



Industrial automation has been reducing costs and increasing productivity in manufacturing since the 1940s. Recently, interest in deploying automation solutions has increased as the cost and complexity of maintaining a reliable workforce has risen and barriers to adoption have declined. In this article, CIL explores what is driving growth in industrial automation and the opportunities in the sector.

Industrial automation is the control of machinery and processes by autonomous systems using technologies, such as robotics and computer software. It not only reduces cost and improves productivity but also increases quality and provides greater flexibility in the manufacturing process. Recent trends have increased market interest in deploying greater amounts of automation in production, including:

## 1. Challenging workforce dynamics

Lack of skilled and semi-skilled labour and high churn rates makes it difficult to maintain a reliable and productive workforce. For certain functions and in certain regions automating these positions not only increases productivity but significantly reduces operational risk.

## 2. COVID-19 disruption

COVID-19 magnified the operational challenges brought about by workforce disruption. Social distancing requirements also made the use of labour more complex and less efficient pushing manufacturers to look for automation solutions.

## 3. Greater international competition

Many countries with lower labour costs have improved manufacturing capabilities in complex industries, forcing firms in higher labour-cost countries to increase their competitiveness. Automation can assist these firms in reducing costs.

## 4. Onshoring of supply chains

COVID-19 disruptions to offshore supply chains have increased demand for onshore manufacturing and this, in turn, has led to higher labour costs in production. Automation can offset these higher labour costs.

## 5. Decline in barriers to adoption

A reduction in the cost and complexity of introducing automation technology into workflow processes has enabled auxiliary processes to be cost-effectively automated. It has also allowed smaller and medium-sized manufacturing operations to adopt automation,

significantly growing the potential customer base for suppliers and technology providers.

Previously cost-prohibitive technology and core components of automated systems have declined in price, while off-the-shelf options have become more readily available, replacing bespoke and more complex engineered-to-order systems. And finally, the rise of equipment-as-a-service and cloud-based manufacturing execution software has reduced upfront CapEx requirements, lowering a key barrier to adoption.

Two examples of areas where we expect to see high growth are:

### Manufacturing operations management software

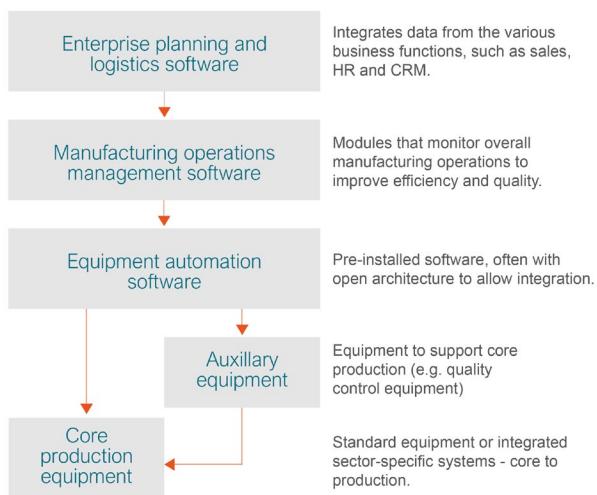
These solutions provide a clear ROI to manufacturers, often achieving overall equipment effectiveness (OEE) improvements of around 5-15%. OEE is the relationship between machine uptime, rate of production, and frequency of errors in production. Automation solutions are typically designed to optimise one or all these factors. These tangible cost improvements have a direct impact on profitability. Some modules support process documentation (PD) or quality management (QM) in regulated industries.

### Auxiliary equipment

This includes equipment used to automate non-core production processes, such as beginning of the line and end of the line material handling, packaging, inspection and ancillary input processing. The equipment and its software are often critical for maintaining production and can lead to upselling opportunities. For example, vision inspection equipment and software for manufacturing quality control are often sold with additional machinery for bad part rejection and sorting.

International commissions continue to grow in importance, rising from 36% of revenues reported in 2018 to 46% in 2022.

International hours were not recorded in the 2022 Broadcast survey. However, as has been the case historically, international revenue per hour is likely to be significantly greater than UK revenue per hour. This reflects the international skew towards higher value, prime-time programming and high-end drama commissions, and the 'full funding' model used by international broadcasters. This gap is likely to be narrowing as international commissioners increasingly commission across a broader range of genres.



## Identifying opportunity

There is a clear opportunity for investors within the industrial automation sector. We believe there are five winning characteristics to look for in potential acquisition targets.

### 1. High impact on overall equipment effectiveness

As they are competing against other investments, winners in the automation space will show the greatest improvement in OEE across multiple different factors.

### 2. Embedded in higher growth sub-sectors

Suppliers with years of experience serving specific sub-sectors have a more defensible position, with long-standing expertise and partnerships that can be leveraged to test and expand capabilities. These sub-sectors can be industries or functions. Automated components core to the production process, such as vision inspection systems, are mission-critical and can build in high switching costs.

### 3. Integration

The ability of a product to integrate with broader elements of the production process to create fully virtual factories and digital twinning will provide a highly defensible proposition.

### 4. Leading the way in industry standards

Automation providers in niche verticals often have strong thought leadership positions. Working in partnership with other key suppliers they can drive

standards or protocols that define how systems operate and integrate. These standards can favour certain technologies and solutions over others and create barriers to switching.

### 5. Access to proprietary data and algorithms

Data collected within and across customers improve the performance of automation technology and allows a supplier to build data-driven services into their offerings. This enhances the manufacturer's OEE and increases stickiness.

The broad potential of industrial automation suppliers provides investors interested in this fast-moving space with an attractive opportunity. However, they will need a clear view of the factors needed for success in the sector, and the opportunities available for growth. If you would like to discuss any of the points raised in this article or find out more about CIL's wider industrial automation experience, please get in touch.



Jon Whiteman  
Managing Partner  
[jwhiteman@cil.com](mailto:jwhiteman@cil.com)



Axel Leichum  
Partner  
[aleichum@cil.com](mailto:aleichum@cil.com)