

ALUMINIUM NEWS

THE VOICE OF THE UK ALUMINIUM INDUSTRY

ISSUE 2 SEPTEMBER 2019



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TO OUR
NEW MEMBERS**

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ALFED
ALUMINIUM FEDERATION



KEEPING THE UK AT THE FOREFRONT OF TESTING TECHNOLOGY

NEW MATERIALS TESTING HUB FOR THE BLACK COUNTRY

Rubery Owen is delighted to announce that it is developing a state-of-the art testing facility called **The Rubery Owen Testing and Research Centre**, in the heart of the Black Country, for three of its businesses in the materials testing sectors, Phoenix Materials Testing, Rotech Laboratories and Merlin Powder Characterisation. Whilst maintaining their existing premises, they will enjoy the collaboration of expertise and innovation at a new combined testing facility and laboratory.

The Rubery Owen Testing and Research Centre will combine the latest in high temperature, humidity and pressure testing capabilities along with current fatigue and thermomechanical fatigue (TMF) testing. It will also house the Merlin Powder Characterisation test facility, in which the physical properties and compressibility of powders are determined by use of an hydraulic compaction simulator.

This unique, cutting-edge facility will help to keep the UK at the forefront of testing technology.

PLEASE JOIN US FOR THE OPEN DAY AND ENJOY A FULL GUIDED TOUR

WEDNESDAY 13TH NOVEMBER 2019

The Rubery Owen Testing and Research Centre
D1, The Wallows Industrial Estate
Fens Pool Avenue
Brierley Hill
West Midlands
DY5 1QA

7am – 10am: welcome breakfast
11am – 2pm: working style lunch
4pm – 6pm: afternoon canapés
If you have any food allergies, please let us know.

RSVP

Stephanie.Hill@phoenix-mt.co.uk
Please state your preferred arrival time

Find out more about Rubery Owen, Phoenix, Rotech and Merlin by visiting:

www.ruberyowen.com ● www.phoenix-mt.co.uk ● www.rotechlabs.co.uk ● www.merlin-pc.com



DEVELOPING FRESH ANSWERS TO AIRCRAFT MACHINING CHALLENGES



If it ain't broke, don't fix it... It can often seem simpler to keep a product exactly as it is, especially when it receives a consistently positive response from the industry. But because leading precision cutting tool manufacturer KYOCERA SGS recognise the value of constantly upgrading products, they have recently launched the latest versions of their Advance Productivity Rougher (APR) cutting tool, the APR 3 (three-flute) and the APR 4 (four-flute).

For KYOCERA SGS, this is not simply about creating a new product to enhance their portfolio but offering a fresh way to address current and emerging machining challenges.

Designed for maximum removal rates on aluminium structures, the original APR tool was first developed to support a customer project and helped to revolutionise metal removal rates. Its design has now been updated to make it even easier for the APR 3 and APR 4 to address specific machining challenges. So, how do you improve on what is already recognised as an exceptional product? The updated APR tools are likely to prove great news for companies under increasing pressure to streamline and simplify their processes, thanks to a significant reduction in cycle times and other key advantages. The APR 3 is the next evolution of the original product while the APR 4 provides ultimate metal removal rates on maximum power machines but will also suit other applications. Available at the same price, both products offer an even wider choice of tooling for manufacturers. Ray Gibbs, Aerospace Technologies Manager for KYOCERA SGS, explains more:

"We looked both at current machining challenges and at issues likely to emerge in the future. Then we identified the different ways in which the design of the APR 3 and 4 could resolve the concerns that all companies have about reducing cycle times and costs and increasing performance. By doing this, we were able to design efficiency into every aspect of an already highly effective part."

This meant addressing significant multiple machining problems all in one: supporting suppliers under pressure to provide time savings year-on-year, thanks to a significant improvement in metal removal rates on aluminium parts.



The new tools also resolve issues such as vibration, with a three- or four-flute variable pitch geometry for reducing vibration and load at a metal removal rate of between 10 and 12 litres. However, the aim for the APR 3 and 4 wasn't only to enhance performance but to extend the life of the tools themselves, thanks to a Tinamite-B coating which provides up to double the length of the original tool. As with the first APR, the new versions are suitable to run with MQL and coolant, so no additional work is required on them. For manufacturing processes where wear and noise are a concern, the APR 4 provides an incredibly low level of sound with less resonance and less wear.

With industry challenges constantly evolving, it is imperative that cutting tools keep up. KYOCERA SGS's goal for the latest versions of their APR tool is not simply to expand their own products' capabilities but their clients' capabilities too. This approach involves constantly listening to customers, watching the market closely and identifying new ways to make high quality products even better. Because creating effective cutting tools isn't a one-off action. It's an ongoing process.

Kyocera SGS specialises in bespoke and modified tooling and the European Headquarters are in Wokingham, Berkshire, UK.

**MORE ABOUT
OUR APR APP
PRODUCTS >>**



Scan me

SGS
Solid Carbide Tools

For more information on their product range, visit: www.kyocera-sgstool.eu
T: +44 (0) 1189 795 200

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SEPTEMBER

- 5 Closed Loop Recycling Event
- 9 Extrusion Group
- 12 ALFED Annual Dinner
- 17 Working with Your Team
- 26 HSE Support Group

OCTOBER

- 3 Working with Your Team
- 10 Finishing Group
- 16 APPG Breakfast Briefing
- 24 World of Aluminium
- 30 - 31 Advanced Engineering 2019 Exhibition

NOVEMBER

- 12 LinkedIn One Day Workshop
- 13 One Day Basic Supervisors Course
- 14 The Effective Team Leader
- 26 - 27 Aluminium for Engineers

DECEMBER

- 6 The Effective Team Leader
- 11 APPG Breakfast Briefing
- 12 HSE Support Group

ALFED
ALUMINIUM FEDERATION

Find out more about our events and training opportunities:
www.alfed.org.uk



Welcome to the second issue of **Aluminium News**, I hope you enjoyed the first issue and found it interesting and informative. I would like to thank our Board of Directors for having the belief and supporting the investment to launch **Aluminium News**. I would like to thank many organisations for their valuable contribution; member companies, who advertised, and our partners, who supported our journey. Not least I thank the ALFED staff, without their determination and motivation to get this project off the ground it would have not been possible.



QUARTERLY UPDATE

On the 1st June we moved into our new offices; a bright and modern new space that will allow ALFED to grow, develop and focus on delivering value to our members and partners. The move went like a well-oiled machine, teamwork was the order of the day, packing and moving boxes and equipment. In any move you take the opportunity to discard many years of unwanted items that have been hoarded, saved for posterity or hoping it has some use or value 20 years later. Deciding what to discard was a challenge, suffice to say we sent to a recycling centre as much as we moved to our new offices leaving us with uncluttered offices and clear minds.

We are proud to welcome four new companies to our membership since the last issue of the **Aluminium News**: 3M UK, Ash & Lacy Finishes, ISC Wales and Coventry University, who with their vast knowledge and experience of the aluminium industry add value to our federation and its members. ALFED have signed a Memorandum of Understanding (MoU) with the SMMT adding strategic value to all parties and the industry. We are planning joint events early in 2020 with the SMMT.

As the UK moves closer to the 31st October 2019 and our new Prime Minister is preparing the UK for a NO Deal Brexit, we see the pound drop to a new low against the Euro and US Dollar. How does industry prepare for a No Deal exit from the EU? There is so much uncertainty, contradiction and ambiguity around every element of Brexit. Members of Parliament have consistently failed to agree on a deal to leave, the delay and inability of parliament to agree to any deal over the last three years has damaged manufacturing, employment and investment in the UK.

ALFED continues to work with government across all appropriate departments to ensure we are at the forefront of policy development, influence change that benefits members and the UK aluminium industry and supporting government with industrial strategy. One such example was to help BEIS officials understand how

members of the Aluminium Federation run their businesses and to get a real insight to all the challenges industry faces and will face after Brexit. We had the pleasure to accompany the Deputy Director of BEIS and two senior policy advisors on a 2-day trip around the UK visiting our members, who represent a broad cross section of the UK aluminium industry. The article is on page 17 of this magazine issue.

I had the pleasure of meeting Chi Onwurah, Labour MP and Shadow Minister for Industrial Strategy, Science & Innovation to discuss the impact of Brexit on the UK industry over the last three years, the ramifications of a no-deal Brexit and the cost to industry because of political divisions

LOOKING FORWARD

ALFED and the Aluminium Stockholders Association (ASA) join forces in January 2020 when members of the ASA become members of the Aluminium Federation. This will make us stronger together, our strategic value sets us apart from other trade associations and our influence on government policy and the industry come to the forefront of developing the UK aluminium industry.

Our association with the University of Wolverhampton Business School continues to develop adding an outstanding training program offering a diverse range of opportunities in training, upskilling and personal development. This will offer support to our members, partners and the industry in general and add to their competitive advantage through education.

We will continue to develop as an organisation adding to our strategic partnership program as the year goes on. We are busy planning and organising events, supporting members and of course working with government as Brexit becomes a reality.

A handwritten signature in black ink, which appears to read 'Tom Jones'.

Tom Jones
CEO
Aluminium Federation



MEET THE ALFED TEAM

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ADVERTISING OPPORTUNITIES IN THE ALUMINIUM NEWS MAGAZINE:

The Aluminium Federation represents businesses who process, trade and work with aluminium; we foster innovation, promote best practice, develop skills and champion member interests. This ranges from training and networking to research, advocacy, lobbying and outreach, we help our members solve problems, capitalise on opportunities and boost their competitiveness. Our Aluminium News magazine will cover all these topics and more, keeping you abreast of the latest news, views and reviews in the fast-moving aluminium industry.

Our new, dynamic quarterly magazine offers you a great advertising opportunity to promote your products and services to key decision makers and influencers within the aluminium industry in the UK. The Aluminium News magazine will be available in hard copy and electronic version from our website plus social media platforms. All members will receive a hard copy and electronic version. We will also distribute copies at our events, meetings and industry exhibitions.

Schedule:

Issue 3 –
to be published
5 December 2019

Issue 4 –
to be published
27 March 2020

Issue 5 –
to be published
29 May 2020

Issue 6 –
to be published
23 September 2020

For further information

Please contact Kirsi Lintula, Editor:

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MEET THE BOARD MEMBERS WHO HELP TO SHAPE THE ALUMINIUM INDUSTRY AGENDA AND RELEVANT POLICY AT THE HIGHEST LEVELS

GILES ASHMEAD

Giles is a Director of Powdertech, one of the UK's leading Architectural Powder Coaters, specialising in supplying standard and unique finishes onto products and substrates that other coaters cannot process. Powdertech look to differentiate products, lead their industry and were founder members of the Aluminium Finishing Association, so they could influence the direction and development of the aluminium finishing industry. Having been with Powdertech for a decade Giles started to represent Powdertech at the Finishing meetings in 2000, becoming Chairman, and therefore an ALFED board member, in 2009.

Being on the ALFED Board has meant that, not only can Giles lead developments in metal finishing by being close to new technologies and improved standards, but he can also understand the entire aluminium supply chain and have input into the many initiatives that ALFED lead both inside the industry and in the wider world. In the past decade the aluminium industry has seen many changes, and ALFED had to change with it; a strategy change that Giles was very involved in. As a result of this involvement, Giles was asked to take up the role of President in 2017; a role that he will continue with until the end of this year.



RUSSELL BARR

Russell is the Executive Vice President & Managing Director Europe for REAL ALLOY who are the largest independent Aluminium Recycler in Europe. Before joining REAL ALLOY's leadership team in 2015, Russell served as Vice President at Aleris Recycling Europe for two years. Between 2010 and 2012, he was Vice President of Aleris Extrusions and also spent two years as their European Director of non-metal purchasing. Prior to this, he was Managing Director and joint owner of the automotive supplier Triplex Components and held various positions at De La Rue and the BMW/Rover Group. He has a BA honors degree in business studies from Oxford Brookes University and an engineering management diploma from the University of Warwick (WMG).



SIMON BARRON

Simon has over 40 years experience in the non-ferrous metals industry, fulfilling various senior roles in aluminium and stainless steel oriented companies.

He considers his current global role as Special Advisor - Aluminium, to be the most interesting and challenging to-date. Reporting to Amari's board of directors based in the US, he provides guidance and support to the various operational client companies located principally in UK, Europe, USA, Australia and New Zealand.

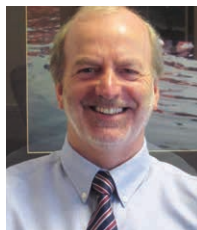
Simon was on the BSSA Council (2005-2016), serving as Chairman between 2012-2014, and presently sits as a Council member of the Aluminium Stockholders Association (ASA).

Simon understands that ALFED represents companies involved in the entire aluminium supply chain from liquid metal through to line-side delivery of components to manufacturers. He believes it is uniquely placed to encourage and support growth in the use of aluminium in the UK.

The depth and breadth of ALFED's membership adds credibility to it being the voice of the industry, representing and lobbying members' interests within central government and civil service departments, and providing access for its members to knowledgeable experts.

For Amari Metals and other ALFED members, this access is proving invaluable as it navigates through the fallout of Brexit, EU retaliatory import duties, Rules of Origin queries and so on.

ALFED provides Simon and his colleagues with the opportunity to network with other complimentary (and sometimes competing) companies and their executives involved in the supply chain.



