



03 Shifting Gears: CV Show 2024 Puts People in the Driver's Seat



04 UK's Pioneering Legislation: Zero Emission Vehicles by 2035



05 Bill Martin's Journey in Engineering, from Cadet to Team Leader



07 IRTE Cornwall Centre Brave the Waves at Newlyn Lifeboat Station

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THE QUARTERLY NEWSLETTER FOR SOE MEMBERS

WINTER 2024

ISSUE 23

IRTE Skills Challenge 2024 set to Shape the Future of the Industry

The IRTE Bus & Coach Skills Challenge is back for its 12th anniversary and is on track to revolutionise the industry by challenging the status quo and shaping the future of the Bus and Coach industry.

The Skills Challenge is a beloved one-of-a-kind annual event that showcases the industry's brightest talents by testing them on several challenges that pay homage to the day-to-day of the Bus and Coach industry. This national competition takes place in the state-of-the-art S&B Automotive Academy in Bristol between the 3rd and 7th of June. Both ambitious PSV technicians and apprentices are given the chance to work on some of the industry's most innovative technologies and compete against each other to win a number of prestigious awards.

The theme for the 2024 edition of the Skills Challenge is, "Challenging the Status Quo," which is a direct embodiment of IRTE's commitment to driving innovation, workforce excellence, and empowering the next generation of bus and coach technicians.

Since its initiation the Skills Challenge, organised by the IRTE, has witnessed over 650 aspiring technicians, from large national companies such as First Bus and Go-Ahead to regional powerhouses such as Trentbarton and Lothian Buses, and provided them with a platform to test their skills across electrical, mechanical and bodyworks, push their limits, and rise to the challenge. "The IRTE Skills Challenge



isn't just celebrating excellence, it's redefining it. By challenging the status quo and embracing new technologies, we're not just testing skills, we're empowering the next generation to thrive in an environment where innovation and alternative fuels to power public transport will become essential' adds Oliver Teasell, Membership and Registration Manager, SOE.

The 2024 edition of the Skills Challenge aims to take

"The IRTE Skills Challenge isn't just celebrating excellence, it's redefining it"

Oliver Teasell, Membership and Registration Manager, SOE

on a groundbreaking new dimension with the introduction of a new optional category featuring new technology, which will be announced in due time. The addition of this new "innovation" category will give the competitors a chance to embrace the future of transportation whilst gaining hands-on experience with cutting-edge innovations and showcase their adaptability in a rapidly evolving industry.

The competition is open to operators of all sizes with everyone welcome. By having such a variety of talents compete

against each other the Skills Challenge is renowned for bringing out the best in the competitors and celebrating the talents of the industry.

IRTE's dedication to driving progress goes far beyond the Skills Challenge. Their pioneering accreditation schemes, irtec and Workshop, have become the gold standard in the bus and coach industry, shaping a landscape of unparalleled technical excellence. These initiatives stand as beacons of expertise, setting the benchmark for competence and skill. They equip the industry with a force of professionals who are not just adept, but demonstrably proficient in their craft.

The competition this year will be a unique coming together of new technology, technicians apprentices and industry-leading suppliers – showcasing the strength and sustainability of the sector.

Through its dedication to cutting-edge technology, championing skilled technicians, and nurturing future talent, IRTE is leading the charge in bus and coach advancements, paving the way for a secure, eco-friendly, and inclusive transportation landscape for generations.

We look forward to seeing both new and past competitors at this year's Skills Challenge and wish them the very best. New horizons await.

FACTS & FIGURES

16

Award categories across apprentice, technician and team.

650+

Competitors have taken part in the IRTE Bus & Coach Skills Challenge.

3

Test categories including electrical, mechanical and bodywork.

4

Days of intense competition (teams only need to attend one).

INDUSTRY
UPDATES
**ENGINEERING COUNCIL
PUBLISHES UK-SPEC
HRB GUIDELINES FOR
SAFER BUILDINGS**

The Engineering Council has taken a significant step towards enhanced building safety with the publication of competence tables for the UK Standard for Professional Engineering Competence and Commitment contextualised for Higher-Risk Buildings (UK-SPEC HRB).

These tables, released ahead of the full Standard slated for mid-2024, establish a shared framework for diverse engineering disciplines involved in high-risk building projects. They aim to equip engineers with the necessary guidelines to implement safer practices throughout the building life cycle.

"Developing these tables is a momentous achievement," remarked Peter Wilkinson, Chair of the Contextualised Registration Steering Group (CRSG). "Our gratitude goes to everyone involved for their unwavering dedication. However, the journey continues as we urge engineers to register, demonstrating their commitment to public safety and competence."

Registration, while not mandatory, is strongly encouraged for engineers and technicians working on high-risk projects. It serves as a tangible assurance of skill and knowledge to clients and stakeholders.

**EURO 7: COUNCIL AND
PARLIAMENT STRIKE
PROVISIONAL DEAL ON
EMISSIONS LIMITS FOR
ROAD VEHICLES**

The EU's Euro 7 marks a paradigm shift, tackling not just tailpipe fumes but also brake dust, tire wear, and electric car battery health. This comprehensive grip applies across vehicles, from vans to trucks.

While maintaining Euro 6's stringent limits for passenger cars, Euro 7 elevates the bar for larger vehicles through significantly stricter emission caps. Furthermore, it introduces groundbreaking regulations that were previously absent, such as brake dust emission limits and extended battery performance mandates for electric vehicles.

This goes beyond immediate environmental benefits. It paves the way for the EU's 2035 near-zero emission goal by curbing non-exhaust emissions and promoting long-lasting electric car batteries.

Euro 7 signifies a resolute EU commitment to prioritize clean air and accelerate a greener transportation future. It's a significant leap forward, ushering in an era where cleaner air becomes synonymous with every European journey.

