboratory and pilot scale but INEOS Bio could not make it economically viable at commercial scale.

Peter Williams is Group Technology Director at INEOS.

"INEOS has always seen the value in taking waste and making it into something else," he said. ***"But we won't do something if we need more energy to recycle the waste than we did to make the product in the first place. If it's not better for the environment, we won't do it. It must pass that test."***

In another project, more than 70% of Greater Manchester's household rubbish no longer goes to landfill. It is diverted to INEOS' site in Runcorn in the UK where it is used in a combined heat and power plant to produce electricity and steam.

"If we cannot recycle it, we can at least recover the energy from it," said Peter. ***"But that's a backstop. We want to find more efficient ways to recycle the waste."***

And that is now on the cards.

INEOS is currently in partnership with five or six technologies that would mean every molecule of plastic waste could be turned back into its original, chemical form.

"We are working with a number of businesses to find a solution," said Peter.

INEOS is just as concerned as the public about plastic in the environment. This is a way to realise the value of plastic time and time again. If waste plastic is valued as a raw material it is less likely to be thrown away.

"We are looking at a number of different solutions with some overlaps," said Peter.

Pressure on INEOS to act swiftly, though, is also coming from the top. From INEOS Chairman and Founder Jim Ratcliffe.

"He is very keen to be kept informed about what we, and the industry, are doing about it," he said.

INEOS is doing a lot. Through partnerships and innovation it is seeking solutions to the issues.

It is working in partnership with packaging companies and brand owners to rethink packaging design to help improve recycling rates. Currently it can be difficult to recycle packaging because it is a blend of different polymers.

It is trying to improve the quality of recycled plastic, innovating with its polymer experts. It is developing polymer grades that can take increasing amounts of

recycled product without degradation of properties.

It is looking at producing top quality plastic with 50% oil and gas – instead of 100% – and blending it with 50% waste plastic, thus reducing its dependence on fossil fuels.

"100% of plastic is recyclable," said Peter.

INEOS strongly supports a transition to a circular economy, where the benefits of plastics (and other products) are maximised, and the negative environmental impacts are minimised.

"It makes environmental and business sense," said Peter. ***"We are committed to supporting this transition where plastic is no longer discarded as waste but treated as a valuable material that can and is successfully recycled."***

Petra Inghelbrecht, Global Sustainability Manager, at INEOS Styrolution, said the vital contribution plastic had made to the modern world was often overlooked.

"Plastic has changed the world for the better, like no other material," she said. ***"But it is hardly ever associated with sustainability, or how it has saved lives. We believe it is not about saying no to plastic, but saying no to throwing away plastic."***

But Peter adds others need to play a part too.

"We need more collection, separation and sorting facilities," he said.

Plastics industry's ambitious 'to-do' list

PLASTICS manufacturers in Europe have also given themselves an ambitious 'to do' list to prove to the world that plastic is a material fit for the 21st century.

They have promised to make 60% of all plastic packaging recyclable or reuseable by 2030 with the goal of 100% by 2040.

They have also pledged – as part of a voluntary commitment – to do more to stop plastic waste ending up in the environment and find alternative raw materials to oil and gas.

As part of Plastics2030, PlasticsEurope has established three European platforms – Vinyls Circular Solutions, Styrenics Circular Solutions and Polyolefin Circular Economy Platform – to bring together organisations that can help bring about change.

An independent panel, made up of representatives from academia, the European Commission and the European Parliament, will regularly monitor and report on progress.

For INEOS, one of the world's leading producers of plastic, it is not waiting to show the world what it is already doing – and what it intends to do.

"The public often think we don't care about plastic pollution, but we care massively," said Tom Crotty, INEOS' Director of Corporate Affairs. **"Plastic waste in the ocean is totally unacceptable. But plastic is not evil. Plastic waste is evil. And that needs to be said. Maybe it is now time to fight fire with fire. We have got to get out there and tell people what we are doing."**

For as public outrage over marine litter continues to grow, so too does INEOS' frustration that its voice often goes unheard, its message of hope drowned out by

those calling for all plastic to be banned.

"It can be really frustrating when politicians make cheap political points because even among plastic producers, plastic pollution is the only topic of conversation at the moment," said Tom.

He believes the targets – set out and agreed by plastics producers in Europe – are all achievable.

"That's not to say that they aren't challenging," he said. **"But there is no point in setting easy targets. It also hopefully shows that we are concerned about doing the right thing. This is the industry talking. This isn't being forced upon us by governments."**

INEOS O&P, INOVYN and INEOS Styrolution are already working on solutions to the problems set out in Plastics 2030.

But they are also going beyond this to make its own pledges that will be achieved by 2025.

"INEOS is really good at finding innovative solutions to the big issues," said Tom. **"As an organisation we are able to make decisions very quickly because we don't have to go through hundreds of committees."**

The company has already met one of the targets. All of INEOS' plastic can now be recycled thanks to a decision it made several years ago to remove certain additives.

For INEOS, the most difficult areas will be those over which it has no control – what happens to the plastic once people have finished with it.

"Plastic waste is bad when it is badly handled," he said.

And in parts of Asia, it currently is.

"That is where our focus needs to be," said Tom. **"We are looking at how we can support industry initiatives to help prevent waste from reaching the rivers. Even if we just put fences around these landfill sites as a temporary measure, it would help."**

Another part of the industries goal is to reduce marine litter, one of today's biggest environmental challenges.

INEOS is already signed up to the global plastic industry's **Operation Clean Sweep®**, an international initiative to stop the pellet loss into the world's oceans and rivers.

Recently it has worked across the entire industry and supply chain at the Port of Antwerp where there was a co-ordinated clean up across the port.

The project has made an impact and other EU ports are expected to follow Antwerp's lead.

With plastic waste now firmly at the top of the political agenda, Tom hopes the value of plastic to society will not be forgotten in the rush to ban certain plastics.

"Plastic is everywhere and we are massively reliant on it," he said. **"It is in cars, computers, phones, clothes, medical equipment, and planes."**

Plastic pipes, he said, had transformed some of the poorest parts of the world, bringing them clean water along pipes that were cheap and easy to install.

"To those people, plastic has been a godsend," he said.

INEOS Olefins & Polymers Europe

INEOS Olefins & Polymers Europe has given itself an equally tough brief.

All the plastic INEOS currently produces can be recycled.

But recycling becomes difficult when different plastics – and there are more than 50 types of polymer – are combined to make highly efficient but complex packaging.

INEOS is determined to help tackle the problem by encouraging packaging designers to simplify their products and make them recyclable.

“We could, for example, achieve the goal of using one single polymer if we worked together,” said Jacques Breulet, Regulatory and External Affairs Manager, INEOS Olefins & Polymers Europe. **“We need a joined-up approach.”**

And that is the drive of the foundation of the Polyolefins Circular Economy Platform, which brings together resin producers, converters, recyclers, brand owners, all of whom need to work together.

INEOS is bringing its polymer expertise to bear to improve the quality and specification of recycled plastics to encourage demand.

Recycled plastic can be used to make clothes, drainage pipes, bridges, fences, signs, seating, bin liners, and kerb stones, to name a few.

Until now the quality has been the problem.

“Provided the quality is OK, there is absolutely nothing wrong with recycled plastic,” said Jacques.

INOVYN

PVC producers have also pledged to do more.

The newly-formed PlasticsEurope initiative wants the six leading European producers of PVC resin to increase the shelf-life of PVC packaged products and recycle more PVC.

Here INEOS’ INOVYN business is already making huge inroads to recycle PVC thanks to VinylPlus, a similar sector voluntary commitment agreed in 2011.

“With regard to the VinylPlus voluntary commitment, INOVYN is pretty much leading the whole process,” said Dr Jason Leadbitter, Sustainability & Corporate Social Responsibility Manager at INOVYN.

