

A woman with dark hair tied back, wearing a white lab coat and clear safety glasses, is focused on her work. She is holding a component of a large industrial machine. The background is a blurred factory floor with blue lighting. The overall tone is professional and technical.

CERIDIAN

# MANUFACTURING CHANGE

Building a next-gen workforce for Industry 4.0



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# INTRODUCTION

Manufacturing is deeply entrenched in a fourth industrial revolution. It's transforming the way products are produced, plants are operated, machines are maintained, and, most importantly, how good business decisions are made. Gone is the old image of manufacturing as the last vestige of a post-war economy. We are now in the era of "Industry 4.0," a whole new world where people and machines collaborate, production is tested and perfected in a virtual world, and data predicts the future while solving problems in real time.

What makes this moment in time different from past industrial revolutions is the sheer speed of progress. Technological advancements are emerging at a pace never seen before in history, and they show no signs of slowing. KPMG characterises this new pace of production through the twin concepts of "evolution" and "convergence," where each new technology triggers the next in a continual chain of incremental innovation (evolution), and where the power of any one technology is magnified by its ability to connect with others (convergence).<sup>1</sup>

At the same time, the ripple effect from the past 20 years of globalisation continues to change the game for manufacturers. The increase in competition from developing countries endures, and the industry must now also manage extended, global supply chains during uncertain political times. These changes have made operations more complex, requiring a shift from known business models to new ways of operating, bringing uncertainty and risk.

The result is a race among manufacturers to build the "factory of the future," leveraging advanced technologies to stay competitive, meet demand, and respond to new opportunities in the market. But the speed and complexity of rolling out Industry 4.0 technologies creates a risk that manufacturers will neglect their most important asset: people.

Contrary to the notion of the "rise of the machines" prevalent in popular culture, technology is acting as an extension of people, rather than replacing them. People and machines now co-exist and interact, changing the nature of work and introducing a demand for new skill sets. Industry 4.0 places a premium on talent – thriving in this new world requires not only having the latest technologies, but also understanding how to derive real value from them.

In short, it's not enough to build a factory of the future – you need a next-generation workforce to make it matter.

## A brave new world

Manufacturers striving to build the factory of the future will need to successfully balance two priorities. On one hand, there is the immediate pressure to meet ever-higher production demands and boost profit margins. On the other, manufacturers need to prepare for a future that lacks clear definition and is constantly evolving – or risk being left behind. The emerging skills gap in the sector adds an additional layer of complexity.

Industry trailblazers realise that the secret to conquering both challenges requires a paradigm shift. Manufacturers must reimagine the workforce as a fluid entity that can move with – not against

– the unyielding momentum of Industry 4.0. The successful factory of the future will feature an engaged, skilled, and nimble workforce that’s equipped to interpret and share information across the value chain, adapt quickly to changing priorities and market needs, and solve problems creatively in real time.

To bring this vision to life, manufacturers will need an advanced people strategy that can boost productivity and reduce labour costs, improve employee retention, and reskill the workforce in preparation for the future.

## Winning with Workforce 4.0

1

### MORE ENGAGED EMPLOYEES

Companies with highly engaged workforces can see up to 147% higher earnings per share than their peers.<sup>2</sup>

2

### A FUTURE-READY WORKFORCE

46% of UK manufacturers are increasing training budgets, while 72% are introducing formal apprenticeships and 36% continue to run graduate programs.<sup>3</sup>

3

### LESS “ADMINISTRATIVE DEBT”

Managers can recoup as much as 66% of their administrative time by automating manual or legacy systems for workforce planning and scheduling.<sup>4</sup>

# FOUR IMPERATIVES FOR A FUTURE-READY WORKFORCE

Transform your workforce with four key strategies to stay competitive:



## OPTIMISE

Build a nimble team with workforce management



## INVEST

Design a flexible learning system to support reskilling



## RETAIN

Create a differentiated employee experience



## RECRUIT

Streamline hiring for efficiency

**“Manufacturers are well on their way down the path of transformation under the fourth industrial revolution, but the one area of the business that remains largely unexplored is the workforce. You can’t win in Industry 4.0 with Workforce 2.0. It’s time for manufacturers to shift focus to creating a modern workforce that’s equipped for the future of manufacturing.”**

DANNY SMITH | INDUSTRY PRINCIPAL,  
MANUFACTURING | CERIDIAN





# OPTIMISE

Build a nimble team with workforce management



## The skills gap in the UK manufacturing sector is significant: One study from 2017 showed that 29% of vacancies were caused by skills shortages, compared to the national average of 6%.<sup>5</sup>

Manufacturers are striving to meet increasing market demand with fewer available workers, fueling a need for improved operational efficiency.

Optimising productivity on the workforce side of the business through advanced workforce management strategies, such as data-driven labour forecasting, scheduling, competency matching, and task management will help organisations reduce labour costs and minimise downtime.

### Leverage advanced people analytics

While many manufacturers have been exploring ways to leverage analytics for more efficient production, highly strategic companies are using data pervasively across the organisation in a more holistic, integrated way – which includes their people management systems. According to one study, 34% of organisations said not having HR systems integrated with other organisational systems was a top barrier to making optimal use of predictive analytics.<sup>6</sup>

Advanced people analytics can help manufacturers solve a series of Industry 4.0 workforce challenges. For one, data-driven labour planning has value beyond forecasting demand and planning equipment constraints; it can also help organisations place the right number of workers

with the right skills on the line at the right times for maximum productivity. Companies can also project and understand the effects of unplanned overtime and absenteeism on the bottom line, while identifying causes that can be addressed.

### Streamline processes with automation

Many manufacturers are adopting advanced technologies like robots and cobots to automate lower-skilled, repetitive tasks on the factory floor for more efficient production. However, adoption of automation technology for workforce management is far from prevalent.

Despite a greater need for companies to ensure they have the right people with the right skills to navigate change, just one-third (32%) of manufacturers surveyed in the Make UK Modern Manufacturing Workplaces study said they have a workforce plan in place, while two-thirds (64%) have no plan and 5% say they don't know.<sup>7</sup>

Managers spend a significant amount of time building schedules that balance organisational needs with employee and labour constraints. Organisations need to overcome this “administrative debt” and focus managers’ attention on training and coaching employees and identifying opportunities to improve productivity.

According to research, “organisations using manual scheduling processes increased labour costs by 2% to 8% due to unintentional schedule padding.”<sup>8</sup>

Automating people processes can streamline day-to-day operations and move managers’ focus from administrative tasks to higher-value work. The benefits of automating processes are significant: Nucleus Research found that typical organisations experience reduced management time, fewer errors, and increased payroll administration productivity.<sup>9</sup> An added advantage is that organisations can more easily maintain compliance in today’s complex regulatory landscape.

## **Support business continuity with succession planning**

Manufacturers should consider succession planning as a strategy to support business continuity and help build a flexible workforce for the future. Succession planning is still primarily used to groom talent for leadership roles, yet only 20% of HR professionals feel they’re adequately prepared for any employee in a key position to leave.<sup>10</sup>

A strong succession plan will include both leadership and critical non-manager roles, while taking factors like diversity and emerging skills gaps into consideration. Succession plans should also be integrated with other talent management programs to ensure consistency in execution and provide a seamless experience for employees.

Investing in succession planning will help manufacturers deal with the gap left behind by retiring workers, and leave organisations better able to handle unplanned absences, increases in demand, and employees moving up the ranks. It’s also a key factor in employee retention and helps organisations plan and deliver workforce training more effectively.





