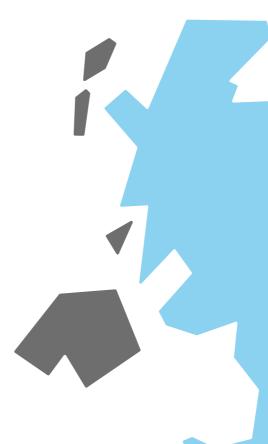


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### THE WATERLINE

Since 2019, the Waterline campaign has brought together the University of Hull with Marketing Humber and leading regional, national and international businesses to support the region's transition to a zero-carbon economy.

#### **THE WATERLINE IN 2021**

In 2021 Marketing Humber and partners hosted its third Waterline Summit, the largest and most important decarbonisation event in the North of England.

Hosted across five days, the Summit attracted an audience of 2,500+ delegates. The Waterline Summit 2021 involved 100 speakers at 26 separate events and covered a wide range of themes and topics to connect the whole region and illustrate that every sector has a part to play in

combating the climate crisis.

#### **IN NUMBERS:**



# THE WATERLINE STUDENT SUSTAINABILITY CHALLENGE 2022

SPONSORED BY





Students, this is your chance to use your passion for sustainability to make a positive impact on your school, college or community.

The Waterline Student Challenge is an opportunity for students aged 9-18 to create exciting and inspiring solutions to harmful environmental problems. As an individual or by teaming up in groups of between two and 10, and by carrying out an eco project of their choice, students will be in with the chance of winning a VIP experience led by one of the region's stand-out businesses or organisations.

Submit a project in one of the categories by **Friday 27th May**.

- Arts & Creativity
- People & Community
- Technology & Innovation



#### YOU COULD WIN:

£250 FOR YOUR TEAM & VIP BUSINESS EXPERIENCE PLUS £2,000 FOR YOUR SCHOOL/COLLEGE ECO CLUB OR STEAM PROJECT

#### WANT TO GET INVOLVED?

Find out everything you need to know about the challenge including project inspiration, judging criteria, and how YOU can get involved:

**EXPLORE: The Waterline Student Sustainability Challenge Site** 

**REGISTER YOUR INTEREST:** Be first to receive updates



DISCOVER: See more from 2021's winners & finalists

WATCH: The Waterline Student Challenge 2021 film

L

### WHAT'S THE DEAL WITH DECARBONISATION?

#### WHAT IS THE PROBLEM WE ARE FACING?

In 2018, the world's leading climate scientists warned there are only 12 years for global warming to be kept to a maximum of 1.5C, beyond which even half a degree will significantly worsen the risks of drought, floods, extreme heat and poverty for hundreds of millions of people.

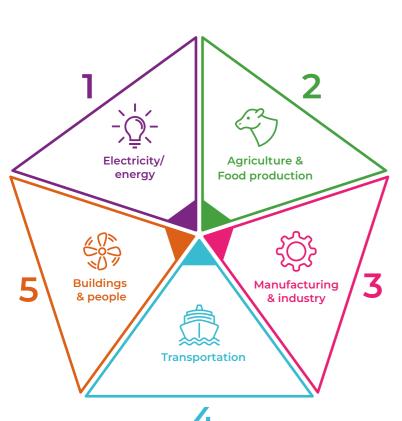
The Humber is at risk because it is low-lying, meaning its increased risk of floods could make it uninhabitable

However, if we are prepared to act fast, it is possible to reduce carbon dioxide (CO2) emissions by nearly half from their 2010 levels. Significant progress can be made by local areas acting, developing their own set of strategies, plans and interventions and finding novel ways to deliver.

#### WHAT ARE THE CHALLENGES?

Businessman and Microsoft Co-founder, Bill Gates, has outlined his 'Grand Challenges' in stopping climate change and describes them as five main categories:

3



#### **Electricity/Energy (25%)**

Although there's been progress in the renewable energy market, we still need more breakthroughs.

Agriculture and Food production (24%)
The process of food-growing and production can be carbon intensive.

#### Manufacturing & Industry (21%)

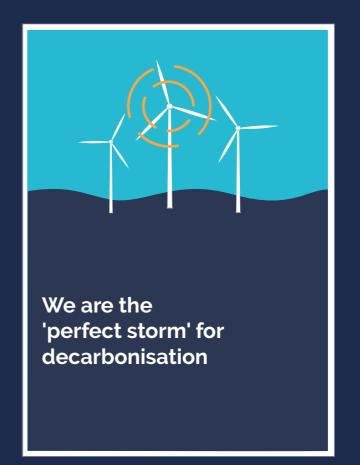
Man-made material creates pollutant by-products, and the manufacturing process requires lots of energy from fossil fuels.

#### **Transportation (14%)**

Cars account for a little less than half of transportation-related emissions - more emissions come from aircraft, cargo ships, and trucks.

#### **Buildings and People (6%)**

It takes a lot of energy to run air conditioners, heaters, lights, and other appliances.





#### **HOW CAN THE HUMBER LEAD THE WAY?**

The Waterline campaign brings together the University of Hull with Marketing Humber and leading regional, national and international businesses to support the region's transition to a zero-carbon economy.

The Humber is already well established as the UK's Energy Estuary and the mission is to build on this and give the Humber a global relevance by working together to develop the region as a demonstrator of a zero-carbon economy.

The Waterline campaign sees a collaborative force, from multi-national businesses to sole traders, look to combat climate change through clean growth strategies, build resilience to water and create a collective ambition for the Humber in decarbonisation.

This resource highlights the opportunities that are on offer here in the Humber, and demonstrates the importance of industrial, business and academic partnership in ensuring successful and sustained development for the region in its journey to net-zero.

**WATCH: Eyes on the Humber** 

**See more from The Waterline** 



Find out more about the Five Grand Challenges

# **ABOUT ARUP** We're an independent firm of designers, engineers, planners, business consultants and technical specialists working across every aspect of the built environment. With over 16,000 staff in more than 30 countries, we help our clients solve the most complex of challenges - and turn exciting ideas into tangible reality. Our people are the creative force behind many of the world's most innovative and sustainable designs, including Hull Public Realm, Siemens Gamesa, Murdoch Connection Bridge and Sir William Brag University of Leeds. Together, our international team has one core focus: to shape a better world.

### WE SHAPE A BETTER WORLD

#### **CAREER OPPORTUNITIES**

#### **APPRENTICESHIPS**

We offer industry leading apprenticeships across a diverse range of disciplines, which we continue to expand each year. Our apprenticeships provide you with the skills and knowledge needed to succeed in the workplace, with qualifications designed to support your career ambitions.

We are proud to regularly feature as one of the top UK employers of Apprentices. It's a testament to our commitment to providing a solid foundation to your development.