CLIVE BUSH

Clive's route to becoming Amari Metals' Business Development Director took an interesting direction, starting with HM Customs & Excise as an enforcement officer, via a stint at General Foods as a 'Space Dust' then 'MAXPAX coffee machine' salesman before entering the metals industry. He Joined Aalco in 1984 and progressed to be General Manager of Aalco in Romford and Swanley before



joining the head office team. Clive is currently working on Amari's 'industry 4.0' initiatives and supporting the company's acquisitions objectives. Working across all Amari Metals brands, he is also helping to develop business strategy and new product development.

As well as sitting on the Marketing & Technical Committee of the British Stainless Steel Association (BSSA), Clive joined the ALFED board in 2016, so giving distributors a voice at the table. Clive is honoured to be ALFED's President in 2020.

Amari Metals is one of the largest aluminium stockists in the country and are therefore keen to influence the development of aluminium within the UK – an aim that they share with ALFED. Amari recognised that the Federation provided great services that members can take advantage of, not least independent technical advice, market insight and training as well as the opportunity to meet with other industry professionals. With Brexit looming, Clive and Amari Metals feel that ALFED will give the industry a seat at any discussion that could affect their – and other ALFED members' – business.

COLIN DAVIES

Colin has 35 years experience in the aluminium industry and is currently Commercial Director - Aerospace and Defense - at Arconic Global Rolled Products and Extrusions.

Colin joined the Kitts Green Rolling Mill (then under the ownership of Alcan) as Product Manager for Aerospace and HT Plate and progressed via various Marketing and Sales Management roles (under British Aluminium, Alcoa and now Arconic). He has been Sales/Commercial Director for past 20 years, looking after the division's aerospace and defence sales in Europe, Middle East and South America.

I was proud to stand as ALFED President in 2010/2011 and have been on the ALFED Board ever since during which the association has undergone significant strategic reviews and changes, further increasing its effectiveness in supporting its members across the UK aluminium supply chain.

"It's been a huge honour to be ALFED President and to sit on the ALFED



MEET THE BOARD

Board for over a decade as one can get engaged to help manage and influence the significant issues and factors that will shape our industry in the future".

Arconic is a global leader in lightweight metals engineering and manufacturing, employing over 40 thousand people across more than 25 countries. One of Arconic's largest and fastest growing market is aerospace, where they have had a major presence since the Wright brothers' first flight. Besides aerospace, Arconic's products support the further development of key automotive, commercial transportation, industrial and building & construction markets worldwide.

Within the UK, Arconic employs around 2800 people at 16 manufacturing locations producing aluminium rolled plate, fastening systems, building & construction products and investment castings.

The Arconic Kitts Green aluminium Rolling Mill near Birmingham supplies aerospace products to leading global aerospace manufacturers, as well as high technology products to the defence, tooling and industrial markets worldwide.

HENRY DICKINSON

Henry is a Past President of the Aluminium Federation 2008-2009.

He is also a Past Chairman of the Aluminium Alloy Manufacturing & Recycling Association 2003-2004. Henry is the owner and Managing Director of Norton Aluminium, an aluminium recycler and foundry alloy producer. He also owns Hytec Castings and Norse Precision Castings, manufacturers of aluminium sand castings, and Kiveton Park Steel, a bright bar producer.

Henry has been a strong supporter of trade associations and interaction between industry and academia. He is actively involved not only in ALFED activities, but also the Non-Ferrous Alliance, UK Steel, The Liquid Metal Engineering (LiME) umbrella research project, IOM3, and various KTN Innovate funded research projects.



MIKE DINES

Mike has been involved over 40 years in aluminium recycling and he is currently a director at Tandom Metallurgical Group Ltd. The company was established in 2008 and gone from strength to strength over the years. Now operating out of two sites with its sister company Tandom Metallurgical (Midlands) Ltd.



The company is diverse in its activities that are all associated around metal recycling. At the Congleton site the company manufactures Aluminium Alloys, Master Alloys and De-oxidants. It also processes large volumes of aluminium packaging material including UBC. Apart from the furnaces the other processing equipment on site include a full shredding line, dross plant and balers. Additionally, the company handles and sorts a large range of Nickel and Stainless steel alloys. The new site in Brownhills handles and process all the range of non-ferrous scraps including aluminium, copper and the yellow metals. Over 110 people are employed by the two companies and they deal with customers and suppliers all across the globe.

He started work as a drawing clerk in an engineering office before moving to a laboratory where they analysed sand, this then led into the laboratory for an aluminium company and his connection to recycling.

He has held following positions during his career: Works Chemist, Production Manager, Purchasing Director, Commercial Director and Managing Director.

Mike believes that it is important to be part of the Aluminium story in the UK and ALFED gives them that platform from which they can hopefully shape its future.

He has been associated with ALFED for a number of years, first serving on the Analytical Committee of ALARS in the early 1980's. He was the Chairman of ALARS and then AMARA in its founding year.

STEVE HEDAR

Having graduated in Engineering Steve initially started his career with British Steel.

Then following a Post graduate in Manufacturing and Operations management he worked in various industry sectors including construction, electronics and railway vehicle manufacture before spending eight years working for Alcan/Novelis in the aluminium packaging divisions at the Bridgnorth plant where he held several positions, finally as Site Manager.

More recently, he was the Supply Chain and Operations Director for Tullis Russell Coaters UK/South Korea, an employee owned company and manufacturing specialist of paper products for the securities markets.

Having worked for Novelis previously, Steve returned in 2013 as Plant Manager for the Latchford and Crick facilities. Following a period of recycling investment and the development of



a solid sales platform Latchford is now in a central position within the group supplying high recycle content aluminium ingots for the automotive and can markets.

At the end of 2017 Steve moved into a Global Account management role primarily for the UK automotive markets for Novelis Europe.

His aim within the ALFED Board is to help grow and develop the aluminium sector by promoting training, the advantages of the material properties, particularly its sustainability, and create opportunities for strong sector communications.

RICK HINDLEY

Rick took up the mantle of Executive Director at Aluminium Packaging Recycling Organisation (Alupro) in 2007, following roles at Alcan/Novelis and Valpak. The past 30 years of Rick's career have been dedicated to highlighting the importance of aluminium packaging recycling – there are few as enthusiastic or as knowledgeable on the subject.

Rick has been a Board Member of ALFED since 2007 and a member of the UK Government's Advisory Committee on Packaging (ACP) since 2014.

There are clear synergies between the organisational aims of Alupro and ALFED maintaining a close working relationship allows both organisations to thrive. Most recently they worked together on the 'Alu D & T Challenge', a competition which tasked young students aged 11-14 to create sustainable products out of aluminium; the challenge received over 1600 entries from 200 schools, over the course of four competitions between 2012 and 2017.

"At a time when drastic changes in Government policy mean that the landscape of packaging recycling for the future is uncertain, I'm sure many within the industry share my frustration that the disproportionate attention received by plastic packaging is overshadowing the ongoing success stories within our sector, for example the consistently rising recycling rate of aluminium drink cans, which currently stands at 75% (2018 figures). We hope that working collaboratively through partnerships such as our membership of ALFED, will enable us to take back a share of the narrative on packaging and help us to shine a spotlight on the sustainability of aluminium."



STUART IRVINE

MEET THE BOARD

TOM JONES

Tom was appointed to The Aluminium Federation as chief executive officer and joined the board in January 2018. He sits as a director on the board of the UK Metals Council and co-chairs the government thematic business panel for aluminium. Between 2007 and 2017, he was the Managing Director of Mitsubishi Materials Group UK and the General Manager of Mitsubishi Hard Facing Alloys UK division and headed up Mitsubishi's UK Aerospace strategic growth partnership. He holds a BA (Hons) 1st Class from the Loughborough Centre for Leadership & Management, Nottingham Trent University.



SIMON MACVICKER

Simon joined the aluminium industry in 1997, at Bridgnorth, at the time owned by Alusuisse. Elval acquired the company in 2001, and Simon has served as Managing Director since 2004.



Bridgnorth Aluminium is the UK's only rolling mill supplying coils, operates a casthouse, hot and cold rolling and finishing facilities all on one site in Bridgnorth, employing around 400 people. The company serves the graphic arts (litho), packaging, automotive, electrical and distribution sectors. Bridgnorth Aluminium is a joint venture company, 75% owned by Viohalco, and 25% by UACJ Corporation.

Membership of trade associations has always been important for the company and its Group, because it allows opportunities to network with other industry players, understand best practice and industry trends, and to have a better voice when talking with legislators. The company under previous ownership was a founder member of ALFED in 1962 and has remained in membership ever since. Simon has served on the ALFED board since late 2007, and from 2014-15 as President. He also represented the industry as Chair of UK Metals Council from 2016 to 2018.

Simon is a non-executive director of Cenergy Holdings SA, and Shropshire Chamber of Commerce.

Prior to his career in aluminium, Simon held various commercial positions at British Steel for 10 years. He holds an MBA from Warwick Business School and a bachelor's degree in modern languages from the University of Leeds.

SPENCER MELIA

I joined Aluminium Shapes Ltd in September 2017 as the Sales Director after previously working in the industry for over 25 years and now I am proud to say I am also member of the ALFED team after becoming the Extrusion Group Chairman back in January 2019.



Aluminium Shapes are a privately owned extruder of aluminium profiles based in Corby in Northamptonshire. They operate from a 70,000 Square foot facility and have two six-inch presses that offer a range of bespoke extrusions from 0.03 kilos per metre up to 4.00 kilos per metre. On site they also have a full range of fabrication machinery which they use to offer mitre cutting, standard cutting, punching and CNC machining up to 6500mm lengths.

In a market that has many tiers to the supply chain they pride themselves in being the local extruder that offers a fantastic speedy service aligned with good quality at an affordable price. Their flexible approach means that they can take on one off projects for as little as 50 kilos and major contracts in the hundreds of tonnes.

Recently Aluminium Shapes have been acquired by the Anglo European Group. They are a steel section roller based in the Greater Manchester area who supply into the fenestration industry.

The acquisition will allow the group to be the only company to offer both steel sections and bespoke aluminium extrusions from source, rather than through distributors and they see this as a massive advantage going forward.

GARY MOTHERSOLE

Gary works for BASF Chemetall Ltd as Aluminium Finishing Sales Manager for UK & Ireland.



BASF Chemetall Ltd are the global market leader in the manufacture and supply of surface treatment chemicals for a range of business segments including aerospace, aluminium finishing, automotive, can, coil, general industry and metal forming. He joined BASF Chemetall Ltd in 2007 having previously working for a local competitor.

He is Chairman of the ALFED Finishers Group and have been in the role since 2016. The Finishers Group members are a good mix of applicators, pre-treatment suppliers and powder paint suppliers. Being passionate about the Aluminium Finishing business he was delighted to be asked to become Chairman and represent ALFED members in a variety

of key matters, for example the revision of BS EN12206-1:2004 superseding the well-known BS 6496 1984. Also, the authorisation for the continued use of hexavalent chrome beyond the sunset date of Sept 2017 whilst considering the alternative non-chrome technologies available in the market. ALFED membership offers excellent opportunities to network, build relationships, an insight into the market, sharing of knowledge and they all have a contribution.

DR REMI ZANTE

With a background in Product Design Engineering, Remi worked for several years in the automotive sector with design responsibility for a range of commercial vehicle axles at a global T1 supplier. Following a PhD in mechatronics he joined the AFRC prior to its formal launch in 2009 where he led the development and delivery of a wide variety of industrially focused research projects related to metal forming. As part of the AFRC since its earliest days, he has seen the centre grow to 140 people and is now Head of Strategic Planning. He is leading the process of ensuring the AFRCs technical developments target industrial sector challenges and are focused on delivering impact into the UKs manufacturing industry. Dr Zante has also chaired the High Value Manufacturing Catapult's (HVMC) Metals forum and has been instrumental in mapping the UKs metals manufacturing capability for key industry sectors. ALFED board membership allows the AFRC to connect directly with the leading companies in UK aluminium manufacturing and provides added reach in supporting manufacturing innovation in the UK.



BECOME AN ALFED BOARD MEMBER

ALFED board members have a unique opportunity to shape the industry agenda and relevant policy at the highest levels.

Contact Tom Jones, CEO,
at t_jones@alfed.org.uk
to learn more about serving
on our board.

Contact us to discuss how ALFED membership can help your business

www.alfed.org.uk



FROM THE PRESIDENT

Giles Ashmead, ALFED President and Director of Powdertech

Since becoming President in May 2017, I have overseen a period of unprecedented change to the Aluminium Federation. As this was approximately twelve months after the UK had voted to leave Europe, we were just starting to understand what the process involved and how it could affect our industry.

Once the Brexit process reached the trade negotiation stage, we suddenly gained huge attention from the Department of Business, Energy and Industrial Strategy, who wanted to understand our industry, how we deal with Europe and how tariffs would affect our business. Thrown into this mix was Section 232 and the threat of tariffs from the US, which developed in a US trade war with China

and also issues with sanctions on Rusal, which could have had a major impact on the supply chain if not resolved. As a Federation we have probably had more meetings and contact with Government officials in the last two years than in the preceding decade, and we have represented our industry and our members robustly in getting our points and priorities across to people who have influence. I have found this opportunity very rewarding as I feel I have been able to make a difference.

