

## Industry 4.0: vital for UK manufacturing growth

If UK manufacturers were to invest as much in Industry 4.0 as their German counterparts, they could boost their revenues by £20bn. Steve Brambley, deputy director of Gambica\*, argues that it is essential for the UK not to be left behind by the fourth industrial revolution.

**T**he world around us changes quickly and those who pioneer or adapt rapidly to this transformation usually reap the benefits, while others risk being left behind. It wasn't that long ago that Nokia and Blackberry dominated the domestic and business mobile phone markets respectively, but they have since been overtaken as Apple, Samsung, HTC and others got it right when customers moved to smartphones.

Fax machines, film cameras, video recorders and record players have all seen their markets shrink drastically as new technologies progress and become the *de facto* norm. Even relatively modern products like laptops have dropped in sales as tablets and phablets have become more popular.

It isn't only products but also services and business models that can get swept away by technology-enabled revolution. Supermarkets are no longer engaging in land-grabs for brick and mortar stores due to the move to online shopping and home delivery. Banking and travel were disrupted by new business models as the Internet provided a new platform that customers embraced.

And now we are discussing the potential for Industry 4.0 to bring a similar level of transformation to the manufacturing industry, an opportunity – and, I would argue, a necessity – for the UK to take a lead and secure an advantage in the next wave of technology development and business models. The potential for boosting manufacturing productivity and the

associated economic benefit is not only highly desirable, but is essential in a competitive global manufacturing environment. The risk of not taking up the challenge and being left behind is a fate we can't afford to allow.

I've written a few columns on the subject of Industry 4.0 – or Digital Manufacturing as the UK government is calling it – but it is worth repeating what the term means for clarity. Shorthand for the Fourth Industrial Revolution, it is the concept of connected and autonomous manufacturing systems, business systems and people that is intended to deliver increased flexibility, greater product customisation, localised manufacturing and shorter lead times. The benefit to industry is global competitiveness and, for the customer, a high level of individualised product. The enabler is the next level of connected automation technologies with fast data transfer and storage.

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What do we need to make it happen in the UK? Gambica's vision is for a collaboration between industry and government that gives manufacturers the confidence to invest in the future. We need government support and action that delivers a clear, long-term manufacturing strategy. Industry needs a stable policy environment and a positive national economic position to provide a basis on which long-term

investment can be made. Government engagement with a broad group of stakeholders is key to understanding the requirements of industry in areas such as innovation, education, access to finance, and regulation.

If we take Germany as an example, this is exactly the approach that government and industry have taken. A recent European Commission report indicated that the German Federal Government will invest €200m in Industry 4.0 projects across skills and innovation. According to a PwC report, German industry will invest €40bn per year by 2020 specifically in Industry 4.0 – the survey indicated that German industry intends to invest 3.3% of its turnover in Industry 4.0, and expects a 12.5% increase in revenues.

Germany's manufacturing industry is about three times larger than ours, but they already invest seven times more in automation than British industry. If we followed the same proactive strategy of industry investing in Industry 4.0, a 12.5% increase in revenue would be equivalent to £20bn. This would have a very positive impact on manufacturing, the supply chain, associated services and employment – an opportunity we should not miss. ■



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