Whether you are at school and unsure of your next move, are looking to study a Level 7 Apprenticeship to top up an existing qualification, or simply want a change in career direction, we're sure to have a role that interests you and complements your natural strengths.

888

456 early careers employees hired in 2021



world

DOWNLOAD: Early careers brochure

**Meet Arup's apprentices** 

DISCOVER: More about Arup careers

#### ADDITIONAL RESOURCES

#### Arup at 75 - our story, our future

Arup's people share their motivations, hopes and passions and give an insight into how the firm continues to shape a better world.

#### **WATCH**

#### **Arup: A Short Introduction**

Many people around the world use and enjoy our work every day, however not many people are aware of the projects we are involved in.

#### WATCH

#### **Arup's Sustainability Story**

Find out more about how Arup is working to combat climate change.

#### **EXPLORE**

Find out more about Arup



Murdoch's Connection Bridge, Hull



# **ABOUT BILFINGER UK** Bilfinger UK's business depends on employees who bring a broad range of experiences, qualifications and perspectives to the work they do. The diversity of our employees is undoubtedly a key factor in our ability to successfully rise to the challenges in a constantly changing world and continually expand our market position. At Bilfinger UK, all employees enjoy the same opportunities in terms of hiring and their ongoing development within the company. There can be no discrimination based on ethnicity, gender, sexual orientation, religion, ideology, disability or age. The diversity of our employees enriches our company - and is a key factor for our corporate success. Our policy is to hire people with the right qualifications and skills for a specific post. An integral part of that approach is our

compensation system, which is geared solely to the

as well as pay scale agreements.

requirements of the position, individual performance, the conditions and competition for talent in the local market

# WE MAKE IT WORK, YOU MAKE THE DIFFERENCE



#### **EARLY CAREER OPPORTUNITIES**

APPRENTICESHIP SCHEME

Meet Bilfinger UK's Apprentices and find out why they love what they do

#### **GRADUATE SCHEME**

Bilfinger UK offers a 3 year graduate scheme, which involves the opportunity to work in various departments within the business before pursuing a particular specialism. The scheme allows for knowledge acquisition and development, working on live projects and receiving on and off the job training in the process.

ACCESS: Bilfinger UK's Careers Portal LIFE AT BILFINGER UK

See how Liam progressed from Apprentice to Graduate

Hear about Johannes' journey as an International Student

#### ADDITIONAL RESOURCES

#### **Bilfinger UK Company Profile**

Find out everything you need to know about the services and opportunities offered by Bilfinger UK

#### - DISCOVER

#### **Your Partner in the Energy Transition**

See how Bilfinger UK is working to accelerate the journey to net zero.

#### - WATCH

#### **Wind Services**

Bilfinger UK is a leader in the offshore renewables sector - see how global construction, installation, operations and maintenance of turbines take place.

WATCH





# FIND YOUR DIRECTION AT BISHOP BURTON COLLEGE



Bishop Burton College, based in East Yorkshire, is in the top 5% of colleges in the UK. Delivering first-class education from entry-level to master's degrees, the college offers courses in areas ranging from **Equine** and **Animal Management** to **Agriculture**, **Sport** and **Engineering**.

See which courses are on offer

#### LAUNCHING YOUR SUSTAINABLE CAREER WITH BISHOP BURTON COLLEGE

Bishop Burton is the ideal location in which to kickstart a career in the agricultural, environmental and conservation industries. The countryside campus is perfect for outdoor and practical study, whether at the College or University Centre (UCBB).

WATCH:
How Bishop Burton
College plans to
have a
carbon net-zero
farm by 2030

**Agriculture Subject Profile** 

WATCH: Precision Agriculture at Bishop Burton

**Environmental Studies and Conservation Subject Profile** 

**Download our Prospectus** 

#### **CAREER OPPORTUNITIES INCLUDE...**

Wildlife Officer
Research Assistant
Crop Specialist

Estates Worker Project Manager

Farm Manager

**Education Officer Business Owner** 

**Ecology GIS Analyst** 

Countryside Ranger
Community Officer
Consultant

#### **ADDITIONAL RESOURCES**

#### Be More: Bishop Burton College Prospectus

Find out everything you need to know about life at Bishop Burton College.

#### **ACCESS**

#### It's All About U: University Centre Bishop Burton

It doesn't stop at the College! UCBB offers a range of higher education courses.

#### **EXPLORE**

#### Institute of Technology Leaflet

Bishop Burton College is part of the Yorkshire and Humber Institute of Technology - find out what exciting technology can be integrated into the academic courses.

#### DISCOVER





### PROPEL YOUR CAREER WITH DFDS

#### **DFDS IN NUMBERS**











Find out everything you need to know about DFDS

#### **DFDS CAREERS**

WHAT'S IT LIKE TO WORK AT DFDS?

See how your DFDS career could look

Working at DFDS means being part of a dynamic and fun working environment with a flat organisational structure that is both informal and diverse. Even though many of your colleagues are specialists within their area of expertise, DFDS works in close-knit teams and shares the desire to support customers in reaching their goals.

DFDS offers a wide range of career opportunities including:

Customs Advisory (Imports/Exports) - Finance Management - HR Advisory - IT - Operations

#### LEARNING AND DEVELOPMENT: EARLY CAREER OPPORTUNITIES AT DFDS

#### APPRENTICESHIP SCHEME

DFDS' apprenticeships offer the opportunity to learn a variety of roles from the 'grass roots' alongside earning a qualification delivered through a trusted learning partner.

#### Apprenticeships include:

Administration - Customs - HR - Port Operations - Transport - Warehousing

#### **GRADUATE SCHEME**

DFDS' Graduate Scheme offers a full insight into the operations within shipping and logistics.

#### Roles include:

Customer Service/Account Management - Data Analyst - Import & Export - Project Management - Transport Planning

WATCH: Hear from the trainees themselves

WATCH: See what being a DFDS trainee involves







### **CARBON NEGATIVE BY 2030**



Drax aims to become carbon negative by 2030, meaning its overall operations will remove more CO2 from the atmosphere than the amount it produces. Achieving this ambition is critical to beating the climate crisis and will also help to protect jobs and create new opportunities for clean growth – delivering for the economy as well as the environment.

WATCH: Bioenergy with Carbon Capture and Storage

#### **CAREERS: APPRENTICESHIP SCHEMES**

#### **APPRENTICESHIP SCHEMES**

Drax offers several apprenticeship schemes, including a four-year Technical Apprenticeship.

The programme focuses on three engineering disciplines:

- Mechanical Engineering
- Electrical Engineering
- Electrical Control and Instrumentation Engineering

WATCH:
Apprenticeships
at Drax Creating the
workforce of the
future

Find out everything you need to know about the scheme

#### **ADDITIONAL RESOURCES**

'What are negative emissions?' video

#### WATCH

'The inside of a cooling tower looks like no place on earth'

Step into the vast, eerie structures at the heart of Drax Power Station.