During my Presidency we have also witnessed major change internally within the Federation. Soon after I became President our long-standing CEO left, to be replaced by Tom Jones. We have welcomed Kathy Rombach, Melissa Beasley and Linda Ford to the team, whilst a couple have left. We have introduced new Management Training courses, taken over the running of the schools challenge, gained many new members from all areas of the industry and beyond and most recently have relocated ourselves to much

more suitable offices.

These changes have all been made with a focus on engaging with a wider range of other industry bodies and developing the variety and level of services, so we can offer more value to our members.

Being President has not been without its challenges, particularly during the period when we didn't have a CEO, but I took on the role to stretch my comfort zone, widen my experience and challenge myself, and whilst I have had the honour of carrying out the role, it has certainly done that. My Presidency will come to an end later this year when Clive Bush from Amari Metals will take over this role.



MEMBER SPOTLIGHT

EMR METAL RECYCLING

With a UK network of over 65 sites across the UK, EMR Metal Recycling is the recycling partner you can count on.

Developed from a single UK site in the 1950s, EMR is a world leading metal recycler with over 170 facilities globally.

EMR can recycle everything from a toaster to an aircraft carrier. They handle around 10 million tonnes of metal and plastic every year from a variety of sources - from end of life consumer products to large industrial projects, saving over 10 million tonnes of CO2 compared to using virgin materials.

From a one-off clearance project to a waste disposal contract handling several thousand tonnes, EMR specialises in delivering more value from customers' waste streams, paying great prices for metal of all grades, shapes and sizes – cars to cables, aluminium to zinc.

No job is too big or too small. With a range of services to meet customers' needs including; total waste management solutions, authorised treatment facilities to process end of life vehicles, state of the art plastic recycling facilities, specialist plants for the recycling of refrigeration products, tailored environmental consultancy services and the provision of business training and vocational qualifications, EMR can handle it.

EMR creates social value by supporting local communities and creating sustainable employment opportunities. They encourage

sustainable thinking in children by working with local schools to deliver a free programme about the importance of metal recycling.

For more information, or to find your nearest site, visit emrgroup.com



G-TEX

G-Tex supply an exclusive range of decorative aluminium finishes.

Our Chemetal range is a massive collection of over 200 metal and laminate designs. We make many of them by deeply brushing, aging and adding patinas by hand and machine.

Our designs are unique works of art, created with a manufacturing consistency to ensure repeatability. We also source some of the best metal designs the world over.

It adds up to what we consider the most expansive collection of metal designs for interiors that you'll find anywhere. We back it up with exceptional sales and customer service that cares about getting it right.

Chemetal is a great and relatively easy way for design professionals to use metal in their interior design projects. We have one of the world's largest collections of metal designs and laminates. They are sold in standard laminate sheet sizes.

Our decorative materials are specified and installed in commercial interior projects in hospitality, retail, corporate, signage, furniture, restaurant, stadium and arena environments. Chemetal is ideal for vertical and light duty horizontal use.

www.g-tex.com





BENEFIT FROM A RANGE OF SERVICES THAT HELP YOU DEVELOP YOUR BUSINESS, WORKFORCE AND SUPPLY CHAIN

As the voice of the UK aluminium industry, our mission is to expand the market for aluminium products by helping companies solve problems, lobby government and boost their competitiveness.

Whether it's providing technical support, delivering market insight, informing trade policy or offering networking opportunities – everything we do focuses on helping UK aluminium businesses capitalise on opportunities.

As a member, you become part of an influential community, getting your voice heard within the industry and at the highest levels of government. Working together, we're actively driving UK aluminium forward – and we look forward to working with you in this endeavour.

Collaboration:

We bring together recycling and secondary producers, extruders, finishers and stockholders – helping everyone involved in UK aluminium make connections for mutually beneficial business and supply development.

Innovation:

You benefit from a range of services that help you stay at the cutting edge. From research and development through to industry benchmarking and technical support, you get insight that assists you to develop your business.

Opportunity:

We give you a unique opportunity to get your voice heard - within the industry and in government. Whether you're a global company or an SME, you can advocate and influence to improve market conditions for your products and services.

MEMBER BENEFITS:

From technical support to lobbying, we support members working across all aspects of production and supply.

Here are some of the many you get as part of your membership:

- Advocacy & lobbying
- Market insight
- Training
- Technical support
- Consultancy from energy management support to bespoke training, coaching and e-learning
- Events
- Influence & Policymaking
- Shared Learnings & Networking
- Savings & Partnerships

WHY JOIN THE ALUMINIUM FEDERATION

Whatever your company size or speciality within the industry, we help you access the technical expertise, market insight, business support and government influence you need to boost your competitiveness.

We offer different levels of membership based on your business size – so it's both affordable and valuable.

"As an ALFED member, you get your voice heard. We're a small metal finishing company, but I get my voice heard very loudly. I'm currently the ALFED president, and this gives me influence at a high level within government – I'm routinely on calls with ministers and civil servants. And I had my voice heard even before I was president. In 2004, the British standard changed to an EU-wide one that was much weaker. I campaigned to change it, and as an ALFED member, I had a say via the Finishing Group. I got my opinions over, and the standard is now changing. It was a real success for our business."

Giles Ashmead, Director, Powdertech

"There are lots of great opportunities as an ALFED member. I read all the market reports as they come in and use the stats in my management reports – the directors find them very useful. The events are great because I talk to people that aren't just in extrusion like us. It's good to go along, have a chat and see how the market is progressing for everyone else. I go to the Extrusion Group meetings, and my colleagues go to others like Automotive and Innovation. That way the whole business benefits." **Steve Nash, Sales Director, Hydro Aluminium Profiles**

Contact us to discuss how ALFED membership can help your business

Membership levels are based on business size, so it's both affordable and valuable. T: 0330 236 2800

www.alfed.org.uk



COVENTRY UNIVERSITY

The school of mechanical, automotive and aerospace engineering at Coventry University fundamentally integrate both the technical and sustainability aspects of lightweight materials and manufacturing into both their research and teaching, much of their work being related to transport and associated structures. Forefront within that field is the understanding, use and integration of aluminium alloys into such structures. With the future of many transport structures moving towards the use of mixed materials, the design and manufacture of said structures must take into account the many nuances of integrating sophisticated lightweight materials into functional engineering components and systems. At the foreground of this field is the appropriate use and understanding of aluminium and its alloys. It is anticipated that Coventry University's membership of ALFED will aid proliferation of the use & understanding of such materials in to teaching, research and product development at the University and associated commercial partners.

www.coventry.ac.uk



3M

Productivity on the line. Safety in the workplace. Technology to stay ahead. For over 100 years, 3M has designed solutions specifically for the metalworking industry. Their industrial abrasives are built to withstand the toughest substrates, finish metals to precise fine finishes and get you through all the stages in between. 3M personal safety equipment helps ensure that your people are protected whether welding, cutting, grinding or crossing the factory floor. And armed with a variety of industrial adhesives and tapes, your team can be prepared for whatever challenge comes their way. Their industrial adhesive tapes are built to withstand the toughest conditions, protect critical areas and still remove cleanly. Whether you are powder coating parts or bundling rebar 3M have a solution. They've engineered their masking solutions to withstand intense and difficult conditions associated with electroplating and anodizing processes. And 3M has developed market leading products such as 3M™ Scotch-Weld™ and 3M™ VHB™ which helps engineers and designers to remove the need for welds and mechanical fixings.

www.3m.co.uk/3M/en_GB/company-uk/



ISC WALES

ISC Ltd is a world-renowned company specialising in the design, development and manufacture of innovative engineered components and other 'Solutions in Metal'.

ISC supply products globally to the 'Working at Height' industry which includes arborists, fire & rescue, rope access, and other industrial fall protection users, as well as the motor racing, military and other specialist markets

www.iscwailes.com

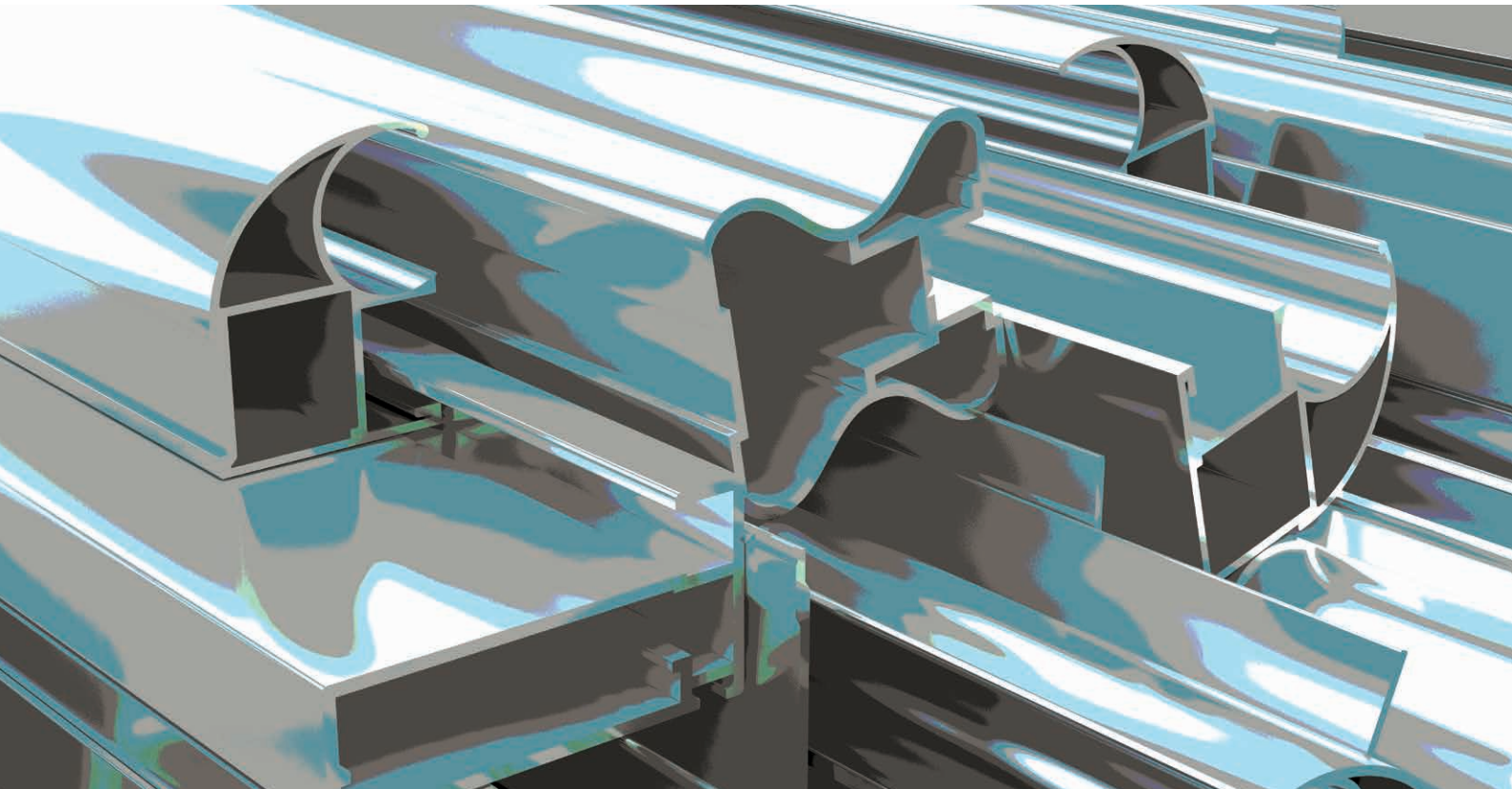


ASH & LACY FINISHES

For over 140 years, the Ash & Lacy Group has been manufacturing an exciting range of products and systems for the construction, automotive, acoustic and audio markets, exporting around the world and currently with an annual group turnover above £50 million. Always committed to innovation and high engineering standards, Ash & Lacy's in-house, state-of-the-art Polyester Powder Coating line adds considerably to the range of finishes available on fabrications, facades and other products and simplifies the production chain.

www.ashandlacy.com/construction





ALUMINIUM FEDERATION TECHNICAL TRAINING COURSES AND LECTURES

Aluminium is rapidly becoming societies metal of choice with its ease of application, lightweight, strength, corrosion resistance and not least infinite recyclability. Dominating metal innovation in automotive, architecture and aerospace sectors, substituting for steel and plastics, and awakening the packaging industry to its possibilities. From the turn of the century primary aluminium production has tripled to 60 million tons with recycling predicted to reach 26 million tons.

Sadly, the reality is that the basics of aluminium are not taught in apprenticeships, colleges or universities, nor indeed is its engineering potential, basic metallurgy or even its unique processability such as "extrudability". To fill this knowledge gap the Aluminium Federation with universities, specialist manufacturers and experts in the industry has developed and offers a full range of technical support and training courses in aluminium, from simple introductions to the equivalent of the second year of a metals technology degree.

Each course is specifically tailored to the needs of the audience, the level of students' knowledge, their industry sector and processes. In-house courses for both members and non-members are specifically written to agreed syllabuses and courses can be supplemented by specialists and experts, e.g. welding or "Additive Manufacturing" from within the whole industry.

Specific courses can be written for universities and educational bodies as an integral part of their own teaching programmes.

Given the heavy demand ALFED offers throughout the year scheduled courses, which although having a central theme are still tailored to the students' requirements.

World of Aluminium:

A broad-based introduction to all aspects of aluminium most likely to be encountered in manufacturing. Aimed at people who need to understand the basics, such as production supervisors, managers, production engineers, salespeople, purchasing and process technicians.