# INVEST

Design a flexible learning system to support reskilling

**In the factory of the future, the ratio of unskilled workers, skilled labourers, and highly-trained technology specialists will change, skewing toward a higher proportion of skilled roles than we see today.**

The size of the UK manufacturing workforce has fallen sharply over the last few decades – in fact, it has more than halved between 1981 and 2018, with three million fewer jobs.<sup>11</sup> The sector has a chronic skills gap, and new barriers to immigration for skilled manufacturing workers from EU countries could further impair UK manufacturers from trading competitively.<sup>12</sup>

Manufacturing employees with technology skills are in high demand, but the changing work environment also requires more highly-developed soft skills, such as decision-making, problem-solving, communication, critical thinking, and persuasion.<sup>13</sup> Manufacturers should invest in flexible training platforms that support both types of skill-building across the organisation. These platforms should also connect learning back to employee performance and development to improve both retention and business outcomes.

**Build training into your workforce planning**

Reskilling and upskilling the existing workforce is essential for manufacturers to address the skills gap and labour shortage. However, it can be difficult to orchestrate when keeping pace with production is already a significant challenge for organisations.

Manufacturers can benefit from using data to identify slower periods and downtime to facilitate training with minimal disruption to production. Manufacturers should also identify emerging skills gaps that pose a risk to production, helping leaders prioritise training initiatives and tailor succession planning to prepare the workforce for the future.

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30M

UK manufacturing jobs  
have been lost since 1981

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## Determine the best way to train your workforce

According to Make UK, 86% of companies said that the goal of addressing skills shortages is driving their current workforce plan. While training budgets are increasing to tackle this issue, several barriers exist— such as the lack of suitable training sites and time pressures.<sup>14</sup>

Manufacturers should also consider the benefits of non-traditional learning opportunities for upskilling the workforce. Shorter learning modules can be used to train employees on a variety of skills, including soft skills, and may be easier to implement in a high-production environment.

Formal and informal mentorships, job-shadowing programs, microlearning, and peer-to-peer social learning are all great skill-building options that can also be incorporated into a formal employee development plan.

## Personalised training

Manufacturers should consider a bespoke approach to learning and development programs. Millennials increasingly want a Netflix-style training experience where they can easily access modules that are customised to their own needs.<sup>15</sup> Self-serve training can work well for manufacturers because it adds to employees' sense of empowerment and requires less effort from HR teams to facilitate.

Learning Experience Platforms (LXP) are becoming popular, as they can curate training content and

provide recommendations based on triggers (e.g., an employee taking on a new role or joining a project team). They also allow for different types of programming, such as videos, short modules, or certification programs, which can be adapted to different learning styles and capacities.

## Mentoring and social learning

The factory of the future will be powered by a model of collaboration and collective knowledge. Social learning allows workers to create and share content and get answers from colleagues and subject matter experts informally within the context of their day-to-day roles. Learning directly from the source is quick, engaging, and fosters cross-organisational collaboration.

## Microlearning

Microlearning focuses on “bite-sized” learning moments that can come in various forms – from short, skill-building videos pushed to smartphones, to daily optimisation tips shared by team leads.<sup>16</sup>

Microlearning is a great training option for new hires who can be overwhelmed by information in extended onboarding sessions. It also helps keep existing employees up-to-date on new technologies, products, and processes.

## Connect learning to performance

Manufacturers should focus on the bigger picture when designing programs to reskill workers. It's not enough to simply match employees with training programs and learning opportunities. Successful reskilling plans will connect formal training programs, learning modules, mentoring moments, and informal skill-building opportunities together into clear, personalised learning paths that support employees' goals and those of the business.

The best reskilling programs will link learning and development, succession planning, performance management, and task management together, giving workers a clear career path within the organisation, and managers a roadmap to support their success.

## Develop and engage younger workers

Offering a flexible training platform can serve as a tool to engage, and develop younger workers' skills and careers. This benefits the organisation by helping to close the skills gap and serving as a way to attract entry-level talent, and gives younger workers a clear path to a satisfying career. Offering onboarding, training, and up-skilling through a learning platform will appeal to school leavers who have grown up with technology.