#### **EXPERIENCE**

#### **Drax Virtual Tours**

In place of physical tours, Drax has created a set of digital resources explaining how the power station generates electricity. Click each line blow to see a different tour:

- Power generation and transmission
- Pulverising mills and efficiency
- Boilers
- Cooling towers
- Condensers
- Generators



### There's more to working at East Riding of Yorkshire Council than you may think. We are the East Riding's largest employer and working at the council not only offers hundreds of career opportunities but also provides great opportunities to develop your career and earn while you As well as a wide range of benefits including flexible working, working for the council can also give you immense job satisfaction, as you are making a real difference to the lives of people in your local community and the environment you work in every day you are at work - that sense of accomplishment can be quite difficult to find in other professions. Discover the wide range of careers on offer and how you can get IN on a new way of working.

### TAKE THE FIRST STEP IN YOUR CAREER

#### **FIND YOUR GREEN CAREER**

From Countryside Access Officer to Waste and Recycling Officer, we have a range of career opportunities that may surprise you. Join in via an apprenticeship and develop your career in your own way, with lots of support from us.

#### CAREER OPPORTUNITIES INCLUDE...

**Countryside Access Officer** 

**Energy Efficiency Technical Officer** 

**Rural Projects Officer** 

Senior Climate Change Officer Senior Sustainable Development Officer Waste and Recycling

Officer

**DISCOVER: Careers at East Riding of Yorkshire Council** 

**EXPLORE: Online Apprenticeship hub** 

**DOWNLOAD: Your Way IN Careers Brochure** 

#### WHY WORK FOR THE COUNCIL?

HEAR WHAT STAFF STARTING THEIR CAREER WITH US HAVE TO SAY...



### Katie, Apprentice Sustainable Development Policy Officer

It is a very exciting time to be working at the council; staff are working on developing a climate change strategy which will be linked to an action plan that identifies key opportunities for climate change in the East Riding

#### Milly, Graduate Management Trainee

Local authorities in the UK are directly responsible for 2-5% of local emissions but can influence up to a third of emissions through the services they deliver. Working for East Riding of Yorkshire Council means you could get involved in the fight against climate change!



The council was crowned overall council of the year in the APSE Service Awards 2020



The council's Waste and Recycling Team has achieved the highest recycling rate of any council in the country for three years running



The council covers approximately 930 square miles, making it one of the largest unitary authorities in the country

DISCOVER: The council's climate change priorities



#### **WORKING WITH YOU TO SHAPE YOUR FUTURE**

#### WHY START YOUR CAREER WITH FORRESTER BOYD?

From fishing to agriculture, from sole trader to multi-national corporations, from entrepreneur to enterprise, the mixture of clients that you could be working with are vast and exciting.

6 Humberbased offices 17 Partners

85+ Years in business 155+ Loyal staff

#### TRAINEE ACCOUNTANCY PROGRAMME

We are well known for our excellent training opportunities which are aimed at those leaving school with a minimum of 3 academic 'A' levels and graduates (or equivalent).

Our fantastic study package includes study leave and any associated costs including petrol, lunch allowance, hotel fees. We work closely with Kaplan Financial to ensure you receive quality accountancy training to prepare you for your career as an accountant.

**DISCOVER: Trainee Accountancy Opportunities** 

#### MEET TWO OF FORRESTER BOYD'S PAST TRAINEES

**Alex, Assistant Manager** 

Scunthorpe and Grimsby offices Qualified in February 2014 Became Assistant Manager in 2018



Katie, Assistant Manager

Louth office Qualified in August 2019



#### **ADDITIONAL RESOURCES**

**Forrester Boyd Careers Brochure** 

#### **EXPLORE**

#### Thinking of a career in Accounting?

Find out more about Forrester Boyd's training programme and the start to a career in accounting.

#### WATCH

### Accountancy...it's so much more than numbers

See more about the salary, benefits and entry requirements.







# **ABOUT H2H SALTEND** As part of the Zero Carbon Humber ambition, the Hydrogen to Humber Saltend (H2H Saltend) project is the UK's first at-scale blue hydrogen production plant. Producing hydrogen at scale will advance the world's first fully decarbonised industrial cluster here in the Humber, and will help the UK on its journey to net zero. H2H Saltend will be delivered by world-class companies working together to decarbonise the UK's largest industrial cluster, making it the first net zero industrial cluster in the world. Project leader, Equinor, is committed to working alongside its peers in industry to develop and deploy the low carbon technology and infrastructure needed to make this possible. 17

### H2H SALTEND: TOWARDS A ZERO CARBON HUMBER

#### WHAT DOES H2H SALTEND INVOLVE?

As the launchpad for a hydrogen economy in the UK, H2H Saltend will deliver low carbon energy to industry across the Humber region, lowering CO2 emissions starting in industry and power. It will deliver a new low carbon infrastructure, create low carbon products for export, and accelerate the UK on its journey to net zero.

#### **HYDROGEN: THE FUEL OF THE FUTURE**

Dive into the science!

- The most abundant molecule in the universe (free hydrogen does not however exist in significant quantities on Earth, which is why it must be produced from alternative sources!)
- An environmentally-friendly energy carrier
- · A practical, scalable solution to decarbonise fossil-fuel dependent industries

#### WHY IS THE HUMBER THE IDEAL LOCATION?

The Humber has easy access to world markets through its ports, meaning there are huge export opportunities

The Humber emits more CO2 than any other industrial cluster in the UK

18

The Humber is
the UK's
BIGGEST
industrial cluster,
with over 55,00 jobs
in manufacturing
alone!

#### **ADDITIONAL RESOURCES**

#### **H2H Saltend Project Profile**

View the project rollout map and see what its impact will be on helping the UK on its journey to net zero.





#### **EXPLORE**

#### **H2H Saltend Brochure**

Find out even more about the project, including in-depth details on its rollout, impact and value in leading the Humber to a net zero carbon economy.

#### DISCOVER

#### World's First Net Zero Cluster Video

See how H2H Saltend will work and hear about the impact it will have on the Humber.

#### WATCH









### KICKSTART YOUR CAREER



#### **APPRENTICESHIP SCHEME**

KCOM regularly takes on new apprenticeship cohorts across a wide range of engineering and tech disciplines. From civil engineering apprenticeships installing fibre to network and software engineering roles, KCOM offers opportunities that can lead to rewarding careers.