Welcome to SOE News

FROM THE EDITOR

Welcome back to 2024 and back to another edition of SOE News. As the winter's chill begins to give way, we at SOE News are thrilled to welcome you back for another year of exploring the exciting and ever-evolving world of engineering. This edition is brimming with fresh insights and captivating narratives, all of which serve as a reminder that the industry is continuously evolving thanks to the dedication, ingenuity, and unwavering spirit of engineers like you.

Whether you're a seasoned professional navigating the dynamic landscapes of modern industry, a budding apprentice embarking on your engineering journey, or simply someone captivated by the magic of invention, SOE News has something for everyone.

At the heart of this issue lies the 12th IRTE Bus & Coach Skills Challenge. Being more than just a competition, this annual event stands as a testament to the dedication of future talents who strive to push boundaries and redefine excellence. It is a celebration of raw skill, relentless innovation, and the vital role technicians play in keeping our transportation networks at the peak of innovation in both technology and safety. As we delve into the details of this groundbreaking event, we invite you to witness the future of the industry unfold before your eyes.

Beyond the spotlight of the Skills Challenge, this edition takes you on a multi-faceted exploration of the engineering world. We delve into the intricate advancements in brake testing procedures, shedding light on the crucial role of standardisation and efficiency in ensuring road safety. We join the British Motor Trade Association (BMTA) on its mission to support aspiring engineers, recognising the



"SOE News is more than just a collection of stories, it is a platform for conversation, a space where you, the reader, become an active participant in shaping the narrative of engineering"

critical need to nurture and empower the next generation of industry leaders. We explore the ethical principles that underpin effective plant maintenance and sustainable climate action, urging each of us to be responsible stewards of our technological advancements.

And of course, I haven't forgotten about the one thing that makes this all possible, you the engineers and people who drive this dynamic field. From the inspiring journey of Bill Martin, who navigated from Merchant Navy cadet to engineering leader, to the insightful discussions at the CV Show 2024, we celebrate the individuals who breathe life into innovation and shape the future with their relentless pursuit of knowledge and progress.

SOE News is more than just a collection of stories, it is a

OVER THE LAST YEAR WE HAVE HAD...

**96% increase in
EngTech applications**

**86% increase in
IEng applications**

**71% increase in
CEng applications**

**130+ New IRTE
Workshop accreditations**

**18.6% rise in total active
irtec licenses**

**85 hours of CPD lectures
delivered**

platform for conversation, a space where you, the reader, become an active participant in shaping the narrative of engineering. I'd like to thank everyone who submitted content and took the time to share

their stories. I encourage you to engage with the content, share your insights, and join the vibrant discussions that unfold on our social media pages or send me an email. Your voice matters, and your contributions help us build a stronger, more connected community of engineers, enthusiasts, and all those who believe in the boundless potential of this remarkable field.

As we embark on this exciting journey together, I look forward to hearing more of your stories in this new year. So, let us dive into this edition with open minds, a thirst for knowledge, and a shared commitment to building a brighter, more sustainable future through the power of engineering.

Christopher Knight, Editor
editor@soe.org.uk

BMTA becomes Corporate Partner

The British Motor Trade Association, BMTA, is a registered charity that offers financial support to individuals with an industry background who have found themselves or their families in need.

BMTA stood as a leading enterprise which specialised in the manufacturing and distribution of motor vehicles for over half a century. In 1967, BMTA's focus shifted towards charitable endeavours with a focus on extending financial assistance to individuals and families within the motor industry who are facing temporary hardship.



This charitable mission expanded to include educational support for children at risk of educational disruptions or facing challenging home environments. For decades, BMTA grants have been crucial in addressing the welfare needs of those who need it within the motor industry as well as providing educational assistance to students.

Chaired by a long-serving board of Trustees with an

extensive significant motor industry background, the Trust offers a wealth of knowledge in business management, development/training, social welfare and education.

Between July 2019 and June 2020, the Trust provided over £170,000 in grants to more than 90 children and adults in need of support. This grant was used to help with household items, and living adaptations, as well as bills. Apprentices, especially, benefitted from this grant as they used it for tools and travel costs which helped them progress their careers. Joining the SOE as a corporate partner means BMTA will be able to

access a growing network of aspiring engineers and provide them with educational and financial support.

With the current cost of living crisis, funding from organisations like the BMTA is often critical for the survival of families. By providing this funding, the BMTA is not only supporting young apprentices but is also combating the current shortage of engineers throughout the industry.

The SOE Corporate Partnership scheme assists organisations that are closely aligned with SOE's ethos of supporting engineers throughout their careers.

Long Service Awards

This edition marks the anniversary of our members who have achieved 40 years' service in their professional sector. We congratulate those members, who have all shown great commitment and dedication to engineering, and we thank them for their loyal service.

2024 40-year service

Mr Alan Bryn Jones EngTech MSOE MIRTE
 Mr Alan Gowans Imrie MSOE MIRTE
 Mr Alexander Marzan EngTech MSOE MIRTE
 Mr Allan John Haddow IEng MSOE MIRTE
 Mr Anthony Donald Jolliffe..... MSOE MIRTE
 Mr Barrie Michael Willis..... EngTech MSOE MIPlantE
 Mr Brian John Emmett IEng MSOE MIRTE
 Mr Brian Michael Townsend..... IEng MSOE MIRTE
 Mr Bryan Gilbert AMSOE AMIRTE
 Mr Christopher Ernest John Nieman EngTech MSOE MIRTE
 Mr David Alexander Kelso MSOE MIRTE
 Mr David Brian Thomas Presley IEng MSOE MIRTE
 Mr Dermot Cecil Neville Bambridge..... MSOE MIRTE
 Mr Frank Byrne..... IEng MSOE MIRTE
 Mr Frank Halkyard..... AMSOE AMIRTE
 Mr Frederick George William Holmes IEng MSOE MIRTE
 Mr Frederick Roy Merrifield..... IEng MSOE MIRTE
 Mr James Strang..... HonFSOE HonFIPlantE
 Mr John Alexander Reed MSOE MIRTE
 Mr John David Wearing MSOE MIRTE
 Mr John Edward Anthony Marsh MSOE MIRTE
 Mr John Edward Eastman CEnv EngTech FSOE FIRTE
 Mr John Foster MSOE MIRTE
 Mr John Turner IEng MSOE MIRTE
 Mr Keith Adrian Firth..... MSOE MIRTE
 Mr Keith Michael Ovenden IEng MSOE MIRTE
 Mr Kenneth William Dale..... AMSOE AMIRTE
 Mr Melvin Leeming IEng MSOE MIPlantE

