Manifesto for Automation
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Foreword by Peter Williamson, PPMA CEO

The Automate UK manifesto for Automation was launched at BARA’s* inaugural Automation UK exhibition, co-located with UKIVA’s* Machine Vision Conference 20 June 2023. Originally, it set out the thoughts of our Group of Associations regarding the UK Manufacturing Sector, and the central role that Automation has to play in its ongoing success. Speaking to the audience in my keynote speech I explained how we see the challenges that the UK economy currently faces and asked what the government can do to help us overcome these challenges. It also outlined what our Group of Associations are committed to delivering in support of ensuring that automation is central to the future of UK manufacturing thus becoming a commitment and a promise to UK manufacturing. It is my hope that companies and organisations will read this and see that there is support to help them thrive, and that by using automation the UK can once again take its place on the leaderboard of global manufacturing.

PPMA (Processing & Packaging Machinery Association)
BARA (British Automation & Robot Association)
UKIVA (UK Industrial Vision Association)

The UK Workforce Challenge

The UK, like many of the world’s largest manufacturing nations, has a shortage of both skilled and unskilled workers. This may be particularly acute in the UK due to the social and political landscape of the past 6 to 7 years, with issues ranging from government changes, funding access and withdrawal, Brexit and more recently rising inflation.

Highlighting the severity of the issues are the latest figures from the Office for National Statistics (ONS). Unemployment hit a record low of 3.6% in 2021 and now sits only slightly higher at 3.8% (rising to 4% as of July 2023 yet still comparable to 1971). There are also huge numbers of vacancies across all sectors in the UK, with current estimates sitting at 1.16 million – still 328,000 above pre pandemic levels.

Many sectors in the economy are struggling to recruit; all sectors of manufacturing, end users, equipment manufacturers and those working in distribution and logistics are all competing for a small pot of available talent. Plus, when you factor in shortages in farming, services, hospitality and many other industries, it is alarming that the UK economy is still so reliant on low cost and transient labour to keep functioning.
More STEM in school settings

Another challenge facing businesses operating in manufacturing is the scant focus on STEM (Science, Technology, Engineering, Mathematics) within our schools. Enabling more STEM opportunities will signpost the next generation of employees towards careers in engineering and manufacturing. Jack Semple, Secretary of the Engineering and Manufacturing Alliance has stated in his recent policy paper on manufacturing:

“Ofsted inspections give no credit for extra-curricular activities related to STEM, nor are schools encouraged through funding.”

The continued focus on academia and the arts completely fails the swathes of children whose practical and pragmatic skills would be perfect for our businesses in the manufacturing sector. Whilst T-Levels and other apprenticeship models offer some hope for those who struggle with a heavily exam-based qualification; they do not go far enough in providing a route through to a career in engineering and manufacturing.

Ultimately it may be incumbent on manufacturing companies to work more closely with local educational establishments, from schools through to colleges and universities, as our educational system does not produce enough of the employees that UK manufacturers need.

The UK Automation Challenge

Exacerbating the challenges our manufacturing sector faces due to a lack of labour is the UK’s failure to fully embrace the benefits of automation. Even the Automotive industry, our most automated, has a chequered history when it comes to the adoption of automation and is symptomatic of the issues we face. The UK now has some of the most efficient and highly automated car producing factories in the world, which proves we can be successful, but this success has been largely driven by foreign owned manufacturers bringing their highly automated processes to the UK, to fill the hole left by the collapse of our own brands during the 70’s and 80’s.
According to the International Federation of Robotics (IFR), the UK currently sits outside of the top 25 nations by robot density in manufacturing industries; whilst close neighbours such as Denmark, Sweden and the Netherlands currently deploy well over 200 robots per 100,000 workers; the UK only deploys 101.

All of these countries have their own Robot manufacturers as well as well-developed industries for processing and packaging machinery, automation for logistics and much more. In the UK we have many high-quality manufacturers of processing and packaging machinery (particularly supporting food and pharmaceutical producers) however, we have no industrial robot manufacturers; furthermore, we have a significant shortage of skills when it comes to the deployment, and use of automation.
The right tools for the job

Within Automate UK, we often hear of member companies struggling to recruit engineers; the engineering resources they do have are drained significantly by the lack of skills that end users themselves have hence putting greater strain on the engineers of member companies. BARA members, whilst acknowledging that there is a core of high-quality companies operating in their sector, often bemoan the lack of integration companies, and highlight this as a limiting factor in the deployment of robotics and automation.