DISCOVER: Hear about some KCOM apprentices' journeys

#### **RON DEARING UTC**

**EXPLORE: See what careers are available at KCOM** 

KCOM is a founding partner with

Ron Dearing UTC and regularly sets students 'real world' industry tasks. KCOM is involved in leadership and governance, and curriculum design and delivery, as well as supporting students as business mentors and providing careers information and work placements.

#### KCOM'S ENVIRONMENTAL IMPACT



Electricity consumption in KCOM's office building has reduced by 19% per year



Used PPE goes on to a second life as building materials or garden furniture



KCOM has added electric vans to its fleet of vans and electric charging points at its Hull offices



KCOM's 2021 ESG score was 14% above average and 16 points higher than in 2020



KCOM provides grants to local groups and gives employees two days a year off to volunteer

#### ADDITIONAL RESOURCES

#### **KCOM** in the community

KCOM's community relations programme focuses on activities that support the growth and sustainability of Hull and in areas where its services are available or being installed.

#### **DISCOVER**

What does contributing to the local community mean to KCOM employees?

#### WATCH

#### **Football Kit Donations**

Every time Hull City scores at home during the season, KCOM will donate a full Umbro team kit to local youth teams

Find out more about KCOM

WATCH



# AN AMBITIOUS VISION FOR OUR REGION



At first glance, you may think Lagoon Hull is just a big road. But it's so much more...

The development will offer:

- A new placemaking waterfront and visitor destination
- Exciting leisure opportunities to enjoy on the water
- Protection against climate change
- A reduction in traffic congestion and an improvement in air quality
- Support towards a low carbon economy with a new outer harbour and port facilities for green growth

#### ADDITIONAL RESOURCES

#### **Vision of the Future**

See how Lagoon Hull will fit into its surroundings.

#### **EXPLORE**

#### Lagoon Hull - You Decide!

See how a future in the Humber may look based on the decisions you make.



**HAVE A GO** 

Sign the pledge and make Lagoon Hull a reality



# **ABOUT ØRSTED** Ørsted is the global leader in offshore wind. As a renewable energy company and the world's most sustainable company (2020), it takes tangible action to create a world that runs entirely on green energy. Ørsted develops, constructs and operates offshore wind farms across Europe, Asia and the US, develops and operates bioenergy plants and innovative waste-to-energy solutions, and provides smart energy products to its power distribution and energy customers. Ørsted employs over 1,000 people in the UK, which, as its biggest market for offshore wind energy, has twelve wind farms in operation and one in construction. In 2020, Ørsted completed the construction of Hornsea One offshore wind farm, which is the largest offshore wind farm in the world.

# LEADING THE WORLD IN OFFSHORE WIND, RIGHT HERE IN THE HUMBER

#### **EARLY CAREERS**

#### APPRENTICESHIP PROGRAMME

As an Apprentice Wind Turbine Technician, you'll learn how to operate and maintain Ørsted's offshore wind turbines. Ørsted works to the highest health safety and environmental standards and you'll be fully trained and supported during this programme.

The three-year apprenticeships will comprise of one year of classroom-based learning followed by two years working on site with Ørsted.

See how you can apply for the programme

#### **GRADUATE SCHEME**

The graduate programme is divided into three main tracks, taking you on a two-year journey within three business rotations. You will immerse yourself within the green energy industry, master high-speed innovation and accelerate your career.

Find out more about the scheme

# MEET THE PEOPLE BEHIND THE BUSINESS Georgea, Offshore Wind Turbine Technician

Katy, Offshore Coordination Manager

Connor, Senior Business Developer

Kaylie, Electrical Project Manager



#### ADDITIONAL RESOURCES

Living and Working at Sea: What's it like to work on a Service Operations Vessel?

Find out what life is like maintaining an offshore wind farm.

#### WATCH

'Where should I build my offshore wind farm?'
Decide where you would locate a wind farm.

#### **EXPLORE**

#### **Student Session for The Waterline Summit 2020**

Understand and answer the question: 'What is the future of sustainable energy?'

DISCOVER





# **ABOUT PHILLIPS 66** The Phillips 66 Humber Refinery is a UK champion and global supplier in the electric vehicle manufacturing chain. As well as representing a critical foundation industry in the UK, Humber underpins multiple manufacturing sectors as well as local economies. Through continual investment supporting Phillips 66's record of environmental excellence, the Humber Refinery is working in partnership to decarbonise the Humber region.

### PHILLIPS 66 HUMBER REFINERY, THE REFINERY OF THE FUTURE



The Humber Refinery is supporting government in achieving its 2050 net zero ambition through a number of innovative projects:



The first to process used cooking oil into low carbon fuels



Producing premium petcoke to power 1.3m electric vehicles



One of the most energy-efficient refineries in Europe



Fuelling careers – jobs that will be part of an exciting future

DISCOVER SOME OF THE HUMBER REFINERY'S EXCITING DECARBONISATION PROJECTS:

Gigastack - producing renewable hydrogen

**Humber Zero - carbon capture and storage** 

#### **ADDITIONAL RESOURCES**

#### **Apprenticeships with Phillips 66**

Find out what it's like to start your career with Phillips 66 and see how you can apply for an Apprentice role. Phillips 66 Humber Refinery has a four-year craft apprenticeship scheme taking up to 12 apprentices each year

#### **APPLY**

#### **Investing in Tomorrow's Workforce**

Meet some of the Humber Refinery employees and see how the business sustains the talent pipeline and inspires future employees.

**HAVE A GO:** Put your knowledge to the test and take a sample pre-employment questionnaire

#### **WATCH**

#### Women in Engineering

Phillips 66 values a diverse workforce encouraging all to apply. See how Phillips 66 supports women in engineering.



#### WATCH

#### **DID YOU KNOW...?**

Phillips 66 Humber Refinery is the first in the UK to make and supply British, **Sustainable Aviation** Fuel (SAF) to UK airlines.

Phillips 66 Humber **Refinery makes** enough fuel to drive a family car to the moon and back 192 times a

Phillips 66 Humber Refinery donated over £100,000 to local services and charities during COVID.

GIGASTACK HUMBEI



27

### **POWERING THE WINDS OF CHANGE**

#### **SIEMENS GAMESA IN FACTS AND FIGURES:**









Find out more about Siemens Gamesa

#### **CAREERS**

#### **Working at Siemens Gamesa Blade Factory**

Over 1,000 employees work in Hull within the wind turbine blade factory and wider site.

Siemens Gamesa has produced and delivered blades for projects both at home and abroad, including both of the massive Hornsea projects, which combined produce enough electricity to power 2.5 million homes in the UK alone - that's enough to power every home in Yorkshire! We're gearing up to power up Scotland through the power of the wind with our latest project, Neart na Gaoithe.



