



Page 12 OIKOS STORAGE'S TRANSFORMATIVE JOURNEY: IN CONVERSATION WITH ARUN SRISKANDA

The quarterly magazine from the Tank Storage Association Also in this issue, we look at the transition to Net Zero, the European Green Deal and careers in the bulk storage and energy infrastructure sector.



Insight is published by the Tank Storage Association, the voice of the UK's bulk storage and energy infrastructure sector.

To contact the editorial team, please email info@ tankstorage.org.uk

TSA Insight Team

Peter Davidson, Jamie Walker, Nunzia Florio

CONNECT WITH US



CONTACT

Tank Storage Association Devonshire Business Centre Works Road Letchworth Garden City Herts. SG6 1GJ United Kingdom

Telephone: 01462 488232 www.tankstorage.org.uk

TSA has used reasonable endevours to ensure that the information provided in this magazine is accurate and up to date. TSA disclaims all liability to the maximum extent permitted by law in relation to the magazine and does not give any warranties (including any statutory ones) in relation to its content. Any copying, redistribution or republication of the TSA magazine(s), or the content thereof, for commercial gain is strictly prohibited unless permission is sought in writing from TSA. Claims by advertisers within this magazine are not necessarily those endorsed by TSA. TSA acknowledges all trademarks and licensees.



Peter Davidson Executive Director, TSA

Welcome to the first issue of Insight of this year. Our world is now in an almost constant state of change with technology, processes and systems all evolving and transforming day by day. In this issue of the magazine, we explore how the bulk storage and energy infrastructure sector is positioning itself for the future to ensure that it can play its full part in the Energy Transition. Within this fast-evolving landscape, career prospects in the sector are also expanding. As national and international efforts to tackle climate change by reducing carbon emissions gather pace, the bulk liquid storage industry will not only continue to grow in the coming years but invest in innovation and knowledge as critical inputs for change. I hope you enjoy this new edition of Insight and don't forget to follow us on social media to keep up to date with all our latest news.

Contents



05 In Focus

The TSA has named Jamie Walker as its new Technical Specialist.

06 Mobile emissions and vapor control – at the highest level of safety

> By 2050, Europe is to become climate-neutral – in other words, no more greenhouse gases (GHG) are to be released into the atmosphere that are not otherwise compensated.

10 UM Terminals sets sights on global markets

UM Terminals is moving its strategic growth plan to the next level. The business also continues to invest in delivering the best possible customer service.

THE PATHWAY TO THE FUTURE



12 Oikos Storage's transformative journey: in conversation with Arun Sriskanda

Arun Sriskanda, Commercial Director, discusses Oikos Storage's transformative journey and future ambitions.

16 Re-Gen Robotics scales up for next growth phase

2022 has seen Re-Gen Robotics hit the ground running, as yet another oil major engages them for their crude oil tank cleaning solutions.

20 Natural capital and environmental drivers for business

Companies may have made net zero pledges and commitments at a corporate level, but what does it really mean for the operational parts of the business?

24 European Green Deal: a challenge for industry

The Green Deal is the EU's main growth strategy to transition the EU into a modern, resourceefficient and competitive economy. And large scale transformation requires new solutions.

28 The pathway to the future

There is a recognition, within our industry, that we need a new generation of workers who can lead our sector into a safe, profitable, low-carbon future.

30 Traditional steel grating v GRP

Glass Reinforced Plastic (GRP) is lightweight, anticorrosive, non-slip and nonspark. It does not require a hot work permit to install and maintain, and is produced in a wide range of access products.

News:

The Tank Storage Association has launched a new Instagram account. Stay up-to-date with all our latest news by connecting with us @uk_tsa.

Online meetings and webinars

The COVID-19 pandemic has challenged our model of faceto-face meetings. To adapt and respond to the current situation, all of the following meetings will take place online.

- 15 March 2022: TSA Energy Transition Committee
- 6 April 2022: TSA Council
- 7 April 2022: TSA SHE Committee
- 26 April 2022: TSA HR Committee

For more information on TSA's meetings, write to info@tankstorage. org.uk

TSA's Energy Transition Charter is available at www.tankstorage. org.uk/publications

In focus

New Technical Specialist for the Tank Storage Association

The Tank Storage Association (TSA), the trade association for the bulk storage and energy infrastructure sector, has named Jamie Walker as its new Technical Specialist. He succeeds Barrie Salmon who retired in December 2021, having led the Association's technical streams since 2012.

Working with TSA members, Jamie will use his expertise to facilitate dialogue in key policy-making forums and champion industry's needs in safety, health, environmental and technical matters.

Commenting on the role, Jamie Walker said: "The bulk storage and energy infrastructure sector plays an absolutely critical role in providing the vital interconnection to the various modes of liquid transportation in the UK. It is also leading on the innovations needed to succeed as we look ahead to Net Zero. There has never been a more exciting time to work in this industry, and I am delighted to have the opportunity to drive forward the Association's technical work through standards development and information sharing as part of our on-going effort toward continuous improvement".

Jamie is an independent safety consultant with over 15 years' experience in the terminal and downstream oil industry, having formerly worked as a Terminal Manager for Murco Petroleum Ltd and, latterly, for Puma Energy. Alongside leading the work of a number of TSA's member groups and committees, he holds several roles focusing on health and safety matters providing independent advice to the Energy Institute, the Downstream Oil Distribution Forum as well as several storage terminals both in the UK and abroad.

Peter Davidson. Executive Director of the Tank Storage Association, added: "As we continue to support our members with the issues pertinent to their businesses, from building on existing technical standards and guidance necessary to safely manage changing processes and inventories, to promoting safety and dialogue with key stakeholders, I look forward to working closely with Jamie on the exciting opportunities ahead for our industry. With the Tank Storage Association playing a leading role in several industry, regulatory and Government forums. Jamie will be a great asset to our technical workstreams".

TSA represents the interests of over 60 member companies engaged in the storage of bulk liquids and the provision of products and services to the bulk liquid storage sector. TSA is tailored to serve its membership so that member organisations can have direct input on the issues most important to them.

For more information on the Tank Storage Association and its work on safety, health, environmental and technical matters, visit www. tankstorage.org.uk.



lssue 9 💻

MOBILE EMISSIONS AND VAPOR CONTROL – AT THE HIGHEST LEVEL OF SAFETY

By 2050, Europe is to become climateneutral – in other words, no more greenhouse gases (GHG) are to be released into the atmosphere that are not otherwise compensated.

<u>Kai Sievers, CEO,</u> <u>ENDEGS Group</u>



missions are caused by transportation, generation, power industrial processes, agriculture, and many other activities. However, by 2050, Europe is to become climate-neutral – in other words, no more greenhouse gases (GHG) are to be released into the atmosphere that are not otherwise compensated.¹ As the European Environment Agency states, the EU is on a good path: it markedly surpassed its 2020 emissions reduction target of 20%. According to recent estimates, greenhouse gas emissions in the EU Member States were 31% lower in 2020 than they were in 1990.2 The internationally active company ENDEGS contributes to environmental protection with its solutions for mobile emissions treatment.

