

biz4Biz

Manufacturing **Biz**

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**SPOTLIGHT ON
ELECTRONICS IN THE
EASTERN REGION**

**FOCUS ON THE
UK CAR INDUSTRY**

**UK MANUFACTURING
HEADING INTO SPACE**

**Manufacturers feel the effect of
military operations in Iran**





SEND, Skills and the System: Time to Rebalance Education

I come from a world of no mobile phones and only three television channels. Childhood boredom was not an emergency; it was an expectation. Silence was not suspicious; it was normal. Today, I look at the pace, pressure and digital saturation surrounding young people and cannot help but wonder how profoundly modern living is shaping — and straining — developing minds.

At the same time, we are witnessing a sharp and sustained rise in SEND (Special Educational Needs and Disabilities) across the U.K. Classrooms are reporting growing numbers of pupils with autism spectrum conditions, ADHD, speech and language needs, and social, emotional and mental health difficulties. Whether these increases reflect better diagnosis, reduced early intervention, post-pandemic impacts, or deeper cultural shifts, the system is undeniably under pressure. But there is

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another change running alongside this trend — one that receives far less attention. Over the past two decades, schools have steadily narrowed access to vocational and technical pathways. Workshop spaces have disappeared. Practical subjects have been squeezed. Performance tables have prioritised academic benchmarks. The message, implicitly or explicitly, has

been that success lies primarily through examination routes and university progression.

For many young people, that pathway works. But for many others, particularly those who are neurodiverse, practically minded, or motivated by hands-on learning, it does not. Secondary education has become increasingly structured around written output, abstract reasoning and high-stakes assessment. For a teenager struggling with executive function, attention regulation or anxiety, this environment can magnify difficulties. A student who might thrive building, repairing, designing or problem-solving in a workshop can quickly become labelled disruptive, disengaged or “behind” in a system that prizes academic conformity.

This is not to suggest that schools create SEND. Neurodevelopmental differences are real and longstanding. But it is fair to ask whether a narrow academic model



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About the Author

Adrian Hawkins OBE was awarded his honour by the Queen in the 2021 New Years Day Honours list for his services to business and skills. A lifetime businessman, Adrian Chairs biz4Biz a business support organisation which he founded 15 years ago to create a business network initially in the Home Counties and which is now reaching further nationally. Adrian is also, Chairman of Hertfordshire Futures (previously the LEP) and the Hertfordshire Futures Skills and Employment Board. Adrian is also Chairman of the Stevenage Development Board alongside biz4Biz. Adrian has 50 years’ experience in the world of business and committed a £9 Million to 41 Welder Training facilities resulting in 22,000 Welders at Level 1 being trained.



ADRIAN HAWKINS OBE

Chairman – biz4Biz
 Chairman – Hertfordshire Futures
 Board Chairman – Stevenage Development
 Board Chairman – Hertfordshire Skills &
 Employment Board

exacerbates those differences — or fails to accommodate them. Meanwhile, the labour market is shifting. Across the U.K., there are shortages in construction, engineering, electrical installation, advanced manufacturing, green technologies and digital infrastructure. Skilled trades and technical professions are not fallback options; they are increasingly well-paid, respected and future-proofed careers. In many cases, they offer clearer income progression than oversubscribed graduate pathways. Here lies the paradox: at the very moment vocational skills are becoming economically critical, our educational culture has become more academically compressed. If we are serious about supporting young people — particularly those with SEND — we must rethink what inclusion truly means. Inclusion cannot simply be about additional classroom support within an unchanged academic structure. It must also involve structural diversity in pathways.

A teenager who struggles to sit still for six hours of theoretical instruction may concentrate for hours wiring a circuit or programming a CNC machine. A student who resists essay writing may demonstrate extraordinary spatial intelligence in carpentry or robotics. These are not

deficits; they are differences in cognitive profile. Reintroducing meaningful vocational options earlier in secondary education would not be a retreat from standards. It would be an expansion of them. It would recognise that intelligence is plural, that talent is varied, and that economic contribution does not flow solely from academic attainment. It is also likely to greatly impact more success rates in GCSE qualification numbers.

Modern living may indeed be attacking young minds — through constant stimulation, social comparison and reduced physical engagement with the real world. Schools alone cannot solve that cultural shift. But they can respond to it. Supporting rising SEND needs and rebuilding vocational opportunity are not separate challenges. They are intertwined. If we design an education system that values multiple forms of ability, we do not lower expectations. We widen the definition of success — and, in doing so, we may ease pressure on a generation that feels increasingly misaligned with the path laid before it.

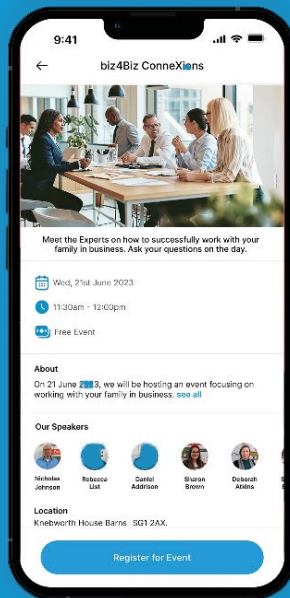
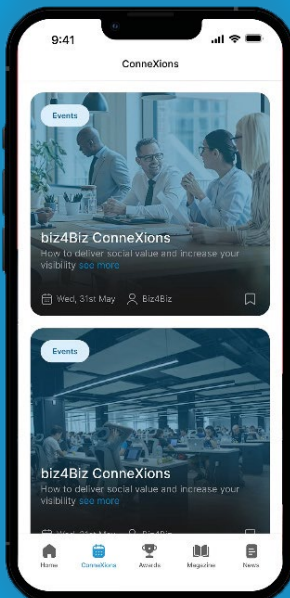
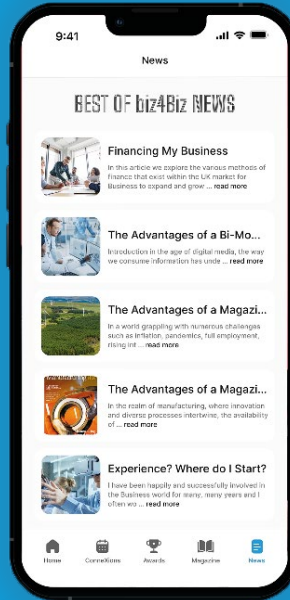
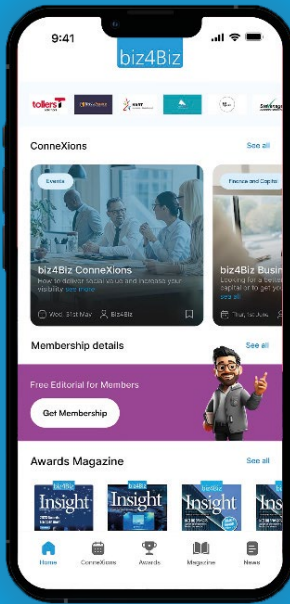
The future economy will depend on skilled hands as much as analytical minds. Our education system must be bold enough to nurture both.

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Inside

- 2 WELCOME**
By Adrian Hawkins OBE
- 5 CONTENTS**
What's on in this edition
- 6 ROBOTICS RESEARCH**
Barclays sources \$200B market
- 8 MANUFACTURING AND THE GLOBAL CRISIS**
US Manufacturers speak out
- 9 MANUFACTURING AND THE GLOBAL CRISIS**
UK announces defence contract
- 10 MANUFACTURING AND THE GLOBAL CRISIS**
Drone factory opens in Suffolk
- 11 MANUFACTURING AND THE GLOBAL CRISIS**
UK Manufacturers comment on war
- 12 BOMBARDIER EXPANSION**
New project for worldwide growth
- 14 AEROSPACE DEAL**
Swift Acquired
- 15 US PRODUCTIVITY LEAPS**
Rise in output and GDP
- 16 SEMI-CONDUCTOR GROWTH**
China starts push
- 18 CONVENIENCE FOOD DEAL**
Greencore leads the way
- 19 LUTON REGENERATION**
£400m Vauxhall deal
- 20 UK MOTOR INDUSTRY SPOTLIGHT**
Grey leads the battle of the colours
- 22 UK MOTOR INDUSTRY SPOTLIGHT**
One in four new car buys is electric
- 24 POTASH PROJECT COSTS RISE**
Jansen makes new estimate
- 26 SAFER SIGNAGE**
Beating 'Sign Blindness'
- 27 KING IMPRESSED BY MANUFACTURER**
Made in Britain visit a success
- 28 WOMEN IN MANUFACTURING**
Opportunities growing
- 31 ALUMINIUM DEAL**
Egypt manufacturing boost by EBRD
- 32 FOCUS ON ELECTRONICS IN THE REGION**
Celebrating Nemco
- 34 FOCUS ON ELECTRONICS IN THE REGION**
Arkle Electronics
- 35 FOCUS ON ELECTRONICS IN THE REGION**
Alan Anderson
- 36 FOCUS ON ELECTRONICS IN THE REGION**
ABL Circuits
- 38 UK HEADS TO SPACE**
Space enabled manufacturing
- 42 BizCRUNCH**
The business data you need





Barclays Research Finds Humanoid Robotics On Track to Become a \$200 Billion Market by 2035

Barclays Research has released a new Impact Series report *The Future of Work: AI Gets Physical*, highlighting humanoid robots as the next frontier for artificial intelligence. Designed in human form, these robots are moving from labs into real-world settings, with the potential to reshape sectors from manufacturing to healthcare. Breakthroughs in AI reasoning, actuator technology and battery systems have cut

production costs 30-fold over the past decade, paving the way for commercial adoption.

As ageing populations and labour shortages intensify, humanoids could take on repetitive, physically demanding tasks — augmenting rather than replacing human workers in labour-intensive industries. Barclays Research estimates the global humanoid robotics market, currently \$2–3 billion, could reach \$200 billion by 2035

“Humanoid robots represent a structural shift in automation. As they move from concept to commercial reality, the implications for labour markets and industrial strategy are profound.”

“As ageing populations and labour shortages intensify, humanoids could take on repetitive, physically demanding tasks — augmenting rather than replacing human workers in labour-intensive industries.”

under the most optimistic scenarios. Europe may hold a competitive edge in the supply chain thanks to its expertise in precision engineering and automotive manufacturing, particularly in actuator systems, which account for around half of production costs.

China is also emerging as a major force, accounting for the majority of new humanoid robot models and rapidly scaling its innovation and manufacturing footprint.

“Humanoid robots represent a structural shift in automation,” said Zornitsa Todorova, Head of Thematic FICC Research at Barclays. “As they move from concept to commercial reality, the implications for labour markets and industrial strategy are profound.”

Barclays’ Impact Series uses data-driven analysis to explore economic, demographic and disruptive changes affecting markets, sectors and society at large.

The key findings of today’s report include:

Why now: Demographic pressures and labour shortages are creating demand for humanoids in manufacturing, logistics, healthcare and other sectors struggling to fill critical roles.

The ‘three Bs’: Advances in brains (software), brawn (physical motion capabilities), and batteries are driving cost declines. Actuators — the robotic “muscles” — are the largest cost component, accounting for roughly 50% of humanoid production costs.

Industrial overlap: Humanoids share complexity with automotive manufacturing, offering Europe a natural advantage.

Investment opportunity: As humanoid production scales, physical AI is emerging as the next major industrial theme — shifting value creation from software to hardware. This opens new upside for actuator makers, precision-component suppliers and automation leaders who were largely absent from AI’s first wave. Read the full report [here](#).

Manufacturing Biz

FOCUS ON A WORLD AT WAR



Manufacturers on U.S. Military Operations in Iran

Following the announcement of the United States military operations in Iran, National Association of Manufacturers President and CEO Jay Timmons backed the action. He released a statement saying: “Manufacturers in the United States have always stood ready when our nation calls. From serving as the Arsenal of Democracy to equipping those who defend freedom today, our industry has the capacity to support U.S. objectives across multiple theatres and sustained operations. Today, manufacturers honour the courage and commitment of the men and women in uniform who stand watch and carry out this mission. “Since November 4, 1979, the United States has endured hostility and terrorism from a rogue government in Tehran. Time and again, the Iranian regime has sponsored international terrorism, destabilised its region, violated the rights of its own people and disrupted legitimate commerce and maritime security. “Through Operation Epic Fury, President Trump has initiated major combat operations with these stated objectives:

- Eliminating imminent threats posed by the regime,

- Preventing Iran from developing nuclear weapons,
- Neutralising military infrastructure that threatens regional and global security,
- Countering destabilising regional aggression, and
- Supporting the Iranian people’s right to determine their own future.