**The Siemens Gamesa Vision** 

#### **ADDITIONAL RESOURCES**

**Energy Debunked Series - make sense of the science behind a wind turbine!** 

#### What exactly is a wind turbine?

We know what wind turbines are, but what exactly do they do?

#### **WATCH**

#### Why do wind turbines have three blades?

Discover how wind turbines have evolved to become what they are today and find out why three is the perfect number of blades.

28

#### **WATCH**

#### How do wind turbines work?

There's more to wind turbines than it seems - learn how they do their job!

- WATCH





### SSE THERMAL: ENABLING A NET ZERO FUTURE



#### **CAREERS AND OPPORTUNITIES**

### GRADUATE DEVELOPMENT PROGRAMMES

Our two-year schemes offer a unique entry into our business, where you'll experience several challenging and interesting placements. Expect to gain practical skills, hands-on experience and even relevant professional qualifications or chartership.

### APPRENTICES AND TRAINEE ENGINEERS

Our apprenticeship and trainee programmes are open to all and offer a chance to earn money while you work towards an accredited qualification.

Over 1700 people have come through our programmes since 2010, and there are no minimum entry requirements.

## KEADBY IN FOCUS Together with Equin

Together with Equinor, we are progressing plans for two low-carbon power stations at Keadby in North Lincolnshire. The first, Keadby 3 Carbon Capture Power Station, will connect to the shared infrastructure being developed through the Zero Carbon Humber partnership to transport the captured carbon and store it safely offshore. The second, Keadby Hydrogen Power Station, will be the world's first 100% hydrogen-fuelled power station.

#### **ADDITIONAL RESOURCES**

**Keadby 3 Carbon Capture Power Station: Capturing** the Potential of the Humber

Find out more about our plans for Keadby

#### **DISCOVER**

### Our strengths-based approach to apprentice

Are you ready to kickstart your career with an SSE Apprenticeship or Trainee Engineering Programme?

#### **EXPLORE**

### Get to know some of the graduates working across SSE plc

Shape your future and the future of our business with an SSE Graduate Development Programme

Find out more about SSE Thermal

**MEET** 



# ABOUT TEC PARTNERSHIP TEC Partnership, formerly the **Grimsby Institute Group, is one of England's largest providers of** further and higher education. With a rich history of developing innovative training and education solutions for the community. The Partnership comprises of seven education providers including East Riding College, Grimsby Institute and MODAL Training. As an Ofsted Outstanding provider, the Partnership hopes to enrich the lives of all by providing high-quality education and training. The Partnership employs 1,700 people and has a student body of 16,500.

### **EAST RIDING COLLEGE**



#### ABOUT EAST RIDING COLLEGE

No. 1 in Yorkshire for student satisfaction (NSS July 2020)

East Riding College welcomes thousands of students every year, including apprentices and higher education students. It was the first college in Yorkshire to gain Chartered Status, which is awarded to institutions with a high quality of teaching and learning, governance and engagement with the local community and employers.

Find out more about East Riding College

#### **FUTURE PROOF YOURSELF AT EAST RIDING COLLEGE**

East Riding College is one of the best equipped colleges nationally. Its two main campuses have both been built within the last 10 years, creating modern, state-of-the-art learning spaces. It is also part of the Yorkshire and Humber Institute of Technology, developing higher level technical skills in engineering, construction and computing, to meet regional demand.

WATCH: Take a student-guided tour of campus

DISCOVER: Find out more about the Institute of Technology

#### **EAST RIDING COLLEGE IN NUMBERS:**









#### YOUR ZERO-CARBON CAREER STARTS HERE!

Sustainability is embedded into the curriculum in so many ways...

- Environmental sustainability and flood-protection in **Engineering and Manufacturing**
- Sustainable materials and decarbonisation of the home in **Construction**
- EV charging point installation, air quality and fuel economy in Motor Vehicle Mechanics
- Smart home technology the 'internet of things' in **Computing**

#### Leading to careers including...

Software Developer Supply Chain Manager Electrician Sustainability Consultant

Energy Engineer Carbon Specialist Civil Engineer Refrigeration Engineer

#### FIND OUT MORE ABOUT THE COURSES ON OFFER:



VIEW: Further Education Guide VIEW: Higher Education Guide VIEW: Apprenticeships Guide

### **GRIMSBY INSTITUTE**

#### **ABOUT GRIMSBY INSTITUTE**

We strive for excellence and innovation in all that we do.

Grimsby Institute (GI), based in North East Lincolnshire, is in the top 1% of colleges in the UK. GI offers outstanding education from entry to postgraduate, enabled by its own university centre, University Centre Grimsby (UCG) specialising in higher education courses.

GI continually strives to build on its 'outstanding' recognition and deliver an inspiring experience for learners. Not just now, but in the future.



**See more from Grimsby Institute** 

#### **CHOOSE THE RIGHT PATH FOR YOU**

Whether you are deciding on a career pathway or looking for the right training for your perfect career, the Grimsby Institute is a great place to start.

**DISCOVER: 2022 GI Course Guide** 

See what's on offer at GI

See what's on offer at UCG







#### WORKING TOGETHER FOR THE FUTURE

There is a core focus on the future and sustainability in all GI and UCG training programmes.

All full-time students have a sustainability component to their programme, and **2,300** students per year are educated on the green agenda.

GI can help you develop your skills and knowledge in net-zero through:

Offering qualifications including L1, L2 & L3 Awards in Carbon Awarness and Energy Management

Training wind turbine technicians through an innovative apprenticeship programme with Ørsted Investing in facilities such as the £2m Green Tech Hub specialising in vehicle technology and infrastructure

#### **INTERNATIONALLY RECOGNISED**

GI is internationally recognised for its innovative use of technology to enhance learning and is multi-award winning in the field of education technology.

As an Ofsted Outstanding provider, it has been awarded accolades including a Queen's Anniversary Prize, EdTech Demonstrator and Microsoft Showcase status, two 2020 Learning Technologies Awards and a 2021 AoC Beacon Award.

### **HUMBER MARITIME COLLEGE**

#### **ABOUT HUMBER MARITIME COLLEGE**

A centre of excellence for maritime, logistics and safety training.

Humber Maritime College offers a range of training programmes in the maritime and offshore industry and bringing new ideas and innovation to the training of Merchant Navy cadets. Courses are on offer for those in the very early stages of their career and beyond.

The college is based on the River Humber in North East Lincolnshire and is part of the TEC Partnership.



Visit the Humber Maritime College website

**EXPLORE: Maritime Education and Training Brochure** 

#### **MERCHANT NAVY CADETSHIPS**

The Merchant Navy is the international commercial shipping industry, transporting both cargo and people to destinations worldwide.

Humber Maritime College offers Merchant Navy Cadetships in Engineering and Navigation, to those ages 17 and above. Cadetships are fully-funded by employers, so do not require course fees.