As climate change progresses, improving air quality is becoming an increasing priority. Air pollutant emissions from a wide variety of sources affect air quality, can form acids in the environment or drive the excessive accumulation of nutrients (eutrophication) in ecosystems. Human health can also be adversely affected.3

New technologies for sustainable emissions reduction

Because we are confronted with it ourselves every day, the first thing we probably think of in terms of improving air quality is the switch from diesel and petrol engines to electric vehicles. What many don't see but smell are industrial odours – from gases that harm people and the environment. In the last years, people have started to react sensitively to industrial odours, which are seldom harmless and never healthy. The days when smoke pouring out of smokestacks was welcomed as a symbol of prosperity are over.

When stationary emissions reduction systems fail, too often vapours are simply vented into the air until the system has been repaired. They release large amounts of toxic materials – tons each day – into the environment, poisoning the air for people and nature.

That is why ENDEGS developed the world's first fully equipped, autonomously operated, trailermounted vapour combustion unit⁴, making mobile emissions treatment possible for the first time. In the beginning, the combustion units were viewed sceptically or even seen as safety hazards. But now, the people in the different industries like chemical, petrochemical, oil and gas, food and fertilizer industries realize the added value of the equipment: the technologies provide more safety. They protect the environment and protect employees – because a substance that is not emitted can do no harm.

Today, ENDEGS is the only company in Europe operating portable vapour control units (VCU) that burn all kinds of gases, gas compounds and vapours of the explosion groups IIA, IIB and, more recently, IIC (products like hydrogen). These units are used to reduce emissions in all types of tanks, containers and pipelines, so that they can be reused, loaded or unloaded. This way, the company helps its customers to prepare for downtime and maintenance, and offers temporary replacement of vapour recovery units (VRUs), flares and vapour processing systems.

With its patented technologies, ENDEGS guarantees a combustion rate of nearly 100 percent and no open flame. The performance of the VCU is scalable from 0.1 to 50 MW, with units available in 5, 10 or 20 MW capacity.

Safe work inside tanks on a next level

In addition to climate neutrality, the issue of occupational safety is also becoming increasingly important. With the generational change in companies, there is often a rethinking of environmental and employee protection. Processes are reconsidered, new directives are introduced and measures implemented. So, motivated by the

ENDEGS Mobile VCU and Robot





VRU replacement



desire to minimize the health risk to cleaning workers, in 2020 ENDEGS took a completely new step to implement a safe, efficient and cost-effective way to remove 24/7 hazardous and non-hazardous materials from industrial tanks. The company added ATEX Zone 0 robots (ESOT system)⁵ for the remotecontrolled cleaning of storage tanks and pits in the chemical, petrochemical, automotive, food and other industries to its line-up. Customers can rent the robots to mitigate health and safety risks. What makes this so important? Where people previously had to do the work at great risk, under rigorous safety precautions and wearing gas masks and hazmat suits, now a remote-controlled robot operates.

For more information, visit www. endegs.com.

References

 'The EU should be climateneutral by 2050', available: https://www.bundesregierung. de/breg-en/issues/climateaction/more-climate-protectionin-eu-1797114

- 'Total greenhouse gas emission trends and projections in Europe', European Environment Agency (2021), available: https://www. eea.europa.eu/ims/totalgreenhouse-gas-emissiontrends
- 'Emissions of air pollutants' German Environment Agency (Umweltbundesamt – UBA) (2021), available: https://www. umweltbundesamt.de/daten/ luft/luftschadstoff-emissionenin-deutschland#entwicklungder-luftschadstoffbelastung-
- 4. 'Scalable combustion capacity to 50 MW & a combustion rate of almost 100 Percent', ENDEGS, available: https://www.endegs. com/en/technologiesservices/
- ATEX Zone o robot (ESOT system), ENDEGS, available: https://www.endegs.com/en/ endegs-adex-robot-en/

Purpose-developed Mobile Combustion Units







News

Petroleum Driver Passport Update

The Petroleum Driver Passport (PDP) is an industry initiative, backed by the UK Government, aimed at ensuring that all tanker drivers in the UK are trained and assessed to a high standard. It was created by the Downstream Oil Industry Distribution Forum (DODF), a partnership of employers, industry bodies and trade unions. From its implementation in January 2014, it has grown to over 11,500 cards issued. The DODF retains overall responsibility for the PDP Scheme, which is managed by Scottish Qualifications Authority in conjunction with the PDP Management Group.

The PDP applies to drivers loading, transporting and off-loading the following products:

- UN 1202 Gas oil / diesel fuel / heating oil, light
- UN 1203 Gasoline / petrol / motor spirit
- UN 1223 Kerosene
- UN 1863 Fuel / aviation / turbine engines

The passport is renewed every five years, but also has an annual practical assessment and an annual classroom training requirement.

UK terminals are the primary point of enforcement for the PDP Scheme. The terminals issue site-specific loading cards to suitably qualified individuals, and have agreed that drivers with PDP card are demonstrably trained and competent. Therefore, the terminals require drivers to have their PDP card to load, and carry out spot checks on annual validity.

The DODF has recently announced that a dispensation issued in September 2021, allowing all Petroleum Driver Passport cards due to expire between 27th September 2021 and 31st December 2021 to remain valid until 31st January 2022, expired at the end of January. From 1st February 2022, all drivers are required to hold a valid 5-year PDP card.

To maintain the validity of PDP cards, all drivers are expected to complete the PDP Annual Refresher classroom training and yearly practical assessment. Drivers now have the whole of 2022 to complete their Annual Refresher for this year.

Until further notice, any driver who has taken and passed their Annual Refresher in 2021 and/or 2020 should be treated as having a valid PDP card and be permitted to load normally.

For more information on all latest developments, visit www.pdpassport. com.

UM TERMINALS SETS SIGHTS ON GLOBAL MARKETS

UM Terminals is moving its strategic growth plan to the next level.



Bryan Davies. Managing Director, UM Terminals





M Terminals has started 2022 with a focus on moving its strategic growth plan

to the next level.

Since launching the growth plan towards the end of 2020, the bulk liquid storage specialist has made significant progress.

The three key pillars of the plan were to:

- 1. Maximise existing UK capability both in terms of current assets and. where appropriate, expanding existing terminals.
- 2. Optimise the assets of the wider UM Group and its network of facilities in Europe and other parts of the world storing molasses but which could be used to store other products.
- 3. 3Look for appropriate acquisition targets that complement the current UM Terminals offer.

One of the most important areas of focus is on continually identifying new customers, specifically those who are seeking more of a long-term partnership.

For the right customers, there are currently a small number of opportunities to take storage at UM Terminals' Gladstone Dock deep sea facility in Liverpool.

The Gladstone terminal has two berths allowing for multiple ship and barging operations to run simultaneously.

Further storage opportunities are currently available at the company's Regent Road facility, also in Liverpool. The tanks available range from 10,000 – 15.000 cubic metres.

Bryan Davies, Managing Director of UM Terminals, said: "It is relatively unusual for storage of this nature to become available and presents a great opportunity for the right customers. The deep sea facility provided at Gladstone is likely to be of particular interest and we have already had several enquiries from potential customers. In addition, we are able to offer excellent road and rail links across the UK from Liverpool."