PVC was a plastic once demonised by many. To prove that it could be recycled, INOVYN invested, and continues to invest, in Recovynl – the recycling arm of VinylPlus, which now recycles nearly 640,000 tonnes of PVC from old window frames, flooring, cabling, pipes and other disused applications every year.

“We don’t get anything directly financial out of it,” said Jason. **“In fact, it eats into the margins of one of our core businesses. But it’s a double-edged sword because it demonstrates that PVC is part of the circular economy and seen as a 21st century material.”**

Unlike other plastics, most PVC is currently recycled in Europe where new markets for the recycled products were sought – and found.

“If we can do it, so can the other polymer providers because plastic is a valuable resource and should be treated as such,” said Jason.

For Jason, voluntary commitments are better than legally-binding regulations.

“They provide a huge incentive to create win/win opportunities for both industry and regulators because they save on red tape,” he said.

INEOS STYROLUTION

INEOS Styrolution is also at the heart of a major project to help reduce the amount of polystyrene packaging that ends up in landfill.

It has joined forces with ReVital Polymers and Pyrowave to increase the amount of single-use polystyrene that is collected for recycling and, in turn, help to solve a growing global environmental problem.

ReVital already recycles lots of different types of plastic waste at its plant in Canada but it will also soon be able to treat, for the first time, polystyrene waste – no matter

how contaminated – using Pyrowave’s technology.

The microwave machine, developed by Pyrowave over eight years, will convert the polystyrene packaging at ReVital’s facility in Sarnia, Ontario, into a high quality styrene monomer.

INEOS Styrolution will then turn that liquid monomer into a virgin resin and use it to make new products and packaging.

“We are extremely excited about this project,” said Ricardo Cuetos, Vice President Americas, Standard Products, INEOS Styrolution America LLC. **“It brings together major players across the value chain with a smart solution to recycle polystyrene through new innovative technologies.”**

The process is known as chemical recycling and is a major step on the road to a circular economy where nothing is wasted.

Only 8% of plastics generated today are recycled, yet the material and environmental costs to haul, store, sort and process plastics are enormous.

“Polystyrene foam is one of the most challenging materials because it contains 95% air and is often contaminated with food or drink, and so far it has been very difficult to recycle in an economic way with traditional methods,” said Mohammed Abboud, Product Manager, Standard Products at INEOS Styrolution.

But all that is about to change. Certainly in Canada and North America.

First, though, all three companies must do what they can to raise awareness of what ReVital can now do at its processing plant.

“Although we know there is a lot of polystyrene waste around us, surprisingly the challenge we face is the lack of available material because it is not properly recovered,” said Jocelyn Doucet, CEO of Pyrowave.

And recovery of that polystyrene – from the roadside, landfill sites, restaurants, offices, schools and universities – is key.

Keith Bechard, Chief Commercial Officer at ReVital, said the installation of Pyrowave’s technology would make the difference.

“We are very excited to bring our years of expertise in large-scale plastic recycling operations to support the commercialization of Pyrowave’s technology,” he said.

There is no second to lose

**INEOS invests £110 million in
Britain's bid to win the world's
oldest and most coveted
trophy – The America's Cup**



1851. The year Britain challenged America to a 51-mile race around the Isle of Wight and the year Britain lost. Since then, it has tried but failed to win back The America's Cup. INEOS is now on board. It loves a challenge. And so does Sir Ben Ainslie, who will skipper the British boat in 2021. Could this be a match made in heaven? Only time will tell

THE most successful sailor in Olympic history is leading the British challenge to win one of the oldest trophies for the most competitive yacht race in the world.

INEOS will be there to make sure he can access the best technology to build the best boat at the start line in three years' time.

But then it will be up to Ben Ainslie to bring the cup back to Britain.

Sir Ben, who has won four Olympic golds and one silver, and has been world champion eight times, described INEOS' offer to support the team, including the cost of the two boats necessary to compete in The 2021 America's Cup as an amazing boost for British sport.

With backing from INEOS and the team that has been brought together, he said, Britain had its best-ever chance to win sailing's most coveted trophy for the first time in the race's 167-year history.

"Britain has never won the trophy, despite founding the competition and despite trying many times," said INEOS Chairman Jim Ratcliffe. **"With the team we have assembled, we believe we can get a fully competitive boat to the start line. After that it's all down to the fine art of sailing."**

INEOS TEAM UK will be representing the Royal Yacht Squadron, the very club which challenged the New Yorkers to that very first race in 1851.

"We are very much looking forward to winning back this oldest international yachting trophy," said Jamie Sheldon, Commodore, Royal Yacht Squadron.

INEOS' decision to invest £110 million was made after a mutual friend arranged for Jim and Ben to meet in a pub in London.

The conversation inevitably turned to the elusive America's Cup, often described as the Formula One of sailing.

Later that evening – after what turned out to be the most expensive gin and tonic in history – they parted company.

The next day Jim rang Ben to offer him all the money he and a crew would need to win back sporting's oldest trophy.

"It was fantastic," said Ben. **"But I was a little taken aback."**



The challenge was too great an opportunity for INEOS to let slip by.

And Jim sensed Ben had the tenacity, the skill and the desire to win.

With the money in the bank, the team can now focus on building a boat to outmatch and outsmart their rivals.

"There is a lot of pressure," said Ben. **"But there is a desire among the team to be part of something successful, a desire to win. We all feel it is about getting the job done."**

INEOS' investment is the largest-ever made by Britain in an America's Cup challenge.

"We have taken on many serious projects in the past but none more exciting than this," said Jim.

At a press conference at The Prospect of Whitby, London's oldest riverside pub, Jim described Ben as the Usain Bolt of sailing.

"To be successful in The America's Cup you need a great driver, a very experienced designer and team and to be fully funded," he said. **"It is a marriage between very sophisticated technology and sport."**

INEOS will be bringing together the world's best designers, boat builders, engineers and manufacturing know-how to support Ben as he and his team try to develop the fastest carbon fibre, foiling monohull yacht in the world.

And that matters. For what all previous winners have shared in common has been the resources to innovate.

Britain's challenge will consist of two, 75ft yachts designed by New Zealander Nick Holroyd, who was one of the architects behind his country's winning boat in the last America's Cup.

Ben will skipper the yacht, which could reach speeds of up to 60mph, and British Olympic sailing champion Giles Scott will be the team's tactician.

INEOS TEAM UK's CEO is America's Cup legend Grant Simmer, who has competed in 10 America's Cups and won four. His most recent victory was in 2013 when the Oracle Team USA – with Ben as tactician – managed to fight back from an 8-1 deficit to win the trophy.

"We want to do everything we can to bring this trophy back to Britain where it belongs," said Jim.

Older and wiser

NEW Zealand will be the setting for the 2021 America's Cup.

Sir Ben Ainslie will be 43 when he takes the helm of the INEOS-backed boat and negotiates the 40-minute fixed course off Auckland in a series of races.

Is that considered too old?

No, says Ben. What matters is experience. How to handle the yacht when the going gets tough.

"The guys doing all the grinding need to be fit and they will be all be in their mid to late 30s," said Ben.

For Ben, it is the ultimate team sport where everyone has a clear and important role to play.

That said, there is room for one other. And Jim Ratcliffe could very well find himself being offered that slot.

"Without a doubt, Jim would have made a great sailor," said Ben. **"He is tough physically, he is focussed and has the desire to win."**

Thankfully the 12th crew member does not have to do anything other than observe the 11 crewmen in action.

So all Jim would need to do is hang on. Tightly.

How America won the cup

THE USA has dominated The America's Cup for years.

But Ben Ainslie said it was little wonder because the winner can change the rules – and America did so. Often.