Aluminium for Engineers:

An intensive two-day course that creates the foundation and builds up knowledge from a basic introduction to metals to the wide application of aluminium. Aimed at metallurgists, designers, manufacturing engineers and companies transitioning into aluminium.

Aluminium Casting Metallurgy:

A one-day course providing an introduction into aluminium for casting technicians, designers, and casting companies.

ALFED offers over eighty technical teaching modules, ranging from 10 to 60 minutes duration, covering virtually all the topics encountered with aluminium, such as; forging, heat treatment, casting, corrosion, joining, pressing, machining and coating. All aspects of health and safety are also covered in the lectures.

Aluminium Technical Training Courses:

WORLD OF ALUMINIUM

Thursday 24 October 2019

One day workshop gives an introductory and practical understanding of aluminium production, processing, application and markets.

ALUMINIUM FOR ENGINEERS

Tuesday 26 & Wednesday 27 November 2019

This intensive two-day technical workshop focuses on developing a practical understanding of aluminium production, processing and engineering applications. The syllabus covers metallurgy, specification, heat treatment, wrought processing, joining, testing, corrosion, coating and more. All participants get a complimentary copy of the Aluminium Federation's book *The Properties of Aluminium and its Alloys*.

**Please contact us on
0330 236 2800
to discuss your
specific course
requirements.**



History

The only UK owned commercial aluminium extruder, providing an award-winning service to UK industries for over 30 years.

Service

With a multi-press operation backed by our in house fabrication facility, we can offer everything from prototype runs to fully machined components.

Excellence

We pride ourselves on great customer service, fantastic lead times and high quality levels. All supported by our ISO 9000 certification.



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www.alishapes.co.uk



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in Britain*



ALFED ESSENTIAL LEADERSHIP SKILLS PROGRAMME

The development of the future leaders is essential for business planning and the associated supply chain.

It is important to our members and to the wider industry - we all seek to nurture talent and foster a culture of continuous improvement.

Our courses are practical and engaging for all levels:

- Proven and popular programmes focused on learning that can be immediately applied in the workplace
- Cost effective
- Accredited by the CPD Certification Service, the UK independent continuing professional development scheme

In addition, industry takes the health and safety of the workforce seriously. We have a range of courses available to the industry, designed for all levels and any size of company.

Our Leadership and Management Courses cover two levels:

FRONTLINE: for those new to management or who have been managing for a short time, or who may be taking on a management position in the future.

MIDDLE LEVEL: for those managing departments or teams and who take responsibility for delivering business objectives through other people. Also useful for managers who want to learn more about leading & managing and getting the best from their people.

THE EFFECTIVE TEAM LEADER 'How to become a competent leader'

An effective team leader has a variety of traits and characteristics that encourage team members to follow him. Team leaders naturally possess certain qualities, such as compassion and integrity, or learn leadership skills through formal training and experience.

This course is designed to provide the foundation on which a successful management career can be built.

Who it's for:

Those who've only been managing for a short time, are very new to management or who may be taking on a management position in future. It's also ideal for managers who want a broader perspective on identifying and overcoming business challenges.

Course duration: 2 days

Thursday 14 November
Friday 6 December
9.15am – 4.30pm

Cost:

Members £560+vat per person
Non-Members £695+vat per person

Venue:

The Earls Suite,
Halesowen B62 8DG

WORKING WITH YOUR TEAM ‘Using emotional intelligence’

Research shows successful teams are made up of a diverse mix of behaviours. Thanks to the advances in understanding human behaviour and neuroscience, we know what it takes for people to perform at their best and for strong, resilient teams to form.

Who it's for:

Whether you are the office junior, chief executive or anything in between, this workshop is for you. Knowing yourself, your team, your manager and your organisation are keys to personal and business success. What were once labelled soft skills are now modern requirements in today's workplace, especially if you are new to or are already leading a team.

Course duration: 2 days

Tuesday 17 September
Tuesday 3 October
9.15am - 4.30pm

Cost:

Members £560+vat per person
Non-Members £695+vat per person

Venue:

The Earls Suite,
Halesowen B62 8DG

ONE DAY BASIC SUPERVISORS COURSE

This one-day course is designed to provide a foundation on which a successful supervisory career can be built.

Who it's for:

Anyone new to supervising or already supervising in the workplace and would like some further training.

What will I learn?

We begin with understanding the basics of the supervisor's role in the workplace and lead on through to diversity in the 21st century workplace.

You will leave the course not only with knowledge of their role but also with worksheets and templates to help you function well in the role.

- Basics of Supervision
- What makes a Good Supervisor?
- Required Skills
- Communication
- How to Monitor Employee Performance
- Basics of Management

Course duration:

Wednesday 13 November
9.30 - 3.30pm

Cost:

£220+ vat per person

Venue:

The Earls Suite,
Halesowen B62 8DG

Please note: Includes course notes, lunch and refreshments

FOR FURTHER INFORMATION OR TO BOOK A PLACE:

Please contact
Kathy Romback
Training & Education Manager
on
0121 281 2281
or email
k_romback@alfed.org.uk
or visit
www.alfed.org.uk



MANAGING TO LEADING

The course also covered developing skills. Gary Cook presented our Managing to Leading workshop in May and June. We had a range of experience within the group and all contributed to our lively discussions.

They examined the purpose of business and what their particular business is looking to achieve and deliver. Recognising the changed role, purpose and requirements when transitioning from operator/worker through to manager/supervisor.

The course also covered developing, knowledge and behaviours that will enable immediate improvements to the individual and organisational management performance.

Finally, they created an action plan to deliver changes to their management approach, style and influence.

“It got me thinking about things differently and have since tried to implement certain aspects already (mainly delegation).”

One of the main things I took away from the course wasn't actually to do with the content. It was good being in a room full of people at different levels with different experience, some directors, some new to management, but all speaking openly and honestly about the day to day struggles that are presented within the workplace, it was reassuring.”

Paul Plunkett (Aluminium Shapes)

ADDITIVE MANUFACTURING NETWORKING DAY

We are continuing our program of introducing disruptive technologies to our members; we hosted on Tuesday 2nd July in conjunction with Wolverhampton University a networking day focused on "Developments in Net Additive Manufacturing and Advanced Alloys".

Additive Manufacturing more correctly known as "3D-Printing" were layers of a powder, 20 to 100 μm thickness are spread onto a substrate plate and then a 2D slice melted together, typically using a high-power laser, is now commercially well-established. State-of-the-art systems can use two or more lasers with different power and depending on the metal or substance being deposited an inert gas atmosphere.

Aluminium with its high thermal conductivity, low melting point and high affinity for reacting with oxygen to form alumina, a ceramic, has always been regarded as a difficult subject for "3D-Printing", but developments in powder metallurgy, alternative additive processes and laser sintering are truly transformational!

Paul Unwin of "Additive Manufacturing UK" and the Industrial Chair of the "Additive Manufacturing Strategy Steering Group" outlined how additive manufacturing is impacting design, manufacturing, infrastructure and business models. How this fully digitally enabled process is revolutionising businesses by providing a radically new method of production that enables new, functionally superior designs to be realised at lower cost with enhanced function, productivity and greater sustainability.

Dr. Russell Goodall, of the University of Sheffield introduced High Entropy Alloys. The use of powder metallurgy allows the creation alloys that use metals with vastly different melting temperatures and gravities. Potentially such alloys based on lightweight aluminium can create innovative materials specifically for additive manufacture. Materials that will enable new performance levels, in terms of high temperature, electrical conduction magnetic properties and both high Strength and Young's modulus.

Stuart Godfrey, Materion AMC, for the last 25 years Materion have been producing aluminium silicon carbide reinforced metal matrix composites (MMCs) via a unique powder metallurgy process from its Farnborough facility. These MMC materials are used in a range of industries including performance automotive, commercial automotive, space and defence, niche engineering and consumer electronics. The presentation outlined the production, mechanical properties and application of these materials, particularly their high strength and stiffness.

Stuart Jackson, Renishaw plc, introduced Multi-Laser Metal Additive Manufacturing – "The road to economic AM Production". Renishaw have developed and released to market mid-size multi laser metal AM machine, a first move towards bringing affordable AM product to market. Delivering increased production rate gains achieved by applying multiple lasers into a bed area previously processed with one laser and the effects on cost-per-part with the focus on aluminium alloys.

Valerion Carollo, The Welding Institute, provided an overview on the numerical modelling strategies for the simulation of additive manufacturing processes, based on applications of aluminium additively manufactured parts and included: models for the prediction of residual stresses and distortions, microstructure and mechanical properties, and design optimisation.

Garth Stevenson, Electro Optical Systems Ltd, presented Aluminium – Additive Manufacturing at scale considering size, volume and cost, comparing with conventional casting, outlining serious consideration for AM to be part of a conventional supply chain.

Richard Kellett, DMG MORI, have developed an innovative additive manufacturing portfolio including directed energy deposition as a hybrid solution within 5 axis mill turn platforms, and highly flexible powder bed SLM systems.

Paul Conquest, Fronius UK, presented Fronius Cold Metal Transfer single wire & twin wire process for additive manufacturing.

John Robinson, Senior Engineering Technician, University of Wolverhampton, presented the ALM activity at the University and introduced the research being done involving aluminium.

An intensive full day with balanced presentations covering the entire range of Additive Manufacturing Technologies.



Our House of Lords lunch in June was attended by ALFED Members, MPs, Lords and Ladies, who support the UK aluminium industry. Our key speaker from government was Andrew Stephenson MP and Minister at the Department for Business, Energy and Industrial Strategy (BEIS).



Andrew Stephenson MP, Minister at BEIS and Tom Jones CEO of ALFED

The Minister spoke about the strategic importance of the UK aluminium industry and the work within government to support it. He also spoke about Brexit, the opportunities and the support for the aluminium industry after the UK exit European Union. Our President Giles Ashmead spoke on the impact of MPs not agreeing on a deal for Brexit and the impact on our industry over the last three years since the Brexit referendum. Our last speaker Murat Bayram from European Metal Recycling (EMR) gave a very entertaining and informative speech on sustainability and recycling all without any notes.

The Aluminium Federation All Party Parliamentary Group (APPG) strengthens its membership by welcoming Lord Horam as a new member. Lord Horam brings with him a wealth of knowledge and experience from industry and the political world making a valuable contribution on the strategy and growth of our APPG. We invite Members of Parliament and Members of the House of Lords to join our APPG, all are welcome to join and participate.



Mr Mark Stuckey VP at Arconic USA & Mrs Jan Stuckey with ALFED board member Colin Davies - Commercial Director at Arconic UK



ALFED members discussing key industrial issues on the terrace at Westminster



Lord Paul (right) receives Murat Bayram and Bruce Miller from EMR to the House of Lords



Keynote speakers: Andrew Stephenson - Minister, Giles Ashmead - ALFED President and Murat Bayram - European Managing Director at EMR



Lord Brookman



Dr Gerd Gotz - Director General of European Aluminium



Minister Andrew Stephenson delivers his speech supporting the aluminium industry and its key strategic role



ALFED members, industry leaders, Lords, Ladies, government ministers and politicians influencing the UK industrial strategy

DEPARTMENT FOR BUSINESS, ENERGY & INDUSTRIAL STRATEGY (BEIS) - MASTER CLASS IN ALUMINIUM

ALFED organised two days of intensive visits to members' plants on Wednesday 3rd and Thursday July 4th - a "Master Class" in the production of aluminium and the UK aluminium manufacturing industry with BEIS officials Ryan McLaughlin, Deputy Director Rules of Origin and Tariffs and customs, Briony Thompson and Robyn Street, Senior Policy Advisors.

The visitors were hosted by Tom Jones, CEO, Melissa Beasley, Communications Executive, and Jan Lukaszewski, Technical Manager of ALFED. The visit was a clear indication of how strongly BEIS is committed to the UK aluminium industry.

The first "Master Class" introduced the visitors to Arconic at Kitts Green, near Birmingham, to see the melting, casting and hot rolling of slab and the processing and extensive testing of aerospace materials. As an eye opener, the visit demonstrated how seriously the aluminium industry is committed to health and safety with the party being issued with "Personal Protective Equipment".

In contrast the second visit to Vertik-Al introduced demonstrations of pre-treatment and impressive vertical line powder coating of aluminium. This demonstrated how the vivid colour powder coats are applied, the public face of all our large cities and the aesthetic face of aluminium that most general public see.

Our third plant visit was to Hydro Cheltenham to see extrusion and anodising. The group were introduced to the production of extrusion processes. The ability to be freely extruded into an almost unimaginable multiplicity of shapes sets aluminium apart from any other metals. BEIS were captivated at the sight of long length complex extrusions being extruded.

The education continued well into the first evening with business discussions over dinner hosted by Simon MacVicker and Graham Flukes of Bridgnorth Aluminium.

The second day commenced with a tour of Bridgnorth Aluminium to appreciate the intricate metallurgy and technology that underpins the production of the ultimate high quality and surface finish, cold rolled litho plate and sheet. The speed of production of the highly automated processes captivated the party!

In total contrast was the "tier" 1 press working, fabrication and assembly operations of Salop Design and Engineering. The multistage progression presses and the accompanying machine beat held the visitors open eyed! Salop Design & Engineering, demonstrated the aluminium industry commitment to the next generation as they run "In-Comm training academy". The academy provides apprenticeships with bespoke equipment creating the chances to learn on industry standard equipment, and seamlessly fit into industry positions.