Bryan added: "One of our primary goals for this year is to explore new global markets including Asia and the United States. We are continually investing in our facilities and one of our key messages to the market is that for the right project, we will undertake bespoke investment to meet the exact requirements of the customer. We are seeking to build long-term partnerships with our customers, so we are willing to demonstrate our total commitment to ensuring that the storage capability we provide is best

able to meet the future supply chain requirements of customers."

UM Terminals maintains a broad portfolio of around 40 products that it stores including vegetable oils, industrial, food and feed, chemical, fertiliser, fuels, biofuels and base oils. It achieves this operating out of 8 terminals, strategically located across the UK, with a current capacity of over 300,000 cubic metres of bulk liquid storage, but with an ambition to increase this to around 400,000 cubic metres.

Vic Brodrick, UM Terminals' Commercial Director, said: "The product flexibility we offer is one of our key USPs. It allows us to adapt to meet the precise needs of a customer, even if this means investing in our facilities to handle a new product type."

The business also continues to invest in delivering the best possible customer service through its dedicated Client Central Services team. Based out of Regent Road and headed by Client Central Services Manager Lynn McCoy, the service integrates all weighbridge and administration from across UM's 8 terminals.

A dedicated portal gives clients instant access to essential weighbridge documentation and current stock levels for each tank. They also have a secure log-in and can access their data 24/7, 365 days a year via a desktop, tablet or mobile device.

Bryan added: "We are starting to see the benefits of the strategic growth plan we put in place just over a year ago, particularly in terms of maximising our existing UK capability while also playing to the inherent strengths of being part of the larger UM Group."

UM Terminals is part of the United Molasses Group, led by CEO Ben Macer, whose history dates back almost 100 years. UM's founder, Michael Kroyer-Keilberg, was involved in bulk liquid storage even earlier than this – he constructed his first tank for the storage of bulk molasses in 1911 at Victoria Dock in Hull.

The Group's other services include the international trading of molasses, the sales and distribution of molasses and the procurement and marketing of vegetable oils for use in the animal feed industry.

About UM Terminals

UM Terminals provides storage facilities for a wide range of products including vegetable oils, industrial, food and feed, chemical, fertiliser, fuels, biofuels and base oils.

For more information, visit www. umterminals.co.uk.



OIKOS STORAGE'S TRANSFORMATIVE JOURNEY: IN CONVERSATION WITH ARUN SRISKANDA

Arun Sriskanda, Commercial Director, discusses Oikos Storage's transformative journey and future ambitions.



ikos has been operating a bulk liquid storage facility on Canvey Island, in the East of England, since 1936. The company's facility on the River Thames estuary is recognised as a nationally significant marine fed oil, fuel and bulk liquid import and storage facility, with a total tank capacity of 300,000 cubic metres. Operating 24/7, 364 days a year, the Canvey Island terminal is also one of the most technologically advanced storage facilities in Europe and the only independent facility in the South East connected to the national fuel distribution pipeline networks.

As it looks to the future what are Oikos Storage's objectives and ambitions?

A facility with over 85 years of history, the Canvey Island terminal is now recognised as a nationally significant marine fed oil, fuel and bulk liquid import and storage facility, with a total tank capacity of 300,000 cubic metres. Looking back at the history of the terminal, with particular regard to the past decade, a new strategy

and development roadmap for the site have meant that, from storing products such as tallow for many years, the facility has gone through a transformative journey which has seen significant infrastructure upgrades. Indeed, just over ten years ago, Colin Horton, Oikos's previous Managing Director, secured funding to effectively redevelop the site the site. This phased process started with the redevelopment of Compound 2 - under the Sirius and Orion projects - followed by the redevelopment of Compound 4 - under Project Aeris as well as the rebuilding of Jetty 2 in 2018. Jetty 2 is a deep-water jetty with the capacity to accommodate larger vessels, including LR2 tankers, up to 120,000 mts deadweight with a 14.5 metres draft. This undoubtedly adds a degree of differentiation on the Thames. As part of our commitment to long-term storage, we also invested in the redevelopment of our road gantries as well as in our connections to cross-country pipelines. In this context, Oikos is a unique ingress point for both the UKOP and Exolum pipeline networks, providing our customers with pipeline access to major airports including Heathrow, Gatwick and Stansted.

Looking ahead, and in my role as Commercial Director, I see great value in the progression of our roadmap for the future of the site, both in terms of transformational projects, such as the Oikos Marine & South Side Development, as well as smaller projects, as we strive to continuously

improve our service offer to our clients.

Back in May 2019, Aberdeen Standard Investments (abrdn) acquired Oikos. Their long-term commitment to the site, and to Oikos Storage's roadmap for the future, will undoubtedly enable us to seize the vast opportunities ahead. For example, we have recently introduced a road discharge point to one of our tanks to accommodate the blending of Hydrogenated Vegetable Oil (HVO) which is received at the terminal by ship for onward dispatch by road. As we look to the future, we are certainly focused on performing safely, sustainably and remaining commercially viable. With regard to our ambitions, our aim is to grow and develop with our client base to ensure that they have the right service offering.

As part of an ongoing investment programme to upgrade and enhance its operations, Oikos is currently proposing to develop the operational efficiency of its existing harbour facility on Canvey Island. Tell us more about this project.

The Oikos Marine & South Side Development (OMSSD) is a major transformational project consisting of the installation of new import and export infrastructure, including marine loading arms and pipelines on the existing operational jetties and the construction of new storage tanks across the southern part of the terminal ranging in capacity

up to 33,000m3. The extra storage capacity will not only complement the jetties' access more efficiently but also enable us to manage safety and operational stocks and futureproof our site for years to come. The OMSSD project will come on stream in a phased manner, with the first phase focusing on the marine asset infrastructure such as the provision of additional marine loading arms to improve discharge rates and optimise operational flexibility. The second phase will see the installation of new storage tanks and associated infrastructure on the landside part of the Oikos facility to provide suitable storage capacity for the additional bulk liquid products to be imported and exported. This is particularly important as the bulk liquid and energy infrastructure sector looks ahead at managing the energy transition while bolstering resilience and security of supply. This also entails trying to strike a balance between existing services and those of the future to best serve our customers. The project's statutory consultation has now closed, and the responses are being analysed with a view to submitting the application to the Planning Inspectorate early in 2022. As this progresses, we continue to work closely with the local community on their feedback and looking forward, it is the pace of this transformational project that will be a key focus, both in the context of the energy transition and as we navigate the path ahead following what has been a challenging commercial environment due the Covid-19 pandemic.

In the context of the Energy Transition, how can the bulk storage and energy infrastructure sector ensure that the opportunities of tomorrow can be seized?