"They insisted that all competitors had to sail to the start of the race, which meant sailing across the Atlantic," said Ben. **"For that, you needed a heavier boat to withstand the journey, so they had a stranglehold on the competition."**

America successfully defended The America's Cup for 132 years.

Finally their run ended in 1983 when America lost the trophy for the first time when Australia II defeated Liberty off Newport, Rhode Island.

"Since then the Swiss, Australians and Kiwis have held The America's Cup, affectionately known as the 'Auld Mug'," said Jim. **"But we think it's time to bring it home."**

GEARED FOR

INEOS set to choose manufacturing site to build its 4x4

INEOS' plan to steer the company into a brand new market by building a spiritual successor to the Land Rover Defender is now very real

INEOS' plan to build the world's best 4x4 was hatched over a pint in the pub.

INEOS Chairman Jim Ratcliffe was mourning the demise of the Land Rover Defender at The Grenadier pub, a short walk from INEOS' headquarters in London, when conversation turned to the possibility of building their own.

That dream is now very real.

"It has become an adventure story in itself," said Jim.

INEOS Automotive – a standalone company formed within the INEOS family to drive the project and, with it, new growth – now has a senior management team of experts and off-road enthusiasts from across the world with decades of manufacturing, engineering and adventuring experience between them.

They also have a worthy mission: to build an all-new uncompromising 4x4 and spiritual successor to the discontinued Land Rover Defender.

"We want to keep it as simple as possible in the modern world so that you can repair it in the field," said Jim. ***"But what we do want to do is work a bit on the quality of the engineering and reliability."***

INEOS is not intending to resurrect the Land Rover Defender. It is building an all-new 4x4 vehicle from the ground up, which meets all current safety and legislative requirements. It will be a robust, no-nonsense utility vehicle, with an emphasis on reliability, durability and peerless off-road capability. It will have its own name, more angles than curves, and have a wheel at each corner. It will not be a Defender.

Jim and his team envisage a British-inspired, German-

engineered, true working vehicle, which can drive cross-country, pull a plough, lead a safari, clear a minefield, cross a river and comfortably drive up to Buckingham Palace.

"It will be about as classless as you can get," he said. ***"A no frills, uncompromising, off road 4x4. Ideally it will be a vehicle which you can hose down outside and inside, like the original Land Rover."***

So far no decision has been made where it should be built. But the location should be known early in the New Year.

"We are not taking it lightly because it is pivotal, for our business, and for the local communities that would benefit from the new jobs we would be creating," said Dirk Heilmann, CEO of INEOS Automotive and leader of Projekt

OR CHANGE

"It has become an adventure story in itself"

Chairman Jim Ratcliffe

Grenadier. **"We will not be bounced into a premature decision by silly politics."**

Tom Crotty, Director of Corporate Affairs, said INEOS had been bombarded with offers from car companies around Europe.

"Some have got sites available or spare capacity," he said. **"And there are other car companies, which have got an existing plant and space on that plant and could make the vehicle for us. All we know is that this is a once-in-a-lifetime opportunity and everything is up for grabs."**

Last year INEOS Automotive – led by Dirk Heilmann, formerly head of engineering and technology – officially launched the new Projekt Grenadier website at The Grenadier Pub in London.

"We have been getting a remarkable number of emails from people all over the world supporting the project," said Jim. **"It has been quite surprising."**

A range of models are planned for sale across the world, including multiple wheel-base options, as well as diesel, petrol and hybrid engines to suit different markets. And it will be aimed at explorers, farmers and off-road enthusiasts as well as city dwellers and adventurers alike.

The interactive website, invites 4x4 enthusiasts to share their own visions of the perfect off-roader.

www.projektgrenadier.com



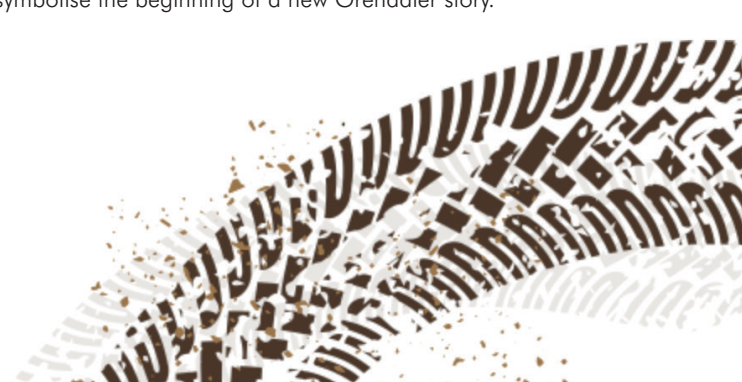
Take note, Cedric

Jim Ratcliffe is hoping Cedric, The Grenadier pub's infamous ghost, might look kindly upon INEOS' latest adventure.

Legend has it that the young soldier was murdered there about 300 years ago after being caught cheating at a game of cards.

Over the years visitors have attached currency to the ceiling to help him pay off his debt – and, in return, hopefully receive good luck.

Last year's official launch of Projekt Grenadier, saw Jim pin a note to the ceiling of the pub to symbolise the beginning of a new Grenadier story.



Jim's stream of consciousness

INEOS Chairman goes upstream to help give Atlantic salmon a fighting chance of survival

Once abundant, the North Atlantic salmon is now endangered. But a small group of people are determined to help conserve the Atlantic salmon in Iceland, one of the last territories where it still thrives, before it is too late. INEOS' Chairman and Founder Jim Ratcliffe is among them

ICELAND is a place where nature reigns supreme.

It is a volcanic island, sitting on the edge of the Arctic Circle, astride the North Atlantic Ridge that continues to push America and Europe apart.

It is strikingly beautiful, wild, untouched and home to some of the best salmon fly-fishing in the world.

INEOS Chairman and Founder Jim Ratcliffe, an expert fly fisherman, discovered that for himself when he first set foot in Iceland many years ago.

What he also discovered, though, was that the North Atlantic salmon is a species under threat.

Since then, protecting the Atlantic salmon, in one of the last remaining areas where they still thrive, has become his passion.

"Everybody knows what a salmon has to go through to survive," he said. "The scale of its journey across the Atlantic and up some of the world's most intimidating rivers is scarcely believable. It survives in sea water and freshwater. It evades all manner of hungry

predators at sea from seals and dolphins to sharks, only to arrive in the rivers to be confronted by rapids, waterfalls and rocks."

In collaboration with the Strengur Fishing Club, which provides the best quality fly-fishing in the world, Jim has initiated a string of investments to help protect the land, rivers and salmon in North East Iceland.

"Strengur had been protecting these rivers for many years, like a treasure," he said. "But they needed financial help to do more. I simply stepped in. They are the ones doing all the real work. I just provided some funds to help them do what needed to be done."

He said Strengur had, for years, recognised the importance of preserving salmon stocks – but, more importantly, that the long-term solution to save this iconic and admired species must also be sustainable.

"A few charitable donations are not the answer," he said.

To help retain the purity of the landscape and the rivers, Jim has been acquiring farms along some

of these rivers and late last year he bought 70% of Grímsstaðir á fjöllum, a vast Icelandic estate which includes the headwaters of some of the most pristine salmon rivers in Iceland.

Although he is now a landowner in Iceland and has a voice on the local rivers associations, he doesn't want anything else to change for the farmers who have cared for this remote corner of Iceland for generations.

"If we work closely with farmers and local communities, we can build something sustainable and environmentally sound," he said.

Together he and his Strengur partners Gisli Asgeirsson and Johannes Kristinsson hope to encourage local farming in harmony with the rivers, and develop a sustainable business offering the most exciting salmon fishing and some of the most progressive conservation in the world.