The UK continues to offer world class design and innovation yet does not appear to be in the best position to receive help from this. The lack of skills makes scaling from start-up to fully fledged manufacturer very difficult. A lack of clear support and guidance around how to finance the scaling of a business is also limiting.

Time to empower the SME

Historically, SMEs in the UK are very low adopters of automation, believing that it is either too complex or too expensive for them. There are many initiatives and opportunities to support start-ups. However, without a clear strategy for scaling these start-up SME’s and providing them with access to finance to automation and scale manufacturing competitively, we often lose the opportunity to other nations who are capable of delivering.

Bust the ‘Robots take Jobs’ myth

Also blocking the adoption of automation in the UK is the ongoing misconception that “Robots take jobs”. This is a narrative that must change as soon as possible. As previously explained, we have seen the scale of vacant job roles in the UK; with declining access to low-cost labour as well as a reduction in availability of skilled workers, it is obvious that we need to change the emphasis so that there is a general acceptance that “Robots fill vacant jobs”. Many of these vacancies fall into the dull, dirty and dangerous category, that we should be filling with automation in order to provide more fulfilling and rewarding jobs for our workforce.
Our Goals

adoption of automation in UK manufacturing and thus help secure the future of manufacturing in the UK. These goals are:

1. **Foster a culture of innovation and entrepreneurship that supports the development and adoption of automation technologies.**

During the Third Industrial Revolution of the mid to late twentieth century, the culture in the UK was not open and ready for the adoption of new technologies. We must ensure that openness, innovation and entrepreneurship is not dampened by the conservative and traditional mindset that undermines UK manufacturing.

1. **Invest in education and training to ensure that the UK’s workforce is equipped with the skills and knowledge needed to thrive in a rapidly changing workplace.**

The UK needs a workforce that is ready to adopt and embrace new technologies that will help drive manufacturing growth.

1. **Develop policies and strategies that support the adoption of automation across all sectors, including the creation of a national automation strategy.**

The economy needs to be allowed to flourish without being hampered by policy. We must ensure that policy makers create an environment that allows for the swift and widespread adoption of automation.

1. **Ensure that the benefits of automation are shared equitably across society and that the potential negative impacts are mitigated.**

Ensure that as a nation, everyone benefits from the adoption of automation. Allow entrepreneurs and business leaders, wherever they are based in the UK, to let their businesses grow and thrive whilst adopting automation that allows their workforce to improve skills and work in cleaner, safer more fulfilling and more rewarding jobs.
The PPMA Commitment

Automate UK believes that government Policy is important to creating a highly automated and efficient UK Manufacturing Sector. However, we understand that as the leading association for Machinery and Automation, we must ensure that we do our part. As such, we are committing to a number of activities and utilising our ever-growing network of members who we believe will help us achieve our goals:

• Invest in the Future

STEM education will be the springboard for many future engineers; this is only the first step in our commitment to investing in the future; PPMA BEST offers various apprenticeship grants and bursaries to member companies. The charity will also work with Automate UK members to form strong links with local schools and colleges to help inspire young people through interactive STEM-based activities.

• Technical Expertise

To ensure that PPMA / BARA and UKIVA maintain their positions as leading experts in their field, we are committing to developing a technical department – headed up by a newly employed CTO, to lead the discussion on opportunities, challenges, regulations, skills and more that will have an impact on our members, end users and wider UK manufacturing.

• Lobbying

As the leading authority on the technology manufactured and sold by our members, Automate UK must engage directly with parliamentary decision makers and influencers to ensure that their needs and the benefits their products can bring to the UK economy are central to relevant policy.

• Training

We have identified that a lack of relevant skills is slowing the adoption of automation. Automate UK will provide frequent and low-cost training that will aim to enhance the skills required by our members and end users.
• Export support

Through a number of carefully selected international exhibitions, we will provide practical and financial support to member companies to help them build their export business.