“At moments of consequence, national unity matters. Congress should fully engage to ensure clarity of mission, alignment of authority and the sustained support of the American people.

“We also call upon allied governments and partner business associations around the globe to stand together to protect regional stability, safeguard global commerce and reinforce the collective resolve that keeps peace through credible strength.

“When security, commerce and liberty are threatened, the United States must lead with strength, resolve and the support of its people.”

The National Association of Manufacturers is the largest manufacturing association in

“When security, commerce and liberty are threatened, the United States must lead with strength, resolve and the support of its people.”

the United States, representing small and large manufacturers in every industrial sector and in all 50 states.

Manufacturing employs nearly 13 million men and women, contributes \$2.95 trillion to the U.S. economy annually and accounts for 53% of private-sector research and development. The NAM is the powerful voice of the manufacturing community and the leading advocate for a policy agenda that helps manufacturers compete in the global economy and create jobs across the United States.

UK MoD announces £1 billion contract award for 23 new medium helicopters

At the beginning of March the UK Ministry of Defence (MoD) announced a £1 billion contract award for new medium helicopters (NMH). Under the programme, Leonardo will build and deliver 23 latest generation AW149s from Yeovil, the Home of British Helicopters, boosting the UK Armed Forces' capabilities. The deal cements the site's role of serving the national and export market with advanced military rotorcraft, with significant potential for the international market in the future - combining AW149 and other types for export. It also secures thousands of skilled British jobs across the supply chain as well as sovereign defence skills and expertise for decades to come. The MoD has also positioned the UK as leader for uncrewed and autonomous rotorcraft technology, confirming further investment in Proteus - the UK's first autonomous rotary wing uncrewed air system. Proteus has been developed with the Royal Navy and undertook its first flight earlier this year. Proteus and NMH represent a major investment into the UK's

“Our industrial base in the UK is core to our international strategy and competitiveness, now and in the future.”

industrial base – a key pillar of delivery for the Defence Industrial Strategy. Roberto Cingolani, CEO and General Manager of Leonardo, said: “We welcome the UK Government's decision to award the NMH contract to supply advanced medium lift helicopters to the UK Armed Forces, as well as the continued investments in our autonomous technology. Our industrial base in the UK is core to our international strategy and competitiveness, now and in the future. This new programme will translate into significant benefits for the country; preserving and expanding

defence and security capabilities, high quality industrial and technology expertise, professional skills and export opportunities, while also guaranteeing the UK remains a credible global player by preparing for future high-tech endeavours in aerospace, defence, security and space.” The AW149 is capable of operating in all environments in support of defence operations around the globe, from warfighting to humanitarian assistance and disaster relief efforts. The NMH programme will deliver multiple rotary wing requirements using a single aircraft-type. This means that the platform will be able to undertake defence tasks that were previously delivered by different aircraft types, streamlining the Armed Forces' capabilities - improving efficiency and operational flexibility now and in the future. The AW149 platform, already in service with international operators for a range of applications and under evaluation among various countries, is ideally suited to modernise defence helicopter fleets and replace a range of ageing types in the medium weight category.



New drone factory opens in Suffolk to boost Ukraine's Armed Forces against Russia's war

Ukraine's Armed Forces will be able to better defend itself against Russia's brutal attacks after one of Ukraine's largest drone manufacturers opens a new factory in Suffolk. Four years on from Putin's illegal invasion, the UK is backing Ukraine by hosting a new Ukrspesystems production facility in East Anglia. The UK has previously ordered over 80 SHARK and Mini-SHARK drones from Ukrspesystems' factories in Ukraine, which help save Ukrainian lives by combatting Russia's war effort. In a vote of confidence for the UK, Ukrspesystems chose sites in Mildenhall and Elmsett in Suffolk for their new drone factory and testing and training facility. The company's £200 million investment will create up to 500 British jobs at the sites and broader UK supply chain. Ukrspesystems' new factory is a vote of confidence in UK support and underlines the deepening cooperation between our nations' defence industries. This investment will create up to 500 new jobs in the East of England, drive defence as an engine for growth, and help Ukraine defend itself against Putin's aggression. This follows more than £1 billion committed to support Ukraine's air

defences since July 2024, helping Ukraine defend itself against Russian drone attacks on civilians and critical infrastructure. Ukrspesystems is a Ukrainian drone company, founded in 2014, which produces a wide variety of drones, including the PD-2 and SHARK-M surveillance drones which communicate autonomously with strike drones to identify, track and destroy Russian targets. Ukrspesystems' drones have contributed to almost \$3 billion of damage to Putin's war machine since the onset of the full-scale invasion. The UK has separately started producing Octopus interceptor drones, aiming to ramp up to thousands per month, designed to take out Russian Shaheeds and other weapons at a fraction of the cost, part of the Ministry of Defence's £4.5 billion military support package. Ukrainian Ambassador to the UK General Valerii Zaluzhnyi said: "This factory represents more than industrial cooperation – it is part of a new European security architecture built on shared responsibility and shared production. Ukraine brings battlefield experience and innovation, and together with the United Kingdom we are strengthening the capabilities needed

"This factory represents more than industrial cooperation – it is part of a new European security architecture built on shared responsibility and shared production."

to deter aggression." The UK's Defence Industrial Strategy is making it easier for defence business to operate in the UK, driving economic growth and supporting the government's support for Ukraine, in line with the Strategic Defence Review. Delivered with UK and Ukrainian Government support and in partnership with British SMEs, this is 'Made with Ukraine' in action - embodying the UK-Ukraine 100-Year Partnership through real industrial capability, happening now in East Anglia.



Iran crisis could be last straw for industry if Government delays progress on UK oil and energy security

Manufacturers across the UK are already suffering with a “pile up” of commercial burdens, from hefty employment costs to rising business rates, and blockages of oil and ferrous supplies in Iran’s Strait of Hormuz could be the last straw for some businesses. Make UK is pressing the Government to move quickly to secure energy prices, and to progress the Rosebank and Jackdaw developments - to help safeguard energy security and mitigate rising energy costs. The effective closure of the Strait of Hormuz has restricted oil and gas exports from the Middle East, prompting sharp price spikes. Oil surged to a six-year high - while UK gas prices have soared, driven by major shutdowns at Qatari LNG terminals. While 83% of manufacturers intend to invest in renewables, power supply uncertainties today are weighing them down. Industrial power prices in the UK are already the highest in the European continent, four times higher than in the US and 46% above the global average.

Even accounting for the British Industrial Supercharger (BIS), the average price faced by UK energy intensive industries for 2024/25 is £66/MWh compared to the estimated German prices of £50/MWh and French prices of £43/MWh. The new British Industrial Competitiveness Scheme (BICS) is expected to be rolled out in April 2027 to just 7,000 companies – Make UK argues it must be fairly rolled out in 2026 to all manufacturers to protect those impacted by expected bill rises. Stephen Phipson CBE CEO, Make UK said: “Manufacturers are calling for the

government to act quickly to progress with the Rosebank and Jackdaw developments to mitigate energy costs and energy security because of the conflict in the Middle East. Historically high industrial energy costs are already preventing growth in UK manufacturing. “The recent developments in the Middle East add huge pressures to the sector and risk accelerating de-industrialisation. Whilst manufacturers are leading the way in renewable energy we must ensure the sector survives in the medium term. Ensuring the UK has access to its own energy reserves is now vital.”

“Manufacturers are calling for the government to act quickly to progress with the Rosebank and Jackdaw developments to mitigate energy costs and energy security because of the conflict in the Middle East. Historically high industrial energy costs are already preventing growth in UK manufacturing.”





Bombardier expands its manufacturing footprint in Dorval with a Can\$100m project to support worldwide growth

Bombardier has announced a new 126,000-square-foot, state-of-the-art manufacturing centre in Dorval, which marks a significant milestone in its growth strategy. Located near the Challenger manufacturing centre and the Laurent Beaudoin Completion Centre, this new facility will further expand Bombardier's industrial footprint and strengthen its production capabilities. The project represents an investment of

approximately Can\$100 million and is part of the company's long-term strategy to boost productivity as it responds to growing demand for its business aircraft. This new facility, set to open before the end of 2027, is expected to create skilled job opportunities. "This major investment demonstrates our commitment to support Bombardier's growth and build the infrastructure we need to maximise our productivity. As we expand our

"This major investment demonstrates our commitment to support Bombardier's growth and build the infrastructure we need to maximise our productivity."



“By supporting the expansion of Bombardier, a world-class prime contractor, our government is generating significant economic benefits for the entire Quebec supply chain and for the aerospace cluster.”

manufacturing capacity, we’re positioning ourselves to keep up with global demand and solidify our position at the top of the business aviation industry,” said David Murray, Executive Vice President, Manufacturing, IT and Bombardier Operational Excellence System. “We also want to acknowledge the effectiveness of Investissement Québec’s programmes for supporting business growth. The ESSOR program, which will finance part of our expansion through a repayable loan, supports Bombardier’s global growth objectives while creating quality jobs in the province of Quebec.” To support this strategic initiative, Quebec’s Minister of Economy, Innovation and Energy and Minister responsible for the Montérégie region, Christine Fréchette, will be in attendance to announce a Can\$35 million repayable, non-forgivable loan under Investissement Québec’s ESSOR programme, which is managed by the government. The programme was created to help promote Quebec’s

competitive manufacturing sector and economic vitality. “By supporting the expansion of Bombardier, a world-class prime contractor, our government is generating significant economic benefits for the entire Quebec supply chain and for the aerospace cluster. This investment will also lead to the creation of hundreds of highly skilled, well-paid jobs, while strengthening Quebec’s expertise. Thanks to its know-how and its capacity for innovation, Bombardier is helping to consolidate Quebec’s global position in this strategic sector, and I am very proud to support this homegrown company,” said Christine Fréchette, Minister of Economy, Innovation and Energy and Minister responsible for the Montérégie region. The announcement is the latest in a series of major economic contributions by Bombardier to Quebec and Canada. The latest PwC study commissioned by Bombardier found that Bombardier contributed a total of Can\$7.4 billion (direct, indirect, and induced) to Canada’s

GDP in 2024 and sustained nearly 50,000 jobs across the country. In Quebec alone, Bombardier creates nearly 10,000 direct jobs and is a direct source for over 31% of aerospace employment, ranking it as one of the province’s largest manufacturing employers.

Bombardier design, build, modify and maintain the world’s some of the best-performing aircraft for businesses, governments and military forces. Bombardier customers operate a fleet of more than 5,200 aircraft, supported by a vast network of Bombardier team members worldwide and 10 service facilities across 6 countries.

Bombardier’s performance-leading jets are proudly manufactured in aerostructure, assembly and completion facilities in Canada, the United States and Mexico. In 2024, Bombardier was honoured with the prestigious “Red Dot: Best of the Best” award for Brands and Communication Design.



Acquisition of Swift Aerospace by Clarendon Speciality Fasteners

Swift Aerospace has been acquired by Clarendon Specialty Fasteners, a division of Diploma PLC – a FTSE 100 global specialised distribution group. This marks a significant milestone in Swift’s corporate evolution and signals a new chapter backed by major PLC governance and investment. Strategic Expansion The acquisition strengthens Clarendon’s portfolio in Aerospace Interiors, Space, and Defence, while Swift’s expertise in Airframe applications provides a complementary fit. Together, the combined entity expands its international footprint across the UK, Europe, Asia, and the USA, offering a more comprehensive solution to global customers. Business Continuity Assurance Clients are reassured that it’s business as usual: No changes to day-to-day operations Existing trading relationships and service levels remain intact Current Swift Aerospace contacts stay in place

This stability is crucial for maintaining trust and continuity during the transition. Future Outlook With the backing of Diploma PLC, Swift is now positioned to support significant investments aimed at enhancing service and unlocking synergies across the broader platform. The tone is forward-looking, confident, and growth-oriented — ideal for public-facing messaging.