Mr Michael Grace AMSOE AMIRTE
 Mr Paul Brian Michael Lawrence..... IEng MSOE MIRTE
 Mr Ralph David Maxwell Ingham-Johnson..... IEng MSOE MIRTE
 Mr Robert David Arscott MSOE MIRTE
 Mr Robert Hurst..... IEng MSOE MIPlantE
 Mr Roger Anthony Young..... IEng MSOE MIRTE
 Mr Roger Godfrey Tame..... MSOE MIRTE
 Mr Roger Vivian Vincent..... IEng MSOE MIRTE
 Mr Selvaratnam Markandu AMSOE AMIRTE
 Mr Simon Pedrazzini..... IEng AMSOE AMIPlantE
 Mr Stephen Isherwood MSOE MIRTE
 Mr Stephen John Sutton..... MSOE MIRTE
 Mr Stephen William McKee EngTech AMSOE AMIPlantE
 Mr Syed Raza Jafari..... MSOE MIRTE
 Mr Thomas Tate..... IEng FSOE FIPlantE
 Mr Tony Herbert Wallace EngTech MSOE MIRTE
 Mr William Donald McCallum..... IEng MSOE MIRTE
 Mr William Ernest Lakey MSOE MIRTE
 Mr William John Rhymes MSOE MIRTE
 Mr William Kenneth Millar IEng MSOE MIRTE



WE WANT TO HEAR FROM YOU

We are looking at ways to improve your reading experience. Share your feedback and help us shape the future of SOE News and Transport Engineer. Scan the QR code or use this link to start the survey. <https://www.surveymonkey.com/r/N6956NX>

INDUSTRY UPDATES

NEW WHEEL CHOCK GUIDE SIMPLIFIES SAFETY FOR ALL

A vital new resource has arrived to bolster safety for anyone working on commercial vehicles, buses, and coaches. IRTE and Logistics UK, joined by industry experts, have produced a simple yet effective wheel chock guidance document.

Operators, equipment suppliers, and regulators all contributed to this collaborative effort, ensuring clear procedures and crucial safety information for every situation. Whether in workshops, on-site, or handling roadside breakdowns, the guide empowers users to select and apply wheel chocks correctly.

Key benefits of the guide:

- Clear and concise instructions for selecting and using wheel chocks in different situations.
- Essential safety information on potential hazards and best practices.
- Developed by industry experts to ensure accuracy and relevance.
- The wheel chocks play a critical role in preventing accidents.

This guide is available to download for free via the SOE website.

ENGINEERING FALLS BEHIND IN RACE TO NET ZERO: NEW DECARBONISATION STUDY

The UK's engineering and construction sector is lagging in its green efforts, falling behind both healthcare and financial services in the race to net zero, according to a new study by Mobility ways.

Key findings:

- Only 57% of engineering firms have set a target date for carbon neutrality, compared to 61% in healthcare and finance.
- Less than half of engineering firms have established concrete milestones for reaching net zero, while 65% of the financial sector has.
- Engineering firms lag behind in reporting both direct (50%) and indirect (54%) emissions, compared to healthcare's 62% and 71%, respectively.
- Only 41% of engineering firms measure emissions from employee commutes, a significant source of carbon.

The study highlights the need for the engineering sector to address these gaps and implement sustainable practices, particularly in concrete production, a major source of emissions. While the industry embraces renewable energy and eco-friendly initiatives, it must ramp up data collection, transparency, and concrete sustainability strategies to catch up in the crucial race to net zero.

Shifting Gears: CV Show 2024 Puts People in the Driver's Seat

The 2024 edition of the Commercial Vehicle Show promises a pivotal shift, as the spotlight extends beyond the latest vehicles and groundbreaking technology to illuminate the heart of the industry – the people. While the exhibition remains a showcase for cutting-edge innovations in electric vehicles, decarbonisation strategies, and transformative technologies, this year's event prioritises a deeper exploration of the "people" aspect of this dynamic field by using seminars to highlight some of the industry's leading figures.

Recognising the critical role of human capital in navigating the industry's complex challenges, the CV Show 2024, set to be held between the 23rd and 25th of April in the NEC Birmingham, introduces a dedicated seminar theatre. Spanning all three days, this platform provides a vibrant forum for industry thought leaders, trailblazers, and innovators to share their expertise and insights. Engaging discussions are anticipated on hot topics such as electric vehicles, decarbonisation,



and the ever-evolving needs of drivers and technicians, ensuring both informative and forward-thinking conversations.

To further on the people-centric focus, IRTE, a key partner of the CV Show, opens day three with an inspiring talk by industry veteran George Haywood, Workshop Manager of Tip Group. His session on competencies and skills in modern engineering delves into the importance of Professional Registration in elevating careers and equipping engineers for the complexities of the modern workshop. This session serves

as a testament to the industry's commitment to empowering its workforce through skills development and professional advancement.

The show's focus extends beyond formal presentations and expert panels, actively fostering an environment for knowledge-sharing, networking, and engagement. Whether seasoned mechanics, budding technicians, or executives navigating the shifting tides of the industry, attendees will find ample opportunities to connect, learn, and grow. Workshops, networking sessions, and

interactive demonstrations offer immersive experiences that bridge the gap between theory and practice.

This fundamental shift in focus acknowledges a crucial truth – the future of the commercial vehicle industry is not solely driven by groundbreaking innovations, but by the hands and minds that bring them to life. By investing in its people, equipping them with the right skills and knowledge, and fostering a culture of continuous learning, the industry can not only overcome current challenges but also pave the way for a sustainable, efficient, and human-centred future of transportation.