• Networking

Holding regular events that bring together leading minds in our industry to share their thoughts is of paramount importance to an industry association. Automate UK will strive to deliver monthly events throughout the country that provide a forum to discuss technologies, challenges and opportunities amongst our members and end users.

• Exhibitions and events

We organise a range of world class exhibitions in the UK:

• The PPMA Show
• Automation UK Exhibition
• Machine Vision Conference

...to provide our members with a platform to promote their latest developments in technology and automation to UK manufacturing.
What can the Government Do?

Whilst we must encourage our manufacturers to act on their own initiative and help drive the UK economy, there is a clear role for the government to play in the drive to a more automated manufacturing sector in the UK. Automate UK believes that the following strategies should be adopted by government in support of our aims:

1. Create an Industrial Strategy as advocated by MAKE UK, with Automation at its heart.
   Automate UK supports MAKE UK policy recommendations to create a body that sits above politics to create and oversee a cross party strategy that sets the ambitions for UK Manufacturing, advises on policy to support those ambitions and then measure the impact that the policy is having on the UK economy.

2. Promote the message that automation supports rather than takes jobs.
   The overriding message that automation and robotics take jobs is outdated and hampers manufacturing growth. The government should help change this narrative by promoting the message that automation improves productivity, safeguards jobs, improves workplace conditions and drives salary growth.

3. Review the Apprenticeship Levy.
   Whilst full of good intentions, the Levy does not appear to work as it should. Many employers are struggling to spend the full Levy due to limiting deadlines and a lack of flexibility. The government should consult with a selection of employers, large and small and across all industries, to look at ensuring that the Levy meets their needs.

4. Support a scheme to access finance for scaling.
   We would like to see a government backed scheme to support finance for automation to help manufacturing businesses scale. Whilst schemes to support startups exist (often with owners sacrificing equity in return for finance) we are unaware of schemes specifically designed to support scaling. Often, lenders are reluctant to finance automation, particularly if special purpose in nature, without significant guarantees. Government should engage with lenders to offer security against scaling loans for automation.
5. **Promote STEM in schools.**
Government should review Ofsted’s remit to allow additional credit to be afforded to schools that carry out extra-curricular activities that promote STEM, engineering and manufacturing. Additionally, more should be done to provide meaningful practical qualifications for children whose skills may be ideally suited to a career in manufacturing and engineering who may struggle to gain qualifications in our current system.

6. **Taxation.**
The UK tax system should be structured to provide incentives for companies to invest in automation and to restore manufacturing. The more automated (and therefore efficient) our manufacturing becomes, allied with a more local supply chain, the more it will generate a more competitive and robust UK manufacturing sector.

7. **Export.**
In recent years, policy has changed to reduce tangible financial support for exporters. Automate UK supports Export Partners UK’s mission to drive government to offer greater support for our exporters.
Conclusion

Automate UK is committed to delivering these goals and aims. We will also engage with government and other policy influencers to ensure that the combination of policy and our activities help achieve our goals to ensure that the adoption of the latest technologies supplied by our member companies supports the growth and development of UK manufacturing through automation.

About Automate UK

Automate UK consists of three associations PPMA, BARA and UKIVA. It officially rebranded from PPMA Group of Associations to Automate UK on the 1st of December 2023.

It launched its first PPMA Show in 1988. In 2009, BARA and UKIVA joined forces with PPMA. Automate UK now represents over 560 member companies providing distinct and focused exhibitions and support for its members and end user customers. It has grown to become the voice of the processing and packaging machinery industry in the UK. Home to publications such as ‘Machinery Update’ and ‘Vision in Action’ Automate UK gives unparalleled access to the latest technologies in its covered sectors. It also provides bespoke training and members events for those that join the association. Automate UK also supports member companies at overseas trade exhibitions through its UK Pavilions.

Our principle objective is to help members to sell more products and services across a multitude of industry sectors, and to promote the increased use of automation to improve manufacturing productivity.

To learn more about Automate UK visit: www.automate-uk.com