"When you wrap a top quality business around this experience, the wild Atlantic salmon becomes a high value asset," said Jim. ***"Conserving it is therefore vital***

“ Conservation is the sole purpose of my involvement in Iceland. I want to help maintain the salmon population here, working closely with the farmers and the local communities, to build something sustainable and environmentally sound. This work will also benefit the local ecology and community, maintaining this area as a world class fishing destination. I am proud to be part of it.”

INEOS Chairman Jim Ratcliffe

and Strengur is at the forefront of this conservation work.”

Sports fishing, done respectfully – where all fish must be released carefully back to the river, and the river must not be overfished or during the breeding season – brings in a good income.

“It also provides a supplementary income for the local farms and, more importantly, will fund more conservation work on the rivers,” said Jim.

Monitoring the rivers, their fish stocks, the quality and use of land over many hundreds of square kilometres surrounding the rivers is meticulous work.

Alongside the Icelandic Environmental Agency, Strengur has been dedicated to this task for many years.

“In forming this new collaboration we intend to accelerate these endeavours,” said Jim.

With more money flowing into the coffers from world-class salmon fishing, Strengur will be able to invest in more salmon ladders – to help further extend the breeding ground for the salmon – and expand its own offering of top-of-the-range salmon fishing, in high class lodges, across all six rivers in the North East.

“We know we can do little to prevent the over fishing at sea of the salmon,” said Jim. **“The authorities must shoulder that**

responsibility. But we can create a natural haven for the salmon in this very special corner of Iceland.”



Leading the way upstream

SALMON ladders are important because they increase the size of the breeding grounds for the fish, which lay their eggs in freshwater, then swim to the ocean.

Jim Ratcliffe and his two Icelandic partners at Strengur Angling Club recently finished building a ladder that will allow salmon to enter the middle reaches of the river Hofsa for the first time ever.

A 20ft-high waterfall had stopped the fish from travelling 8km further upstream because they simply could not jump that high.

The new ladder was flooded with water last month after 15,000 tons of rock were removed – and within hours it was being used.

The hope is that alevins and fry, which were released into the river a few years ago, and followed the course of the river downstream to the sea, will one day return to the river where they were born via the new ladder.

The ladder, though, is just one of the many long-term conservation projects being driven by Jim, Johannes Kristinsson and Gisli Asgeirsson.

Pride of Africa

Southern Tanzania is the place to see game galore but very few ever set foot in vast wilderness

Botswana's Okavango Delta has long been viewed as one of the jewels in the African safari crown. But if it's game galore you seek, southern Tanzania is the place to be

SOUTHERN Tanzania is home to more lions than anywhere else on earth.

It is the place to see game galore.

But very few seasoned travellers ever set foot in this vast wilderness.

"They just don't know what's here," said Katie Fewkes, Commercial Manager of Asilia Africa, one of the country's leading safari companies.

Asilia opened its first camp in the heart of the Selous Game Reserve, with the help of a somewhat surprising investor – Jim Ratcliffe.

INEOS' Chairman and Founder believes developing tourism in southern Tanzania will open the eyes of the world to a place of immense beauty and importance – and help to bring jobs and prosperity.

"This is a huge opportunity to create a long-term, sustainable and ecologically-friendly safari tourism business," he said.

Often overlooked by tourists, southern Tanzania has, for many years, faced many hurdles, including poaching, logistical challenges and lack of tourism revenues compared to the more famous national parks.

Jim and Asilia hope to change that.

They have now opened a camp and a private lodge in Ruaha National Park and built a camp in the Selous Game Reserve.

"Both of these are extraordinary and little seen wildlife areas," said Jim. ***"By opening them up, we believe we can develop a sustainable business, which will help to support the wildlife and local communities."***

Each tourist is expected to generate almost 100 US dollars a day for conservation.

The lakeside Roho ya Selous, with its eight, air-conditioned canvas tents, is set in the very heart of the Selous Game Reserve, a wild and unspoilt game reserve which is larger than Switzerland.

The Ruaha National Park is even bigger and more remote but, despite being the size of New Jersey in America, it is visited by only a handful of travellers every year.

"Sadly neither has ever been as famous as the better known parks, like the Serengeti, which means they have been left behind," said Katie.

The 2014-2016 ebola outbreak in West Africa did not help.

"Kenya and Tanzania in East Africa were very far from any risk areas but the scare further widened the gap because people were even less inclined to travel to areas that were less well known," said Katie.

That, in turn, made the region more vulnerable to defend itself against poaching as well as other challenges.

But Asilia and Jim had a vision and saw this as an opportunity to make a difference.

"We both believe that the best way to secure the region is through sustainable tourism," said Katie. ***"This creates jobs and brings in tourism revenues in the form of park and concession fees which go directly towards protecting the park or reserve and the wildlife and habitats."***

She said it would also 'crucially' increase wider awareness of the region globally.

"There would be an international outcry if someone said we might lose all the elephants in the Serengeti, but if someone said the same of the Selous Game Reserve, most people wouldn't even know where it was," said Katie. ***"We aim to change that."***

Jim, who has been on countless safaris over the past 20 years, chose to invest in Asilia because of the work it does to empower local people and places.

"We see people and nature as inseparable partners," said Clarissa Hughes, Positive Impact Co-ordinator at Asilia Africa. ***"The development of one must mean the development of the other."***

The two camps and the lodge – although designed by a South African architect – were built using local labour.

Food and goods made locally are also used where possible and about a third of the company's 600-plus staff live in the remote, rural villages close to its safari camps.

The company, which likes to work with communities, authorities, non-governmental organisations and other tourism companies to benefit all, also provides schools with desks, books and pens.

This year it has also been on a mission to help local students, who cannot afford higher education, to gain scholarships to the Veta Hotel & Tourism Training Institute.

"We believe that education is key to lifting people out of poverty and providing them with alternative livelihoods to poaching and unsustainable farming," said Clarissa.





A new world awaits ..

SEASONED travellers will find the greatest adventure imaginable in southern Tanzania.

Katie Fewkes, Commercial Manager of safari company Asilia Africa, has no doubt about that.

“Selous and Ruaha are for me the ultimate safari destinations. They offer a true wilderness experience, with unspoilt landscapes and spectacular wildlife to discover,” she said.

All three camps will be open by the end of the year.

The choice

- **Roho ya Selous, Selous Game Reserve**
Lakeside camp with eight, air-conditioned canvas tents. En-suite bathrooms, solar-powered hot running water, showers and toilets that flush. There’s also Wifi, for those who don’t want to be disconnected from the digital world for too long, and a swimming pool. Each day guests can choose how to explore this beautiful wilderness, be it on foot, tracking wildlife, on a game-drive in search of lion or by boat, getting up close to the hippos. Drinks around the campfire before a three-course dinner served mostly under the stars.
- **Jabali Ridge, Ruaha National Park**
Eight suites hidden amongst rocky boulders. An infinity pool, spa and plenty of places to laze ensure that time off is as memorable as time out in the African bush. Guests can explore the Ruaha National Park, one of Africa’s wildest national parks, day or night in open-sided vehicles as well as walking safaris for a true adventure. Pre-dinner drinks are served at the Jabali gin bar, before enjoying a three-course dinner.
- **Jabali Private House, Ruaha National Park**
Sophisticated retreat with its own private chef, guide and vehicle. Offers the utmost privacy and exclusivity for families or couples travelling together. While animal sightings are common here, sightings of other visitors are not.

Bridging the gap to create a better world

INEOS helps to inspire a culture of change in last year’s UK City of Culture

EU-funded project will help bridge the gap between different industries on the Humber Estuary

A CITY that played a key role in the start of the English Civil War is on the brink of showing the world what can be achieved when different industries work together.