The last "Master Class" visit to the European Metal Recycling (EMR) in Willenhall was perhaps the most important. The EMR demonstrated how the valuable end of life, scrap and demolition metal resources are sorted and turned into raw material for infinitely recycling.





GUIDANCE ON EU EXIT FROM THE DEPARTMENT FOR BUSINESS, ENERGY AND INDUSTRIAL STRATEGY (BEIS)

The UK will be leaving the EU on 31 October 2019. There are a number of steps that the Government is advising businesses to take, in the event that we are not able to reach a deal with the EU, and instead leave without a deal in place.



Department for
Business, Energy
& Industrial Strategy

The best way to find information for your business is to go to GOV.UK, where you can find everything that you need to prepare:

www.gov.uk/business-uk-leaving-eu.

Here you will find information about a number of areas in which your business may be affected by EU Exit, including:

Importing and Exporting:

If you are an importer or exporter to the EU you should get a UK Economic Operator Registration and Identification (EORI) number and decide if you want to hire an import-agent or make customs declarations yourself.

Chemicals Use (REACH):

If you currently purchase a chemical substance directly from an EU / EEA supplier, you must make sure any substances you purchase are covered by a valid UK REACH registration by someone within the supply chain.

Your Employees:

If the UK leaves the EU without a deal, EU / EEA and Swiss citizens who were resident in the UK prior to exit must apply to the EU Settlement Scheme to get settled or pre-settled status by 31 December 2020.

If you require any assistance to navigate this advice, or to identify the correct person to speak to about a query, the Infrastructure and Materials EU Exit and Trade Team in BEIS would be happy to help. You can contact them via: IM-EU-Exit-and-Trade-Team@beis.gov.uk.





EXPORTING IS GREAT

The Government's most ambitious export-focused marketing campaign ever – aims to build a nationwide movement of UK companies selling their products and services overseas.

The campaign, led by the Department for International Trade (DIT), aligns with the Government's Export Strategy which sets an ambition to grow the UK's overseas sales as a share of GDP from 30% to 35% by:

- encouraging and inspiring businesses that can export but don't or are just beginning,
- informing businesses; helping them access the right information, advice and practical assistance,
- connecting businesses to overseas buyers, markets and each other, and
- ensuring no viable export fails for lack of finance or insurance from the private sector.

The Exporting is GREAT campaign supports this by focusing its objectives on increasing the number of companies that believe they can export, know where to go for export support, take action towards exporting and intend to start (or have started) exporting.

Many thanks for ALFED support so far on the award-winning Exporting is GREAT campaign. Just last year, as a direct result of the campaign:

- Up-to 130,000 businesses took steps towards exporting
- 1 in 5 campaign recognisers that can export but never have (turnover £500k+) developed concrete plans to start exporting

We have achieved this and much more by putting real businesses at the heart of

the Exporting is GREAT campaign – 1,300 businesses have signed up to advocate on our behalf, but to create an exporting movement across the UK we need your help to grow our this community by thousands more. These businesses have featured in thousands of pieces of print, digital and social media coverage as we've told their stories far and wide. Many have also joined the private Exporting is GREAT Facebook group and provide and encouragement advice to novice exporters; turning our campaign to a community and the community to a national movement.

What's in it for ALFED members?

- Become part of Exporting is GREAT, the Government's most ambitious and high-profile export focused campaign ever
- Be considered for the campaign's creative and related PR, social media and advertising activity
- Be considered for DIT's Export Champion initiative which involves deeper engagement with the department
- Join a UK-wide community where companies come to ask questions, get advice on overcoming barriers and find out where to get support
- Get access to a suite of digital assets to use in their communications and marketing

Members can find out more by contacting the ALFED team on 0330 236 2800.



GLOBAL PRIMARY ALUMINUM PRODUCTION

Thanks to the International Aluminium Institute (IAI) we now have the data on global primary aluminium production for the first half of 2019. How does it compare with previous years, where we have come to expect that each year's production is higher than the year before?

By Dr David Harris



Global primary production in 2009 was 37.7 million tonnes and in 2018 it was 64.3 million tonnes, indicative of the rapid increase in the range of end-uses of aluminium and the increasing market share for aluminium in each end-use sector. Work by Alcoa several years ago showed that as the wealth of any population increased, as measured by GDP per head, then the end use of aluminium in kilos per head of population increased accordingly. This will certainly be true for China and India.

The global tonnage production for January to June 2019 was 31.616 million tonnes, indicating that perhaps the 2019 total will show a reduction on the year before, which is a totally new situation. This would come as no surprise with global trade reduced by conflicts, largely between USA and China, and reduced economies across the world, particularly in China, Europe and USA.

During this half year China was responsible for 56% of primary aluminium production, which is a typical figure in recent years. In 2008 China was responsible for 37% of total production. For both western and eastern Europe combined, those countries in the half year collectively produced 12 % of

the total; in 2009 it was 20%. Asia, not including China, has been growing primary production steadily over the last ten years, as has the Gulf States, now responsible for 8% of global production. The other areas of the world have seen their primary production reducing year-on-year. It is interesting to note that with today's London Metal Exchange (LME) price for primary aluminium of \$1800 per tonne, ten years ago the LME primary aluminium price was more-or less the same, \$1800 per tonne. That may well be some part of the explanation for where we are today with primary production.

The Gulf States, initially in the 1970s in Dubai and Bahrain, but now also in several other Gulf States, are an aluminum success story worthy of study on any MBA course. They set up primary aluminium production more than 50 years ago as an investment to diversify from their petroleum products industry and to make maximum use of abundant energy resources and the availability of deep-water ports. In more recent years they have been adding value to primary aluminium with developments in semi-fabricated products, much of it being used in their own building programs and the rest of it exported.

EDUCATION

THE ALUMINIUM FEDERATION DESERT WHEEL CHALLENGE

Early in 2018 ALFED commissioned BLOODHOUND Education to develop an exciting and engaging (STEM) challenge using the BLOODHOUND Project as a focus highlighting and raising awareness of aluminium.

The output of this was the Aluminium Desert Wheels Challenge 2019 - a practical project aimed at 7 to 11 year olds; designed to contextualise classroom learning and support teachers by linking it to the National Curriculum at Key Stage 2.

Using the 10 years of research and development of the Bloodhound Project we were able to share videos, additional information and teaching resources to support the competition brief and use the real-life forthcoming testing location of South Africa as a backdrop.

We developed a comprehensive competition framework and relevant documentation (teacher pack, student guides, videos & video links, additional

reading, curriculum links, rules of competition, sponsor branding) to support the engineering challenge.

Over 47,670 engaged in our challenge either by entering the competition or downloading our resource and as a classroom project.

The challenge was launched in September 2018 and registration entries closed on 31st March 2019.

The quality of entries was high with schools submitting a poster and video recording of their findings. A mark scheme was used against the competition criteria and feedback given to schools.



Competition Winners:
1st Place – St Bede's College, Manchester
Prize: A Rocket Car Workshop





EARTH OVERSHOOT DAY (EOD) 2019: HUMANITY HAS ALREADY USED UP THE PLANET'S ALLOWANCE OF NATURAL RESOURCES FOR THE ENTIRE YEAR!

According to international sustainability organisation Global Footprint Network EOD has moved up two months over the past 20 years. EOD is an annual campaign by the Global Footprint Network (GFP) designed to draw attention to Earth's limited natural resources.

Falling on July 29 means humanity is currently using nature 1.75 times faster than our planet's ecosystems can regenerate. It means humans currently consume 1.75 earths every year.

Last year EOD fell on August 1 while the year before that it was on August 3. It has been calculated that by 1973, when human consumption began outstripping what the planet could produce, EOD fell in early December. Before the 1970s, the earth

was able to renew all its resources spent by humans every year.

The day marks the point when the amount of energy and resources humanity is using exceeds the amount earth can replace in that year. It means that in just seven months, humans have exhausted the amount of water, soil, clean air and other resources that the planet can generate in 2019, meaning from now until December all the energy we use is unsustainable in the long-term.

The extra waste we now produce cannot be absorbed and will cause harm, and we are using too many other natural resources - like eating fish, plant-based food and meat - too quickly.

The date of Earth Overshoot Day is calculated by comparing the amount of ecological resources the earth can generate that year, by humanity's demand for that year.

According to GPD, overshoot is possible because we are depleting our natural capital. The costs are becoming increasingly evident in the form of deforestation, soil erosion, biodiversity loss, or the build-up of carbon dioxide in the atmosphere.

MoveTheDay is a campaign within a campaign - that is, an initiative to push back EOD by five days each year "allow

humanity to reach one-planet compatibility before 2050".

GFP says opportunities to move the day can be found in five areas: cities, energy, food, population and the planet.

For instance, cutting CO2 emissions from burning fossil fuels by 50% would move the day by 93 days.

Other ways humanity could MoveTheDate involve looking at the ways we design and manage cities and moving from sprawling, segregated cities to compact, integrated ones.

Local, plant-based diets are favoured over industrial animal-based ones since food production currently uses more than half of our planet's bio capability.

Protecting nature through conservation, reforestation and regenerative farming will also be key in helping sustainability. The GFP also recommends empowering women "leads to smaller, healthier and better educated families".

Source: Evening Standard

SUSTAINABILITY

Aluminium is ideally positioned to help UK industry as it moves towards more sustainable supply chains. Here's how we're creating opportunities for our members.

The Aluminium Federation is actively involved with government and industry – in the UK and worldwide – to promote aluminium as a solution to greater energy efficiency and reduced waste.

From an innovation perspective, we're supporting members in taking a complete lifecycle approach to sustainability, looking at everything from refining to production to use to recycling. This includes elements such as responsible sourcing and energy management.

Importantly, we're focusing on ways to do this while delivering improved performance, so we're in an even stronger position to promote aluminium as a win-win solution to customers.

We're seeing success in areas such as automotive and aerospace, with trends towards lightweighting offering increasing opportunities to integrate aluminium into design. Food production is another area - not only is aluminium endlessly recyclable, but it offers a total barrier against light and moisture, which helps reduce carbon footprint while extending shelf life.

The examples go on, and we will see aluminium play an increasingly important role in a sustainable economy thanks to its many helpful characteristics. From advocacy and standards development through to innovation and training, the Aluminium Federation will continue to champion the industry in this crucial area.

For further information please contact Margaret Lane: m_lane@alfed.org.uk.



RECYCLING

Aluminium is an affordable, highly recyclable material that supports a global circular economy.

We actively promote opportunities to get involved in this important area. Aluminium is an affordable, highly recyclable material that supports a global circular economy. We actively promote opportunities to get involved in this important area.

Because aluminium can be recycled endlessly while maintaining its quality, it's a key part of global drives towards waste reduction and a circular economy. We work closely with government,

members, other industries and trade bodies worldwide to maximise aluminium's contribution to innovation and policy.

For example, a recent initiative is our collaboration with European Aluminium regarding the EU Circular Economy Package, which looks at elements such as recognition of multiple recycling, aluminium packaging targets and metal recovery from incinerator bottom ashes.

We're tying this into innovation-related activity promoting more efficient recycling processes and the use of recycled aluminium in new applications. This includes advanced engineering and packaging among others, and also involves advising on related standards development.

Another crucial part of recycling is education, and through both our training courses and outreach campaigns, we promote developments that move our industry forward.

For further information please contact Margaret Lane: m_lane@alfed.org.uk.



THE EUROPEAN ALUMINIUM RECYCLING INDUSTRY



By Magdalena Garczyńska, Recycling Director at European Aluminium

Aluminum recycling is a vital part of Europe's wider aluminium value chain. Aluminium recycling in Europe generated around €10.0 billion in revenue in 2018. In Europe, there are more than 220 recycling plant, many of which are small and medium-sized enterprises (SMEs) and family-owned businesses. About 8.0 million tonnes of scrap is recycled in Europe each year, which includes process and run-around scrap.

We believe the European recycling industry has the potential to grow significantly. Our Vision 2050 report shows that in the coming decades, demand for aluminium will remain strong in European and worldwide. With supportive policies for our sector by 2050, recycled aluminium and primary aluminium are expected to answer almost equal shares of total European demand, which is forecasted to reach around 18 million tonnes.

But our industry understands that increased growth must go hand in hand with decarbonisation. We have long been a catalyst for sustainability and recycling, working to create a circular economy with infinitely recycled aluminium. With impressive aluminium recycling rates of over 90% in transport and building and more than 60% in packaging, the European aluminium industry is already making a significant contribution to the European circular economy. To achieve full circularity, however, we must maximise the collection of valuable resources from the end of life of products so we can use the resources again to create new products. EU legislation will have a large role to play, but we also require a greater understanding of how our metal is being used by downstream customers and society at large and what role we can play in ensuring that our precious material can be recycled again and again for further use.

The Waste Shipment Regulation Review

The European Commission is currently reviewing the Waste Shipment Regulation, which lays down rules for waste shipments within the EU and between the EU and non-EU countries to improve environmental protection. A well-functioning Waste Shipment Regulation is crucial to enabling Europe's circular economy and ensuring the efficient use of raw materials.

This year the European Commission is preparing the Regulation's Impact Assessment that will be followed by the legislative proposal in 2020. The European Commission should take this opportunity to simplify and better define a number of procedures.

Firstly, the shipment of waste across the EU needs to be facilitated and simplified by adding new green listed codes for waste where needed, for example for coated or uncoated windows, doors, curtain walls, and other framing profiles which mainly consist of aluminium and plastic.