“This marks a significant milestone in Swift’s corporate evolution and signals a new chapter backed by major PLC governance and investment.”



US productivity figures leap thanks to rise in output and GDP

Figures at the start of this year have shown that US productivity has grown at an impressive annualised rate thanks to an leap in output and GDP. Nonfarm business sector labour productivity increased 4.9 percent in the third quarter of 2025, the U.S. Bureau of Labor Statistics reported, as output increased 5.4 percent and hours worked increased 0.5 percent. From the same quarter a year ago, nonfarm business sector labour productivity increased 1.9 percent in the third quarter of 2025. Unit labour costs in the nonfarm business sector decreased 1.9 percent in the third quarter of 2025, reflecting a 2.9-percent increase in hourly compensation and a 4.9-percent increase in productivity. Unit labour costs increased 1.2 percent over the last four quarters. America's Bureau of Labor Statistics (BLS) calculates unit labour costs as the ratio of hourly compensation to labor productivity. Increases in hourly compensation tend to increase unit labour costs and increases in productivity tend to reduce them. Real hourly compensation, which takes into account consumer prices, decreased 0.2 percent in the third quarter of 2025, and increased 0.3 percent over the last four quarters. Labour productivity, or output per hour, is calculated by dividing

“Nonfarm business sector labour productivity increased 4.9 percent in the third quarter of 2025, as output increased 5.4 percent and hours worked increased 0.5 percent.”

an index of real output by an index of hours worked by all workers, including employees, proprietors, and unpaid family workers. During the current business cycle, starting in the fourth quarter of 2019, labour productivity has grown at an annualised rate of 2.0 percent, reflecting a 2.6-percent rate of growth in output and a 0.6-percent rate of growth in hours worked. The 2.0-percent annualised rate of nonfarm business productivity growth in the current business cycle thus far is higher than the 1.5-percent rate of the previous business cycle, from the fourth quarter of 2007 through the fourth quarter of 2019, and is just below the long-term rate of 2.1 percent since the first quarter of 1947. Manufacturing sector labour productivity

increased 3.3 percent in the third quarter of 2025, as output increased 2.6 percent and hours worked decreased 0.7 percent. In the durable manufacturing sector, productivity increased 4.7 percent, reflecting a 3.0-percent increase in output and a 1.7-percent decrease in hours worked. Nondurable manufacturing sector productivity increased 1.2 percent, as output increased 2.1 percent and hours worked increased 1.0 percent. Total manufacturing sector productivity increased 2.3 percent from the same quarter a year ago. This is the largest four-quarter gain in manufacturing productivity since the second quarter of 2021, when it increased 4.9 percent. Unit labour costs in the total manufacturing sector increased 1.5 percent in the third quarter of 2025, reflecting a 4.8-percent increase in hourly compensation and a 3.3-percent increase in productivity. Unit labour costs increased 0.6 percent in the durable goods sector and increased 2.8 percent in nondurable goods industries. Manufacturing unit labor costs increased 1.3 percent from the same quarter a year ago. Full historical annual and quarterly measures can be found at www.bls.gov/productivity/tables/. The revised Productivity and Costs news release for third-quarter 2025 is was released on Thursday, January 29.



China accelerates semi conductor self sufficiency with mandatory local equipment use.

China has moved to harden its push for semiconductor self-sufficiency by mandating that chipmakers use at least 50% domestically produced equipment when adding new manufacturing capacity, a policy that is already reshaping procurement decisions across the country's fab build-out. The requirement, which is not publicly documented, has been communicated directly to chipmakers seeking state approval for new fabs or capacity expansions, as

reported by Reuters. According to people familiar with the matter, companies must demonstrate through procurement tenders that at least half of their tools are sourced from Chinese suppliers, with applications typically rejected if they fail to meet the threshold.

While some flexibility is granted depending on equipment availability, particularly for advanced process nodes, the direction of travel is clear. "Authorities prefer if it is

"Authorities prefer if it is much higher than 50%. Eventually they are aiming for the plants to use 100% domestic equipment."

“Before, domestic fabs like SMIC would prefer US equipment and would not really give Chinese firms a chance. But that changed starting with the 2023 US export restrictions, when Chinese fabs had no choice but to work with domestic suppliers.”

much higher than 50%,” one source told Reuters. “Eventually they are aiming for the plants to use 100% domestic equipment.”

The policy marks one of Beijing’s most forceful interventions yet in its effort to reduce reliance on foreign semiconductor technology, a campaign that accelerated after US export controls were tightened in 2023. Those restrictions limited China’s access to advanced lithography and AI-related tools, but the new rule goes further by encouraging domestic suppliers even in segments where foreign equipment from the US, Japan, South Korea and Europe remains commercially available.

According to Nikkei Asia, the mandate is part of a broader drive to ensure that capital spending within China’s semiconductor sector directly supports local equipment makers. Chinese fabs that once preferred established overseas suppliers are now under pressure to qualify domestic tools at scale, accelerating learning curves but also introducing new operational risks. “Before, domestic fabs like SMIC would prefer US equipment and would not really give Chinese firms a chance,” a

former employee at Naura Technology said, as quoted by Reuters. “But that changed starting with the 2023 US export restrictions, when Chinese fabs had no choice but to work with domestic suppliers.”

Early signs suggest the policy is already having a material impact. State-affiliated entities placed a record 421 orders for domestic lithography machines and components in 2025, worth around 850 million yuan, according to procurement data cited by Reuters. At the same time, Beijing continues to funnel capital into the sector via the national semiconductor investment fund, which launched a third phase in 2024 with 344 billion yuan (\$49 billion) in backing.

Local equipment makers are emerging as clear beneficiaries. Naura, China’s largest semiconductor equipment supplier, is reportedly testing its etching tools on SMIC’s advanced 7nm production line, building on earlier deployments at 14nm. “Naura’s etching results have been accelerated by the government requiring fabs to use at least 50% domestic equipment,” one source told Reuters, adding that the policy is forcing rapid

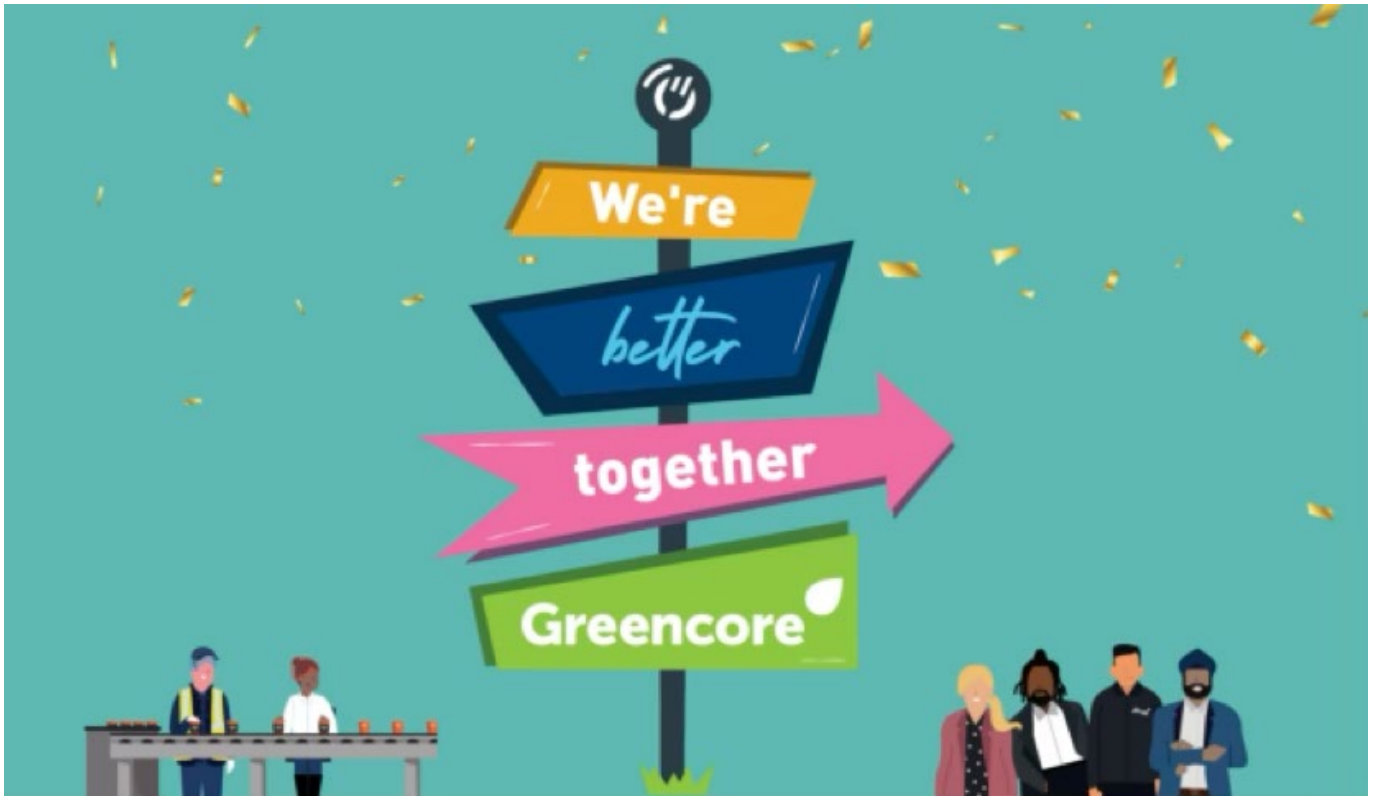
technical improvement.

Analysts estimate China has now achieved roughly 50% self-sufficiency in photoresist-removal and cleaning equipment, markets previously dominated by Japanese suppliers.

The shift is squeezing foreign vendors’ access to the Chinese market, raising concerns among global equipment makers already navigating export controls and geopolitical uncertainty.

For China, however, the mandate reinforces a “whole nation” approach to semiconductors championed by President Xi Jinping, prioritising long-term strategic autonomy over short-term efficiency. As new fabs come online under the 50% rule, the policy is set to further fragment the global semiconductor equipment landscape, with China’s domestic ecosystem increasingly developing in parallel to, rather than alongside, established international supply chains. Join the Astute Engineer community and stay ahead:

Join the periodic electronics industry Astute Engineer newsletter
Content supplied courtesy of Astute.



Greencore and Bakkavor unite to create leading convenience food business

Greencore has announced the completion of its acquisition of Bakkavor, creating a new leader in convenience food.

This milestone marks the start of a new chapter for Greencore as it prepares to celebrate its 100th anniversary and set the stage for industry-defining growth.

The combined business brings together 28,000 colleagues across 36 UK and US locations, producing an incredible 3,200 products across more than 20 categories.

Every year, the new Greencore will deliver approximately:

- 1 billion sandwiches, salads, sushi and other food-to-go items
- 400 million chilled prepared meals
- 260 million desserts
- 125 million pizzas

This scale makes Greencore the world's largest fresh pre-packed sandwich maker,

“We now have the scale, expertise and ambition to lead the way in convenience food, delivering even more for our customers and creating exciting opportunities for our colleagues.”

and a powerhouse in convenience food for every occasion – from breakfast and lunch to dinner and everything in between.

Better for Customers, Bigger Impact
By combining two businesses with deep customer trust and strong supplier partnerships, Greencore now offers one of the most comprehensive product ranges in the industry. Its products can be found

across the UK in supermarkets, travel hubs, discounters, coffee shops, and other key food-to-go destinations.

The increased scale also amplifies Greencore's ability to make a positive sustainability impact across its operations, supply chain, and the communities it serves.

Dalton Philips, CEO of Greencore, commented: “This year we celebrate Greencore's 100th anniversary, and bringing together our two great businesses marks another significant milestone in that long history. We now have the scale, expertise and ambition to lead the way in convenience food – delivering even more for our customers and creating exciting opportunities for our colleagues. With the continued support and hard work of our teams, our focus is on making Greencore a great place to work, successfully growing the business and continuing to deliver for all our stakeholders.”