For years, industries have worked within their own sectors to improve efficiency, cut costs and help to reduce carbon emissions.

What they haven’t done is look to other energy-intensive industry sectors to see how they can work better together and, in the process, satisfy the policymakers who are squeezing industry in their pursuit of a lower carbon economy.

Now, though, they can – and they are doing it in Hull in the UK – thanks to EPOS, a four-year EU-funded project led by Greet Van Eetvelde, INEOS’ head of energy and

innovation policy and professor of energy and cluster management at Ghent University, Belgium,

“EPOS has brought together scientists and entrepreneurs to help industry face a challenge,” she said. “It is a way to make industry more efficient, more cost-effective, more competitive and more sustainable.”

Over the past two years EPOS has perfected the software to help chief engineers and plant managers within five targeted industries – chemicals, cement, steel, minerals, and engineering – to identify opportunities to make use of an industrial neighbours’ waste, side streams, assets or services.

The software enables regionally-linked businesses to

share information with others about what they do, how they do it and what by-products they produce or units they have – without giving away any trade secrets.

“It started with INEOS, because we were willing to create new business opportunities for side streams,” said Greet. “We are also convinced by the potential opportunities presented by working across process industries.”

PhD students based in the UK, Switzerland, Belgium and France have developed virtual profiles – sector blueprints – for the different process industries so that they can share a generic view of, for example, how much heat and electricity they generate, use and waste, and what resources they need.

Hélène Cervo, a research engineer and PhD student at Lavera in France, is among them.

“The EPOS project is all about thinking outside of the box to help build a more sustainable future,” she said. “To me, it is tremendously inspiring because our ultimate goal is to make a difference to people’s lives.”

She has been looking at collaborating with other different businesses at Lavera to see how energy, materials and services can be shared more efficiently.

“The blueprints will be so useful,” she said. “We already believe there are opportunities for INEOS and ArcelorMittal to work together because some of Arcelor’s gases could be energetically or chemically valorised by INEOS.”

At the launch of the EPOS project findings at Hull’s Saltend Chemicals Park, the difference that EPOS could make to INEOS and CEMEX, a cement manufacturer also on the Humber Estuary, was evident.

Currently 80% of CEMEX’s fuel is derived from waste but it could be increased if INEOS were to provide it with part of the high-calorific waste liquid fuel that it sends to its utility provider.

The liquid fuel contains components which can potentially be separated and fed back into INEOS’ process. But the rest, which is currently treated as hazardous waste, could be used by CEMEX as a fuel to make cement.

“If that were to happen, we estimate that it could reduce carbon emissions by up to 1,400 tonnes of CO₂ a year,” said Hélène. “That’s the equivalent of taking about 280 cars off the road.”

In addition to reducing CEMEX’s dependence on primary fuels by 20%, it would also improve the cement kiln operations and reduce operating expenses for both INEOS and CEMEX.

The EPOS project, which is the first of its kind, has also identified opportunities for another company on the Humber Estuary, OMYA, which produces minerals.

The chalk reject material from OMYA could be used as a raw material by CEMEX instead of limestone, and in return, provide cement kiln dust to OMYA for continuous reclamation activities in quarry operations.

Since the launch, INEOS has wasted no time in seizing the initiative.

Dave Skeldon, process technology manager of INEOS manufacturing, Hull, said a non-disclosure agreement was now in place with CEMEX.

“That is always the first step towards getting there,” he said. “Then we’re moving on to resolving all the technical issues that are below the EPOS level, if you like.”

Any project will require collaboration and investment from both companies. INEOS expects to invest £900,000 on the project and break even after two years. CEMEX’s involvement and £400,000 investment should pay for itself after three years.

Stephen Elliott, CEO of the Chemical Industries Association, applauded both companies for acting swiftly.

“This is a good demonstration of the carbon and cost savings which can be achieved through industrial symbiosis in a cluster,” he said.

And he hoped the Chemical Sector Decarbonisation and Energy Efficiency Action Plan with BEIS under the industries’ Chemistry Growth Partnership will lead to further improvements, without damaging the chemical industry’s ability to compete on the world stage.

But before INEOS and CEMEX can begin their industrial symbiosis, new permits will be required because some materials, currently classified as hazardous waste, will have to be reclassified so they can be transported and re-used.

“It won’t be investments that will hamper the implementation of EPOS,” said Greet. “It will be waste legislation so we need policymakers to come with us.”

Ironically, she said, Britain’s decision to leave the European Union might help the UK to get a head start because changing legislation will be easier.

“Either way this cross-sectorial management tool presents enormous potential to improve the competitiveness and energy efficiency across the UK manufacturing sector,” she said.

INEOS' buried treasures

Archaeology students carry out painstaking research in shadow of Italian plant

If you're looking for clear, concrete examples of how INEOS works with its neighbours, look no further than INEOS Manufacturing Italia's site in Vada

Thanks to an annual financial contribution – and logistical support – from the company, an ancient coastal settlement, once linked to one of the most famous Roman cities in Tuscany, is gradually emerging.

The Roman harbour, which has partly been excavated, served the ancient city of Volterra – and it is literally on the doorstep of INEOS' Manufacturing Italia's site at Rosignano.

"Although all the excavations are on our site, they don't interfere with our operations," said Dr Juna Cavallini, HR Manager of the INEOS Rosignano plant.

Work on the archaeological site of San Gaetano di Vada, one of the most important trading ports of North Etruscan coasts, began in the eighties in the shadow of INEOS' vast ethylene storage tank.

Over the years, excavations have revealed a large

warehouse, a little thermal bath intended for the warehouse's workers, a fountain, a big water tank, a public thermal bath and the port headquarters.

Roman jugs, pottery, coins and marbles, all of which point to intensive trading activity, have also been unearthed.

"Every kind of goods arrived from the entire Mediterranean Sea basin, to be redistributed from the port to the countryside and the city of Volterra, and here local products were shipped out," said Dr Cavallini.

INEOS' funding is mostly used to pay for excavation work which is organised by Pisa University.

The university also runs the Vada Volterrana Summer School, which offers foreign and Italian archaeology students the chance to work on a real-life project.

The work, though, takes time. Literally, years.

Field surveys are often used to try to identify new sites. Surveyors, walking side by side, literally comb fields looking for ceramic materials that may have been dug up when the fields are ploughed.

Ground-penetrating radar surveys, which effectively take a snapshot of what the earth looks like under their feet, are also carried out.

Once they have a clearer picture, only then does the digging start.

During this summer's Vada Volterrana Harbour Project campaign, the students did a bit of both.

"We feel this is a practical way for INEOS to demonstrate that it is part of the community in which it operates," said Dr Cavallini.



A well-oiled machine

The wind is changing – and it's all good news for INEOS in America

America's success story goes on as INEOS Oligomers enters a new chapter in its history

CHINA'S decision to invest billions in renewable energy is helping to fuel growth thousands of miles away in America.

China needs high performance synthetic lubricants for its wind turbines – and INEOS Oligomers is investing millions to take full advantage.

To keep pace with demand, it has already built, at La Porte in Texas, a new unit which is producing 20,000 tonnes of high viscosity polyalphaolefins (PAO) a year.

And it is now building, at its neighbouring Chocolate Bayou site, the largest linear alpha olefin (LAO) unit in the world and a world-scale single train PAO unit

capable of producing 120,000 tonnes of low viscosity products a year.

Both products are in demand.

The LAO unit will provide the essential raw materials for its PAO plants. PAOs are the key ingredient for the production of high quality motor oils, lubricants for wind turbines, heavy-duty diesel engine oils, and other specialty fluids.

The new La Porte unit, which was recently built in part to take advantage of the tremendous, fast-growing market for wind turbines and wind turbine lubricants, has not only cemented INEOS' position as a major producer of

high viscosity oils but it complements its existing global leadership in low viscosity grades.