Cadets get paid whilst they train and at the end of their course receive a higher education qualification.

EXPERIENCE: Take a marine simulator tour **DISCOVER: Navigation Cadetship** 

**DISCOVER: Engineering Cadetship** 



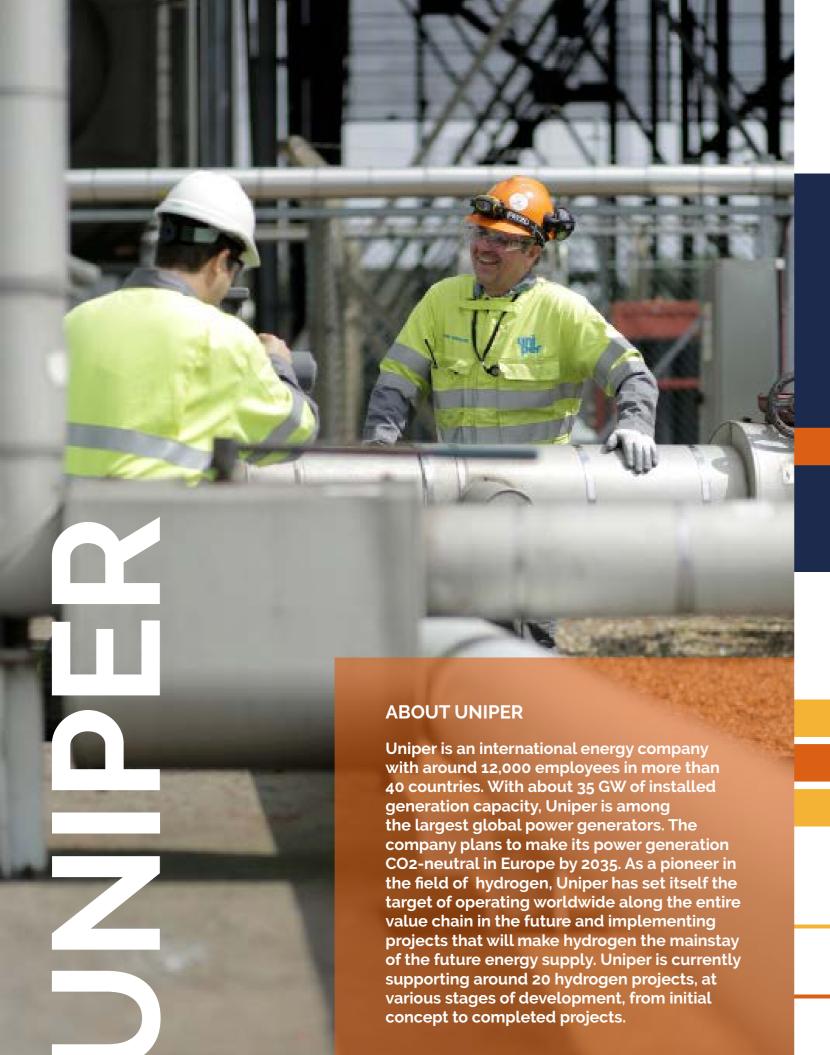


#### ON BOARD TO A SUSTAINABLE CAREER

Working in this industry can open up a wide range of opportunities and pathways to progress in a truly global industry.

Not only this, shipping is **the world's most carbon-efficient form of transporting goods**. The sector is continuously planning to further improve the fuel efficiency and carbon footprint of its vessels.

Today's modern ships help lower energy usage through improved engineering and design as well as more efficient operating approaches.



### UNIPER'S HUMBER HUB: PUTTING HYDROGEN AT THE HEART OF THE ENERGY TRANSITION

#### WHAT IS UNIPER'S HUMBER HUB?

Uniper has ambitious plans to develop a hydrogen hub at its Killingholme site, with green and blue hydrogen production, operational later this decade.

The hydrogen produced could be used to decarbonise heavy industry, transport, heating and power throughout the Humber region and beyond.

#### WHAT WILL IT DO FOR THE HUMBER?

Uniper's plans would contribute to the Humber's emergence as a leader in clean energy production; helping to future proof industry and ensuring there's a skilled workforce to provide the essential services that we need, now and for the future.

Find out more about Uniper's Humber Hub plans

720MW blue hydrogen production

100MW green hydrogen production 1.6Mt of CO2 captured per year

#### **HELP SHAPE THE ENERGY WORLD OF TOMORROW!**

Hydrogen will be at the forefront of helping the UK deliver its net zero ambitions by 2050 and Uniper and its Killingholme site can play a key role in making this happen. So can you!

**EXPLORE: Opportunities at Uniper** 

MEET: Samuel, a Uniper intern

MEET: Eamonn, a placement student

#### **ADDITIONAL RESOURCES**

Spotlight on colors: why is blue hydrogen so important?

**DISCOVER** 

Sustainability at Uniper

**EXPLORE** 

What's it like to work at Uniper?

**EXPLORE** 

WATCH: Uniper: Change today for a clean tomorrow





### THE UNIVERSITY OF HULL OPPORTUNITY

**University of Hull Prospectus** 

#### LAUNCH YOUR SUSTAINABLE CAREER WITH THE UNIVERSITY OF HULL'S **UNDERGRADUATE COURSES**

The University of Hull's internationally-renowned staff specialise in major issues, from globalisation and renewable energy to mass extinctions and climate change.

The University's geography and environmental studies research is ranked 3rd in the UK for its research impact.

FIND OUT MORE ABOUT THE COURSES ON OFFER:

**BSc Biology BSc Environmental Science BSc Marine Biology BA Geography** 

**BSc Geography BSc Zoology** 

**EXPERIENCE VIRTUAL OPEN DAYS** 

**Biological & Marine Science** 

Geography, Earth Science & Environmental Science

#### **ADDITIONAL RESOURCES**

#### **Journey of Plastics Animation**

Understand why single use plastic has such a damaging impact on our environment, and learn how you can make simple changes to help reduce its effects.

#### **WATCH**

#### What is the Bioeconomy? Animation

Learn what the Bioeconomy is, see how it can be used to power a more sustainable lifestyle, and gain an insight into the various careers that can be found within it!



#### **EXPLORE**

#### TAKE YOUR STUDIES FURTHER, WITH THE **ENERGY AND ENVIRONMENT INSTITUTE**

The Energy and Environment Institute (EEI) at the University of Hull is at the heart of the UK's Energy Estuary. The EEI delivers two innovative Masters level programmes in **Renewable Energy** and **Flood Risk Management**. The Institute hosts over 80 researchers working around issues relating to energy and the environment - including flood resilience, renewable energy and the circular economy - often in partnership with regional, national and international **Discover more from the EEI** organisations.