Goodman to regenerate Vauxhall site in Luton with £400m investment

Global property company, Goodman has seen plans approved to regenerate their acquired Vauxhall van manufacturing site at Kimpton Road, Luton. Strategically located adjacent to London Luton Airport, it will develop the site into a high-quality commercial and industrial park, attracting businesses from a range of sectors including advanced logistics, manufacturing, engineering and digital infrastructure. It is estimated the regeneration could create more than 1,700 direct jobs once complete, and will represent an investment by Goodman in excess of £400 million. Over the past few months, Goodman has worked closely with Luton Council, local business groups and the community to develop its plans. Goodman has also accepted an invitation from Luton Council to contribute as a partner to the council-led Luton Taskforce for Economic Growth. Goodman's involvement recognises the significance of the site to Luton's economy and future growth. Jason Harris,

Commercial Director at Goodman, said: "Our vision is to deliver a transformational regeneration scheme. This will attract new businesses to Luton and create a mix of jobs from a range of sectors. "We recognise the social and economic significance of the site to Luton and will work closely with Luton Council and the local community as we bring forward our plans to deliver a major contribution to the long-term economic growth of the town." Councillor James Taylor, Portfolio Holder for Regeneration and Inclusive Growth at Luton Borough Council, added: "We look forward to working with Goodman to regenerate what is a hugely important strategic site for our town. We are keen to see a mix of commercial and industrial uses at the site, create quality new jobs for local people and bring in vital investment for Luton which will help drive Luton's 2040 vision for a town where everyone can thrive." Work is expected to start in 2027, with the first new businesses occupying the site in 2028.

“Our vision is to deliver a transformational regeneration scheme. This will attract new businesses to Luton and create a mix of jobs from a range of sectors.”

Goodman

Manufacturing Biz spotlight on the motor industry



Grey in the fast lane as green powers up in Britain's top new car colours

Britain's car buyers have crowned grey the nation's favourite car colour for the eighth year running, according to the latest figures published today by the Society of Motor Manufacturers and Traders (SMMT).

More than half a million grey new cars (558,050) were registered last year – up 2.7% to a record total for the shade – accounting for more than a quarter (27.6%) of all new car registrations.

Black retained second place with 464,369

new registrations – its highest volume since 2019 – after a robust 9.7% increase on last year. Blue came in at number three for the second time, confirming its status as the nation's top non-monochrome choice, with 306,349 registrations (up 4.9%). Together, the top three accounted for nearly two thirds (65.8%) of all new cars joining UK roads in 2025.

Elsewhere in the charts, white retained fourth place, but silver returned to the top five for the first time in nearly a decade,1

marking a notable comeback for a colour that previously dominated Britain's roads in the early 2000s. Red, once a mainstay of the British car parc, slipped to sixth with the lowest market share (5.8%) since detailed records began.

2025 also marked a standout year for green, reflected in both colour preference and powertrain given the shift towards electrification. The colour retained seventh place, but volumes rose 46.3% to 99,793 registrations – the most since 2004.3

“Registrations of green-tinted battery electric cars almost doubled, accounting for one in 20 new BEVs compared with just one in 300 last year.”

Appropriately, registrations of green-tinted battery electric (BEV) cars almost doubled – up 95.2% on 2024 to reach 23,249 units – accounting for one in 20 new BEVs, compared with just one in 300 last year.⁴ Grey remained the top choice among BEV buyers, however, with 131,984 joining the road.

At the bottom of the popularity palette, maroon, pink and turquoise counted just 342 registrations between them, highlighting Britain’s enduring preference for more understated tones.

| COLOUR | 2025 | MARKET SHARE 25 | 2024 | MARKET SHARE 24 |
|--------|-----------|-----------------|-----------|-----------------|
| GREY | 558,050 | 27.62% | 543,433 | 27.83% |
| BLACK | 464,369 | 22.98% | 423,360 | 21.68% |
| BLUE | 306,349 | 15.16% | 291,926 | 14.95% |
| WHITE | 265,462 | 13.14% | 291,628 | 14.93% |
| SILVER | 127,383 | 6.30% | 122,472 | 6.27% |
| RED | 116,576 | 5.77% | 136,371 | 6.98% |
| GREEN | 99,793 | 4.94% | 68,230 | 3.49% |
| YELLOW | 10,725 | 0.53% | 11,944 | 0.61% |
| ORANGE | 9,614 | 0.48% | 10,754 | 0.55% |
| MAUVE | 5,711 | 0.28% | 4,142 | 0.21% |
| TOTAL | 2,020,520 | | 1,952,778 | |

10 CAR COLOUR FACTS

- In 2025, the nation’s least favourite car colour was turquoise. With volumes falling -96.7%, just 12 were added to UK roads last year.
- As Wicked: For Good finally hit cinema screens, green saw the strongest growth inside the top 10 (up 46.3%).
- Yellow also added a splash of vibrancy to the top 10. With 10,725 units registered, the colour held eighth position, although volumes declined for the first time since 2019.
- Black turned up the volume in 2025, rising by 41,009 units – the largest gain of any colour in 2025 and its largest volume since 2019. Registrations of less popular colours recorded gains too, with cream cars surging 741.6% to 3,215 and brown rising by 66.3% to 4,027 units.
- Inside the top 10, only white, red, yellow and orange saw uptake levels fall, down -9.0%, -14.5%, -10.2% and -10.6% respectively.
- While grey came top for most car segments, buyers of executive cars and luxury saloons preferred black, while blue dominated the mini segment.
- Grey was also the most popular colour across the majority of powertrains – except for plug-in hybrids (PHEVs), which were most commonly specced in black.
- White cars saw the steepest volume fall of the year, down 26,166 units (-9.0%) to 265,462.
- However, white remained the archetypal choice for van buyers, adorning 60.2% of new working vehicles, followed by grey and black. Just one maroon van was registered.⁵
- Berkshire was home to more green registrations than anywhere else in the UK, with 6,308. The county



One in four UK new car buyers go electric

The UK new car market grew for the third year in a row in 2025, breaching the two million mark for the first time since the pandemic, with 2,020,520 new car registrations, according to the latest figures from the Society of Motor Manufacturers and Traders (SMMT). Uptake in December rose by 3.9% to 146,249 units, with a final flourish in the private buyer market, up by 16.0%. Repeating a pattern seen in previous years, 2 battery electric vehicle (BEV) registrations took a high market share in the final month of the year, accounting for 32.2% of the

| | DECEMBER | | | | |
|----------|----------|---------|----------|---------------|---------------|
| | 2025 | 2024 | % CHANGE | MKT SHARE '25 | MKT SHARE '24 |
| PRIVATE | 51,412 | 44,312 | 16.0% | 35.2% | 31.5% |
| FLEET | 90,607 | 92,806 | -2.4% | 62.0% | 65.9% |
| BUSINESS | 4,230 | 3,668 | 15.3% | 2.9% | 2.6% |
| TOTAL | 146,249 | 140,786 | 3.9% | 100.0% | 100.0% |

market – the only time the ZEV mandate target of 28% was exceeded in 2025.

As a result, last year’s market rose by 3.5%, with growth across all buyer types. Demand from private buyers recovered slightly from 2024 – when uptake fell below levels last seen during 2020 – with a 4.5% increase to 779,587 units, but still only comprising 38.6% of registrations. Fleet and business registrations also rose, up 2.6% to 1,194,545 and 8.8% to 46,388 respectively.

Electrified vehicles narrowly missed becoming the majority of the market despite a surge during the last quarter. Hybrid electric vehicle (HEV) volumes rose by 7.2% to achieve a 13.9% market share, while plug-in hybrids were the fastest growing powertrain, with volumes increasing 34.7% to take 11.1% of registrations.

Meanwhile, almost half a million (473,348) new BEVs were registered during 2025 – more than in the whole of 2021 and 2022 combined. This huge volume, which is likely to place the UK as the second biggest EV market in Europe by volume, saw BEV market share rise to reach 23.4% – a strong uplift, but with a mandate target of 28% the gap between demand and ambition is

increasing rather than diminishing. Massive manufacturer investment now provides a choice of more than 160 BEV models – up from just over 130 at the start of 2025 – with at least 60 more due in 2026.

However, EV uptake has risen by only 23.9%. The long-awaited return of a grant for EV purchase has helped, although only around a quarter of models are currently eligible for the incentive at any level. It is manufacturers, therefore, that continue to shoulder the burden of driving up demand, subsidising their sale by more than £5 billion in 2025, equivalent to a massive £11,000 per BEV registered. Such subsidies are clearly unsustainable. Furthermore, the announcement of a new ‘eVED’ tax on EVs purchased from 2028 sends a confusing message to consumers, undermining rather than encouraging market confidence.

While average new car CO2 has fallen by -10.1% from 2024 to 91.8 g/km, which will assist some manufacturers with mandate compliance, the UK’s zero emission sales target will next year require BEVs comprise one in three new car registrations.

The UK already has the most ambitious transition trajectory of any major market and, with the EU’s proposal to revise

its end of sale date from 2035, divergence between the UK and the much larger market on its own doorstep is broadening. Action is needed from government to ensure the British market remains attractive for investment, and one which supports consumers, the industry and the economy. The forthcoming review of the ZEV Mandate will be a crucial opportunity to ensure the transition supports the UK’s international competitiveness and prosperity, as well as its shared decarbonisation goals.

“The announcement of a new ‘eVED’ tax on EVs purchased from 2028 sends a confusing message to consumers, undermining rather than encouraging market confidence.”

| | DECEMBER | | | | |
|--------|----------|---------|----------|---------------|---------------|
| | 2025 | 2024 | % CHANGE | MKT SHARE '25 | MKT SHARE '24 |
| BEV | 47,139 | 43,656 | 8.0% | 32.2% | 31.0% |
| HEV | 18,430 | 17,899 | 3.0% | 12.6% | 12.7% |
| PHEV | 16,898 | 12,716 | 32.9% | 11.6% | 9.0% |
| PETROL | 57,607 | 59,455 | -3.1% | 39.4% | 42.2% |
| DIESEL | 6,175 | 7,060 | -12.5% | 4.2% | 5.0% |
| TOTAL | 146,249 | 140,786 | 3.9 | | |

| | DECEMBER | | |
|----|----------|-------------|-------|
| 1 | FORD | PUMA | 4,680 |
| 2 | TESLA | MODEL Y | 3,737 |
| 3 | VOLVO | XC40 | 3,319 |
| 4 | MG | MG ZS | 3,294 |
| 5 | NISSAN | QASHQAI | 2,887 |
| 6 | JAECOO | 7 | 2,863 |
| 7 | MG | MG HS | 2,803 |
| 8 | MINI | MINI COOPER | 2,581 |
| 9 | TESLA | MODEL 3 | 2,549 |
| 10 | NISSAN | JUKE | 2,326 |



Jansen potash project (Jansen Stage 1) set to rise in cost and go live later in 2027

BHP has confirmed that the total investment estimate for stage 1 of the Jansen potash project (Jansen Stage 1) will increase to US\$8.4 billion (including contingencies) and the first production schedule has reverted to the original schedule of mid CY2027. In July 2025, BHP confirmed that it expected to update the market on the timing and capital expenditure estimate for Jansen Stage 1 in H2 FY2026. The investment cost estimate has been updated from the previously estimated

range of US\$7.0 billion to US\$7.4 billion (including contingencies) announced in July 2025 and the US\$5.7 billion initial estimate of the investment cost for Jansen Stage 1 when the project was approved in August 2021.

The Jansen Potash Project, owned by BHP in Saskatchewan, Canada, is critical for enhancing global food security by significantly increasing the supply of potash, a vital fertiliser ingredient for crop yields. As announced in July 2025, these cost

“Once operational, Jansen will establish BHP as a leading player in the global potash industry.”