# RETAIN

Create a differentiated employee experience



**As organisations prepare for the factory of the future, employee retention will become critical. Older members of the workforce are approaching retirement and there is an insufficient number of properly trained young people ready to replace them.<sup>17</sup>**

To mitigate the risk to production, innovation, and growth, manufacturing organisations desperately need to attract younger workers.

This goal is hindered in part by the fact that manufacturing has a branding problem. There is a widespread perception that the UK is a “post-industrial nation,”<sup>18</sup> despite the fact that the UK is the ninth largest manufacturing nation in the world.<sup>19</sup>

Today’s manufacturers are competing with leading companies in every other industry for millennial and Generation Z talent – especially those with hard-to-recruit technology skills. Manufacturers will need to address misconceptions about the industry, and work to transform the employee experience to match the level of innovation forward-thinking manufacturers are applying to production.

### **Align employees to the company’s vision and goals**

When employees feel like they’re working toward something they believe in, it drastically improves performance. Manufacturers should focus on the vision they communicate internally – not just externally – and how they can inspire employees to bring their best to work every day.

According to a recent CIPD report on UK working lives, around three-quarters of UK workers feel

their jobs are meaningful in that they make a useful contribution to their organisations. To benefit from this positive response, companies should ensure employees’ individual goals align with the organisation’s vision.

One of the biggest factors in job satisfaction lies in whether employees feel they’re contributing to their company’s overall business goals. In Ceridian’s *2018-19 Pulse of Talent* survey, only 51% of respondents said that they feel they’re making an impact; yet, 92% of those who do are happy in their jobs – compared with only 58% of those who don’t feel they’re making an impact.<sup>20</sup>

### **Consumerise the employee experience**

Manufacturers should consider buying into the trend toward “consumerising” the employee experience as a way to change the industry’s image among millennials. Increasingly younger workers have come to expect the type of experience they have as a consumer to extend to other areas of their lives – healthcare, learning, and even work. In fact, 56% of employees feel their employer should understand them as well as they are expected to understand their customers.<sup>21</sup>

Manufacturers should work to ensure employee self-serve tools and interfaces are user-friendly, mobile-accessible, and seamlessly integrated, so employees won't have to go through various tools and processes to make a request or complete an action. Channels and formal processes to collect employee feedback are also important, as many millennial employees expect to have a voice at work.

### **Optimise the onboarding process**

According to a recent survey in the UK by Personnel Today, over one-fifth of employees surveyed had accepted a job and then changed their mind due to problems encountered during the onboarding process.<sup>22</sup> Onboarding plays an important role in building employee engagement from day one, and the experience should be personalised to instill a sense of belonging in new hires. Technology can help facilitate engagement, while lessening the administrative burden on HR teams.

### **Build a strong employer brand**

Manufacturing can take cues from leading technology companies, which routinely use culture as a retention strategy by creating an employer brand that employees are proud to put on their resumes. When talented people have a choice between multiple employers all offering similar working conditions and pay, brand cachet becomes a competitive advantage.

This is not to say that manufacturers should try to emulate Silicon Valley, as not all organisations can

support perks like work-from-home arrangements and flexible hours broadly across the workforce. Instead, manufacturers should focus on offering – and marketing – benefits that give them a competitive advantage over other industries where possible, such as higher salaries, work-life balance, or opportunities for rapid career growth.