Secondly, the volume for testing samples for research should be defined differently in order to allow to ship waste for testing without lengthy notification preparation procedure. The current limit of a 'waste' sample is 25kg, which is insufficient for any pilot test in customer plants, according to our members.

Thirdly, to ease the administrative burden on companies and avoid shipment delays, we also ask the Commission to simplify the complex notification procedure companies must undergo to inform relevant authorities of the dispatch, transit, and destination of waste.

Finally, the EU should use the ongoing assessment of the Waste Shipment Review to clarify what it means by "equivalent

conditions" in waste legislation for exported waste to countries that do not apply the same environment, health and safety (EHS) standards as we have in Europe.

The loss of valuable scrap to third countries

The success of our industry to drive the circular economy depends on the sufficient supply of scrap, the raw material that feeds the aluminium recycling process. Since 2002, the EU has been a net exporter of aluminium scrap. Around one million tonnes of scrap depart Europe for other parts of the world every year.

In 2018, the EU exported around 970,000 tonnes of aluminium scrap, an increase of 7 percent compared to 2017. Around 80 percent of this is exported to Asia. While the Chinese ban on imports of waste and scrap meant EU exports to China decreased by around 6.3 percent last year, since 2019 (data until May) we see a revert dynamic as EU scrap exports to China increased by 72%.

At the same time, more low-grade scrap is available for recycling in Europe. Low-grade scrap is more challenging to sort and recycle than high-grade scrap. However, refusing low-grade scrap and exporting it to third countries where the scrap might be recycled under questionable EHS conditions, is not the answer. We hope that traders and technology developers of the European recycling value chain see the increased availability of low-grade scrap as a signal to up investments in effective sorting technologies which can maximise this valuable resource. Sorting should preferably be done by specific product and by alloy family to provide the best conditions for reuse and recycling and to satisfy future demand.

ABOUT EUROPEAN ALUMINIUM

European Aluminium, founded in 1981 and based in Brussels, is the voice of the aluminium industry in Europe. We actively engage with decision makers and the wider stakeholder community to promote the outstanding properties of aluminium, secure growth and optimise the contribution our metal can make to meeting Europe's sustainability challenges. Through environmental and technical expertise, economic and statistical analysis, scientific research, education and sharing of best practices, public affairs and communication activities, European Aluminium promotes the use of aluminium as a material with permanent

properties that is part of the solution to achieving sustainable goals, while maintaining and improving the image of the industry, of the material and of its applications among their stakeholders. Our 80+ members include primary aluminium producers; downstream manufacturers of extruded, rolled and cast aluminium; producers of recycled aluminium and national aluminium associations are representing more than 600 plants in 30 European countries. Aluminium products are used in a wide range of markets, including automotive, transport, high-tech engineering, building, construction and packaging.

Follow us on Twitter @EU_Aluminium.



STREAMLINED ENERGY & CARBON REPORTING –

An overview for the Aluminium Industry

As of April 2019, the UK Government's new Streamlined Energy and Carbon Reporting (SECR) framework has come into effect.

By Lord Redesdale,
CEO of the
Energy Managers Association



The legislation requires all large UK-registered companies to report on their energy consumption, carbon emissions, and energy efficiency measures in their annual director's report.

The new reporting requirements are accompanied by a steep increase in energy taxation, now contained within the Climate Change Levy (CCL).

Using the most efficiency modern smelters, the aluminium industry consumes approximately 14 kilowatt-hours (kWh) of electricity to produce a single kilogramme of primary aluminium. As a result, energy costs are deeply important for the sustainability and profitability of the industry in the UK.

What is SECR?

This regulation was created in order to replace the mandatory greenhouse gas emissions reporting requirements for quoted companies and will come into effect immediately after the closure of the CRC Energy Efficiency Scheme for large UK energy users. It will operate in parallel with the Energy Savings Opportunity Scheme (ESOS) which also applies to large UK companies and will continue after the introduction of SECR. The reporting itself has been developed by the Department for Business, Energy,

and Industrial Strategy (BEIS) to align with best practice in the UK and internationally, and is intended to complement recommendations from the G20 Financial Stability Board's Taskforce on Climate-related Financial Disclosures (TCFD). The recommendations aim to improve transparency and investor information to underpin the transition to a global low-carbon economy.

Who needs to comply with SECR?

BEIS estimates that 11,900 companies across the UK will need to comply with the new regulation.

Businesses that need to comply will be classified as 'large' under the Companies Act 2006 and have at least two of the following:

- At least 250 employees
- Annual turnover greater than £36 million*
- Annual balance sheet greater than £18 million*

**Please note that the definition of 'large' companies is different from that of ESOS.*

Low energy users (using less than 40,000kWh per year) will be exempt from reporting, however such an organisation is required to state, in its relevant report, that its energy and carbon information is not disclosed for that reason.

ENERGY

Furthermore, UK subsidiaries will not have to report if covered by the parent company report. However, UK-based subsidiaries that are not covered by parent report will need to comply with SECR if eligibility requirements are met.

What needs to be reported?

The new SECR reporting requirement mandates that large non-quoted companies and LLPs in the UK must:

- Report on their UK energy use (electricity, gas, and transport);
- Report on their associated GHG emissions (scope 1 and 2 mandatory, scope 3 optional);
- Include a carbon intensity ratio in the report. The EMA is compiling a list of metrics that are most commonly used by different sectors and will make recommendations after consultation on which ratios should be used as best practice by different sectors.
- State the methodology used to report.
- Report on all of their principal energy efficiency actions taken within the financial year.

Principal energy efficiency actions have a wide definition and this will be an area of considerable debate. The EMA SECR methodology gives clear guidance on how to define principal measures, best practice to follow, and lists the main areas and processes that should be recorded in the report.

Quoted companies have been required since 2013, under mandatory greenhouse gas reporting requirements, to disclose their global scope 1 and 2 GHG emissions and intensity metric in their annual reports.

Therefore, reporting under SECR will add:

- Global energy use (electricity, gas, and transport);
- Report on all principal energy efficiency actions taken within the financial year.

How is the information reported?

The above information required by SECR will be reported by companies and LLPs in their annual director's report submitted to Companies House. The report must be approved by the board of directors (company) or a named partner (LLPs).

As the information is to be included in the annual report, it must also be included in the audited financial statements and be approved by the auditor. Auditors must approve SECR information:

- For consistency with financial statements;
- Consistency with knowledge acquired by the auditor in the course of performing the audit;
- Any need to further qualify the report.

When will companies need to report?

Reporting is aligned with companies' financial year. Therefore, companies falling within the scope of SECR will need to report beginning on the first full financial year that falls after the April 2019 start-date.

Tax Implications

With the closing of the CRC Energy Efficiency Scheme for large UK companies, the government will base revenue collected on an expanded Climate Change Levy (CCL).

CCL is charged by the government on electricity, gas, and solid fuels and are listed on energy bills. The rates going forward are set out in the table below.

By leveraging the opportunity created by SECR to demonstrate energy efficiency for year-on-year progress, businesses will be able to improve profitability, comparability, and transparency within the industry.

For more information about SECR compliance and training, please contact Alex Ross at the EMA:
alex.ross@theema.org.uk
or 0203 176 2834.

TAXABLE COMMODITY	RATE FROM 1 APRIL 2018	RATE FROM 1 APRIL 2019	CHANGE
Electricity (£ per kilowatt hour (KWh))	0.00583	0.00847	45.28%
Natural gas (£ per KWh)	0.00203	0.00339	67.00%
LPG (£ per kilogram (kg))	0.01304	0.02175	66.79%
Any other taxable commodity (£ per kg)	0.01591	0.02653	66.75%

(HMRC 2018)

'THRU-PROCESS' TEMPERATURE MONITORING DRIVES EFFICIENCY IN ALUMINIUM PROCESSING

With high growth in global aluminium demand processors of aluminium are rapidly looking to improve the efficiency of operations.



Proving thermal processing of aluminium parts is done to specification, efficiently and economically is critical. Helping with this need PhoenixTM offers a range of temperature profiling solutions designed specifically for applications in the aluminium manufacturing market. In many situations PhoenixTM has worked directly with key industry players to develop bespoke solutions for applications such as reheating aluminium slabs or log homogenization, solution treatment (T6) of aluminium automotive parts, CAB brazing radiators or powder coating aluminium extrusions.

ALUMINIUM SLAB MONITORING THE BENEFITS!

Prior to hot rolling aluminium slabs are preheated. The time at temperature (Soak) is essential to ensure that the material can be further processed efficiently and avoid excessive roller wear. Employing the PhoenixTM RF Telemetry system, the soak process can be monitored in real time to verify that the correct rolling temperature (slab core)



is achieved. The data logger is protected by a water tank design thermal barrier as it travels, with the slab, through the furnace. From live monitoring significant reductions in soak time have been achieved.

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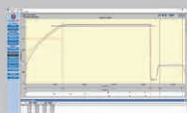
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- Passes through furnace with the product.
- Complete product temperature profile
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THE VOICE OF THE UK ALUMINIUM INDUSTRY

ALFED quarterly magazine offers you a great opportunity to promote your products and services to key decision makers and influencers within the aluminium industry in the UK.

SCHEDULE:

Issue 3 – 5 December 2019

Issue 4 – 27 March 2020

Issue 5 – 29 May 2020

Issue 6 – 23 September 2020

For more information please contact:

Kirsi Lintula, Editor

e: k_lintula@alfed.org.uk

m: 07768 566 437



ALUMINIUM
NEWS



FRONIUS FOURTH OPEN HOUSE

The Aluminium Federation actively participated in the fourth Fronius "Open Day" on Wednesday 15th May, an informative day, brimming with fun. Over 400 delegates, including 18 ALFED members, attended an inspiring day in the Fronius world class Innovation Centre in Milton Keynes.

Fronius are global technology leaders in welding, photovoltaics and battery charging. They are never daunted by new challenges succeeding where others fail in achieving what seems to be impossible.

Fronius are a highly active member of ALFED supporting events with insights in new technologies, continually interacting with members and providing their own training seminars, both for specific ALFED members and wider industry.

The ALFED stand attracted 32 delegates who were seeking help and technical support in transitioning into aluminium, several are pursuing membership.

The "Open Day" covered the latest cutting-edge welding technologies and processes, including the highly flexible TPS/i welding system integrated with the legendary Cold Metal Transfer (CMT), process for manual and robotic welding applications, the newest, faster TIG welding process, Arctic, which requires no prep on materials up to 10mm, Wire Arc Additive Manufacturing (WAAM), and the new generation of lightweight, portable and cordless welding systems. Data analysis capabilities using the Fronius Weld Cube were also demonstrated. Not an average open house, guests were encouraged hands on practical training in all the forms of welding with many completing a full lap of the demonstration booths. Most tested their speed, accuracy and motor skills in various challenges throughout the day.

The day was complemented with topical seminars from both Fronius and many external industry experts and gurus, providing visitors an informative day of product, process and industry knowledge. Subjects ranged from industry related products and associations right through to using social media to enhance your business' performance and EV topics.

Balancing the entire day health and safety issues were at the top of the seminar agendas, with briefings on the Health and Safety Executive enforced control measures for welding operation in the UK. Demonstrations covered areas such as the fume extraction torch including the external fume extraction attachment, both the Respiratory Protective Equipment (RPE) and the Fronius Vizor Air/3, a powered air purifying respirator complete with a comfortable and fully automatic welding visor certified with the highest filter quality.

Fronius are also active in the fields of battery charging and solar energy so attendees had plenty to feast their eyes over as this event catered for all three divisions.

An enjoyable fun-filled day packed with interesting seminars and demonstrations, featuring the very latest state-of-the-art systems.





MACH 2020

THE EVENT FOR INSPIRING, INNOVATING AND **CONNECTING** MANUFACTURING

Taking place from **20-24 April 2020**, MACH will be the event to connect the world of manufacturing technologies and be the destination of choice for manufacturing engineers, decision makers, buyers and specifiers looking to discover new technology, adopt and invest in the digital revolution.