“Jansen is an important pillar in BHP’s long-term growth strategy and is a long-life, low cost expandable asset that is expected to generate benefits for shareholders for decades.”

increases have been driven by inflationary and real cost escalation pressures, design development and scope changes and lower productivity outcomes. The majority of the cost increase since the estimated range announced in July 2025 is from construction hours and quantities of materials that were not included in previous execution cost estimates. These construction costs were identified following the comprehensive review of Jansen Stage 1 budget and schedule. BHP has implemented a response plan to address cost and schedule risks for Jansen Stage 1 which has improved productivity, strengthened project management and enhanced oversight of execution contracts. This plan is expected to support sustained efficiency gains in the delivery of Jansen Stage 1 and improved capital intensity in

subsequent phases of the Jansen Project. Jansen Stage 1 continues to progress and is 75% complete. BHP continues to expect Jansen Stage 1 to deliver approximately 4.15 million tonnes per annum (Mtpa) of production. At consensus prices, Jansen Stage 1 has an updated internal rate of return of 7.9% to 9.1% and an updated expected payback period of 11 to 15 years from first production². Underlying EBITDA margins for Jansen Stage 1 remain strong at approximately 63% to 64% due to its low-cost position³. BHP President Americas, Brandon Craig said: “Jansen is an important pillar in BHP’s long-term growth strategy and is a long-life, low cost expandable asset that is expected to generate benefits for shareholders for decades. Once operational, Jansen will establish BHP as a leading player in

the global potash industry. We remain positive about the progress at Jansen and in potash as a future facing commodity with strong long-term demand fundamentals driven by population growth, better diets, rising living standards, and the need for more productive and sustainable use of arable land.” BHP is continuing to advance construction of Jansen Stage 2 and will implement the project execution improvements identified in the review of the investment cost and schedule estimates for Jansen Stage 1. BHP expects to update the market on the investment expenditure estimate for Jansen Stage 2 in Q4 FY2026. Longer term, Jansen has the potential for two additional expansions to reach an ultimate production capacity of 16 to 17 Mtpa (subject to studies and approvals). **Read the full report [here](#).**



Projected safety signage 'safer, more durable option' for forklifts in busy facilities

Projected safety signage 'safer, more durable option' for forklifts in busy facilities

Projected safety signage is helping warehouses and industrial facilities improve forklift safety by reducing 'sign blindness' and providing a more durable alternative to traditional safety signs. In environments with constant forklift traffic, painted and printed signs and floor markings can wear away quickly, becoming faded, damaged or unclear. As a result, critical safety messages can lose impact and require frequent maintenance.

Projected Image says projected safety signage is unaffected by constant forklift movement, offering a longer-lasting – and safer – solution that remains clear even in high-traffic areas.

"The HSE (Health and Safety Executive) estimated that approximately 2,000 accidents involving forklifts were reported in Great Britain in 2018/19, so clear, instantly recognisable safety messaging is more important than ever for facilities using forklifts!" says Ian Spoor, Managing Director of Projected Image.

"While traditional painted or vinyl markings wear and typically require maintenance twice a year, projected signage provides a bright, highly visible image that doesn't

fade or wear under forklift traffic – with a maintenance-free five-year lifespan."

By projecting sharp, vivid safety signs – such as zebra crossings and warning signs – directly onto floors, walls and doors, projected signage helps to clearly define walkways, exclusion zones and vehicle routes while tackling 'sign blindness' – which is particularly important where workers and vehicles operate in close proximity.

"Projected signage provides a bright, highly visible image that doesn't fade or wear under forklift traffic, with a maintenance-free five-year lifespan."

"Sign blindness occurs when constant exposure to static signage means safety warnings are overlooked, which is incredibly dangerous in forklift environments. Light-based projected signage is more visually stimulating than printed floor markings,

making warnings harder to ignore" adds Ian. Projected signs can also be automated using sensors, so they only activate when a forklift approaches a specific area, further reducing sign blindness by ensuring warnings appear only when relevant.

"This dynamic approach to safety not only improves awareness but also supports more efficient operations. We recently provided automated projected signage for a leading renewable energy manufacturer, warning pedestrians of forklift movements near roller doors. The site now benefits from a brighter, clearer and safer solution" Ian states.

Projected Image supplies both high-performance, IP-rated LED gobo projectors and custom gobos, providing a complete solution designed for demanding industrial environments.

"The high-visibility and flexibility of projected signage make it a safer, more durable option for facilities operating with forklifts. It helps protect the workforce, reduce maintenance and keep operations running smoothly in even the busiest environments" concludes Ian.

More information about Projected Image can be found at: www.projectedimage.com



King Charles III ‘very impressed’ with Made in Britain manufacturer during Lancashire visit

His Majesty meets Camilla (of Roach Bridge Tissues) during a royal visit to Lancashire, where he showed “great interest in its sustainability commitments”

His Majesty King Charles III has praised a family-run British tissue paper manufacturer and its commitment to sustainability during a recent royal visit to Lancashire. Made in Britain manufacturer Roach Bridge Tissues was one of three businesses asked to showcase their business to His Majesty during a visit to the historic Samlesbury Hall in Lancashire, less than three miles away from the heritage manufacturer’s long-standing paper mill in Preston. With a history dating back 120 years, Roach Bridge Tissues operates the oldest paper mill in Preston, and the company has been a proud family-run British manufacturer of wrapping paper tissue for over 25 years, creating bespoke designs for a wide range of clientele. The King chatted with the team at Roach Bridge Tissues about the manufacturing process for printed tissue paper, while proudly displaying the internationally recognised Made in Britain trademark at their stall. Camilla Hadcock, Director of Roach Bridge Tissues and Chair of Made in Britain, said: “We are immensely proud to have had the opportunity to meet with The King right here in Lancashire, where we have operated successfully as a family-run British manufacturer for over 100

years. “The royal visit served as a wonderful chance for us to showcase and celebrate local manufacturing, and not only was His Majesty typically charming and funny, but he also showed a genuine interest in our business and our commitments to sustainability. It was an invigorating opportunity for us all at Roach Bridge Tissues, and it provided us with memories to cherish forever.” During her time with His Majesty, Camilla was able to discuss the sustainable nature of Roach Bridge Tissues, from the company’s hydro-electric and solar powered sources on-site to its FSC certification. He was also said to be ‘very impressed’ with the business’s family-run ethos and its ability to survive and thrive through different generations of British manufacturing. The company recently celebrated its tenth anniversary as a member of the not-for-profit Made in Britain network in February of this year, which is formed of 2,200 responsible manufacturers making and distributing products and services right here in the United Kingdom. John Pearce, CEO at Made in Britain, said: “Roach Bridge Tissues are a founding member of the Made in Britain network and have consistently proven their credentials as sustainable and

ambitious icons of British manufacturing. It comes as no surprise to me that they have received acclaim from the highest levels of royalty for their hard work, and it is reaffirming to see recognition for the Made in Britain trademark, as well as trust in what it represents. “I would like to personally congratulate Camilla and the whole team at Roach Bridge Tissues for this royal recognition, and I would also like to thank the King for dedicating his time to learning a bit more about what makes British manufacturing so special.” Camilla Hadcock’s journey with Roach Bridge Tissues is a full-circle one. Her grandfather owned and ran the former Roach Bridge Paper Mill until his death in the 1970s, and alongside her husband, she bought that very same paper mill to form Roach Bridge Tissues years later in 1999. For more information about the heritage manufacturer Roach Bridge Tissues, visit: www.madeinbritain.org/members/roach-bridge-tissues

To learn more about Made in Britain, visit www.madeinbritain.org.



Digital transformation reshaping opportunities for women in manufacturing, Made Smarter Yorkshire insights show

Insights from women working across Yorkshire's manufacturing sector suggest digital transformation is widening opportunities, opening leadership pathways and reshaping traditional roles across the industry. To mark International Women's Day 2026 (IWD26), Made Smarter Yorkshire, the government-backed technology and skills adoption programme, gathered perspectives from 10 women working from shop floor to boardroom across the region, spanning sectors including engineering, energy, textiles, technology and traditional

craft manufacturing. While women still account for only around a quarter of the UK manufacturing workforce, according to research, voices from across Yorkshire suggest change inside many businesses may be moving faster than national figures currently reflect, offering a snapshot of wider change taking place across UK manufacturing.

From the physical to the technical

For many respondents, the most profound shift in recent decades has been technological.

Sarah Brown, General Manager of Hull-based manufacturer Solutions Are Looming, started her career as a labourer 25 years ago before progressing through procurement and departmental management into senior leadership. She believes digital technology has fundamentally changed both expectations and opportunities in manufacturing. "Back then, manufacturing work was widely seen as physically demanding manual labour," she said. "While that's still true in some areas, technology has transformed the sector. The programming

“The programming of machines, automation systems and digital tools are shifting the focus from physical strength to technical, problem-solving work, opening up the industry to a much wider range of people.”

of machines, automation systems and digital tools are shifting the focus from physical strength to technical, problem-solving work, opening up the industry to a much wider range of people.”

“It also helps close the gap between a factory and an office. Data capture and analysis bridge what used to be very clear levels of working. Compared to when I entered the industry, the opportunities are far greater thanks to technology.”

That view is echoed by Fiona Conor, CEO of Leeds-based Trust Electric Heating, who argues that digital integration has strengthened both operational clarity and leadership confidence.

“As we’ve modernised our factory, integrated digital systems and embraced data, I’ve seen how technology removes guesswork and empowers decision-making,” she said. “Digital tools bring transparency, and transparency builds confidence.”

For Conor, modern manufacturing is far removed from outdated stereotypes.

“It’s not just production lines. It’s research and development, sustainability, artificial intelligence integration, digital optimisation and export growth.”

Bryony Richardson, Founder of

clothing manufacturer Palava, based in Northallerton, says access to digital frameworks has increased confidence in growing a values-led manufacturing business.

“Programmes like Made Smarter, and the growing focus on digital tools and smarter production, have helped level the playing field, particularly for smaller businesses and for people who haven’t come through traditional routes,” she said. “Having access to support, shared language and clear frameworks has increased my confidence when navigating how to grow our manufacturing unit.”

Anna Buckley, Co-founder of Mindful Memorials, a fourth-generation stonemason business based in East Yorkshire, sees digital tools as enabling innovation within traditional craft.

“Technology and smarter systems have opened up enormous opportunities. They’ve given confidence to innovate and modernise traditional industries, while still honouring craftsmanship.”

Techbuyer LtoR - Leila Graham, Penny Taylor, Sophie Petch, Danila Borghese, Melinda Kovacs, Becca Henshelwood (Techbuyer)

Representation rising

Respondents also described clear cultural improvements compared with 15 or 20 years ago.

Leila Graham, Drive Test Operative at Techbuyer in Harrogate, has seen a noticeable shift during her 16 years in the industry.

“Back then, I saw unconscious and conscious bias all the time,” she said. “There was little to no female representation, and I often felt judged on my gender before my attributes. Today, a lot of that has changed. Women are being offered the same opportunities and considered for the same roles as their male peers.”

Brown agrees that representation has strengthened and become far more visible.

“I’ve seen more women in director roles, on the shop floor and in engineering positions, which is great to see.”

Conor believes greater visibility of female leadership is also helping shift perceptions.

“When women see other women leading successful manufacturing businesses, it normalises ambition and shows what’s possible.”

Leading the change

The insights also highlight the importance of leadership development in accelerating progress.

Brown says leadership training has played an important role in building confidence and capability in modern manufacturing environments.

“Completing leadership and coaching qualifications deepened my self-awareness and emotional intelligence,” she said. “Organisations at every level would benefit from embedding these principles into leadership development.”

At Trust Electric Heating, Conor embeds coaching and development across the business.

“Skills development and technology have absolutely strengthened my confidence as a leader,” she said. “Leading a manufacturing business isn’t just about product knowledge. It’s about resilience, communication and long-term vision.”

Pipeline and perception remain key barriers

Despite visible progress, school-level



“Manufacturing today is creative, innovative and technological, but that isn’t always how it is presented to young people.”

perception and skills shortages emerged as recurring concerns. “I think to attract and retain more women, employers need to work more closely with teenage girls in schools,” said Amanda Johnston, Associate Director of Innovation at Sheffield Hallam University and a board member of Made Smarter Yorkshire. “From around the age of 10 onwards there can be a strong perception that STEM subjects are for boys. Changing that narrative earlier could make a real difference.” Brown believes careers guidance still has work to do. “Manufacturing is often positioned as a secondary option to academic routes, yet many people thrive in hands-on, practical environments.” Richardson argues perception remains one of the biggest barriers.