"The new unit marks INEOS' first commercial unit for high viscosity PAO," said Bob.

Aside from manufacturing the raw materials for PAO, the LAO business itself has also been expanding rapidly, thanks to demand from the polyethylene industry, its other important, and largest, customer.

"LAO comonomers are used by the polyethylene industry to enhance the functionality of polyethylene," said Bob. **"And capacity for LAO in the US alone**

“ This is the largest, organic growth project that INEOS has ever undertaken”

Bob Learman, CEO of INEOS Oligomers

between 2016 and next year is expected to increase significantly.”

INEOS’ decision to invest heavily in the Chocolate Bayou site has been an easy one.

The site already boasts two, world-scale, reliable ethylene crackers and is connected to the US Gulf Coast pipeline grid. It also has ample space for the new development with potential for expansion.

Work started at the Chocolate Bayou site at the end of 2016 and is due to be finished soon.

“Once it is complete, it will be the largest,

organic growth project that INEOS has ever undertaken,” said Bob.

And once the unit comes on-stream with an extra 420,000 tonnes of LAO a year, INEOS Oligomers will from next year be producing globally about one million metric tons a year.

The expansion has also opened doors for people working for INEOS Oligomers.

“It has given our people new opportunities for growth,” said Bob. **“Managers have been given new roles and they are doing a fantastic job.”**

Bob said INEOS judges the success of any project by its safety performance; whether it is finished on time and within budget.

“I am delighted to say that we are meeting all three,” he said. **“We have a tremendous safety record with more than one million man hours without loss time accident. We are on budget and we have already hired the full management team.”**

Just the job

Apprenticeships work wonders for us, says INEOS

The perception of apprenticeships may finally be changing for the better in many countries. Germany, though, has never lost sight of their importance, and, as such, is the envy of the world

OVER the years apprenticeships have fallen in and out of favour in many countries.

But as a business, INEOS has never underestimated their importance.

Apprentices are seen as an integral and valuable part of the team from day one.

“I cannot imagine us not running an apprenticeship scheme here,” said Dr Anne-Gret Iturriaga Abarzua, Head of Communications at INEOS in Köln, Germany. **“They are so integrated and so essential to our future.”**

Germany, though, as a country is world-renowned for its job training schemes.

Andrea Hain is head of training at INEOS in Köln.

“Over the years apprentices have become even more important to our future success,” he said. **“And their importance is growing.”**

In September, 65 young people – handpicked from a starting line-up of about 1,400 applicants – began their apprenticeships at INEOS Köln.

Of those, 12 are being trained for ASK Chemicals in Hilden, Momentive Performance Materials in Leverkusen, Kiel in Dormagen and AkzoNobel in Köln.

Three others are being trained to one day qualify for vocational training for later education.

“Our requirements are high and the training is intensive, but our team of trainers help in so many areas so that they all can achieve their full potential,” said Andreas.

“Today we have 240 young people who are in training – more than ever before,” said Andreas.

Germany is now well versed in attracting and keeping the very best apprentices – and other countries, including the UK and the US, are looking to replicate its job training model.

“We have had a lot of interest from other countries wanting to learn from us,” said Anne-Gret. **“We’re almost 20 years ahead.”**

In the UK, apprenticeships have, over the years, fallen in and out of favour with many businesses.

But it’s a scenario that Germany does not understand.

“It doesn’t make sense to hop on and off this scheme,” said Anne-Gret. **“It doesn’t work and that kind of approach has probably harmed manufacturing in the UK over the years.”**

INEOS, though, wherever it operates in the





***“Apprentices are so integrated
and so essential to our future”***

*Dr Anne-Gret Iturriaga Abarzua, Head
of Communications at INEOS in Köln*

world, has always tried to buck the trend – and seen apprenticeships as invaluable for both the company and the young person.

In September another 10 top-class Modern Apprentices – chosen from hundreds – joined INEOS’ O&P site in Grangemouth, Scotland.

“They offer one of the best apprenticeships in Scotland and I wanted to be part of that,” said Alex Burnett who was 16 when he applied to be a process technician last year.

Fellow apprentice Euan Meikle, 19, is training to become a process operator. He quickly learned that INEOS seeks to recruit the best.

“I was told to treat my apprenticeship as a four-year interview so they can be sure they got the right guy,” he said.

Euan, Alex and the five other apprentices are now a year into their apprenticeship.

Over the remaining three years, they will earn as they learn, working at INEOS’ plant while studying for the SVQ and HNC in engineering at Forth Valley College.

It’s a partnership that works well and is valued on both sides.

“As well as their expertise in understanding the skills we need, Forth Valley College also understands the business that we are in and that’s important,” said a spokesman for INEOS.

What INEOS was seeking in each apprentice for its Grangemouth site was someone with an interest in science and technology-based subjects and a practical, hands-on approach to problem solving.

Apprentice Aaron Baxter was among those taken on last year. He is already dreaming of owning his own home and believes with INEOS’ help, he will not only be able to buy it, but he will also learn valuable skills for life.



“I am hoping to be able to use my skill set to do jobs around the house,” he said.

In the same week that the 10 INEOS O&P UK Modern Apprentices joined the company, six apprentices started their careers with Petroineos, Scotland’s only crude oil refinery.

They too will combine academic studies at Forth Valley College with practical experience.

“I was one of the lucky ones to have been given this amazing opportunity to work for one of the biggest engineering companies in the UK last year,” said Andrew Wilson.



Seeds sown in primary schools

INEOS in Köln started looking for its stars of the future about 10 years ago – in primary schools.

It began talking to teachers about the importance of inquiry-based science education to excite the minds of children aged six to twelve.

INEOS hopes those early seeds will soon bear fruit.

But INEOS did not just talk to teachers. It adopted and drove the TuWaS! programme, a method of teaching that forces children to ask questions rather than receive ready-made answers and one that is now successfully run in 130 primary and secondary schools.

Dr Anne-Gret Iturriaga Abarzua, communications manager at INEOS in Köln, has been involved from the outset.



“We really believe that these partnerships formed in 2008 will help us as a company, as an industry and also as a developed industrial country to attract young people – especially girls – who are curious, enthusiastic and motivated to make the world a better place through science,” she said.

INEOS in Köln is the biggest financial supporter in the Rhineland sponsoring almost half of the schools which have adopted the TuWaS! programme.

Teachers attend a one-day seminar during which they are taught the natural science and technical experiments first. They then return to the classroom, armed with a school year’s worth of experiments and the confidence to teach them.

In addition, INEOS employees act as ambassadors, bringing relevance to the school curriculum by welcoming the children to their sites or visiting them in the classroom.

So far the TuWaS! programme has trained 2,500 teachers and, hopefully, inspired 74,000 children to consider a science-based career.

Anne-Gret addresses STEM Professionals in Go Back to School webinars about the need for companies to show young people how exciting life can be working in the science industry.

“We need to be the role models for tomorrow,” she said. ***“And TuWaS! is a fabulous way to do that. From four schools in 2007, we have now reached 130 schools.”***

It's a jungle out there

Chairman endorses campaign to tackle cyber crime

Fact box
Each month in INEOS...
23 million emails received.
18 million blocked.
32,000 targetted threats.
800 get through.
150 clicks by INEOS users!
100 clicks blocked.

INEOS is mounting its own offensive to tackle the growing rise in attacks on IT systems around the world

INEOS is mounting its own offensive to tackle the growing rise in attacks on IT systems around the world.

Staff have been issued with 10 golden IT security rules.

INEOS Chairman Jim Ratcliffe is backing a campaign to remind employees never to open suspicious emails or attachments.