From the media to our customers. the energy transition is undoubtedly front and centre. In terms of what the future for the bulk storage and energy infrastructure sector might look like, the Tank Storage Association (TSA) has provided an important forum for the discussion of these all-important questions as well as a platform for the sharing of views and information in this very context. Indeed, a problem shared is a problem halved: the peer support has been great and the range of views extremely valuable for discussions. More generally, the first phase of the transition is quite supportive of our sector in that first and second-generation renewable fuels are bulk liquid fuels and therefore lend themselves well to our asset infrastructure. However, there certainly has been more dislocation of fuel grades which has resulted in a slight change in the tankage profile and a move towards more smaller tanks to accommodate more niche grades. For example, with the proliferation of EVs, there are ever important questions about the impact on tankage infrastructure with regard to transport fuels in the context of light-duty vehicles. With regard to long-distance heavy-duty transport and aviation, the future is yet

13

uncertain. Against this background, we need to ensure that we are commercially ready to manage change and able to plan ahead with confidence. In order to do that, it is critical that we have confidence in the policy and legislative framework in place and that timescales engender investor confidence. A clear policy roadmap will be key and can begin to be provided with the outcome of the UK Government's Downstream Resilience Bill as well as mandating levels of SAF in the jet fuel pool. Planning ahead for our sector will also mean wider considerations about environmental standards safety, and regulatory requirements in the context of new energy vectors.

What kind of policy and industry initiatives will be required?

I always remember the phrase "necessity is the mother of invention". A clear and mandated needs case, as we look to the future, would bolster the pace of engineering ingenuity. The UK government has already announced a ban on the sale of new diesel and petrol cars and vans from 2030, and that all new cars and vans must be fully zero emission at the tailpipe from 2035. Looking ahead, a clear roadmap with regard to alternative fuel vectors would help our sector plan with confidence and realign to respond to changes, while seizing opportunities. It would also ensure that we can continue to seamlessly respond to consumer demand and provide the necessary resilience, in terms of fuel supplies, now and well into the future, particularly in light of our connection to the UK's national fuel distribution pipeline networks and unique access

to the deepwater navigable channel of the River Thames.

What is your outlook on the global bulk liquid storage market, its potential and growth drivers vis-àvis other markets across the world?

Looking back to 2020, to varying degrees, the pace of recovery has been widely underestimated. For 2022, we are taking a conservative view on recovery. Currently, demand for road transport fuels is holding up while jet fuel demand has been muted as a result of a sluggish aviation sector in the context of Covid-19 and restrictions on air travel. At the time of writing, we are one month into the US-UK travel corridor having reopened which has resulted in some positive movements in jet fuel demand. In terms of a wider outlook for our sector. we have seen that in the US and parts of Northern Europe the obligation for holding oil stocks has reduced which has resulted in downward pressure on the requirement for storage, making 2022 quite challenging on that front. However, I believe that there are always opportunities to be seized. Along with the introduction of HVO in 2021, at Oikos we have been able to focus on the energy transition and in future-proofing our assets to enable us to respond to changes in the market and fully realise our infrastructure. As we look ahead, we want to continue creating value for our customers.

For more information, visit www.oikos. co.uk.





News

The National Security and Investment Act 2021

The National Security and Investment (NSI) Act has fully commenced on 4th January 2022.

The NSI Act, which received royal assent on 29th April 2021, marks the biggest upgrade of investment screening in the UK in 20 years and brings the government's powers in line with those of many other countries. It replaces the national security provisions of the Enterprise Act 2002.

The Act gives the government the powers to scrutinise and intervene in acquisitions of entities and assets that may pose risks to national security. All sectors are within scope of being assessed under the Act and some acquisitions of entities that carry out particularly sensitive work in 17 areas of the economy, such as in civil nuclear, transport, energy, quantum technologies, and defence, will have to notify and receive approval from the government before completing their acquisition. For other acquisitions of entities and of assets, any notification will be voluntary but notifying gives the benefit of a binding decision from the government on whether an acquisition will be called in for scrutiny.

The Investment Security Unit – a dedicated hub that sits within the business department – will run the investment screening and provide a single point of contact for businesses

wishing to understand the Act and notify the government about acquisitions.

While the Act's substantive provisions have entered into force on 4th January 2022, the government will have retroactive powers to call in for review as of that date, or potentially up to five years thereafter, any qualifying transaction completed between 12th November 2020 and the commencement date.

On 2nd November 2021, the Business Secretary published a statement setting out the risk factors that he will take into account when making a decision about calling in an acquisition, and the areas of the economy where a call-in is more likely to take place. Businesses and investors can use the statement to assess how likely it is that their acquisition may be called in.

The government has also published comprehensive guidance to help businesses and investors to understand their obligations under the new rules, including how to assess whether the government must be notified of an acquisition, and what to expect when going through the NSI notification and assessment process. To know more, visit, https://www. gov.uk/government/collections/ national-security-and-investmentact.

RE-GEN ROBOTICS SCALES UP FOR NEXT GROWTH PHASE

2022 has seen Re-Gen Robotics hit the ground running, as yet another oil major engages them for their crude oil tank cleaning solutions.

Fintan Duffy, Managing Director, Re-Gen Robotics



alero's Pembroke Refinery in Pembrokeshire, southwest Wales is

Robotics' award-winning Zone 0, EX certified, remote controlled, 100% 'No Man Entry' robotic tank cleaning system, to tackle their crude oil tanks. The fully submersible robots are designed to operate in the most inhospitable environments and with specialised access cranes, remote camera systems and engineering expertise, any size or shape of oil, gas or chemical tank can be cleaned, whether they're tackling heavy fuel oil, crude oil, or sludge. Each robot has an auger system capable of breaking down heavy sludge without using water, meaning that it produces less waste. It is equipped with front and rear ATEX CCTV and lighting for easy internal tank navigation and inspection and the entire robot, CCTV, and lighting system are waterproof. The sludge is extracted by an ADR-certified jet vac tanker, with an impressive 4,800 C/m3 per hour vacuum capacity. Using high pressure, low flow jetting systems

and the powerful vacuum, the heavy fuel oil tank cleaning robotic system has been designed to fit through a standard 600mm manway, using externally fitted hydraulic ramps. The system has an offset suction head to allow meticulous cleaning underneath heating coils. The lowprofile tool can access underneath pipes and remove waste from below heating coils. It can also operate offset on the left, right, and straight-ahead positions. This tool alone can decrease tank cleaning time by a remarkable 10 to 12 per cent. The self-contained system includes vacuum, jetting, cranage, and robotics and there is no capital outlay for oil terminal operators which simplifies the entire tank cleaning process. Productivity is enhanced and tanks are brought into operation again more quickly.

The entire tank cleaning system can be set up in two hours, which is a fraction of the time required for human crews to prepare to enter a tank. Once cleaning is complete, the robot safely exits the container via its ramp and is returned to the control unit. Upon completion, clients receive a recording of the operation. All files are date and time stamped to ensure the process is traceable for auditing purposes and a record of gas detection readings is issued on completion of each clean. The truck telemetry system provides real time information to clients, so they can monitor energy consumption and waste generation.

Four main robotic tank cleaning services are available to a range of companies across the UK and Europe. These include Fixed Roof, Floating Roof, Coned Floor and Heavy Fuel Oil Tank cleaning. A recent 50m Fixed roof, cone-up floor crude oil (black) tank clean for Phillips 66 at their Humber Refinery, demonstrates how Re-Gen Robotics has established a new era in safety and efficiency for tank cleaning.