“Manufacturing is often presented as old-fashioned or undesirable, when in reality it is creative, technical and highly skilled. To attract and retain more women we need to show the full spectrum of roles available.”

Conor agrees clearer messaging is needed.

“Manufacturing today is creative, innovative and technological, but that isn’t always how it is presented to young people. It’s not just production lines, it is research and development, sustainability, artificial intelligence integration, digital optimisation and export growth.” Trust Electric Heating is addressing this through its work with Garforth Academy, offering mentoring, careers talks, work placements and T Level engagement to give students a clearer view of modern

manufacturing careers. Olivia Hullah, Commercial and Marketing Manager at Trust Electric Heating, regularly supports these activities, which have also strengthened her confidence as a leader.

“Younger professionals speaking to students is powerful,” she said. “Pupils relate more easily to someone closer to their own age, which helps the pathway feel realistic and achievable.”

Digital transformation as an accelerator These experiences reflect wider trends emerging across the region’s manufacturing base.

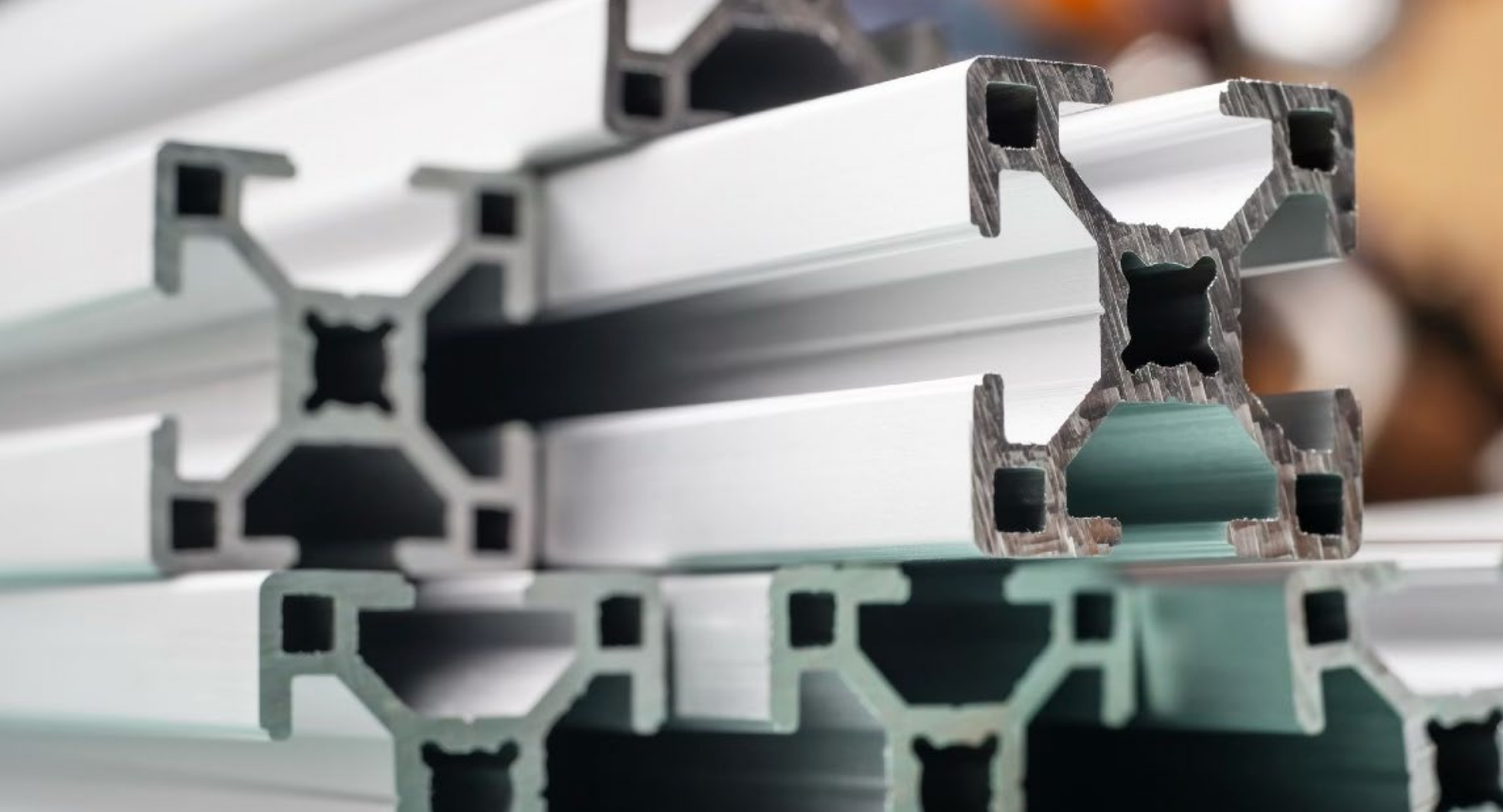
Jessica Armitage, Programme Manager for Made Smarter Yorkshire, said the insights mirror patterns the programme is seeing across its work with manufacturers.

“Over the past few years we’ve worked with hundreds of manufacturers across Yorkshire, and we’re seeing more women stepping into technical, leadership and innovation roles as businesses adopt digital technologies,” she said.

“We’re seeing strong representation from women on both our Leadership and Digital Champions programmes, which are helping drive cultural change inside businesses.

“And initiatives like the Digital Internship programme are opening doors for the next generation. We’ve seen real impact from young women stepping into manufacturing environments and applying digital, data and technology skills in real-world settings, showing just how creative, innovative and technology-driven modern manufacturing has become.”

madesmarter.uk/Yorkshire



EBRD supports aluminium manufacturing in Egypt

The European Bank for Reconstruction and Development (EBRD) is supporting aluminium production in Egypt by providing a loan of up to €13.7 million to Alumil Misr for Trade & Industry SAE, the Egyptian subsidiary of ALUMIL SA.

The EBRD's financing will fund the construction and installation of a new aluminium extrusion line at the subsidiary's plant in the Polaris Industrial Zone, Cairo.

The new extrusion line will materially increase production capacity at ALUMIL's Egyptian facility, supporting its vertical integration strategy and strengthening its ability to supply advanced aluminium systems to construction and industrial sectors across the region. This expansion is expected to enhance operational efficiency, reduce supply-chain lead times and enable higher-value production aligned with European quality standards.

ALUMIL is a vertically integrated manufacturer of architectural aluminium

“This investment represents a key strategic step in strengthening our long-term presence in Egypt.”

systems that is listed on the Athens Stock Exchange. It operates 10 production sites, serving over 60 countries worldwide. ALUMIL's presence in Egypt forms a core element of its broader strategy of establishing regional manufacturing hubs capable of delivering advanced aluminium solutions to high-growth markets. The Egyptian facility, which is located in close proximity to the Suez Canal, is positioned as a strategic production and export platform serving Africa, the Middle East

and surrounding regions.

Mark Davis, the EBRD's Managing Director for the Southern and Eastern Mediterranean, said: “We are very pleased to be partnering with ALUMIL to expand production in Egypt. Through this investment, we are strengthening local manufacturing, advancing private-sector development and enhancing industrial competitiveness across the region.”

George Mylonas, the Chairman and CEO of ALUMIL, said: “This investment represents a key strategic step in strengthening our long-term presence in Egypt. By expanding our manufacturing capabilities, we are creating a regional hub that enables greater operational flexibility aligned with European quality standards. The partnership with the EBRD is instrumental in advancing this vision and the development of a robust industrial footprint in the region.”

Egypt is a founding member of the EBRD, which has invested more than €14.2 billion in the country through 221 projects since it began operating there in 2012.

Manufacturing Biz

SPOTLIGHT ON ELECTRONICS IN THE EASTERN REGION



Over 40 years of Nemco: expertise and experience in electronic manufacturing

It was 1985 when Nemco was founded by Managing Director Dave Pearce. Nemco has since grown from humble beginnings in Stevenage, Hertfordshire, into one of the UK's leading contract manufacturing companies. Over time, they have proudly supported customers across the industrial, automotive, aerospace, defence and renewable sectors, combining expertise in digital, analogue, RF and mechanical disciplines to design, manufacture, test and deliver complex, high-quality electronic products worldwide.

In his pre-Nemco days, Dave Pearce originally co-founded an electronics design business with several colleagues called Millennium. When the venture came

to an end, the business was sold and the founders went their separate ways. Dave chose to reinvest his share of the proceeds into starting a company of his own. Instead of registering a brand-new business, he purchased a pre-registered company that his accountant had already set up. The company, N.E.M. Co (Near East Marketing Company), had never traded after its original owner passed away. From that opportunity, Nemco was born. Initially, Dave worked on his own as he carried out design work for a single customer. Over time, he hired his first employee and gradually moved into manufacturing the products he was designing. The company's first factory was a small unit in Stevenage, just off Junction 7 of




Dave Pearce
MANAGING DIRECTOR

“I am incredibly proud of what we have achieved and excited about what lies ahead!”

the A1(M). As manufacturing activity grew, the business relocated to Letchworth, operating from three progressively larger sites before returning to Stevenage in 2000 to take on the lease of what is now Unit A. Dave later acquired a manufacturing business in Melbourn that had ceased trading. After a period of operation, that site was closed and the work transferred to a new unit on Wedgwood Way. When the lease for Unit B became available, Dave took it on and connected it to Unit A, creating the 60,000-square-foot, state-of-the-art facility the company operates from today and allowing the remaining Stevenage unit to be closed.

Discussing the last 40 years, Dave Pearce said: “What a fantastic thing it is to be able to say ‘40 years of Nemco’! Things have certainly changed since we began all those years ago, but I am immensely grateful and delighted with how far Nemco has come. “Of course this is a time to reflect, but I also want to look towards the future. Our focus remains on serving our predominantly UK-based customers while expanding our global reach across Europe, North America and Asia. This will be key to our success – I am incredibly proud of what we have achieved and excited about what lies ahead!”

Nemco has confirmed its attendance at DPRTE 2026, the UK’s leading event for defence procurement and supply chain engagement.

They will be on Stand AD2, where they will discuss how they offer reliable, high-

quality manufacturing solutions. Held on 25th and 26th March at Farnborough International, DPRTE is officially supported by the Ministry of Defence. The event brings together buyers, suppliers and policymakers for two focused days of networking and collaboration across the full defence acquisition landscape.

This year’s event takes place at a pivotal moment for the sector, following the publication of the Strategic Defence Review, continued development of the Defence Industrial Strategy, and the government’s commitment to increase national security spending to 5% of GDP by 2035.

These developments are shaping priorities across procurement and supply chain capability. DPRTE’s programme reflects this shift, offering expert-led sessions and practical insights designed to help suppliers understand new policies, funding routes and operational expectations. Supporting the defence sector with trusted manufacturing expertise Nemco has a proven track record of supporting the defence sector with specialist manufacturing services for leading OEMs and suppliers. Our flexible outsourcing model covers everything from single-discipline support to fully integrated solutions, including:

- Design for manufacture
- High-speed SMT with μ BGA capability
- Manual PCBA assembly
- Inspection
- Testing

- Conformal coating
- Wire loom production
- Final assembly

With deep PCB expertise, they support both prototype and high-volume production of critical electronics and instrumentation.

Security, quality and reliability are central to the defence work. Nemco operates secure build environments to protect sensitive products and data, supported by rigorous testing that ensures performance in demanding conditions. Cyber Essentials Plus accreditation, ISO 7 cleanroom, advanced testing facilities, and conformal or certonal coating services enable them to deliver robust, dependable products for critical defence and aerospace applications.

For Nemco, DPRTE will offer an important opportunity to engage directly with defence stakeholders, understand emerging requirements, and demonstrate how their experience, technical capabilities and commitment to quality align with the evolving needs of this important sector.