“Just one careless click of a mouse could have devastating consequences,” said Barry Pedley, Group IT Director who is in the front line trying to stop them infecting company servers.

INEOS has been aware of the growing problem for years. Every month the company receives more than 25 million emails.

“About 80% of those are blocked because they contain SPAM, virus, malware or malicious links,” said Barry. **“But we cannot block 100% so it is vital that our staff are alert and do not click on anything unusual or suspicious.”**

INEOS has also witnessed an increase in ‘man in the middle’ email attacks where people try to intercept legitimate mail between INEOS and another company and then make changes to bank details to obtain fraudulent payments.

“We have not yet suffered a financial loss, but we have come close,” said Barry.

The WannaCry ransomware cyber attack last year was one of the most crippling in history. Within a day it is believed to have affected 230,000 computers in 150 countries.

“I am aware of several businesses that even today, are still cleaning their systems and have not fully recovered from the attack,” he said.

In 2014 a blast furnace at a German steel mill had to be shut down after cyber attackers stole staff logins and gained access to the mill’s control systems.

INEOS, which has been tightening the security of its IT systems as the business has grown, knows it could be a target.

“It’s not a case of if we are attacked, but when,” said Barry.

A few years ago, the company website was hacked.

“There was nothing specifically malicious against us,” said Barry. **“It was a case of the website being used as a relay to send spam. But we now run penetration tests against the website to ensure the security is effective.”**

INEOS has completed the roll-out of a new email system throughout the group.

“For us this is now a good time to remind people about the importance of the security rules and keeping the people and IT systems at INEOS safe,” said Barry.



IT security:
It's a jungle
out there.

INEOS

Be unique

Practice good password management. Use a strong mix of characters, and don't use the same password for multiple sites.

3

Chairman's note to all INEOS employees

Our IT systems are under constant attack. Unfortunately this has become a feature of the modern world. The problem only gets worse as the attacks become more sophisticated.

Last year we issued 10 golden IT security rules and instructed everyone to follow these rules without exception.

It is essential that users of the INEOS IT system behave responsibly and don't open suspicious emails. Certainly never open suspicious attachments and **never** enter credentials into an attachment.

If an email is at all suspicious then delete it. There is no downside in doing this. Just delete it. We cannot accept people opening suspicious emails and attachments. This threatens the integrity of our systems and harms INEOS.

If in doubt throw it out!

Jim



IT security:
It's a jungle
out there.

INEOS

Tell us about it

Report it! All IT Security incidents must be reported to your business IT department immediately!

10

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IT security:
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INEOS

Protect yourself

Protect your smartphone with a strong pin code. Never use 0000, or 1234. Better to use a five or six digit pin code for increased security.

9

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IT security:
It's a jungle
out there.

INEOS

Ignore me

Ignore unsolicited emails. If in doubt, throw it out! Be wary of attachments or links in e-mails from people you don't know.

1

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Jim



IT security:
It's a jungle
out there.

INEOS

Mind your back

Never leave your computer in an unsecured area, or unattended and logged-on, especially in public places. Always log out or lock your computer when unattended.

5

Chairman's note to all INEOS employees

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Chairman's note to all INEOS employees

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If in doubt **throw it out!**

Jim



IN THE HEADLINES

€2.7 billion investment in new petrochemical complex

INEOS is to build the first gas cracker in Europe for more than 20 years.

Its decision to invest in the new cracker is thanks to America.

The new cracker will turn US-imported ethane into ethylene and the propane dehydrogenation unit plant will make propylene from propane gas.

“Those two products are the building blocks for the entire chemical industry in Europe who make everything out of those from plastics to carbon fibre,” INEOS Communications Director Tom Crotty said in an interview with BBC Radio 4.

No decision has yet been made where the two massive integrated plants will be built, but it will not be in the UK.

“We have already spent about £2 billion over the past three years in the North Sea and in Grangemouth and we are expanding our operations in Grangemouth,” said Tom. **“This is about expanding our operations in continental Europe.”**

The €2.7 billion expansion is the biggest investment ever made by INEOS.

INEOS has always believed its bold decision to buy US shale gas, where it is abundant and cheap, and then ship it to Europe would make financial sense.

And it has.

“We could not do this without US shale gas,” said Tom. **“Overall gas prices in America are about half of those in Europe so there is a huge difference. The reason we built this virtual pipeline between America and Europe is**

because we don’t have this gas available in Europe, particularly the ethane and propane.”

At Grangemouth in Scotland – where North Sea gas reserves had been declining and fracking for shale gas is still effectively banned due to a government moratorium – it is the gas from America which has saved the site from closure.

INEOS is one of the largest producers of plastic powder and pellets but it does not manufacture the low grades of plastic used to make plastic bags.

“We don’t bother with those,” said Tom. **“That’s not the business we are in.”**

Instead INEOS manufactures high-end plastics for the construction industry, car manufacturers and the healthcare sector – and expects demand for those to increase.

INEOS Chairman Jim Ratcliffe said the investment, showed INEOS’ commitment to manufacturing.

“It will be a game changer for the industry and will ensure the long-term future of our European chemical plants,” he said.

Gerd Franken, CEO INEOS Olefins and Polymers North, said it would increase INEOS self-sufficiency in all key olefin products and give further support to our derivatives business and polymer plants in Europe.

“All our assets will benefit from our ability to import competitive raw materials from the USA and the rest of the world,” he said.

The integrated plant, which is likely to be built somewhere along the coast of Northern Europe, will be one of the most efficient and environmentally friendly plants of its type in the world.

EU renews hope of breakthrough

THE European Union has agreed to plough millions into a project that could turn straw into greener, everyday products.

Processes developed by INEOS, which is viewed as a world leader in the oligomerisation of isobutene, will be used as part of the two-year, €16.4 million R&D project.

“Being a global chemical producer, INEOS is delighted to be able to test this innovation which will help to increase the share of renewable products on the market,” said Jan Vermeersch, Commercial Director of INEOS Oligomers. **“It might also allow INEOS to diversify its feedstock base and supply its customer with bio-based products.”**

Traditionally, isobutene has been used to make oligomers for lubricants, rubber, cosmetics, solvents, plastics and fuel.

But the hope is that wheat straw, an agricultural residue, can achieve a similar result and lead to bio-based oligomers.

The poorly valorised residual straw will initially be turned into glucose and xylose-rich hydrolysates – second generation sugars – by Clariant at its pre-commercial plant in Straubing in Germany.

The French industrial bio-tech company, Global Bioenergies, will then ferment the straw hydrolysates into bio-isobutene at its sites.

INEOS Oligomers in Belgium will then be tasked with converting the bio-isobutene to oligomers.

TechnipFMC and IPSB (France) are also involved in the project. They will be carrying out the preliminary engineering of a hydrolysate to bio-isobutene plant and the overall integration with a straw to hydrolysate plant.

Finally, the Energy Institute at the University of Linz in Austria will assess the sustainability and environmental benefits of the bio-based oligomers.

INEOS set to acquire Ashland’s composite business

INEOS is set to buy another chemical company’s entire composites business for \$1.1 billion.

Composites are increasingly used in cars to reduce weight and improve efficiency. They also look great.

“Ashland’s composite resins have been the materials of choice for the world’s boat builders for 30 years, and with good reason,” said Ashley Reed, CEO INEOS Enterprises. **“They are light, strong and resistant to attack from chemicals and even fire. Unlike wood they don’t rot, unlike metal they don’t corrode and unlike concrete they don’t crack.”**

The deal, which is subject to regulatory approval, includes 20 manufacturing sites in Europe, North and South America, Asia and Middle East, employing 1,300 people.

“We believe that they all have great potential for growth under INEOS ownership,” he said.

State-of-the-art investment

INOVYN plans to build a new state-of-the-art membrane cellroom to produce chlorine and caustic soda in Germany.