In total, 536T of sludge was removed from the tank, with 92T of water consumed during the entire tank clean. Traditionally it would have taken a team of six men 95 days to complete the clean, in comparison Re-Gen Robotics' three-man team took, 43 days i.e., 1,520 robotic hours, to do the job. Thirty of those days were spent on sludge removal alone. Overall, man hours onsite were reduced from 12,160 to 1,032 and the standby rescue team was not required. Re-Gen Robotics is classed as a medium risk contractor therefore less paperwork and permits were necessary, there was also no requirement for capital outlay or spading of the tank, which can take a full day to complete.

Upon completion of the tank clean, client feedback was extremely positive. This was the first tank to be completely cleaned and inspected by the company, worldwide, without the need for human presence in the tank. Phillips 66 has acknowledged

Robotic Tank Cleaning





Control Room



the success of the no man entry tank clean because the system could be adapted to suit their individual needs and time frames - a one stop shop for safer, faster, and cost-effective tank cleaning, with measurably better results than the man entry method.

Re-Gen Robotics was the first company to tackle, head on, the rising number of confined space deaths in the oil industry, by offering clients 100% no man entry robotic tank cleaning. They have single-handedly revolutionised safety in tank cleaning and there has been a fundamental shift in attitudes toward safety.

In May '21, Re-Gen Robotics was granted a UK Patent No.2585331B, 'Zero entry sediment removal from storage tanks', for its fully contained robotic tank cleaning solution. The patent covers its all-in-one mobile vacuum tanker and apparatus, integrated cranage system, custom designed external and internal adjustable hydraulic ramps, and ancillary equipment for its robots.

As the sole authorised provider of this innovative technology and service in the UK, what they have created is a market leading offering, supported by a fully equipped team with the expertise and confidence to take their business to global markets.

Re-Gen Robotics fully patented their equipment to protect their intellectual property because the company, as the sole authorised provider of this innovative tank cleaning technology in the UK, has unilaterally revolutionised safety and the service method in this sector. Safety and protection of personnel during tank cleaning services are of the utmost importance to the team at Re-Gen Robotics. At no time during the cleaning process is there a requirement for human presence in the confined storage container.

Their patented equipment simplifies the entire tank cleaning process. The closed loop cleaning system reduces cleaning time by up to 80 per cent, significantly decreasing downtime and loss of production whilst oil tanks are not operational.

The patent sets them apart from competitors who have traditionally paid lip service to safety while allowing personnel to carry out manual tank cleaning services, where they were



exposed to dangerous, physically, and psychologically demanding shifts, ultimately risking injury and fatalities. The team is working hard on several new patents that will allow them to carry out more and more diverse tasks remotely, including a tank mapping localisation system and plans are in place to develop existing robotic equipment further to accommodate green fuel storage.

Managing Director, Fintan Duffy says his patented tank cleaning service is transforming safety within the tank cleaning industry and is adding value to his clients' reputations and bottom line.

"We are loaded with cutting edge technology and expertise with proven results guaranteeing maximum quality, reliability, and safety.

"For the last three years our equipment and service have been meeting the highest safety standards and with our exclusive knowledge of robotic tank cleaning, we're able to develop solutions that are tailored to generate added value for our customers.

"From our innovative robotic technology to our first-class service delivery, clients benefit from our unrivalled experience and pioneering expertise."

Most recently the company announced the completion of their £1million headquarters. In addition to high specification offices, a hi-tech engineering and robotics hub has been designed to house the company's research and development facility with bays installed to service their growing number of robots and tankers.

Mr Duffy said the expansion marked the continuation of a fast-moving three years in the company, he said: "The last few of years have been an exciting time for our business. We've made over £7 million investment across several key areas including our people, tech and service offering, in preparation for significant international growth."

Staffing levels at the company doubled last year taking headcount to twelve, with more Design Engineers, Robot Operators and Project Managers being recruited in Spring 2022, to meet demand.

In December 2021, the company was recognised with three awards at the Energy Industries Council Awards, including the Innovation Award, the Sustainability Award and the prestigious Company of the Year Award.

The EIC praised Re-Gen Robotics for applying their 100% no man entry robotics technology to 'reduce the personal risk of a routine activity that many people are not aware of but is an essential industry task'. Additionally, the company has been shortlisted in the Safety Technology and Outstanding Achievement categories for The Global Tank Storage Awards 2022.

Re-Gen Robotics intends to double head count again this year and by Q3 will also double capacity as they head into mainland Europe. By the end of Q4, they hope to have negotiated their first international tank cleaning contract.

In less than three years, Re-Gen Robotics has eliminated 10,000+ hours of CSE cleaning in tanks. Over 30 tanks have been cleaned and the first worldwide, 100% no man entry tank cleans for oil majors such as Shell, P66 and Vermilion, with Valero's scheduled to be completed ahead of time. The success of their service has led oil majors to commit to end manned tank cleaning across their operations by 2025.

For more information, visit www. regenrobotics.com

NATURAL CAPITAL AND ENVIRONMENTAL DRIVERS FOR BUSINESS

Companies may have made net zero pledges and commitments at a corporate level, but what does it really mean for the operational parts of the business?

SLR



he Environment has become an increasingly important topic for all businesses over the last two years, as there is more data that supports our understanding that we are depleting the earth's resources in an unsustainable way, and also partly COVID related and partly due to the Attenborough and Thunberg effect. Extreme weather events and more recently commitments from the COP26 summit and the Environment Act receiving royal assent have all continued to drive the importance.

Previously there was an awareness of climate change but many people didn't expect that it would have an impact within their lifetime. Increasingly, we are now seeing climate related impacts with extreme weather conditions globally, together with wildlife and species in decline.

There are likely to be significant challenges ahead for all businesses; related to climate change as well as business resilience and climate adaptation. In addition there will be challenges associated with energy transition and decarbonisation. Companies may have made net zero pledges and commitments at a corporate level, but what does it really mean for the operational parts of the business?

There's a further fundamental impact that is becoming increasingly important for businesses to consider and that is the depletion of Natural Capital and ecosystem services and the benefits that these provide for human life.

The concept of Natural Capital isn't new: the term was first used nearly 50 years ago. However it is only in the few years that it has increased in prominence and been recognised as increasingly important in considering the real value that the environment has in business decision making.

Natural Capital revolves around the concept that non-human life produces the goods and services that are essential for our survival. In Figure 1, you can see that Natural Capital can be split into 2 key areas, these being stocks of our natural resources - these physical 'stocks' also provide flows of benefits called 'ecosystem services'. These provide us, the population, with the means for healthy lives and underpin all economic activity. However we are using our natural resources in an unsustainable manner, we are depleting our natural resources in such a way that is we've never seen before in human history. Natural resources provide 'benefits'



Figure 1 - Natural Capital

Natural Capital Stocks provide Goods and Services



business assets, the importance of

Natural Capital may be less obvious.

However, Natural Capital, and your

impact upon this, is still a really

important consideration and all

businesses will need to understand

their impacts and dependencies on

Halting and reversing the depletion of

our Natural Capital, delivering nature

based solutions and biodiversity net

gain are at the heart of trying to limit

climate change and achieving net

natural capital in the future.

which are essential for the survival of human life.