Arkle Electronics have been assisting customers with Innovations for electronic manufacturing services for over 50 years

They offer a flexible solution to all manufacturing needs. Their UK manufacturing facility is equipped to offer a fast prototype service, low to medium volume production with 3 surface mount PCB assembly machines.

At AES they provide a full company assessment which will provide a no obligation project proposal detailing all costs, design analysis, time scales and deliverables that ensure the reputation of your product are paramount.

Arkle Electronic Systems Ltd was established in 1974 to provide a quality assembly service to the electronics industry.

The mass production of PCBs began in the 1970s, and Arkle Electronics was in the vanguard of this burgeoning industry. Established in 1974, a few name changes later, they are still in Stevenage and still a name to be reckoned with. Originally only a manufacturer of PCBs, Cable Assembly and Box Build services were introduced much later. Arkle has now been owned by members of the same family for 20 years.

Arkle Electronics offer a tailored and professional, UK based CEM service to include:

- Surface Mount & Through Hole PCB Assembly
- Bare Board PCB Supply at competitive prices
- Cable Wiring loom/Harness & Electro-mechanical assemblies
- Automated Optical Inspection (AOI), BGA rework using ERSA technology, Wave Flow Soldering and X-ray services
- Full product box build & Product Testing

“At AES they provide a full company assessment which will provide a no obligation project proposal detailing all costs, design analysis, time scales and deliverables.”

- ROHS & WEEE Compliant Management
- Design, Prototype and Fast Turnaround
- Small to Medium Batch Production
- Free Issue or full Material procurement
- Lead Free & Leaded Assembly
- Ultrasonic cleaning of assembled PCBs
- Full quality management system
- Multi-skilled assembly staff
- MSL (Moisture Sensitive levels controlled using our dry store cabinet)

Manufacturing Expansion

In 2026, Arkle expanded its manufacturing capacity with the addition of a Panasonic Surface Mount Technology (SMT) line, increasing throughput and supporting more complex, high-volume PCB assemblies.

In 2026, Arkle strengthened its cyber and information security framework, achieving Cyber Essentials Plus certification and progressing towards Defence Cyber Certification (DCC) and ISO 27001 compliance.



Why partner with UK EMS for high-tech and consumer?

Alan Anderson's MD, Phil Bray, explains why partnering with a UK EMS delivers resilience, regulatory clarity and market access for US high-tech manufacturers

In an era of global supply chain volatility, US-based electronics companies are increasingly seeking resilient, efficient manufacturing partners. While domestic EMS providers offer familiarity and speed for North American markets, engaging a UK contract electronics manufacturer presents compelling advantages, particularly for high-tech products like consumer devices, semiconductors, and AI-enabled systems. As the 2025 US-UK trade deal reduces tariffs and fosters collaboration in cutting-edge technologies such as quantum computing and 6G telecommunications, now is the time for American OEMs to consider Alan Anderson Manufacturing as a strategic extension rather than a distant alternative.

One key benefit is seamless communication and cultural alignment. Sharing English as a native language eliminates translation barriers that plague partnerships in non-English-speaking regions. For consumer device manufacturers, this means original instructions, technical documents, and compliance materials require minimal adaptation, accelerating market entry. The UK's straightforward retail networks and e-commerce hubs, with major launches every year, simplify distribution compared to fragmented regional systems in the US or EU, making it easier for US firms to tap the £80 billion UK consumer electronics space.

Regulatory red tape is another area where UK manufacturers shine. Post-Brexit, the UK has streamlined processes for high-tech exports, with reduced bureaucracy for US-UK trade.

For consumer products, manufacturing in the UK aligns with UKCA standards, which often mirror FCC or CPSC rules, easing dual-market compliance without the full weight of EU RoHS or GDPR hurdles. This contrasts with US EMS providers, where exporting to Europe involves additional certifications and logistics complexities. Logistics and sustainability further tilt the scales.

Producing in the UK shortens lead times for European distribution, cuts transportation costs, and lowers carbon emissions—critical for eco-conscious brands. Alan Anderson, with its 20,000 ft² facility, £3 million in advanced equipment (including Yamaha SMT lines and Koh Young 3D AOI) with additional £1.5 million planned over the next 18 months, and proactive supply chain management holding £5 million in semiconductor stock, exemplifies this efficiency.

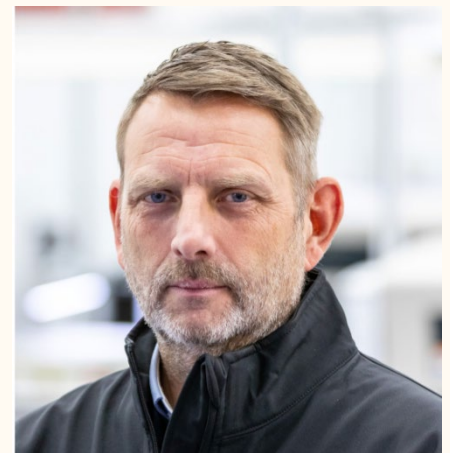
The company offers real-time tracking, buffer stocks for 48-hour delivery, and fixed pricing for 12 to 24 months, mitigating volatility that US EMS might face from domestic tariffs or disruptions. Moreover, UK manufacturing enhances supply chain resilience. With greater oversight and transparency, companies avoid ethical risks associated with offshore production, while tax credits for innovation make it cost-competitive. For high-tech sectors, the UK's reputation for quality and R&D collaboration provides a gateway to European markets without the geopolitical tensions affecting Asia or even domestic US constraints.

In summary, while US EMS excels for local

scalability, a UK partner diversifies risks, streamlines access to lucrative markets, and delivers tangible efficiencies. American firms ignoring this opportunity may find themselves outpaced in a transatlantic tech renaissance. Consider touring facilities like Alan Anderson's—every visitor becomes a convert for good reason.

www.aa-manufacturing.co.uk

“A UK partner diversifies risks, streamlines access to lucrative markets and delivers tangible efficiencies.”



Manufacturing Biz

SPOTLIGHT ON ELECTRONICS IN THE EASTERN REGION

“Engaging a UK contract electronics manufacturer presents compelling advantages, particularly for high-tech products like consumer devices, semiconductors and AI-enabled systems.”

UK Manufacturing Reshoring Works

UK Manufacturing has many advantages:

- Reduces lead times and improves product quality by bringing production closer to the end market.
- Improves sustainability by reducing carbon footprintReduce supply chain risks and mitigate the impact of tariff hikes and trade wars.
- Provides job opportunities in the domestic economy; stimulates local growth.

Our Commitment

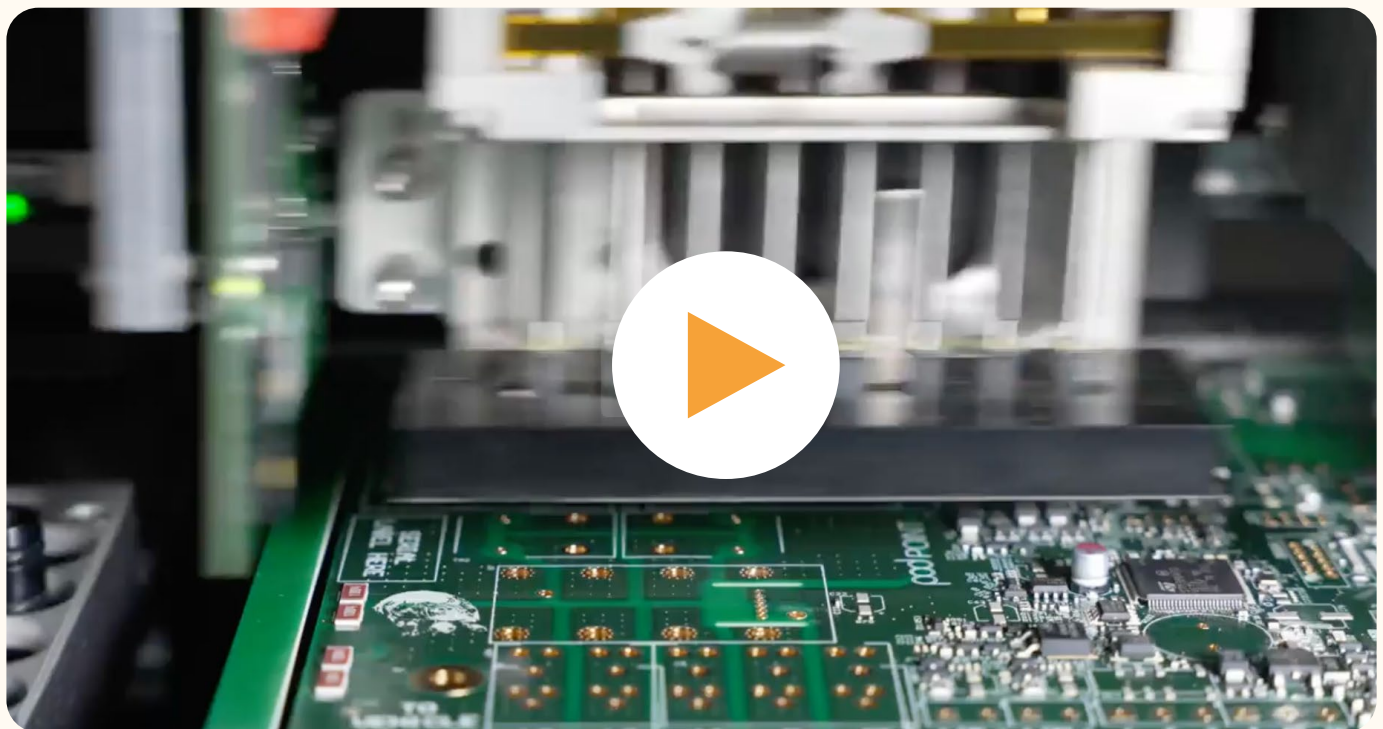
Financially strong, Alan Anderson Manufacturing promises to deliver the best value and the highest quality. Their new manufacturing lines employ the latest machines, improving throughput, reducing lead times, improving quality and reducing waste. Advanced safety mechanisms create a safer working environment. Every time they hit 65% capacity, they invest in a new line.



ABL Circuits Expert UK Based PCB Manufacturers

ABL Circuits is a leading provider of high-quality printed circuit boards with over 40 years of experience. Located in Baldock, Hertfordshire, they pride themselves on offering a complete in-house solution from design to assembly, ensuring the fastest lead times in the UK. Their family-run business is dedicated to delivering exceptional customer service, rapid prototyping, and reliable, high-quality PCB products for a diverse range of industries. They combine advanced technology with skilled craftsmanship to meet the specific needs of each client efficiently and effectively.

“They pride themselves on offering a complete in-house solution from design to assembly, ensuring the fastest lead times in the UK.”





New programme to help UK commitment to advancing space-enabled manufacturing

A number of key groups have come together to support in-orbit manufacturing of pharmaceuticals. The UK Space Agency, the Medicines and Healthcare products Regulatory Agency (MHRA), the Regulatory Innovation Office (RIO) within the Department for Science, Innovation and Technology (DSIT) and the Civil Aviation Authority (CAA) are working collaboratively to provide a supportive regulatory environment to space, biopharma and pharmaceutical companies through collaborative work on guidance, regulatory sandboxes, case studies and supply chain engagement. In-Orbit Manufacturing (IOM) is one subset of the wider In-Orbit Servicing, Assembly, and Manufacturing (ISAM)

market. It represents a transformative opportunity to produce materials and products in space that offer superior quality and performance compared to those manufactured on Earth.

The UK Space Agency is providing funding for three in-orbit manufacturing feasibility studies including a £250,000 feasibility study for BioOrbit, a pioneering start-up that is designing a scalable in-orbit manufacturing system to crystallise biologic drugs for cancer treatments. This study, funded through the UK Space Agency's Unlocking Space Portfolio, will involve collaborative work between MHRA, the UK Space Agency and BioOrbit to provide clarity on the regulatory pathway for in-orbit manufacturing of pharmaceuticals.

“Microgravity conditions can improve drug solubility, purity, crystallisation and stability, supporting more effective delivery and potentially lowering manufacturing risk and cost.”