Once it’s built in 2021, most of the chlorine will be used by INEOS Oxide to produce more propylene oxide at its site in Köln.

The caustic soda, which manufacturers use to make such things as paper, textiles, drinking water, soaps and detergents, will be sold in Europe to ensure INOVYN’s customers don’t run out.

“This is another major investment that will underpin the sustainability and competitiveness of our business in the long-term,” said CEO Chris Tane.

This project is part of a wider investment programme by INOVYN which has seen changes to its membrane cellrooms in Sweden and Belgium and the development of a large-scale potassium hydroxide production plant also in Belgium.



Grangemouth scales problem

INEOS O&P UK has cut the amount of water it needs at its plant in Grangemouth, Scotland, by 100 million gallons a year – enough to fill 5,000 average-sized swimming pools.

KG Plant Manager Kevin Stevenson said the savings had been achieved through ‘significant upgrades and investments’ over the past few years to improve the reliability, efficiency and safety of the ethylene plant at its petrochemical complex.

“As one of the largest manufacturers in Scotland we are constantly looking for ways to improve our environmental performance,” he said.

Grangemouth had sought help from GE Water & Process Technologies because it wanted to increase the cycles of its water cooling system. It explained that it was limited to four cycles due to calcium scaling.

The solution proved to be a change of dosing products plus a new system which continuously monitored key parameters within the cooling water, these modifications allowing it to increase its cycles from four to eight.

GE Water & Process Technologies later presented INEOS O&P UK, which had also just recorded its best-ever safety performance, with a prestigious environmental award in honour of its efforts.

INEOS helps to make money

INEOS has been helping The Bank of England to make money.

It has been supplying the polymer for its new plastic £5 and £10 bank notes.

“It is so pleasing to see a new application for an old product,” said John Harrison, who manages the customer account that produces the bank notes.

The shift to plastic over cotton pulp for bank notes has not only been good news for INEOS’ O&P sites in Scotland and Belgium, though.

It has also been good news for The Bank of England which says the new polymer notes are waterproof, cheaper, cleaner, easier to recycle and, more importantly, harder to copy.

“In many ways, it is a logical use of plastic that will be appreciated by society,” said Graham MacLennan, Product Manager – Polymers at INEOS Olefins & Polymers Europe (UK).

The new plastic notes are also tougher than their ‘paper’ counterparts and expected to last 2.5 times longer. That, in turn, is better for the environment because fewer will need to be printed. And it’s a fact verified by The Carbon Trust.



“The new notes can also survive a spin in the washing machine relatively unscathed,” said John. **“But I would not advise ironing them. They will melt.”**

INEOS manufactures polymer at its sites in Grangemouth and Lillo.

The pea-sized granules are then delivered to one of INEOS’ long-standing UK-based customers which melts the granules to make a very thin, see-through and flexible plastic film.

That is then coated – at another location – with multiple ink layers that allow The Bank of England to print its design.

So far more than 375 million polymer £10 notes have been printed since they were launched on the 200th anniversary of the death of author Jane Austen, who wrote such classic novels as Pride and Prejudice and Sense and Sensibility and whose portrait is featured on the note.

The new £10 has a number of enhanced security features, such as see-through windows, a coloured quill that changes colour when the note is tilted and a silver foil patch containing a hologram. All are designed to make it harder to counterfeit.

In countries like Singapore and Australia, polymer banknotes are nothing new.

But by making the switch, The Bank of England, which is one of the world’s oldest banks, may well become the catalyst for change around the globe.

And that could really be good news for INEOS as one of the major producers of plastic.

“Our UK customer sells to all four corners of the earth so there is a great opportunity for them to win business which, in turn, could benefit us,” said Graham.

SPORT STORIES



INEOS director's son qualifies for world championships

A BRITISH gymnast, who won a silver medal at his very first international competition, is gunning for victory at the 2019 World Championships in Tokyo.

Iain Foster was just 16 when he produced the performance of his life to finish second at the Tumbling and Trampoline World Championships in the Bulgarian capital Sofia.

“He had only qualified for the final in eighth place in the afternoon session, but he then put out a run that evening that I had never seen before to win the silver medal,” said his father Brian, Director of INEOS Property and INEOS Aviation.

Tumbling coach Anne Bidmead said Iain, now 17, regularly trained at Basingstoke Gymnastics Club and was known for his amazing power on the track.

But his talent had been spotted many years ago before that when, as a three-year-old, he started attending the club’s weekly gymtots sessions.

At five, he was invited to join the boys’ artistic development squad, and began training twice a week. His coach was then international tumbling gymnast David Roy-Wood.

Soon he was training four days a week and started to win medals on the floor and vault in regional competitions, finally competing in his first national competition at eight.

Rugby became more of a passion when he went to secondary school but it was his continued involvement with gymnastics which gave him deceptive strength and speed – and earned him a place in the Hampshire Rugby Squad.

“His PE teacher used to say that Iain loved running through people,” said Brian.

That speed and strength also led to a change of direction in the world of gymnastics.

“They thought he would be more suited to tumbling,” said Brian.

And they were right.

In just his second season, he qualified for the two-day British championships in Liverpool – and finished sixth. A year or so later he is now a world medallist.

Iain is now juggling the demands of studying A-level chemistry, biology and history while he considers higher education options that could best develop his gymnastics career.

“He has sensibly put rugby to one side for the immediate future,” said Brian.

John’s mission accomplished

INEOS USA is gunning to help rid the world of a devastating disease which affects almost half a million people in America.

A team from Olefins & Polymers this year, for the very first time, cycled 175 miles from Houston to Austin in Texas to help fund research into multiple sclerosis.

“I had ridden the BP MS 150 countless times,” said John Caffey, Business Development Manager for the Feedstocks group within O&P USA. **“But I decided to up the ante by captaining a team at work.”**

His job was to lead – and inspire – them to keep going when the going got tough over the two-day event.

“And it did,” said John. **“Trying to convince your legs, not to mention your bottom, that they want to be on the bike again after 100 miles on the first day, isn’t easy.”**

The second day was filled with hills for the thousands of riders, punctuated by the roads through Bastrop and Buescher State Parks.

“They were a real challenge for tired legs,” he said.

John, whose aunt was diagnosed with MS in the nineties, was joined by 31 of his colleagues at the start – and later at the finish.

“We set our preliminary team fund-raising goal at \$25,000, but in the end we achieved \$25,280,” he said.

As for John, his involvement won’t end this year.

“I will continue to support this ride until a cure is found,” he said.

Organisers are hoping this year’s ride will have raised about \$14 million to help speed up research into finding a cure for MS.

INEOS’ tour de force strikes again

STAFF from INEOS once again answered the call to go that extra mile for charity.

In all, 900 employees from sites all over the world completed the company’s very own Tour de France Challenge and raised €31,000 to help children.

“The response was inspiring,” said John Mayock, INEOS’ resident Olympian. **“Not only did we raise a huge amount for charity, but many were encouraged to take up cycling for the first time in many years. It was an enormous team effort.”**

Teams from across INEOS were challenged to match the kilometres covered by the riders in the Tour de France, the world’s most famous cycle race, each day.

But being INEOS, they went one better.

And by the end of the challenge, the 900 riders had collectively ridden 400,000 km – the equivalent of cycling 10 times around the Earth.

As the real riders had chased each other through the French countryside for the coveted title, INEOS’ teams from Belgium, France, Germany, Switzerland, the US and the UK had been squeezing in their mileage – before, during or after work.

INEOS donated €1,000 to the local charity of choice for each team that completed the challenge.

“There is no second, Ma’am”

the reply to Queen Victoria as she watched the yacht America close on the finish line in 1851 and enquired as to who had come second