Figure 2 below lists ecosystem services, such as Provisioning, which is the production of food, water, fibre, soil etc. Interestingly, there is also a 'wellbeing' aspect to the benefits we derive from our natural resources.

Looking at this from a business perspective, if you're a business which doesn't have large areas of undeveloped land as part of your

Fi

gure 2 - Ecosystem Services	
Provisioning	Production of food, water, wood, fibre, soil and fertility
Regulation	Carbon capture, waste decomposition, climate control, disease, pollination, pest control
Supporting	Nutrient cycles, oxygen production, soil production
Cultural	Spiritual and recreational, wellbeing.
Habitat	Maintaining the viability of the gene pool

zero. For all businesses, the focus upon environmental performance is increasing, driven by a number of environmental drivers which are challenging for businesses. These are: Climate Risk and Resilience, Energy Transition, Circular Economy and Natural Capital.

Climate risk and resilience

Climate risk and resilience is an important issue for all businesses. How are businesses going to protect their operations and assets from the impacts of climate change, extreme weather events, supply chain shortages or disruption? If you consider the climate impacts on assets, supply chain and businesses, there is potential for a big financial impact.

Energy Transition

How can businesses with fleets of diesel vehicles move to low carbon transport? How costly will this be to businesses? What will the supply chain impacts and associated costs he?

Circular economy and Resource Efficiency

businesses achieve How do circularity? And how do they achieve supply chain sustainability?

Natural Capital

Previously Natural Capital and biodiversity was very much regarded as being separate from corporate reporting requirements. However, natural capital is now at the heart of environmental drivers and increasingly being seen as an integral part of these as well as being introduced to corporate reporting.

The World Economic Forum's annual global risk report in 2021 found that the top three risks by severity over the next ten years are all environmental: climate action failure, extreme weather and biodiversity loss. The diagram below demonstrates that there is a wide range of increasing environmental drivers from corporate reporting, such as TCFD, to new legislation such as the Environment Act, to understanding the business risks associated with declining biodiversity and natural capital.

If your business measures and reports through **Carbon Disclosure Project**, from this year (2022) that reporting will include a module on biodiversity. Businesses will have to provide details of board-level oversight of biodiversity related issues in addition to details of the impact of the value chain on biodiversity and report on actions to progress biodiversity related commitments, and for Figure 3 - Environmental Drivers many businesses this will be a real challenge.

Environmental and Social Governance (ESG)

Increasingly, investors are using ESG reporting to understand that business' environmental impact and performance, and businesses are now using a Natural Capital approach to create a 'baseline' of environmental impact and more importantly identify how to reduce their environmental impact. Environmental performance is increasing becoming important to investors.

Taskforce for Climate Related Financila Disclosure (TCFD)

At present, this is voluntary. However, from April 2022, it will be mandatory for very large businesses.

Taskforce on Nature-related Financial Disclosures (TNFD)

This is being developed. The TNFD will likely have a similar impact to the TCFD, but from the perspective of nature and biodiversity. The beta framework for TNFD will be released in March 2022.



Science Based Target Network Increasingly, businesses are signing up to Science Based Target Network, and the criteria for science based targets is tightening. Therefore, businesses will have to create action plans for the short and medium term. The Science Based Targets Network is an expansion of climate-related reporting and targets to broader nature-related disclosures and strategy. What about the challenges for those companies who are part of the supply chain? You may not be reporting to Science Based Targets, if your customer is reporting to Science Based targets, they'll increasingly be looking to their supply chain to have carbon reduction plans for example and to report emissions.

The environmental landscape is changing rapidly and business are having to get to grips with a wide range of issues and reporting requirements, those that embrace this early, take proactive steps and start working on this will definitely be in an advantageous position. Much of this is emerging and there is often not a 'right' way to do this or a one size fits all approach. Often the starting point is starting to establish a baseline data, this will not always be straightforward but this can be improved and refined over time. Those business that don't start to understand their impacts and dependencies are likely to face increasingly greater challenges as their competitors start to see the advantages of being on top of this.

To know more, contact Stewart Lenton (slenton@slrconsulting.com) and Sue Swain (sswain@slrconsulting. com). Visit www.slrconsulting.com

News

Jo raises vital money to help people affected by spinal cord injuries

UM Terminals' Quality Planning & Performance Manager Jo Winning has successfully completed a charity swim challenge and raised vital money to support people affected by spinal cord injuries. Between October and December last year, Jo took part in the Channel Swim Challenge – the aim being to swim the length of the English Channel (22 miles) in 12 weeks. Jo, a keen swimmer who is based at UM Terminals' Liverpool head office, completed the challenge at her local pool in Shrewsbury in just over eight weeks. Jo raised £1150 in donations from family, friends and the UM Group charity committee with W&R Barnett - UM Terminals' holding company - contributing a further £650. Aspire ensures that everyone with a spinal cord injury has the opportunity to live an independent and fulfilled life. The charity receives no statutory funding, so every penny raised through the Aspire Channel Swim helps with its important work. One person every four hours is paralysed by a spinal cord injury.

Jo said: "The Aspire Charity is a brilliant organisation and the fundraising it receives from events such as the Channel Swim Challenge are vital in supporting the work it is able to do with people affected by spinal cord injuries. I was delighted to complete the challenge in just over eight weeks and really enjoyed the experience. It was also great to get back into a routine after all the lockdowns and I found it great for my general wellbeing. I made a point of blogging after every swim to keep people who so kindly donated updated as to my progress. In addition to the donations from friends and family, I am hugely grateful to my colleagues at UM Terminals and to the W&R Barnett charity committee for their generous contributions."

Jo added: "I found the swimming to be quite therapeutic, but I also became quite competitive with myself – wanting to push myself to achieve quicker targets week by week. It's certainly something I'll be keeping up with, hopefully with more challenges to come. Wild swimming is next! I've timed myself at a 48-minute mile now, which probably isn't very quick, but I'm hoping to get quicker and complete another challenge this year."

Bryan Davies, UM Terminals' Managing Director, said: "We were only too happy to support Jo in her fantastic fundraising efforts. As a business we have a strong charitable ethos and look to support a range of worthy causes."

UM Terminals is one of the UK's leading bulk liquid storage specialists, operating out of 8 terminals, strategically located across the UK, handling over 40 different products.

EUROPEAN GREEN DEAL: A CHALLENGE FOR INDUSTRY

The Green Deal is the EU's main growth strategy to transition the EU into a modern, resource-efficient and competitive economy. And large scale transformation requires new solutions.



he European Union has unveiled its strategy towards a "green economy", and by mid-century, human activity on the continent is to become environmentally neutral. The new directives, plans and statements are very ambitious: but how will they be implemented in practice?

€1.8 trillion on transformation

Several years ago, the European Union unveiled its path towards a green economy. The goal is for zero environmental impact of human economic activity by 2050. Against the backdrop of changing climate, brand-new environmental drives have now emerged: from reusing and recycling clothing to upcycling and, crucially, changes in technology at large industrial facilities.