The microgravity advantage

The unique properties of the microgravity environment enable more precise drug



“In-Orbit Manufacturing represents a transformative opportunity to produce materials and products in space that offer superior quality and performance compared to those manufactured on Earth.”

formulation, particularly for biologics and protein-based drugs such as monoclonal antibodies, vaccines, or insulin. Microgravity conditions can improve drug solubility, purity, crystallisation and stability supporting more effective delivery and potentially lowering manufacturing risk and cost.

In-orbit manufacturing of pharmaceuticals offers transformative potential across multiple domains, from precision medicines for oncology and rare diseases to drug stability for remote and crisis-affected populations. This reinforces the UK’s commitment to enabling innovation in pharmaceutical manufacturing. This includes supporting the development of novel modalities that could enhance drug quality, improve supply chain resilience and unlock new therapeutic possibilities for patients. As this sector evolves, the UK remains focused on ensuring the highest standards of safety, quality and regulatory compliance, creating a clear and supportive pathway for innovators while safeguarding public health.

Current Regulatory Framework

Existing medicines regulations are applied to established and novel medicines available to patients and also to potential treatments currently in development.

Building on the MHRA’s experience in developing innovative and proportionate regulatory pathways, including the MHRA’s world-first framework for decentralised and modular manufacturing launched in 2025, the Agency works closely with developers and partners to ensure that existing and future regulations remain fit for purpose for medicines manufactured using advanced and novel manufacturing approaches. This includes manufacturing that may take place in microgravity or other unique environments, where modular manufacturing and atypical distribution practices may occur. This approach enables innovation, providing regulatory clarity and confidence to innovators exploring cutting-edge biomanufacturing methods. BioOrbit’s in-orbit demonstrator feasibility study, funded by the UK Space Agency and running until March 2026, includes specific work to clarify the relevant regulatory requirements for pharmaceutical manufacturing in-orbit. This collaborative work between the UK Space Agency, MHRA and BioOrbit will deliver clarity to space biotech companies on whether existing regulations for terrestrial manufacturing will also apply to manufacturing of pharmaceuticals in-orbit for patient use. Alongside this, the UK has a flexible and outcome-focussed approach to

regulating spaceflight activities, which can accommodate the licensing of novel activities such as operating in-space manufacturing platforms. For example, see recent demonstration missions such as Space Forge’s ForgeStar 1, the UK’s first in-orbit manufacturing platform, which was licensed by the Civil Aviation Authority (CAA) and launched in June 2025. This mission, which has since successfully fired up its miniature furnace and generated plasma in orbit, is a British breakthrough in in-orbit manufacturing technology, and has helped set a precedent and framework for licensing in-orbit manufacturing activities. Additionally, the UK has established itself as a frontrunner in licensing other novel emerging technologies, including Astroscale UK’s ELSA-D, a world first commercial space debris removal demonstration mission launched in 2021. The UK has established a track record of blazing a trail in licensing novel and emerging ISAM missions in line with its ambitions to continue leadership in these technologies. While the UK’s existing spaceflight legislation under the Space Industry Act 2018 and Outer Space Act 1986 has already provided a flexible framework for licensing such missions, the UK government is working to provide

additional clarity to support the predicted growth of manufacturing activities in the emerging in-orbit economy. In line with the recommendations of the Space Regulatory Review 2024 we are therefore developing new guidance products and regulatory sandboxes to support innovators and investors by providing clarity and transparency on the steps to licensing UK operated in-orbit manufacturing platforms.

This will be in line with the UK's non-prescriptive, outcome-focussed approach where spaceflight licence applicants demonstrate what steps they propose to take to ensure that the risks associated with their planned activities are as low as reasonably practicable, including for the re-entry and safe landing of platforms with the manufactured products on board. To support this activity, the Government is launching a Re-entry Regulatory Sandbox. This sandbox will aim to support re-entry activities, such as IOM, and builds on the learnings from the recent Rendezvous & Proximity regulatory sandbox.

The CAA and government are also exploring opportunities to streamline spaceflight licensing processes, in particular to support progression to larger-scale, higher cadence operations.

The UK's modern legislative frameworks for human medicines and spaceflight activities represent a unique opportunity to demonstrate a clear end-to-end regulatory pathway for UK in-space manufactured pharma products. To promote investment into the UK and support innovators seeking to seize this opportunity, the UK Space Agency and MHRA are collaborating to produce principles-based case studies which illustrate the regulatory pathway to be followed by space, biotech and pharmaceutical companies.

Potential applicants for UK operated In-Orbit Manufacturing platforms are encouraged to engage with the CAA as early as possible to discuss proposed missions by contacting the CAA at commercialspaceflight@caa.co.uk. Further information on the licensing process can be found here - [Space licensing in the UK](#).

“The UK’s modern legislative frameworks for human medicines and spaceflight activities represent a unique opportunity to demonstrate a clear end-to-end regulatory pathway for in-space manufactured pharma products.”

Government initiatives

Alongside providing regulatory clarity through the production of joint case studies with the MHRA, the UK Space Agency is leading a wide range of initiatives to drive growth and development of the in-orbit pharmaceuticals sector. This work contributes directly to the ambitions of the Life Sciences Sector Plan and the Modern Industrial Strategy 2025 to support economic growth and strengthen health outcomes for the United Kingdom. These actions are intended to provide coordinated support and clarity to the supply chain on the adoption pathway. UK Space Agency interventions include:

- Unlocking demand signals and driving engagement and sector understanding: Engaging with the NHS and biopharma supply chain through events and workshops, to build user demand and explore the barriers faced by different public and private sector organisations along the adoption pathway.
- Undertaking a literature review of experiments on the International Space Station on pharmaceuticals and biologics, to identify the UK's competitive advantage and capabilities for future focused development.
- Inaugural UK-Swiss Dialogue in June 2026, bringing experts and senior decisionmakers from space and pharma together for the first time, to identify challenges and solutions to advance microgravity for biopharma R&D.





Technology, infrastructure and R&D capability development:

- UK Space Agency Space Clusters Infrastructure Funding including £8 million provided in 2023 to Cardiff-based Space Forge, for a National Microgravity Research Centre, embedded within the Centre for Integrative Semiconductor Materials in Swansea, Wales.
- Funding in-orbit manufacturing feasibility studies including a £250,000 BioOrbit feasibility study for a scalable in-orbit manufacturing system designed to crystallise biologic drugs. BioOrbit was also supported through the UK Space Agency Accelerator, a national programme which provides tailored support to UK-based entrepreneurs in the space sector to help accelerate their growth.
- The National Space Innovation Programme (NSIP) has invested around £2.2m in grants to support innovative in-orbit manufacturing technologies. These include funding to support: Frontier Space Technologies, to improve their microgravity research SpaceLab to support development of pharmaceuticals, drug discovery, materials and industrial biotechnology; Biologic Technologies, to develop their “Space Biocomputer” to enable bio-manufacturing capabilities for products

“This approach enables innovation, providing regulatory clarity and confidence to innovators exploring cutting-edge biomanufacturing methods.”

- such as RNA medicines; Imperial College London to develop cold spray metal additive manufacturing for applications in space; Space Forge to develop a retractable solar array to power their in-space manufacturing satellite platform; University of Glasgow to develop a Earth-based rig to test additive manufacturing materials under space conditions; and University of Leicester to develop on-orbit welding capability to enable repair and manufacture of structures in space.
- Funding UK-led international projects supporting biotechnology research in microgravity and astronaut healthcare, through the UK Space Agency’s International Bilateral Fund.

Access to finance:

- £13 million UKI2S Space Portfolio, an evergreen pre-seed and seed stage fund which is actively open to considering all space opportunities including life science space companies.

MHRA Collaboration

To complement these UK Space Agency commitments, the MHRA is contributing to the development of a supportive regulatory environment for novel, space-enabled manufacturing processes. This includes:

- Joint case study development: Producing collaborative case studies with the UK Space Agency to clarify regulatory expectations and illustrate real-world pathways for developers.
- Facilitating Scientific and Regulatory Advice meetings: Supporting developers through early engagement with MHRA experts to clarify requirements, expectations, and best regulatory practices within existing frameworks.
- Innovation Accelerator involvement: Continuing to develop industry and academic engagement through the MHRA Innovation Accelerator, ensuring proactive thinking and guidance for emerging space-enabled biomanufacturing technologies.



Global Events, Local Effects and Your Exit

An unprecedented number of private company owners are now considering selling their businesses. Are you?

Running a profitable business with a sizeable revenue and workforce is no small achievement. For most owner-managers, it represents decades of early mornings, difficult decisions, and hard-won relationships. But if you're in your mid-to-late fifties or beyond, there's a question that has probably started surfacing with increasing frequency: what happens next?

It's a question that today's economic conditions are making harder to ignore.

"The best exits are planned, not reactive. In a volatile world, that planning horizon matters more than ever."

According to a recent survey by Shawbrook Bank, surveying more than 500 senior UK SME owners, over 40% are already considering an exit from their business within the next five to ten years — with 17% saying they will definitely do so. When asked how they would prefer to exit, private sale and acquisition jointly topped the list, among 55% of respondents.

The World Has Changed — Again
The conflicts in Ukraine and the Middle

"Hundreds of thousands of profitable, well run businesses risk disappearing not because they failed, but because no succession was ever planned."

East have redrawn the global energy map in ways that continue to reverberate through UK supply chains and input costs. Oil and gas volatility is feeding stubbornly persistent inflation. Coupled with a rising tax-burden, it's squeezing margins across manufacturing, logistics, professional services, and retail alike. Interest rates are still oscillating at levels that constrain business investment and dampen buyer confidence in certain sectors.

For business owners of a certain vintage — those who have already weathered the 2008 financial crisis, Brexit, and the pandemic — this latest wave of uncertainty may prompt a different kind of reflection. Not panic, but pragmatism. If the business is performing well today, how long is that window likely to remain open? And are you prepared to ride out another cycle, or would you rather exit from a position of strength?

The Succession Gap Nobody Talks About

Across the UK and Europe, there is a quiet but profound challenge unfolding. Hundreds of thousands of profitable, well-run businesses are owned by founders approaching retirement age with no clear succession-plan in place.

Many will, sadly, simply close. Staff will lose their jobs. Customer relationships will evaporate. Decades of enterprise value will be destroyed — not because the business failed, but because no transition was ever properly planned.

This is not inevitable. But it does require action, and it requires finding the right kind of successors to own and operate such businesses.

Owner-Operators: A Better Kind of Exit

The conventional assumption is that selling a business means engaging a City advisory firm, enduring a protracted process, and ultimately handing over to a trade acquirer or a private equity house that will strip out costs and flip the asset within five years. For many founders, that prospect is deeply unappealing.

There is, however, a growing cohort of acquisition entrepreneurs — ambitious, commercially astute individuals who are actively seeking to acquire and operate established businesses. They are not financial engineers. They want to lead, build, and preserve. For a retiring founder who cares about their people and their legacy, a sale to an owner-operator can be the most satisfying exit imaginable.

Turnkey Succession

BizCrunch was built precisely for this moment. Its AI-powered platform connects established UK business-owners with serious acquisition entrepreneurs, streamlining the entire succession process from valuation and deal preparation through to completion.

The model is designed to make high-quality M&A advisory accessible to businesses that have historically been underserved by traditional intermediaries — and to do so with speed, intelligence, and discretion. It is "Turnkey Succession". You've built something valuable. BizCrunch helps you transition it in the right way, to the right person, at the right time.

The Time to Start Is Now

Waiting for certainty — geopolitical, macroeconomic, or personal — is a strategy that rarely serves business owners well. The best exits are planned, not reactive. In a volatile world, that planning horizon matters more than ever. If you're generating revenues of £3 million or more and succession is beginning to occupy your thinking, the first step costs nothing.

Visit bizcrunch.co/sell to begin your Turnkey Succession journey.

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We are committed to delivering exceptional services tailored to meet your specific needs and demands.

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Videos

Bring Your Brand to Life with Captivating Video Content

Photography

Capture the Essence of Your Brand with Stunning Imagery

Website and software development

Create a Dynamic Online Presence with Professional Website and App Development

ConneXions

Unlocking Growth Through Strategic Connexions

Magazines

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