The CV Show is on track to surpass the traditional exhibition format, evolving into a platform for empowering the human engine behind industry transformation. It marks a critical turning point, embracing the people who make everything go round and driving the commercial vehicle industry towards a future where innovation thrives alongside human potential.

GOOD MONTH **ENGINEERING THE FUTURE FOR ALL: NEW COURSE EMPOWERS STUDENTS TO BUILD A BETTER TOMORROW**

The University College Isle of Man has introduced a first of its kind Level 3 Extended Diploma in Engineering, providing a foundation for aspiring engineers to launch successful careers. This two-year program, equivalent to three A-Levels, immerses students in the core principles of engineering while offering valuable insights into specialised fields like aerospace, motorsports, and electrical/electronic engineering.

With a primary focus on being accessible and future-focused, the program welcomes students with achievable entry requirements and equips them not only with technical expertise but also critical thinking, adaptability, and innovation skills – crucial for navigating the ever-changing engineering landscape.

“This Extended Diploma signifies a commitment to providing a clear and accessible pathway for aspiring engineers,” stated Julie Edge, the Isle of Man’s Education Minister. “It fosters inclusivity, offers a broad range of engineering disciplines, and prepares graduates for the future of the field.”

BAD MONTH **HSE INVESTIGATION LEADS TO FINE FOR LIFT COMPANY AFTER WORKER FATALITY**

A Shropshire dairy plant tragedy has left a young engineer dead. The lift maintenance company responsible, Lift Monitoring Systems Limited, was fined £200,000. Lewis McFarlin, 24, was working on a lift in January 2020 when a fatal safety flaw was exposed. The lift unexpectedly switched modes, trapping him in a void between the platform and shaft.

The Health and Safety Executive (HSE) investigation ruled that Lift Monitoring Systems failed to cover the crucial void which is regarded as a basic safety measure. “Preventable, tragic,” condemned HSE inspector Andrew Johnson. “Their duty towards Mr. McFarlin was neglected.”

The company admitted fault and pleaded guilty under the Health and Safety at Work Act. The hefty fine underscores the severe consequences of a failure to prioritise safety.

This case demonstrates the importance of rigorous safety protocols, especially in high-risk environments. For firms like Lift Monitoring Systems Limited, the message is clear: prioritise safety, adhere to protocols, and be held accountable. Lives depend on it.

A COMPREHENSIVE SHIFT TOWARDS ZERO EMISSION VEHICLES BY 2035

UK’s Pioneering Legislation

The United Kingdom has embarked on an unprecedented journey toward a sustainable and greener future by enacting a groundbreaking Zero Emission Vehicle (ZEV) mandate, which requires manufacturers to sell a certain percentage of electric vehicles each year. Enacted on January 3, 2024, the legislation sets a transformative course for the automotive industry and is a commitment to achieving a net zero carbon footprint and revolutionises the transportation landscape.

The ZEV mandate is part of the UK government’s proactive approach to addressing climate change and reducing the nation’s dependence on traditional combustion engine vehicles. It introduces a phased transition, with the goal of 80% of new cars and 70% of new vans sold in Great Britain (but not Northern Ireland) to be zero-emission by 2030. By 2035, 100% of vehicles sold will be zero-emission. This legislative framework is a bold step towards environmental sustainability and a strategic move to stimulate economic growth and secure skilled jobs within the automotive sector.

At the heart of the mandate is a commitment backed by substantial investment – over £2 billion – directed towards expanding charging infrastructure and incentivising the adoption of zero-emission vehicles. This financial backing is an indication of the government’s commitment to this transition by ensuring that support systems are in place to make zero-emission vehicles a viable and attractive option for consumers.

Technology and Decarbonisation Minister Anthony Browne emphasised the significance of this milestone during his visit to a BP pulse hub in London. The hub, equipped with ultra-fast electric vehicle (EV) chargers, symbolises the evolving landscape of transportation. Browne’s presence underscored the government’s commitment to delivering the positive impact of the ZEV mandate.

The legislation’s implementation follows extensive consultations with industry stakeholders and manufacturers. By providing a clear roadmap, the ZEV mandate offers manufacturers the certainty they need to plan and invest in



the production of zero-emission vehicles. This, in turn, safeguards skilled British jobs and fosters an environment conducive to innovation and sustainable practices within the automotive industry.

The ZEV mandate represents a quantum leap in the UK’s commitment to combating climate change, solidifying its position with much-needed investment in sustainable transportation. This move aligns the UK with major global economies, including France, Germany, Sweden, and Canada, showcasing the collaborative and collective effort to address the global climate crisis.

One aspect of this legislation is the decision to push back the ban on new diesel and petrol cars from 2030 to 2035. This adjustment provides suppliers with additional time to transition to electric vehicles and allows for an extensive development of the charging infrastructure. The delay aligns the UK with other major economies and promotes a balanced and sustainable shift towards zero-emission transportation.

The positive impact of the ZEV mandate extends beyond the reduction of carbon emissions. It is a comprehensive strategy that addresses economic, societal, and environmental concerns. The UK government’s commitment to consistently overdeliver on carbon budgets, having cut greenhouse gas emissions by nearly 50% since 1990, underscores its dedication to environmental stewardship.

Browne highlighted the government’s investment in the transition to electric vehicles,

citing a cumulative spend of over £2 billion. This investment not only supports the constantly growing number of electric vehicles in the UK, accounting for over 16% of the new car market, but also fosters economic growth and job creation within the automotive sector.

To further incentivise the adoption of EVs, the government has implemented schemes to lower upfront and running costs. These include the plug-in van grant, offering up to £2,500 for small vans and £5,000 for large vans until at least 2025, and a £350 discount on homeplace charging stations for individuals living in flats. These initiatives make electric vehicles more accessible and affordable for a broader segment of the population, contributing to increased EV sales in both the new and second-hand markets.