The "Green Deal" concept has a large-scale goal behind it: to turn the EU into a modern, resource-saving, and competitive economy. This plan rests upon three key pillars: zero net greenhouse gas emissions by 2050, economic growth decoupled from resource use, and a transformation

that will leave no-one behind. 'Not one person and not one place will be left behind,' the European Commission emphasised when unveiling the plan. Indeed, against this background, the NextGenerationEU Recovery Plan and the EU's seven-year budget envisage a package of €1.8tn for transformation. This investment is meant to radically change the everyday life of all across the continent: from the end to the sale of internal combustion engines to the transition to electric cars and hydrogen-powered vehicles as well as large-scale changes in industry.

However, unlike some of the changes toward the energy transition, when it comes to the transition of the processes occurring in industries, much more needs to be done in order to raise awareness of the scale of the challenge ahead. In fact, it is usually easier to build new facilities using cutting-edge technologies than to overhaul existing sites, and the European Union is a global factory for processing and producing literally everything.

PKN Orlen: Transformation in a decade

We know full well that the business segments that are our strengths today will require profound changes — for which we are well prepared. In recent years, we have taken consistent steps to effectively strengthen the Group, preparing it for the upcoming transformations. We will spend a total of about PLN 140bn (€3.06bn) on the implementation of our strategic goals,' reports the press service of PKN Orlen, a Polish oil industry corporation. Indeed, the company has unveiled its own incremental strategy to 2030. By then, around a half of the Group's profits from crude oil processing will be derived from the petrochemical business. The company is set to ramp up its capacity in olefins and other base products, and at the same time strengthen its position in the production of polymers (a business line with attractive growth potential, the concern noted) by extending the value chain and entry into compounding and concentrates. At the same time, the share of specialty high-margin products (such as phenol and aromatic derivatives) will grow from 16% to approximately 25%. Recycling and biomaterials will become new branches of the petrochemical segment.

'By 2030, the Group will expand its waste processing capacity (mainly plastics) to 0.4 million tonnes, while introducing advanced closed-cycle technologies,' the PKN Orlen press release explains.

New standards

Such large-scale transformation requires new solutions. 'We recycle waste, residues and innovative primary products into renewable fuels and eco-friendly raw materials to make plastics and other materials,' says the Finnish Neste. For example, renewable and processed raw materials become part of crude refining. The French oil and gas PKN Orlen, SABER EVNAT



PKN Orlen, SABER EVNAT



company TotalEnergies has also presented its vision of EU energy by 2050. And the ultimate result will require adaptation of the processing capacities. Such adaptation — which is essentially a transformation — is highlighted in the company's strategy.

'Total's sales mix will become 30% oil products, 5% biofuels, 50% gas (including biomethane and lowcarbon hydrogen) and 15% electrons, essentially renewables,' said Patrick Pouyanné, head of TotalEnergies, presenting the strategy.

Against this background, new industry standards are now emerging. Shell, for example, has joined several of them: the Science-Based Goals Initiative, the Transition Pathway Initiative and others.

'We have to transform the area of our refineries from the current 13 sites to six highly profitable energy and chemical "parks," and cut the production of traditional fuels by 55% by 2030. We plan to increase the volume of the chemical products portfolio and boost cash generation by our chemical business by 2030, compared to the medium-term perspective, by \$1-2 billion annually. Chemicals will be produced from recycled waste (circular chemicals), and we intend to process 1 million tons of plastic waste per year by 2025,' the Shell press service reported.

Royal Vopak N.V., a Dutch multinational

company that stores and processes products ranging from chemicals, oil, gases and LNG to biofuels and vegoils, implements technical solutions at its terminals that reduce emissions of volatile organic compounds (VOCs).

'VOCs can cause air pollution and may pose a health risk; we therefore assess not only the emissions themselves, but also their overall social impact — which we aim to reduce by at least 20%. We work hard to make our carbon footprint smaller and our ambition is to be climate neutral by 2050,' the company said.

Strategies alone won't help

However, the energy transition will only present opportunities, not but challenges too. European Environment Commissioner Virginijus Sinkevičius, whose portfolio includes environmentalissues, water resources and fisheries, has noted that 'the issue of climate change is multifaceted: unsustainable agriculture, industry, excessive extraction and use of resources and many other human activities impact biodiversity, ecosystems and the climate.

This also applies to sectors such as those involved in the accumulation, recycling or disposal of production waste. And for the Green Deal to succeed much more will be needed. "We can diligently come up with strategies and action plans, but unless the public cares, if the changes proposed by politicians are alien to them, the Green Deal goals will not be achieved," says the European Commissioner.

For instance, waste accumulation is inevitable during the production, storage and transportation of any complex liquid products. Responsible companies recycle and properly dispose of them. This, however, remains a challenge even for the most cutting-edge businesses. For example, cleaning a crude oil or fuel oil storage tank requires specialist equipment. The surfaces are washed at pressure values so high that they could even crush rocks.

For companies such as Ekovalis, a Mažeikiai-based specialised cleaning company, whose services include the removal of blockages and cleaning various containers from lime, solid deposits, fats, oils and petroleum products, day to day work involves the use of vacuum hydrodynamic machines and special chemicals. However, a key challenge is represented by the disposal of hazardous waste.

Avoiding losses

Yet another challenge is that represented by losses. Before the course toward a green economy, they were included in the "inevitable losses" line.

For instance, sheer storage of fuel, chemicals, oils (namely, any complex liquid product) results in volume loss of up to 5%. This, however, varies among different products and each case is unique. Nonetheless, all these products lose their qualities during transportation and storage. Heavy particles settle to the bottom, lighter ones rise and evaporate. The same processes occur with vegetable oils. During storage, a precipitation appears. All these physical processes affect most ordinary products, leading to losses in both quantity and quality.

'What is 5%? For large enterprises, this represents tens of millions in losses. Just 5-6 of the EU's major refineries have a capacity of 2 million barrels of crude oil per day. That's crude alone. Let's even say it's one million barrels daily. And 5% of that is lost. Even a loss as small as 1% still equals 10 thousand barrels per day, which translates to \$860K lost daily and \$309 million annually. And that's just the 5-6 top refineries in Europe. In addition to losses, there's also sedimentation in the tanks - that sediment must be cleaned, transported and disposed of properly. That means extra costs,' says Andrejs Višņausks, Member of the Board at SABER EVNAT (Latvia).

'We asked the question: what can be done? Any product is affected by physics. The solution we have come up with is a device that prevents the very physical process of disintegration into fractions. This technology has existed for a while now — jet mixing. It involves creating a flow inside the tank that would move in a certain direction and at a certain speed to enable mixing the liquid. However, back then, there was no computing power or computer modelling or the knowhow that we have now implemented into our product. Our technological solution is more than mere washing away bottom sediments or reverting the product to its original quality. Our product prevents decomposition in the first place. The problem doesn't even arise,' Andrejs Višņausks explains.

Mixing technologies come in many flavours. Product sedimentation is a significant issue for many manufacturers. Firstly, this means physical loss of the product. Secondly, the tanks require cleaning — a lengthy, cumbersome and expensive process. The sediment must then be taken out for disposal or recycling. And disposal as such cannot happen anywhere. Companies are constantly looking for solutions.