See more from the University of Hull



# **ABOUT WILLERBY** Willerby is the UK's largest manufacturer of holiday homes and lodges. They are committed to designing practical and beautiful homes for parks not only in the UK but also across the world. Their goal has always been and always will be a dedication to detail and creating a quality product. Willerby - is a core component of who they are. It's where founder, Walter Allen, lived and in 1946 believed he could make a difference to the leisure industry. Willerby has grown from manufacturing in a tiny village to a sprawling 90-acre site in Hull which employs over 1,000 people.

### **WILLERBY LTD.**



#### **CREATING A CAREER WITH WILLERBY**

#### APPRENTICESHIP SCHEME

In 2021, Willerby recruited its largest ever intake of apprentices, with over 30 young people beginning exciting careers with holiday homes market leader. Willerby apprenticeships bring together on-the-job experience and formal training to give you the knowledge and skills for an exciting future. With 11 different disciplines available, from business admin to engineering or plumbing, there is something to suit a variety of interests and strengths. It's not too late to join the team with both a January and September intake planned for 2022!

#### **MEET THE APPRENTICES**

**Meet Katie, Business Administrator Apprentice** 

Meet Bradley, Installation & Maintenance Electrical Apprentice

#### **TEAM TALKS**

Meet John, Head of Procurement, Logistics & Warehousing

Meet Alex, VS2 Exterior Chargehand



#### WILLERBY'S SUSTAINABILITY STORY

Willerby is committed to sustainability throughout its operations and has invested £1.25m to enhance its green credentials:



The boilers are powered by wood offcuts from the production process, saving 840 truck trips a year!



A fleet of electric bicycles has been introduced for staff to use to cycle around and between the Hull sites.



Willerby is planning to more than double the number of on-site EV charging points.

In collaboration with parks and suppliers, Willerby is trialing all-electric solutions for powering Willerby holiday homes. This has involved parks investing in new infrastructure, increasing the power feed to all-electric pitches. Willerby has also manufactured and installed residential park homes powered in part by renewable electricity, from solar panels and/or heat pumps.

Willerby is part of an industry-wide initiative to reduce carbon emissions. The first phase was focused on helping parks to identify their carbon footprint and understand the actions they can take to reduce emissions. Willerby has contributed to this project through work to estimate the embodied carbon and lifecycle emissions of their holiday homes.

**ABOUT** 

YORKSHIRE ENERGY PARK

The £200m Yorkshire Energy Park is a next generation energy and

technology business park that will

We are a flagship development

fundamental in nurturing highly

skilled young people in key industries.

including energy, data and advanced

manufacturing. Innovation will be at

the heart of the park, driven by the

synergies between occupiers of the education and business spaces.

strategically located in the Humber Freeport Zone, at the heart of the UK's

transition to net zero.

This project will also be

**Energy Estuary.** 

drive economic growth, support the local community and help position the

Humber at the forefront of the global

# A FUTURE WITH YORKSHIRE ENERGY PARK



#### **OUR IMPACT**



4,480 jobs to be created in a variety of sectors







See the full community impact

#### **OUR PARTNERS**

#### UNIVERSITY OF LINCOLN





The university will aim to up-skill and re-skill those based in the park, retaining and bolstering talent and skills in key industries within the Humber region.

Researchers at the University of Lincoln are developing innovative solutions to the challenge of sustainability, with research in key areas including climate science, clean energy, energy usage and sustainable supply chains, which is in line with some of Yorkshire Energy Park's key objectives.

#### VITAL ENERGI

Vital Energi is a decarbonisation, energy generation and distribution company, operating across the UK. Vital will take a lead on the development's energy strategy as part of the park's vision to become one of the first zero carbon business parks in the UK.

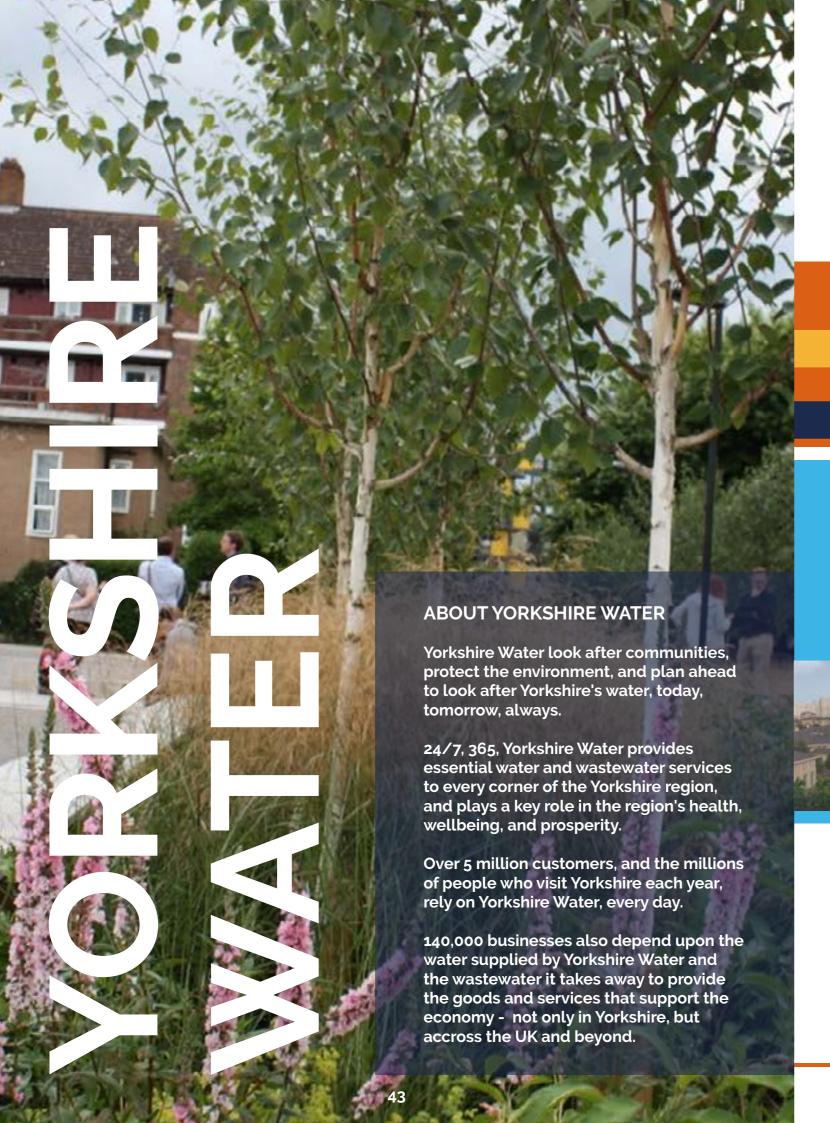
Its portfolio of work includes major city district heating schemes and energy generation and management schemes at hospital and universities, bringing a wealth of expertise in modern energy solutions that will be a driving force behind Yorkshire Energy Park.