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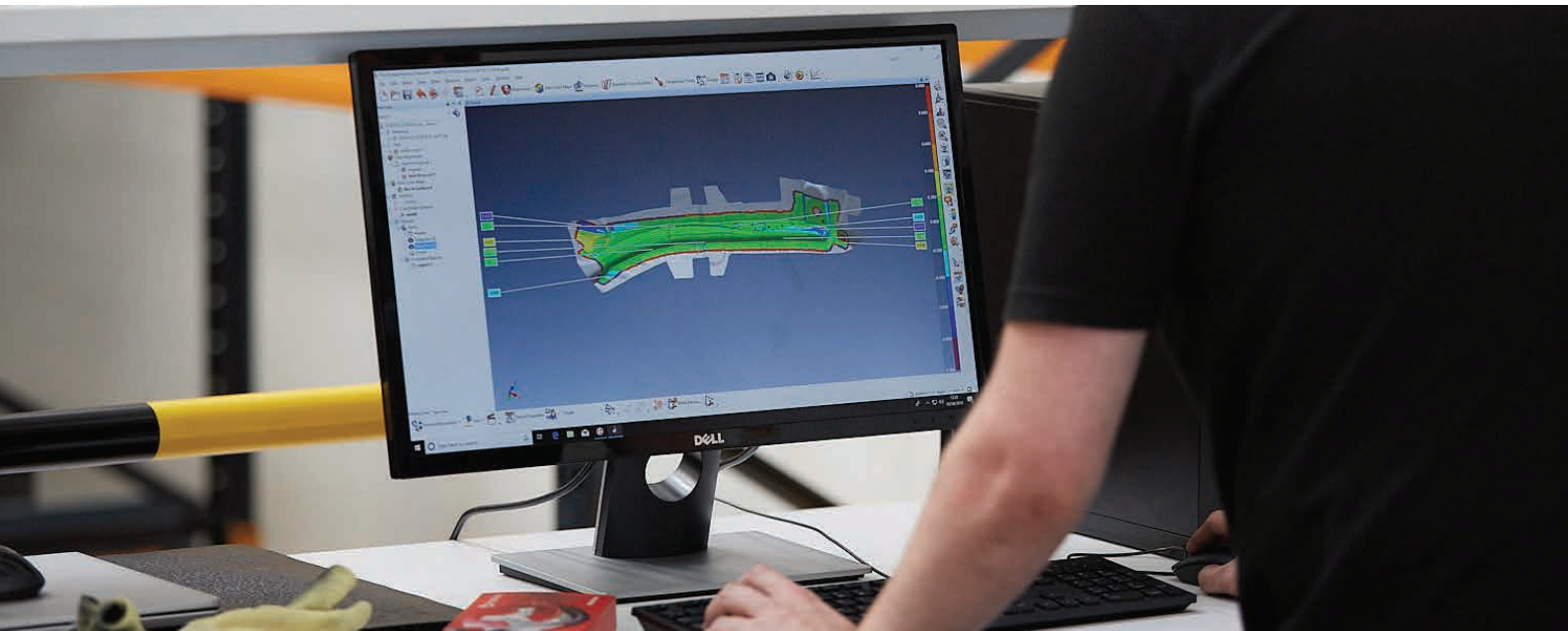


The Manufacturing Technologies
Association

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HOT FORM QUENCH SETS ALUMINIUM LIGHTWEIGHTING STANDARD

Impression Technologies launches new white paper on its HFQ® Technology

Impression Technologies, the global leader in aluminium lightweighting, has released a new white paper introducing the benefits of its ground-breaking new technology: hot form quench (HFQ). The innovative hot forming process was developed to offer a step change in aluminium forming across multiple industries, including automotive and aerospace.

The drive to reduce emissions and improve efficiency through lightweighting constantly requires manufacturers to find new solutions. The white paper, titled 'Hot Form Quench (HFQ®) Technology: The new international standard for cost-effective automotive lightweighting using aluminium', outlines how manufacturers can easily and cost-effectively replace steel or low-gauge aluminium components using HFQ. The process cycle time for HFQ is at least as rapid as alternatives such as boron steel processing, enabling the low-cost, high-volume manufacturing demanded in automotive applications.

The white paper describes the benefits and process of HFQ in detail. It also includes examples and case studies that illustrate how the technology can be applied and what can be achieved: a measurably stronger final component, alongside major savings in weight and cost when compared with other common alternative processes.

"The automotive industry is on a constant mission to improve structural strength, integrity, consistency, durability and safety, all while reducing weight and cost," explained Jonathan Watkins, CEO of Impression Technologies. "This is a very challenging set of goals that requires constant evolution and quick uptake of new technologies and processes.

"HFQ is a unique, patented process that enables low-cost production of high-strength aluminium parts. The benefits of aluminium in automotive applications are widely known, but there have been concerns around cost, strength and production rate. HFQ addresses these with

a high cycle rate and the ability to form deep-drawn and complex shapes from high and ultra-high strength aluminium. It is an ideal process for reducing mass and improving efficiency across all automotive applications, from body in white (BIW) and chassis to EV battery enclosures.

"The technology also allows for integration of aluminium parts, with fewer operations required to achieve equivalent designs. It removes the requirement for reinforcement panels and improved dimension control eliminates the need for springback compensation in tool and part design, easing downstream part assembly operations. HFQ conveniently combines heat treatment and pressing, combining solution heat treatment, forming, in-die quenching and age hardening. It is easy to adopt as it can use existing press and tooling technologies and combines with a single draw operation, HFQ enables a reduced investment entry point.

"This new white paper describes how the technology works and provides essential information about participating in the HFQ Technology revolution. Impression Technologies is seeking to simplify vehicle design and boost production efficiency, while also raising standards and driving the technological development of the lightweight vehicles of tomorrow."

To download the white paper, please visit <http://bit.ly/2Yht73V>.

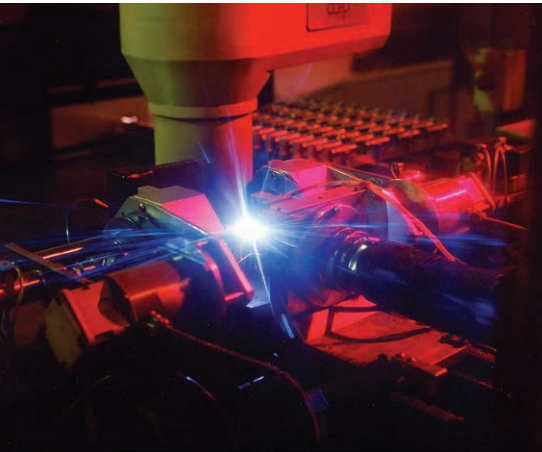
For more information on Impression Technologies, visit impression-technologies.com. More details on HFQ can be found at www.hfqtechnology.com

 **IMPRESSION TECHNOLOGIES**



DISSIMILAR LASER WELDING OF ALUMINIUM AND COPPER ALLOYS

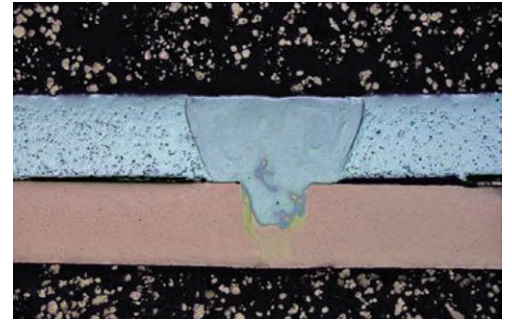
The Welding Institute (TWI) worked for its members to solve the technical problems of joining aluminium to copper using laser welding technology.



An increasing number of enquiries over the past two years from members asking for support in this area led to the successful development of a high-speed laser-technology-based solution.

An increase in manufacturing demand in the automotive industry, for example, for products with high capacity battery cells is leading to interest in the technical solutions. High capacity battery cells use aluminium and copper, as the anode and cathode terminals respectively, to improve electric current flow and boost a vehicle's performance. Existing electrical connection joining technologies, such as ultrasonic welding and the use of direct conductive adhesives, are deemed too slow for the high demand in a manufacturing situation.

Laser welding is considered an attractive process to industry due to its high processing speed and highly repeatable, fully automated, process. However, laser welding of copper to aluminium presents several challenges. Because of the high surface reflectivity and thermal conductivity of copper, and the poor miscibility of aluminium and copper,



keyhole instability and brittle intermetallic formation are common issues found when laser welding these metals.



HEALTH, SAFETY & ENVIRONMENT

HEALTH & SAFETY SERVICES

At the Aluminium Federation we understand that you have a business to run and wish to support you in being compliant with HSE legislation with the minimum disruption to your business.



We have put together a package of resources and training to help you fulfil your legal requirements, keep your team safe and resources to help you manage health and safety in your workplace with assurance and confidence.

Whether you are new to it and need full support from our experienced team or just need assurance that you have everything in place, we have the 'one stop' solution for you and your business.

Our H&S consultant, Rob Bennett (left), has a diverse industry and education experience over the past 30 years from delivering workshops for Boots, Halfords, ARCO and The BLOODHOUND SSC land speed record project to running his own H&S training and consultancy business will enable us to support our members in new and practical ways.

Site safety audit

Rob will come to you for the day to give you a health and safety assessment of your business followed by a report with recommendations. This may simply be a way of giving you a 3rd party assurance or help to set an action plan for the essential things ALFED can support you with H&S compliance.

Management of health and safety in the workplace

A practical ½ day workshop for managers to highlight your requirements. Showcase the templates, check lists, training available and how this works to support your business.

Health & safety co-ordinators training

A half day training session to support those who have practical health & safety responsibilities on the shop floor. Giving them the 'tools' and confidence to ensure your workplace complies with HSE legislation.

Other services

We provide Fire Risk Assessment and Noise Risk Assessment service in addition to a half day training courses, such as Fire Marshal, Manual Handling, Working at Height, Abrasive Wheel and Risk Assessing.

We also offer a consultancy service for those who don't have the manpower to allocate staff to complete the necessary tasks such as risk assessing. These services will be bespoke to support your business needs and requirements.

For further information please contact our training team on 0121 281 2281.



ALFED HEALTH, SAFETY & ENVIRONMENT COMMITTEE

Open to all members and drawn from across the whole industry

The ALFED HSE Group meet quarterly, made up of a cross section of people, HSE professionals, HR managers and MDs amongst others, who represent various member companies within the ALFED membership along-with, core support from ALFED. New members are always welcome and it is free of charge to attend.

By Helen Williams,
ALFED H&S group chair



The aims of the group are to share best practice and experiences with a view to the improvement of HSE within the UK Aluminium Industry. Whilst many of us are competitors, for the purposes of HSE, our values and beliefs are simple, we are one team and our collective efforts will have a positive benefit for us all. Our meetings are normally held in the ALFED offices; however, we have held meetings in member group sites and always welcome the opportunity to attend different venues. Our group meetings are attended by an HSE Inspector, which is appreciated by the group who benefit from both updates and lessons learnt and the pro-active approach and direction to relevant and appropriate case studies, journals and UK legislation. There have been recent UK legislative changes and it has been most beneficial to have HSE support and to work with the regulator and to understand the HSE approach. Every two years, the HSE group host a 2 day conference where we aim to attract not just HSE team members but engineering managers, operations directors and anyone else for whom HSE items are often "necessary evil" and perhaps non added value. Our most recent conference in March 2019, saw representatives from many member companies; talks from various bodies including the HSE, safety suppliers and several motivational speakers who were keen to impart their experiences, particularly those who have suffered or witnessed industrial accidents and wished to share the far-reaching effects and repercussions in doing activities which were unsafe ensuring that safety is always kept in focus. Environmental issues are particularly complex and the group also benefit from

the support of an environmental consultant who updates on topical issues, changes and enforcements.

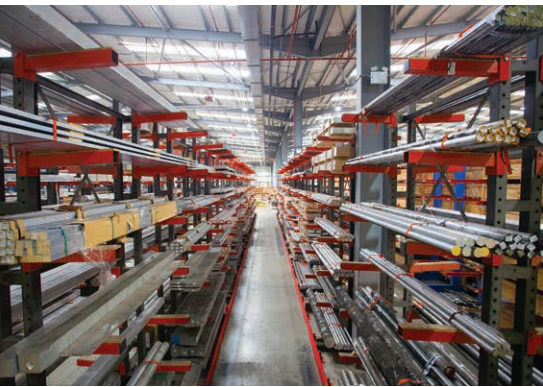
Some of the shared experiences that the group have benefitted from include the Hydro HSE apprentice scheme; which everyone in the group found, thought provoking and wished to replicate. We witnessed Kieran Vale of Hydro being awarded with the Neil Birt (Past HSE Group Chair) HSE Memorial Award was most inspirational for the team. On a practical level, the presentation that DipHex (Chemical Safety) provided at the HSE conference, resulted in several groups installing this at their facilities. We later discovered, as a result of using this product, two companies had been able to use it as part of their First Aid treatment and therefore, prevented serious eye injury or indeed loss. There are many others but these are a few examples of the many benefits of the HSE group.

We are always looking at ways to improve and to achieve the maximum benefits from our group activities. If you would like to attend our group meeting as a taster, or would like any further information, please contact myself or Margaret Lane at ALFED. Alternatively, if you have any ideas as to how we make improvements, these are always very welcome.

Our next meeting is on Thursday 26th September 2019 at the ALFED Offices in Halesowen at 10.30am. Thank you to the group members for your attendance and much valued participation over the last year and last but by no means least, thank you to the Members' companies who actively encourage and allow their attendance at group meetings.

ALUMINIUM EXTRUSIONS, A CHANGE OF EMPHASIS

Nick Whitehouse, National Product Manager - Aluminium Extrusions with Aalco, reports that though challenging, the market for aluminium extrusions in the UK remains 'buoyant'.



"Industry research claims that over the next ten years, the global aluminium extrusions market revenue is anticipated to grow at a CAGR of 4.5%, according to the report of Future Market Insights (FMI). Curtain walling and door & window profiles will remain the highest selling product category meaning that the building & construction sector is likely to remain the top consumer by tonnage".

"Whilst the report focuses on the Global market, Europe is anticipated to witness excellent growth in the aluminium extrusions market size, by around 26% over the next 10 years".

"Aalco is a major supplier to the building & construction sector but has identified that the greatest downward pressure on margins is exerted on what are, largely, commodity products. So, whilst continuing to support customers in this sector, Aalco is working to identify additional markets that provide opportunities for value-added activities".

Aalco has developed a healthy business in bespoke extrusions, from single

shapes to full suites and has increased capability with a full range of processing services to match customer need. This capability includes cutting, finishing, packaging, prefabrication and thermal breaking - all with the aim of adding value to the extrusions the company offers and reducing the investment in time and equipment that would otherwise have to be borne by customers.