National vehicle licensing statistics between July and September 2023 reveal a 41% increase in zero-emission vehicles registered for the first time, indicating a growing acceptance and adoption of cleaner transportation options. The UK’s charging network has expanded at a remarkable pace, with over 50,000 public charge points, a 44% increase from the previous year. This growth trajectory positions the country on track to achieve 300,000 charge points by 2030, a testament to the success of ongoing efforts and investments.

The ZEV mandate’s impact extends to economic partnerships, as the UK and the EU have agreed to extend trade rules on electric vehicles. This move is expected to save

manufacturers and consumers up to £4.3 billion in additional costs, providing long-term certainty for the industry. These collaborations emphasise the interconnected nature of global efforts to address climate change and transition to sustainable transportation solutions.

Leaders from various sectors, including Akira Kirton, Vice President of bp pulse UK, and Andrew Brem, General Manager of Uber UK, expressed support for the ZEV mandate. Kirton underscored bp pulse UK’s commitment to invest £1 billion over the next decade to develop EV charging hubs across the country, contributing to the UK’s charging infrastructure. Brem highlighted the mandate’s significance in driving down the costs of EVs and accelerating their adoption, particularly in London, where Uber has witnessed success with over 10,000 electric vehicles.

The government’s support for EV infrastructure also includes ongoing initiatives such as the £381 million Local EV Infrastructure Fund, which is currently assessing applications. This fund aims to deliver tens of thousands more charging stations in local areas across England, transforming the availability of charging for drivers without off-street parking. Additionally, a £70 million pilot has been launched to support the deployment of ultra-rapid charging points at motorway service areas, further enhancing the accessibility and convenience of EV charging.

The UK’s enactment of the ZEV mandate represents a step towards a sustainable and zero-emission transportation future. The legislation, backed by investments and industry support, positions the UK as a leader in the transition to electric vehicles. Providing manufacturers, consumers, and stakeholders with certainty and support, it paves the way for the future of combating climate change and build a cleaner sustainable future.

“At the heart of the mandate is a commitment backed by substantial investment – over £2 billion – directed towards expanding charging infrastructure and incentivising the adoption of zero emission vehicles”

From Cadet to Team Leader

Bill Martin's journey is a testament to the opportunities found within engineering. From traversing the world's oceans as a Merchant Navy cadet to leading a team of 20 Engineer Surveyors at Irish Engineering Services, Bill's career path is full of adventure, challenge, and ultimately, immense satisfaction.

His love for travel ignited a dream, propelling him towards studying Marine & Plant Engineering. The Merchant Navy became his home, offering not just exotic ports of call but the awe-inspiring spectacle of working with behemoth engines like the 45,000 horsepower giants that dwarfed any car's horsepower. From humble roll-on roll-off ferries to colossal Very Large Crude Carrier (VLCC) carrying millions of barrels, Bill navigated diverse vessels, each enriching his technical expertise and fuelling his passion for steam technology.

The North Sea's harsh embrace, where Bill spent five years on Chevron Texaco's flagship "MV Aberdeen," ignited another interest: Engineer Surveying. Witnessing the meticulous work of Classification Society Surveyors sparked a desire to delve deeper into the world of inspection and safety.

In 2006, Bill transitioned to

BILL MARTIN'S VOYAGE THROUGH THE ENGINEERING WORLD



"Bill offers invaluable advice for aspiring engineers: hone your communication skills, embrace challenges, find mentors, and, most importantly, don't forget to switch off"

the engineering arm of Royal & Sun Alliance Insurance, training in-house transforming him into a Boiler Surveyor. From garages to cutting-edge pharmaceutical plants, his days were a kaleidoscope of inspecting boilers, lifting equipment, and everything in between. No two days were the same, a fact that continues to invigorate him to this day.

Over the years, Bill's role morphed into managing a 20-strong team of Engineer Surveyors, ensuring statutory inspections for thousands of clients and assets across Ireland. He now juggles responsibilities from Key Account Management to consultancy work, his expertise extending to both sides of the Atlantic and beyond.

Amidst the professional whirlwinds, Bill finds immense satisfaction in mentoring young engineers. Witnessing their talent blossom, seeing them conquer their challenges, fills him with a profound sense of

accomplishment.

However, Bill's journey hasn't been without its hurdles. Early on, public speaking was a formidable foe, a fear he conquered thanks to the supportive network of his local Toastmasters club.

Looking back, Bill offers invaluable advice for aspiring engineers: hone your communication skills, embrace challenges, find mentors, and, most importantly, don't forget to switch off. He lives this love of challenge in his spare time, enjoying half Ironman distance triathlons.

Bill emphasises the vital role of professional institutions like the Society of Operations Engineers (SOE) in supporting engineers with registration, CPD, and guidance. In a world grappling with global challenges, Bill believes engineers and scientists will be the architects of solutions, a responsibility he readily shoulders.

Bill Martin's story is a testament to the transformative power of engineering. It's a roadmap for those who dream of adventure, challenge, and the immense satisfaction of building a thriving career around their passion for technology and problem solving.

Passion and Perseverance: Emma Moriarty's Journey

Emma Moriarty's journey into engineering began in an unexpected way. With a background in office operations at Ryder and later TIP Trailers, she initially worked as an operations controller, handling parts and overseeing engineer's tasks.

Always curious and inquisitive about the mechanical and electrical aspects of the job, Emma discovered her passion for engineering early on. Despite facing discouragement about pursuing a technical career as a girl, TIP's commitment to breaking stereotypes and promoting diversity provided her with the opportunity she had been waiting for.

Emma's transition into engineering was catalysed by the TIP Academy, a programme at the company that fosters skill development and career transitions. Grabbing the chance with both hands, Emma dove into the challenging yet rewarding world of hands-on engineering. Her dedication and hard work became the foundation for a remarkable career shift.

For Emma, the allure of engineering lies in its perpetual learning curve. In this dynamic field, guidelines are ever evolving, and every day brings something new. Emma expresses gratitude for her supportive colleagues who played a crucial role in her learning process. The satisfaction of a hands-on role and the tangible results achieved daily are what keep her passionate about her work.