**Discover more** 

#### WHY IS THE HUMBER THE IDEAL LOCATION?

Situated in the East Riding of Yorkshire, this major strategic site is close to nationally important energy, sea, road and rail infrastructure with an international airport a short drive away. It is an ideal location for businesses looking for power and data resilience, links to research and development, reinforced by an exceptionally strong transport infrastructure and access to a skilled workforce.

Find out about the benefits



### LIVING WITH WATER: CREATING RESILIENCE FOR THE FUTURE



From supplying customers with clean water, to treating wastewater and returning it safely back to our rivers, Yorkshire Water does all it can to protect the environment every step of the way.

Learn how Yorkshire Water is working to protect the environment

#### **EARLY CAREERS**

**APPRENTICESHIP SCHEME** 

Find out about Yorkshire Water's Apprenticeships

#### **GRADUATE SCHEME**

Find out about Yorkshire Water's Graduate Programme



#### What's new with Living With Water?

National Play Day Festival: LWW attended the festival in August, distributing reusable metal water bottles and wildflower seeds. 99 people made pledges, such as promising to plant their LWW seeds to create more green spaces and slow the flow, or to tell their families to check their flood risk.



Blue-Green Schemes: Across Hull and East Riding: Over 6,500 residents have received letters and wider information on plans to green the areas. LWW is visiting community groups to understand more about what residents want to see in their areas.

The Waterline Summit 2021: In October, LWW sponsored the Resilience and adaptation day at The Waterline Summit, which incorporated several events including an event at the new LWW Community Hub at Wilberforce College.

Find out more about Living with Water

#### **ADDITIONAL RESOURCES**

### Living With Water - Sustainable Drainage Systems (SuDS)

In Hull and the East Riding, around 100,000 homes are at risk of flooding. Our Blue Green Vision is to make our area more resilient to flooding by using sustainable drainage systems – or SuDS, as they are more commonly known.

PRESS PLAY TO WATCH





### LOOKING TOWARDS A ZERO CARBON HUMBER

The Humber is the largest industrial cluster in the country, emitting 12.4 million tonnes of carbon dioxide (CO2) a year!

ZCH brings together international energy companies, heavy industry, leading infrastructure and logistics operators, global engineering firms and academic institutions in a plan to create the UK's first net zero carbon industrial cluster, helping to create a cleaner environment for future generations whilst delivering new jobs and export opportunities for British businesses.

Meet the companies and organisations backing the bid

#### **Additional Resources**

#### A Roadmap for the World's First Zero Carbon Industrial Cluster

Find out all you need to know about the ZCH proposal - see how the plans will create and protect jobs, fight climate change and compete on the world stage!

#### **EXPLORE**

#### Site Map

See how the project will look when rolled out across the Humber.



#### The impact of Zero Carbon Humber on the region and beyond

#### Clean energy production

ZCH's anchor project H2H Saltend has the potential to reduce emissions by 900,000 tonnes per year initially, which will increase as customers switch to low carbon hydrogen and capture CO2. Linked by common hydrogen and CO2 infrastructure, the ZCH scheme has the potential to become the world's first net zero industrial cluster by 2040.

### The Humber: a global

#### New employment & skills opportunities

ZCH will protect 55,000 existing jobs in the Humber and will create tens of thousands of new jobs, while supporting skills, apprenticeships and educational opportunities in the region.

WATCH: Rejuvenating the region















# **ABOUT THE** YOUNG TALENT NETWORK In partnership with Marketing **Humber, the Young Talent** Network (YTN) offers a professional network and programme of unique events for all young talent in the Humber region. Not defined by age, the YTN aims to empower all ambitious individuals who are in the early stages of their career. Being part of the YTN allows you to start making professional contacts who are passionate about the Humber.

# EMPOWERING THE REGION'S YOUNG TALENT



#### WHAT CAN YOU EXPECT FROM THE YTN?

Behind the scenes experiences

Personal & professional development opportunities

Knowledge exchange

Social opportunities

YTN Mission, Vision & Values

#### **RECENT EVENTS INCLUDE:**

- Personal Development workshop: Managing People for the First Time
- Rapid Insights Series snapshots into the issues that matter
- Christmas Quiz
- Eco Summer Challenge

#### **ADDITIONAL RESOURCES**

#### A Day in the Life...

See how the Steering Group members spend their working day and find out what advice they would give to help you succeed on your early career journey.

#### **EXPLORE**

#### **Video Library**

View a number of the YTN events on-demand and access career resources including the 'A Message to Your Younger Self' campaign, delivered by the Humber's business leaders.

#### **DISCOVER**



#### **STEERING GROUP**

The YTN's Steering Group is made up of a diverse mix of young talent from across the Humber region.

Steering Group members help to shape the strategy, along with the programme of diverse and engaging events and activities, delivered by Marketing Humber.

**Meet the Steering Group members** 

### MYTOPIA: THE GREEN CITY BUILDER



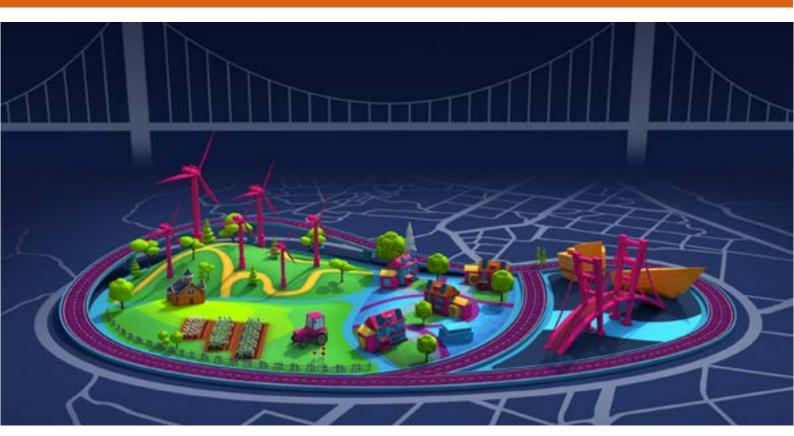
#### WHAT IS MYTOPIA?

MyTopia enables you to build your very own 'green city'. Your answers to the game's multiple choice questions covering Bill Gates' 'Five Grand Challenges' will have a range of effects and consequences on the future of your city.

Over **5,000** cities have been made in MyTopia so far! Can you create a city that will make your mark at the top of the leaderboard?

MyTopia was developed by local companies Edenic Group and Clay10, in collaboration with Marketing Humber.











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