Whitehouse continues: "Many customers are realising major benefits in sourcing from Aalco rather than direct from a mill – benefits that include reduced timescales, lower cost, flexibility, the opportunity to make changes in scheduled quantities and the ability to keep abreast with technology changes without having to make the financial investment themselves".

He concludes: "In short, Aalco can concentrate on what it does best – the sourcing and supply of high-quality, industry-leading materials, whilst its customers can focus on developing and manufacturing the very best products that they can".

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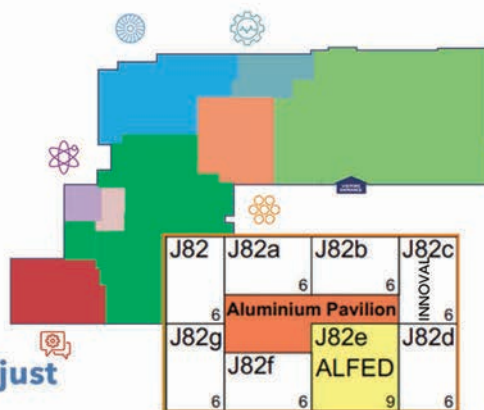


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PRESTIGIOUS GOLD MEDAL MARKS THE DISTINGUISHED CAREER OF PROF. GEOFF SCAMANS

Innoval Technology is delighted to announce that its Chief Scientific Officer, Prof. Geoff Scamans, has been awarded the Gold Medal by The Institute of Materials, Minerals and Mining (IOM3) in their Annual Awards.

IOM3's Gold Medal is a premier award presented to a company, team or individual who has made a significant contribution to the industrial application of materials. The awards were presented at a gala dinner in London on 11th July to mark IOM3's 150th anniversary.

Geoff is a very worthy winner of the Gold Medal. His remarkable record of internationally acclaimed, multidisciplinary

research spans several decades and every element of the materials cycle. While he is perhaps best known for his pivotal work on surface engineering and corrosion mechanisms in aluminium alloys, work that remains the leading reference material on the subject to this day, he has also campaigned tirelessly for sustainable manufacturing and efficient use of materials.

Through his work at Innoval Technology, Geoff has been responsible for over 20 successful collaborative research projects over the past decade. These projects span applications from transportation to construction, packaging, energy and defence. They have delivered major technological advances, including the development of high-performance alloys with excellent mechanical

properties and structural integrity that can be fabricated using 100% recycled content.

Everyone within Innoval Technology would like to extend their warmest congratulations to Prof. Scamans.

A full list of award winners can be found at www.iom3.org/iom3-awards-2019



TWI AND ALFED UNITE TO PROMOTE ALUMINIUM FOR INDUSTRY

Having already signed a Memorandum of Understanding, TWI and ALFED are continuing to work closely together to promote aluminium for industry.

Aluminium use has seen growth in the automotive industry as well as in architecture, while the rail industry is also set to follow with increased use of the material too. Meanwhile, the aerospace industry continues to embrace aluminium for properties including corrosion resistance, recyclability and its strength-to-weight ratio.

However, there remain some challenges that TWI and ALFED hope to address, including retaining the material strength of aluminium after joining.

Plus, with the Automotive Council Roadmap requiring high tensile aluminium, there is a need for support from joining and materials experts to assist with fabrication.

There are also considerations around the environmental impact of aluminium production and use, and it is in the area of recycling that this material can be seen to offer real benefits.

If managed correctly, aluminium can be recycled carbon neutrally as it takes just 5% of the energy required to produce new aluminium to recycle existing materials.

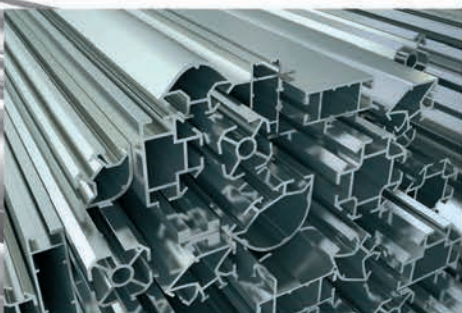
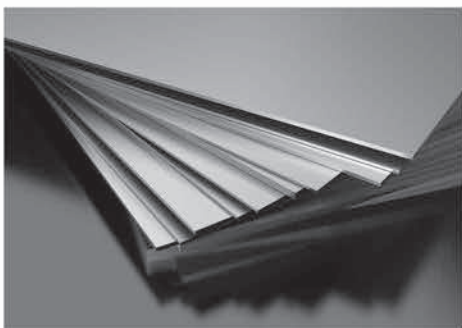
However, there is a need for expertise in how joining may impact this recyclability, which TWI and ALFED plan to provide through our partnership.

Aside from research and development, ALFED and TWI are planning to provide training to realise the benefits of aluminium for industry, while TWI Members are now welcome to attend ALFED member events.

In addition, TWI and ALFED are to hold joint events, with the first of which having taken place at TWI's headquarters in Cambridge on 27th March, 2019.

Find out more: <https://bit.ly/2Sj3l8A>





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Aalco stocks all of the commonly used forms of aluminium including **sheet, coil, plate, shate, treadplate, patterned sheet, tube, bar, sections and free-machining bar.**

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THE IMPORTANCE OF PRODUCTIVITY

Improving productivity is one of the hot business topics of 2019.

Following publication of the Government's Small Businesses and Productivity Report and its Industrial Strategy, business intermediaries and Government departments have been talking about the importance of increasing productivity. Evidence suggests that UK productivity has not grown as expected over the last 10 years and, as a result, the productivity gap between the UK and the other G7 countries has widened, putting the UK at a competitive disadvantage to its rivals¹.

The causes of the UK's lower productivity levels are complex and subject to research from a policy, academic and industrial perspective. Small businesses, the engine of the UK economy, do not actively measuring their productivity so they have a limited understanding of the level at which they operate, the impact that those levels have on their profitability and how their productivity could be improved. Many businesses are focused on securing short-term profitability, often at the expense of longer-term productivity, by buying in resources to deal with performance issues rather than developing in-house and sustainable solutions. Other organisations are not maximising Government growth incentives and initiatives either because they are not aware of the support that exists or because the initiatives appear time consuming to apply for, too complex or difficult.

So what's the answer?

Industry and sector leaders argue that they need cost-effective productivity solutions that recognise the resource constraints of small businesses. They seek initiatives that improve performance without significantly increasing costs; that are easy to access and that are cognisant of the context in which they operate.

One programme that satisfies these requirements and gives businesses the ability to improve productivity is apprenticeships. Supported by Government funding, apprenticeships are no longer reserved for school leavers or those working in junior positions. The newly introduced higher and degree level apprenticeships give individuals



a framework in which they can develop the skills needed to improve productivity whilst still contributing to the day-to-day operations of their employer. There is funding to offset the costs of apprenticeships of up to 95% for non-levy payers and apprentices' learning is contextualised to the needs of their employer, making apprenticeship a cost-effective improvement solution.

Universities such as the University of Wolverhampton, one of ALFED's preferred partners, have developed a range of programmes that specifically address many of the performance issues affecting small businesses. Their leadership programmes, for example, combine the latest management thinking with the practical application of skills to ensure apprentices develop the management knowledge needed to improve efficiency, profitability and productivity. The University of Wolverhampton's programmes have been designed to meet the resource needs of small businesses by providing the majority of learning via a bespoke platform so that employees can study at their desks rather than a University premises. They are also taught by experienced practitioners who have previously worked in industry, in senior management and director level roles, so understand the commercial requirements of small businesses.

Does the University of Wolverhampton offer any other business support programmes?

Alongside apprenticeships, the University also offers funded innovation projects such as Knowledge Transfer Partnerships (KTP). These are bespoke programmes that provide the resources and expertise needed to deliver strategic projects. Part-funded by the Government, the partnerships enable businesses to create dynamic collaborations with the University, and a recent graduate, to complete a business improvement project that they would not be able to deliver in isolation. The projects can focus on any aspect of a business that owners believe will have a positive impact on income levels and will support sustainable increases in profitability. The projects are designed to enhance organisational capability and deliver transformative change as well as accelerate innovation and create new knowledge. The projects are funded via competitive bidding which the University supports using a specialist resource.

For more information about how the University of Wolverhampton's productivity support programmes can benefit your organisation, please contact: Karen Shaw on 01902 321675 or 07973 151808, email: Karen.Shaw@wlv.ac.uk

¹Small businesses and productivity (<https://publications.parliament.uk/pa/cm201719/cmselect/cmbis/807/807.pdf>, November 2018)



YOUR QUESTIONS ANSWERED

Your work in the aluminium trade is vital. And while your speciality may not be HR, matters relating to running your workforce and business can undeniably take up considerable time.

Croner, the trusted HR partner of ALFED, provide some anonymous questions received by the member support helpline, and their expert answers.

As an ALFED member, you have access to free, specialist advice on any of these areas – as well as wider HR, employment, safety and tax matters – by calling **0844 561 8133**.

Q: My employee was due to go on holiday on Friday however has now handed in a 2 week sick note, should that time be considered as holiday or sickness?

A: Employees who are sick before or during a period of annual leave are entitled to request the holiday to be taken at a different time, this however does need to be requested by the employee and is not automatic. If the employee falls sick during a period of annual leave they would need to follow the same absence reporting procedure as they usually would for a period of incapacity for work. If there is not enough time left within the leave year for the annual leave to be rescheduled this would need to be allowed to be carried into the next annual leave year.

Q: Should a full capability process be followed if an employee has less than 2 years' service?

A: Employees only gain full employment rights once they have 2 years' service with a company. Although this is the case it is still advised to follow ACAS best practice when going through a capability or disciplinary process. If you want to be able to vary procedures during the

employee's first 2 years of employment it is important to ensure there is a clause within the contract to state that you have the right to vary procedures for employees with less than 2 years' service. Failure to do this could result in a breach of contract claim if the procedures are contractual.

It is recommended that you include a probationary period within your contract of employment. This would allow you to dismiss an employee within the probationary period (typically three to six months) if the employee did not meet the required standard.

Q: We have received a grievance from an employee and they have asked to see notes from all meetings and any file notes from other employees involved, can I give this to them?

A: The information in the files will be covered under the Data Protection Act 1998. This means that the information cannot be accessed by anyone unless there is good reason to do so. In this situation it would be better to seek agreement from the employees for their notes to be released as the employee is not entitled to see the other employee's personal information.



EXPERTISE FROM EXPERIENCE

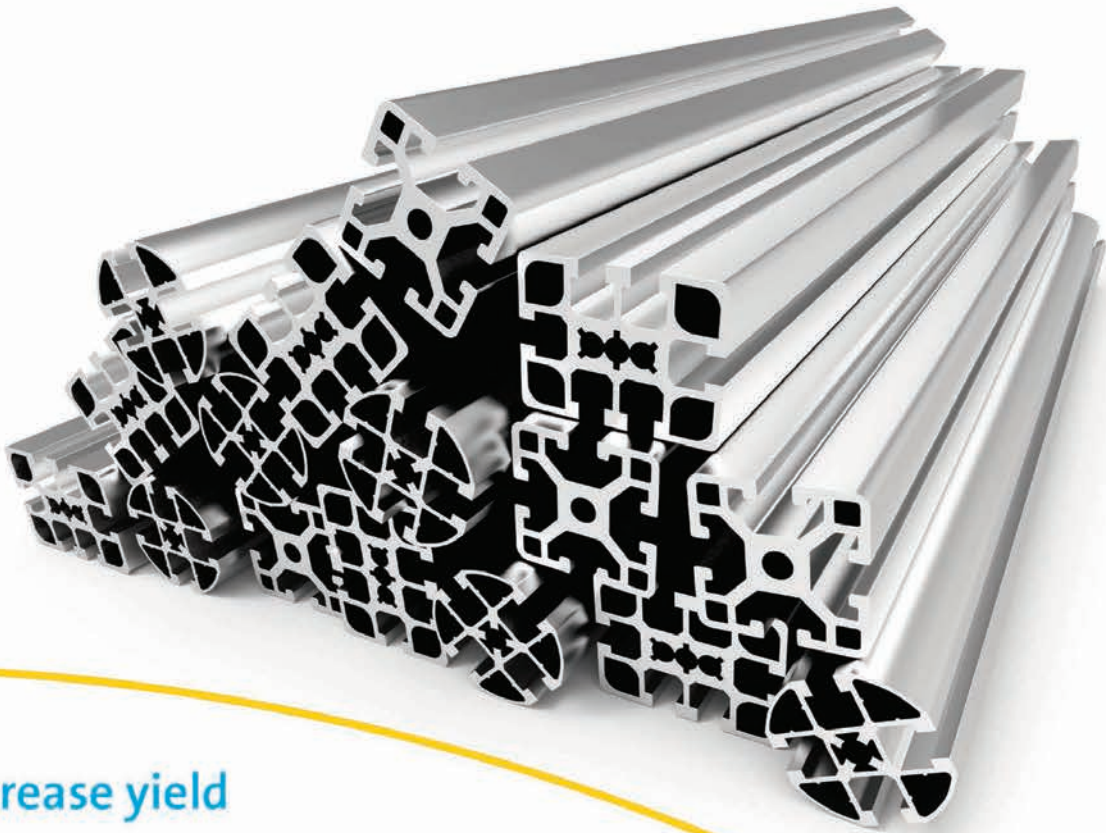
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