

CAPITAL INTERVENTION REQUIRED TO BUCK THE TREND

As UK manufacturing braces itself for life outside of the single market, Mike Wilson, Chairman of the British Automation and Robot Association, believes that it could be 'make or break' for many SMEs if levels of capital investment continue to decline

With the countdown to Brexit now underway, the UK finds itself in a precarious position. Once revered for its manufacturing, skilled-labour and innovation, the UK is no longer considered the powerhouse it once was in the 1950s and 1960s.

In 2007, it was reported that the UK supported 3.5 million manufacturing jobs, which

equated to more than 12% of employment. However, by 2016, 600,000 UK manufacturing jobs had been lost due to lower cost labour abroad and factory closures closer to home.

While it's reasonable to expect that the UK's withdrawal from EU on 31 October 2019 will undoubtedly create more political turmoil, logistical challenges and less favourable trade tariffs, it

should at least force more companies to think laterally and look at ways to become more efficient.

There has been a steady increase in robot use across the UK over the past decade. However, as a result of the relatively slow rate of adoption, we now find ourselves in the shadow of many competing countries. And the growth curve suggests that the UK will only fall further behind unless a significant increase in investment is forthcoming.

A lot of countries in Europe are ahead of us, as are the US, South Korea and even China; the latter only started incorporating robots into their production lines quite some time after we did in the UK. What's more, China is traditionally regarded as having an infinite supply of low-cost labour, yet they still have more robots per head across manufacturing.

Currently, the UK is twenty-second in the global ranking for robot density per country. Remarkably though, it remains one of the most advanced economies, being part of the G7 (group seven), which, along with Canada, France, Germany, Italy, Japan and the United States, represent almost 60% of the global net wealth.

COST MISCONCEPTION

So why is the UK lagging so far behind in the application of robots in manufacturing? The flexibility of labour is one issue. It's much easier to hire and fire under UK law, as opposed to often more stringent employment regulations overseas. There is also the

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misconception that robot automation is costly.

Often, businesses in the UK have based their levels of capital expenditure on a one-year return on investment. In more recent times, though, that period has started to widen; however, it's still a far cry from countries like Germany that are more inclined to accept a return on investment within three years, which is why the uptake of robots in Germany is far higher.

There's also the issue in the breakdown of trust between businesses and many in the banking sector. Following the global economic downturn in 2009, numerous financial institutions were deemed to be too hard on businesses, as they withdrew their support. The net result is that UK businesses are less inclined to seek help from banks unless it's an absolute necessity.

You can also say that we've developed a culture in the UK of 'make do and mend'. We are proud to be able to run and maintain machinery that may well, in some





cases, be 30 to 40 years old, irrespective of the advances in new technology. All in all, it makes it increasingly difficult to get companies to invest for the medium to longer-term. For now, their sole focus appears to be on Brexit and to wait and see what comes of it before dipping their toe in the water.

Despite the notable decline in UK manufacturing since the 1960s, a lot of people will probably be surprised to know that we're still about the eighth largest manufacturing nation in the world, yet as previously mentioned we're twenty-second worldwide in terms of robot use and uptake, so there's an obvious disparity. Consequently, our productivity suffers, which means that the UK is increasingly struggling to be competitive.

There are several things that need to be done to buck the trend. For one, attracting young people with the right aptitude and skillset to implement new solutions is something that has been a challenge for years.

It's only been within the past two years that the government has implemented an Industrial Strategy, which sets out our longer-term plans to boost productivity and increase the earning power of people in the UK.

Catapult centres, like The Manufacturing Technology Centre (MTC) in Coventry, have been designed to transform the UK's capability for innovation and to help drive economic growth, which is a welcome government initiative.

The centres are definitely a solution to the problem; as is the adoption of new technology. Overwhelmingly, though, education is key, and the need to have more engineers and technicians coming through the system to support the upgrading of our manufacturing facilities.

That said, I firmly believe that with Brexit and other global challenges, there's definitely 'an opportunity to be grasped, as opposed to a problem to be managed' – to coin a phrase by Jacob William Rees-Mogg, new leader of the House of Commons. There's no better time than now to



**AUTOMATE THE DIRTY,
THE DANGEROUS, THE
ARDUOUS AND THE
REPETITIVE TASKS**

take control and invest in the future to avoid being left behind.

As more and more migrant workers return to their native countries, industry can no longer rely on overseas workers. When you take food manufacturing, for example, it employs approximately 450,000 people across the UK. Studies have shown that 30% of those were not born here and about 14% only arrived in the UK over the past six years.

With the strength of the Euro against the Pound, and with other emerging economies now outperforming the UK, it's more financially viable for migrant workers to return to their native countries, with the opportunity to have a better standard of living.

This mass exodus means that there simply won't be the manpower to fill all the vacancies in the UK, so the only realistic



alternative is for businesses to look to automate parts of their production lines.

INTEGRATING ROBOTS

Some people perceive this is about 'full automation' and the consequent threat to employment. That's not the intent and that's not what I'm suggesting. It's more about integrating robots to automate the tasks that people shouldn't be doing. So, automate the dirty, the dangerous, the arduous and the repetitive tasks, and use people's skills and attributes where they can add more value to the product, have more interesting jobs and, in all probability, earn more money.

We should never have people at the end of a pick and pack production lines, placing boxes onto pallets; mainly for the health risks, so it's about using

automation cooperatively with the people, so the benefits are two-fold.

Quite often, I am asked for my opinion on industry trends, which is sometimes a difficult call to make. After all, what is currently a trend in the UK, may not be in other parts of Europe and further afield. What I can say is that the UK's position on robot integration hasn't been helped by the narrative doing the rounds that robots replace jobs, which for the best part simply isn't true.

If you take a company like Jaguar Land Rover – to name just one of many, they have created thousands of new jobs since enhancing their production lines introducing new robot technology.

Arguably the biggest topic of interest now is collaborative robots; robots that can work alongside people. Many consider them to be easier to install and more flexible than industrial robots. However, care needs to be taken and the appropriate risk assessments undertaken. It is often not the robot that provides the risk but the application or the machines around the robot. If the application needs to be guarded to ensure safety, then the higher performance of the industrial robot is often the better solution.

To date, it is estimated that out of approximately 100,000 manufacturing businesses in the UK, only 10,000 have at least one robot installation, so there are huge levels of investment still needed to make the UK competitive in a post-Brexit world.

Therefore companies which haven't yet invested in robot technology perhaps need to ask themselves why, and investigate the possibilities. They can also invite a robot supplier, robot integrator or an independent consultant to walk around their factory to identify what opportunities might be available to them to bring about greater efficiencies.

Ultimately, we want UK manufacturing to be successful and to do this we need to provide the workforce with the tools to be highly productive. BARA is here to help, so please check out our web site for further information:

WWW.BARA.ORG.UK