George Haywood FSOE, Workshop Manager at Lichfield, recognised Emma's potential and applied on her behalf to join the Society of Operations Engineers (SOE). This strategic move has proven to be an invaluable asset to Emma's career, providing professional advice and fostering career progression.

According to Emma, engineering is an ideal career for those seeking both physical and mental challenges. Every day brings a different set of tasks, ensuring a continuous learning process. Emma's journey is a testament to the fact that gender should never be a barrier in the engineering industry. She

"I want to thank TIP, George Haywood and my colleagues for giving me the chance to develop my career and the opportunity to challenge myself and learn new skills"



encourages aspiring engineers to dive into the field, emphasising the immense satisfaction and fulfilment it brings.

"I want to thank TIP, George Haywood and my colleagues for giving me the chance to develop my career and the opportunity to challenge myself and learn new skills. They have been there for me every step of the way. I am very proud of what I have

achieved so far but knowing there is still so much to learn." Emma Moriarty

Emma's story serves as an inspiration for aspiring engineers, especially women, showcasing that passion, perseverance, and the right opportunities can break down barriers and lead to a successful and fulfilling career in engineering.

North Eastern Centre Celebrates Success with Gala Ball and Awards

The city of Durham witnessed a celebration as the North Eastern Centre marked its Platinum Jubilee year with a grand Gala Ball on 20 October, 2023. Over 160 guests, including SOE President John Eastman and REME Major Nikk Lovelock-Jeffel, gathered at the Radisson Blu Hotel to toast the Centre's rich legacy and unwavering commitment to the engineering community.

Centre Chair Martin warmly welcomed the attendees and then started off by acknowledging the temporary

IRTE NORTH EASTERN CENTRE

dip in activity caused by the COVID-19 pandemic while expressing joy at the full-fledged return of social events. He highlighted the Centre's dedication to its members and guests, evident in its year-round program of informative technical lectures and exciting field visits, including a recent trip to a prestigious car refurbishment company.

A pivotal moment of the evening arrived with the presentation of the Centre's coveted Student of the Year

Award. Kieran Wilson, a recent apprenticeship graduate from Stagecoach Northeast, impressed the adjudicating committee with his exceptional talent and dedication.

John Eastman presented Kieran with a trophy and a cheque, recognising his vital contribution to the future of engineering.

Further highlighting the Centre's commitment to excellence, two previous winners were honoured with the Lecturer of the Year

awards. Michael Ponsonby received recognition for his insightful presentation on "Cranes: Incidents and Fatalities," while Gary Broadfield was applauded for his informative talk on "Wheely-Safe: Wheel Security and Vehicle Safety." These awards foregrounded the Centre's dedication to supporting excellence and technical brilliance within the industry.

The festivities continued with a lively and generous auction sponsored by Aston Workshops. A signed copy of "Portfolio of Dreams," featuring Aston Martin's

legendary performance cars, raised valuable funds for the Centre's designated charity, adding a heartwarming touch to the celebratory spirit. A raffle further contributed to the cause, ensuring a meaningful impact beyond the celebration.

The atmosphere mirrored the Centre's dynamic energy. As the evening drew to a close, guests departed with the echoes of laughter, music, and a renewed sense of appreciation for the Centre's unwavering dedication to its members, the industry and its future.

Wrightbus Drives Towards Zero Emissions: North Eastern Centre Learns About Cutting-Edge Technology

A recent visit from Wrightbus to IRTE North Eastern Centre shed light on the company's ambitious "Road to Zero Emissions" initiative, enlightening members and guests with a glimpse into the future of sustainable public transport. Led by Chris Martin, Head of Business Development, and Steve Jackson, Head of Key Account Sales, the presentation showcased Wrightbus's impressive range of vehicles, spanning traditional diesel models to battery and hydrogen-powered options.

The audience gained insights into the evolution of Wrightbus's technology since the late 1990s, with a deep dive into the technical intricacies of their single-deck and double-deck offerings. The spotlight was shone on the direct-drive powertrains used in electric vehicles, comparing the advantages and limitations of battery types like NMC and LFP. Weight, range, and safety considerations were discussed, prompting thoughtful questions about the impact on the National Grid and potential infrastructure requirements with the rise of EVs.

The presentation then shifted gears to explore the potential of hydrogen as a clean alternative fuel. The effectiveness and feasibility

IRTE NORTH EASTERN CENTRE



of this option across various transport modes sparked debate, with the attendees particularly interested in Wrightbus's rigorous testing methods for hydrogen storage and safety protocols.

Cost comparisons between the different powertrains were a key highlight, with Wrightbus emphasising the balance between initial purchase prices,

operating costs, environmental impact, and safety considerations. The importance of robust product partnerships was also underlined, ensuring reliable sourcing of high-quality components.

To ensure customer success, Wrightbus provides comprehensive technical and operational support, tailored to specific operating conditions

and routes. The discussion even ventured into the intricacies of hydrogen production and its environmental footprint, offering a holistic view of the journey towards zero emissions.

By delving into the technicalities, challenges, and future possibilities of sustainable public transport, Wrightbus left an impression on the centre. Their "Road to Zero Emissions" initiative not only fuels hope for a cleaner future but also shows the pioneering spirit and technology driving the industry forward. The journey towards a greener future for public transport seems closer than ever.

"To ensure customer success, Wrightbus provides comprehensive technical and operational support, tailored to specific operating conditions and routes"

IRTE NORTHERN CENTRE

Volvo Trucks Revs Up

For their final CPD event of 2023, the IRTE Northern Centre welcomed Volvo Trucks, hosting 38 members and guests at the Dunkenhall Hotel in Accrington. Sales Engineer Duncan Seaman and Customer Solutions Manager Neil Crook of Thomas Hardie Commercials Preston took the audience on a comprehensive journey through Volvo's diverse commercial vehicle portfolio.