The transformation challenge

However, the biggest challenge in this global transformation for businesses will be inaction. The entire European Green Deal doctrine can only become a reality if businesses take action. Indeed, it is businesses that will have to practically implement the ambitions and plans to enable the transition. However, this will present challenges but opportunities too.

Some developers of advanced solutions fully compliant with the

European Green Deal concept note that there are some hurdles still with regard to the introduction of new and innovative technologies in some guarters. On the one hand, there are company executives generally interested in both transformation and lower losses/bigger profits that come with the adoption of new solutions. On the other hand, there are technical specialists who are busy with their routine affairs. They don't always have the time to discuss something new: they have enough on their plate as is. For many, natural losses are inherent to all processes and products, there is a budget, an established system, processes are working, and there are instructions. Everything is fine already as it is — there is no point in changing something today. Maybe sometime in the future.

And this future — since EU industry has agreed that 2030 will be the turning point, and the net zero goal is to be achieved by 2050 — will come tomorrow.

Author

Denis Tarasenko at www.zanedeliu.lt

27

THE PATHWAY TO THE FUTURE

There is a recognition, within our industry, that we need a new generation of workers who can lead our sector into a safe, profitable, low-carbon future.

For more information, visit www. reynoldstraining.com

THE PATHWAY TO THE FUTURE



ur industry is in transition, as we begin to leave behind the 'legacy liquids' we have been processing, transporting and storing for a century, and introduce the new, more sustainable fuels which will bring with them new processes, new challenges and, of course, new opportunities. Therefore, it has never been more important for us to turn our attention to the future.

How are industry bodies and gualification awarding organisations working in concert with the industry as a whole and training providers such as ourselves, to help equip the workers of today with the skills they need to pursue a career pathway into a successful tomorrow? People entering our industry today need to be assured that they have the skills and abilities they need to adapt to a changing work environment, to ensure they can continue to have a successful career for decades to come. And their employers need that same assurance to ensure their businesses can continue to function and grow.

IChemE and our Apprenticeship Pathway

When we created the pioneering Bulk Liquid Storage Apprenticeship, we worked with GQA and Ofqual to develop our Level 3 Bulk Storage Operator Technician gualification, that not only underpins the programme, but also can be undertaken as a standalone for qualification experienced personnel looking to develop their career. We then worked with the standards body, IChemE, to ensure that learners who have completed this qualification would be eligible to apply for Engineering Technician Status and, therefore, be equipped to continue along their chosen career pathway.

This helped ensure that learners who have completed this course either as part of their Apprenticeship or as part of their CPD (Continuous Professional Development) - will be able to demonstrate professional status and standards; thus openingup wider career opportunities in the fields of not only operations, but also maintenance, engineering, management, safety and quality control. All of this helps workers continue down their career pathway ultimately leading, if they want to take it that far, to achieving Chartered status.

This IChemE Engineering Technician approval process requires learners to be able to



demonstrate their use of process related knowledge as well as their technical and practical skills. These include the ability to:

- Review, select and use appropriate techniques, procedures, and methods
- Use appropriate principles
- Identify problems and their causes, achieve solutions and evaluate the result.
- Identify, organise and use resources effectively, with consideration for cost, quality, safety, security, and environmental impact.
- Accept responsibility for your work or that of others

These core behaviours, and others, show what qualities workers need to demonstrate, as an individual, working in a professional environment. Those behaviours can adapt and evolve to any storage environment - they ensure that workers can continuously adapt and evolve, without losing sight of the basic principles that underpin safe and effective processes.

IChemE and other organisations, such as Cogent Skills, UKPIA and, of course, the TSA, oversee and maintain these standards within the industry, to ensure businesses continue to thrive in a safe and sustainable way.

TSA and Career Pathways

As part of its important leadership

role in this, the TSA has issued a Careers Guide which states, in its introduction:

"The bulk liquid storage industry offers a diverse range of career opportunities in business, operations, engineering, safety, marketing, science, IT, supply and trading and many other disciplines ... Whatever skills you have, chances are the bulk liquid storage industry needs them."

It then goes on to list a wide range of careers that candidates could pursue within our sector - from the obvious engineers and terminal operators, through to software developers, lawyers and tax accountants.

Beyond this, the TSA works with its member companies through a dedicated Human Resources Committee to identify career pathways within the sector and promote these externally. The TSA also acts as an authoritative source of information for those who wish to work in the bulk liquid and energy infrastructure sector.

The TSA is an Association and, as such, also works with other key stakeholders, such as trade associations and skills bodies, to identify skills challenges and opportunities, and collaborates on addressing any changes or new developments required.

Reynolds Training and Career Pathways

At Reynolds Training Services, our ultimate goal is to train workers who not only have the skills and competencies to enter the workplace as competent and safe employees, but who also have the tools they need to ensure a continuing career pathway within the sector.

We're providing careers, not just qualifications.

To that end, we offer a range of 'entry level' qualifications that open the door to those who want to enter our industry. Then, once they're on the road to success, we offer a range of avenues individuals can pursue, depending on their interests and aptitudes.

In conclusion, there is a recognition, within our industry, that we need a new generation of workers who can lead our sector into a safe, profitable, low-carbon future. These young people will bring with them a lifelong concern for the environment, an energetic imagination and an innovative spirit that will help our sector find new ways to flourish, whilst creating everhigher standards of performance, efficiency, environmental protection and workplace safety.

This is the challenge we face; this is the opportunity we must take.



John Bell Pipeline is the market leading supplier of Linepipe, Pipe-fittings, Valves & Steel requirements, For more information, visit https://www. jbpipeline.co.uk/





Traditional steel grating v GRP



s we all know, steel is widely used for access equipment such as ladders,

stepovers, walkways and bund covers etc, in tank storage facilities. Steel is strong and durable however it can also be labour intensive in corrosive environments, generally requires lifting equipment due to its weight and maintenance can be time restrictive, due to the hot works permit system. Steel can also bend on impact, often resulting in damage which requires replacement.

A growing alternative to steel for these products, is Glass Reinforced Plastic (GRP). GRP is lightweight, anticorrosive, non-slip, non-spark, does not require a hot work permit to install and maintain, and is produced in a wide range of access products. GRP also deflects impacts returning to its original form which reduces the need for costly repairs & replacement.

TSA Associate Member JBP are one of the UK's largest stockists of GRP grating and GRP structural products, with an in-house cutting and fabrication facility, producing barriers, handrails, stepovers, inspection platforms, gantries and walkways.

For more information, visit www. jbpipeline.co.uk



Tank Storage Conference & Exhibition 2022

Presented by TSA

The UK's leading event for the bulk liquid storage sector

22 September 2022 Coventry Building Society Arena, Coventry, UK

Discover the event > www.tankstorage.org.uk/conference-exhibition

Tank Storage Association - The Voice of the Bulk Storage and Energy Infrastructure Sector



The voice of the bulk storage and energy infrastructure sector



9

Tank Storage Association Devonshire Business Centre Works Road Letchworth Garden City Herts. SG6 1GJ United Kingdom

www.tankstorage.org.uk

C T. +44 (0)1462 488232



info@tankstorage.org.uk



TSA Insight Magazine - Issue 9