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56%

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## Offer opportunities to grow

Career growth and professional development have a significant impact on employee engagement and retention. Employees working for companies that offer resources for learning (from workshops to webinars to formal classes) are more likely to feel happier and stay longer than when these resources are not offered.<sup>23</sup>

Manufacturers should be transparent with employees about compensation, promotions, and career trajectories, and check in with employees regularly on their progress toward goals. It's also important to consider the varying needs and expectations of a multi-generational workforce. For example, employees aged 18 to 34 primarily value new challenges and opportunities to move up the ladder, while those aged 35 to 39 have a greater focus on salary gains in addition to challenges and career advancement.<sup>24</sup>

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# 20%

of employees accepted a job and then changed their mind due to problems during onboarding

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# RECRUIT

Streamline hiring for efficiency

## **In an Industry 4.0 environment, manufacturers need to rely more on the expertise of HR leaders to solve workforce challenges. Success in this new world requires a shift in how the HR function is viewed, and an evolution of HR teams from fulfillment engines to strategic business partners.**

This fundamental change is coming at a time when the number of open manufacturing roles are growing rapidly: As of December 2018, several UK companies reported staffing shortfalls, including Engineering UK with 20,000 engineering roles and a gap of 55,000 workers needed by Transport for London.<sup>25</sup>

UK manufacturers will need to streamline recruitment and hiring processes to allow HR teams to focus on forward-thinking strategies and complex problem-solving.

### **Leverage data for strategic hiring**

Manufacturers can tap into data to understand the characteristics typical of high performers, as well as which factors are likely to make them flight risks. Access to this information drives more strategic, targeted hiring and gives HR teams valuable insight into how they can improve the work environment to attract and retain high performers.

Once great candidates have been found, it's critical to ensure the recruitment process itself doesn't sabotage bringing those candidates on board. In a tight labour market where talent is scarce, speed can be the difference between turning a great candidate into a new hire or losing them

to a competitor – the majority of candidates (55%) expect a two-week recruitment process.<sup>26</sup> Similarly, poor communication and lack of professionalism in the recruiting process can cause candidates to turn down an offer.

### **Build a talent pool**

Talent pools can be used to capture promising candidates for future opportunities. They can also be used to keep track of existing employees with potential for growth, as well as candidates who have skills that the organisation will need in the future.

Word of mouth is a powerful source of talent – 28% of job candidates turn to friends, family, and colleagues to find new jobs, and 68% consider the same sources very important when determining a good fit with a prospective employer.<sup>27</sup> Manufacturers' HR teams should consider creating formalised employee referral and advocacy programs to take advantage of this untapped talent pool.

Focused recruitment of women – along with ensuring the work environment supports their needs – can open a significant untapped talent pool.

# THE PATH FORWARD

As we have emphasised in this guide, senior manufacturing leaders must put the workforce front and centre to remain competitive in an Industry 4.0 world. Many manufacturers are making significant investments in advanced technology to build factories of the future. To see a return on that investment, equal focus should be given to building a highly-skilled, engaged, and flexible workforce that can effectively collaborate and innovate to derive real value from new technology.

## Next steps for manufacturers:

1. Invest in tools to optimise productivity and efficiency to lessen the administrative burden on managers and maximise labour spend.
2. Build learning systems that support reskilling initiatives and make access to learning easier and more engaging for workers.
3. Elevate the employee experience to retain workers and compete with organisations across industries for technology talent.
4. Streamline recruiting with technology tools and bring HR teams to the table as strategic business partners.

To win in an Industry 4.0 world, manufacturers must take a holistic, integrated approach to recruitment, engagement, learning and development, workforce management, and talent management to build a truly next-gen workforce that is ready to adapt to whatever the future may bring.

**To learn more about how Dayforce helps manufacturers build a future-ready workforce, visit [ceridian.com/uk](https://ceridian.com/uk)**

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## About Ceridian in the Manufacturing Sector

Ceridian HCM Holding Inc. is a global human capital management software company. Dayforce, our flagship cloud HCM platform, provides human resources, payroll, benefits, workforce management, and talent management functionality. Our platform is used by the manufacturing sector to optimise the management of the entire employee lifecycle, including attracting, engaging, paying, deploying, and developing people. Ceridian has solutions to help manufacturers of all sizes to boost productivity, improve people processes, and bring their workforce operations to the Industry 4.0 standard.

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