From the FL and FE light trucks to the mighty FH heavyweights, Volvo's range caters to every need, with both rigid and articulated chassis options and diesel powerplants ranging from 210 to 750 Brake horsepower. But the star of the show was Volvo's electric range, boasting a variety of configurations from the single-motor FL to the three-motor FH, all generating rave reviews from early adopters.

Seaman and Crook delved into Volvo's rigorous development and testing process, with impressive video footage and slides. Battery technology, drivelines, and parts commonality were all explained, highlighting Volvo's commitment to efficient and cost-effective electric solutions.

Finally, Duncan explored present and future legislation surrounding vehicle dimensions, weights, and the bonus weight allowances granted to zero-emission vehicles. The presentation concluded with a lively Q&A session, leaving members and guests with insights into the future of sustainable trucking.

Centre Hon. Vice Chair Danny Fisher expressed his heartfelt gratitude to the speakers for their informative and engaging presentation, marking a fitting end to a year of enriching events.

A Glimpse into the World of Ambulances and Precision Tools

IRTE Cornwall, a vibrant group of engineers and technicians, regularly enjoy events and visits that ignite their passion for the industry. Beyond the technical aspects of these seminars, their dedication to community and safety shines through, as shown by their recent outings.

The centre recently delved into the world of emergency response at the Cornwall Ambulance Workshops in Redruth. Workshop Manager Sam McGrath gave an insight into the demanding task of maintaining a 62-strong ambulance fleet at peak readiness. From meticulously stocked stores to the dedicated technicians themselves, the group witnessed firsthand the tireless efforts that keep these life-saving vehicles humming, ready for the call, day or night. Centre Chair Mick Pedley commemorated the visit by presenting Mr. McGrath with a

IRTE CORNWALL CENTRE



plaque, a token of appreciation for their vital service.

Another visit saw a shift into the realm of precision engineering with a visit to Rigibore, a Hayle-based

manufacturer renowned for crafting the world's most accurate adjustable boring tools. Production Director Richard Bennet personally guided members through the

intricate manufacturing process, showcasing the company's expertise. The phenomenal tolerances, measured in microns, which is a thousandth of a millimetre, left a lasting

impression, illustrating the dedication to excellence that drives Rigibore's success.

These visits are more than just field trips; they're testaments to the group's commitment to continuous learning, community engagement, and appreciation for the diverse forces that keep Cornwall moving and safe. From the silent heroes of ambulance maintenance to meticulous artisans crafting precision engineering, IRTE Cornwall celebrates the unsung heroes who contribute to the country's well-being.

When you next see an ambulance speed past, or use a perfectly constructed component, remember the dedication and expertise behind it. They are the silent gears that keep Cornwall's engine running smoothly, ensuring safety, progress, and a touch of world-class precision along the way.

Banlaw Systems Informs on the Latest Fuel Management Solutions

IRTE SCOTTISH AYRSHIRE CENTRE

IRTE Scottish Ayrshire hosted a well-attended meeting in Kilmarnock in late November, featuring a talk from Banlaw Systems Limited. Members and guests were eager to learn about the latest developments in legislation and technology impacting Scottish fleet operators.

Neil Higgins and Gordon Muir of Banlaw, headquartered in Blantyre, shared valuable insights on current and upcoming legislation over the next two years, with a specific focus on its implications for Scottish operators. This annual event has become a cherished tradition for centre members, who appreciate Banlaw's commitment to keeping them informed about compliance requirements, potential solutions, and implementation timelines. Banlaw plays a crucial role as the Scottish agent for several technical services and products, notably Brigade Systems.

Neil began by addressing the newly introduced requirements for vehicles operating in London's Ultra-Low Emission Zones (ULEZs). He discussed the necessary equipment upgrades and additional functionalities needed for compliance, along with estimated costs and timeframes for implementation through Banlaw. This valuable information equips operators with the knowledge to properly

budget and plan fleet upgrades.

Turning closer to home, Neil informed the audience about Glasgow City Council's revision of compliance standards and the safety system additions and what these changes entail. These revised standards are expected to soon be adopted by other city councils, making staying informed crucial for operators across Scotland.

Gordon Muir then took to the stage to showcase Banlaw's Fuel Management offering, highlighting enhanced functionalities designed to help operators maximise fuel efficiency with minimal effort. He also demonstrated the newer tachograph features that simplify compliance for both drivers and vehicles.

IRTE Chair, Joe Younger thanked Neil and Gordon for equipping members with valuable knowledge to navigate the evolving landscape of regulations and technology in the Scottish transport industry.

The event exemplifies the role the IRTE plays in connecting industry professionals with essential information and fostering a community of knowledge exchange. By partnering with expert providers like Banlaw, IRTE regional centres empower members to stay ahead of the curve and operate efficient and compliant fleets.

IRTE CORNWALL CENTRE

Braving the Waves at Newlyn Lifeboat Station

The IRTE Cornwall Centre embarked on a journey in the autumn of last year, visiting the vital RNLI lifeboat station at Newlyn. Members were met with the impressive Ivan Ellen, an All-Weather Severn Class vessel, as well as Mollie & Ivor Dent, an Inshore B-Class Atlantic 85.

A thorough tour led members through the Ivan Ellen's heart, from the roaring engine room powered by dual Caterpillar V8s to the main cabin bustling with controls

and the helm overlooking the seas. They learned about the in-house maintenance expertise kept alive by the dedicated mechanic at the nearby Perranporth workshop.

The visit then took a somber turn at the old Penlee lifeboat station, now a museum preserving the memory of those lost on 19 December, 1981. The harrowing story of the Solomon Browne, sent to aid the Union Star in perilous seas, was recounted. Tragically, both crews, including the

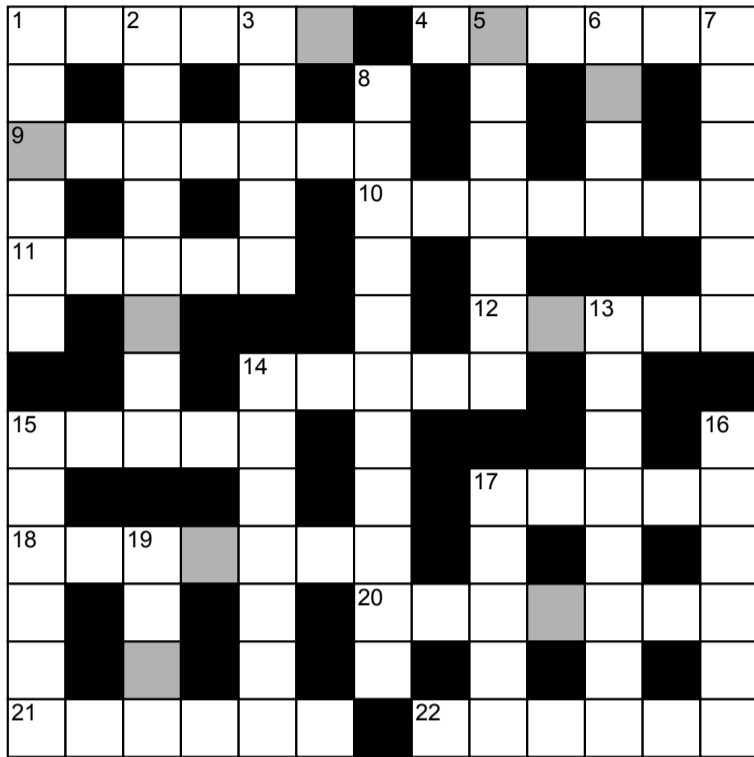
boat's eight volunteers and the Union Star's captain and family, perished when the Union Star rolled onto the rescue vessel.

Moved by the unwavering dedication of the lifeboat crews, the IRTE Cornwall Centre members held a collection, with Chairman Mike Pedley presenting a plaque of gratitude to the station's volunteers. This visit served as a stark reminder of the risks faced and the crucial role played by these heroes as they safeguard lives at sea.



COFFEE BREAK

Crossword



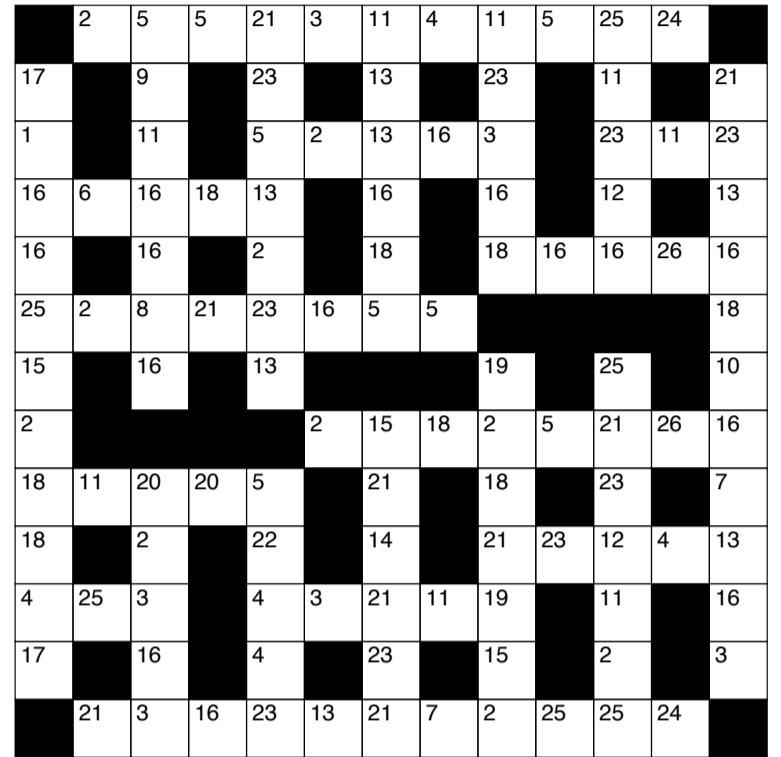
- Across**
- 1 Recollection (6)
 - 4 Breaks open (6)
 - 9 Reindeer (7)
 - 10 Green gemstone (7)
 - 11 Peer (5)
 - 12 Chooses (5)
 - 14 Wander aimlessly (5)
 - 15 Tennis stroke (5)
 - 17 Discharge (5)
 - 18 Capital of Kenya (7)
 - 20 Not anything (7)
 - 21 Belief in a god (6)
 - 22 Main tree stems (6)
- Down**
- 1 ___ Mouse: cartoon character (6)
 - 2 Raider (8)
 - 3 Insurgent (5)
 - 5 Not tidy (7)
 - 6 Heroic tale (4)
 - 7 Moves smoothly (6)
 - 8 Asking (11)
 - 13 Act of sticking together (8)
 - 14 Dedicates (7)
 - 15 Item worn on the head on a hot day (3,3)
 - 16 Raised platforms (6)
 - 17 Come in (5)
 - 19 Lazy (4)

Unscramble

Unscramble the letters in the shaded squares in the crossword to reveal a themed word:

--	--	--	--	--	--	--	--	--	--

Codeword



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1	2	3	4	5	6	7	8	9	10	11	12	13
	A						Z				G	
14	15	16	17	18	19	20	21	22	23	24	25	26

A codeword is a completed crossword grid where each letter of the alphabet has been substituted for a number from 1-26. There will be at least one occurrence of each letter of the alphabet. Certain letters are given as starters. The solver must decipher the rest of the code to discover the words in the completed puzzle.

SuDoku

The rules of the game are simple: each of the nine blocks has to contain all the numbers 1-9 within its squares. Each number can only appear once in a row, column or box. Each vertical nine-square column, or horizontal nine-square line across, within the larger square, must also contain the numbers 1-9, without repetition or omission.

Every puzzle has just one correct solution.

8					5			
	1				3			9
6			1			2		
2			6	9		4		
	6		1	4				3
	4			3				1
9			7					6
	8							7

Find this month's puzzle solutions on our website: soe.org.uk

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A £25
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