The Future of Work

Manufacturers grapple with a changed world
It’s clear that amid the disruption wrought by COVID-19, most business leaders are not, and should not, let the need for crisis management prevent them from thinking about the future. The disease continues to affect millions, and its effects will be felt for years to come. I’m proud to work for an organisation that’s offering support to those in need right now, but also investing in creating a better environment for all.

We’ve recently launched a new responsible business plan, Citizen Verizon. This provides direction for initiatives across the company to address digital inclusion, climate protection and human prosperity. I firmly believe that this is the right thing to do, and that it makes good business sense. To borrow a line from the plan: when the world thrives, we all win.

To reimagine our organisations for the future, we, as business leaders, must get comfortable with dealing with uncertainty. Without doubt, more change lies ahead. And so, flexibility to respond to change has never been a more valuable commodity, both in leaders and in the organisations they lead.

Understanding the trends and what other companies are doing is crucial to making informed decisions. We offer this report with a dose of humility. We don’t claim to have all the answers, but it provides many useful signposts and recommendations.
The Future of Work

To determine how ready companies are for the future of work, we commissioned an independent research company—Longitude, a Financial Times company—to conduct a wide-ranging survey. This was before the COVID-19 crisis began. To reflect on the dramatic changes to the landscape since then, we commissioned a follow-up survey as countries began to ease restrictions. These two surveys give us a rare degree of insight into the future of work, and how the recent crisis has affected companies' priorities and investment plans.

The Future of Work Index

Using the response from these surveys, we created the Future of Work Index. Each company was assessed on 12 indicators across four dimensions: ability to implement complex digital technologies, effectiveness at breaking down internal barriers, competency of its leadership at maximising the impact of new technology, and its workforces' expertise at using those technologies.

The resulting score is a measure of the future-readiness of the company. A sector's index score is an average of the scores of the companies within that industry. In this report we'll look specifically at how manufacturing companies were doing on each of these four dimensions and how that changed.

Spoiler alert: Most respondents said that the crisis had reaffirmed many of their strategic objectives, but in many cases had accelerated investment.
Future-unreadiness

Many manufacturers adapted admirably during the COVID-19 crisis. Some shifted their production lines over to personal protective equipment (PPE) and other urgently needed medical equipment. Others changed production schedules to help retailers keep shelves stocked and address panic buying of some items.

However, the manufacturing sector was generally less well-prepared than others for the challenges caused by the pandemic. It’s hard to overstate the difficulties faced by manufacturers in adapting to change – particularly large and established enterprises with substantial plants and long supply chains.

In our survey prior to the lockdown, the future-readiness of manufacturers was lower than that of most other sectors. Only legal services and logistics companies registered lower aggregate scores in our Future of Work Index.

Behind on the Future of Work Index.

When we look at the share of Pioneers (companies with a top-20% Future of Work Index score) and Late-movers (those in the bottom 20% of scores), the manufacturing sector didn’t fare well. It had slightly fewer Pioneers and significantly more Late-movers than if it met the all-industry average. This indicates a lack of maturity throughout the industry.

Pioneers and Late-movers by industry.

Across all industries, Pioneers were more likely to have seen positive results in past, including growth – 63% had achieved annual revenue increases of 5% or higher over the past three years compared to just 20% of Late-movers.
The lockdown’s impact on the manufacturing sector was severe. Output contracted across sub-sectors and regions, driven not just by reduced customer demand but also by disruption to supply chains. Nearly two-thirds (62%) of the manufacturers in our second survey said that revenue had declined during the crisis – a figure exceeded only by retailers. Productivity had declined at 58% of the manufacturers surveyed, the third highest figure among sectors. And more manufacturers (45%) had been forced to make redundancies than any other type of company in our survey.

Less future-ready than other industries.

The manufacturing sector’s strongest showing in the index was in the technology dimension, where it surpassed the average. Internet of Things (IoT) deployment, for example, was more widespread in manufacturing than in all but two other sectors (legal services and retail). Adoption of automation and data analytics tools was also more common in most sectors. These technology strengths were offset, however, by weaker readiness levels in the skills and behaviours and leadership dimensions. For instance, although 75% of manufacturers said their workforce was ready to use artificial intelligence and machine learning (AI/ML) and automation, this was the lowest figure of all nine sectors in the survey.

One of the most important lessons manufacturers can take from the crisis is the need to increase their adaptability. How is that illustrated by their scores across the four dimensions of readiness?

<table>
<thead>
<tr>
<th>Industry</th>
<th>Minimum score</th>
<th>Average score</th>
<th>Maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>4.0</td>
<td>6.7</td>
<td>9.1</td>
</tr>
<tr>
<td>Retail</td>
<td>3.3</td>
<td>6.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Professional services</td>
<td>3.9</td>
<td>6.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Energy/utilities</td>
<td>3.6</td>
<td>6.6</td>
<td>9.1</td>
</tr>
<tr>
<td>Financial services</td>
<td>3.5</td>
<td>6.6</td>
<td>9.3</td>
</tr>
<tr>
<td>Insurance</td>
<td>2.5</td>
<td>6.8</td>
<td>8.9</td>
</tr>
<tr>
<td>Media</td>
<td>4.4</td>
<td>6.7</td>
<td>8.9</td>
</tr>
<tr>
<td>Legal services</td>
<td>4.4</td>
<td>6.6</td>
<td>8.8</td>
</tr>
<tr>
<td>Supply chain</td>
<td>3.0</td>
<td>6.3</td>
<td>8.6</td>
</tr>
</tbody>
</table>

Figure 3: Average Future of Work Index score by industry (Survey 1).

The Future of Work—Manufacturing

Productivity had fallen at significantly over half of all manufacturers.
Manufacturers may have been adopting technologies prior to the lockdown, but the crisis limited their progress. Considerably more respondents in the manufacturing industry (40%) said that their implementation of technology solutions had slowed than in other sectors. This may explain why 72% of manufacturers — again, more than other sectors — said that the ability to rapidly deploy new technologies had become more important as a result of COVID-19.

**Technology investments on the rise post-COVID-19.**

<table>
<thead>
<tr>
<th>Technology</th>
<th>Expected Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud</td>
<td>72%</td>
</tr>
<tr>
<td>Cybersecurity</td>
<td>72%</td>
</tr>
<tr>
<td>Data analytics</td>
<td>68%</td>
</tr>
<tr>
<td>AI/ML</td>
<td>67%</td>
</tr>
<tr>
<td>5G</td>
<td>64%</td>
</tr>
<tr>
<td>IoT</td>
<td>64%</td>
</tr>
<tr>
<td>Core network technologies</td>
<td>61%</td>
</tr>
<tr>
<td>Mixed reality</td>
<td>45%</td>
</tr>
<tr>
<td>Blockchain</td>
<td>45%</td>
</tr>
</tbody>
</table>

*Figure 4:* Share of manufacturing respondents who expected their organisations to increase investment in and deployment of technologies after the COVID-19 crisis has passed (Survey 2).

Our research shows that manufacturers plan to increase investment in emerging technologies once the impact of the crisis has lessened. For example, 67% of manufacturers said they plan to spend more on AI/ML, and almost as many (64%) said the same about the Internet of Things and 5G. Manufacturers need to boost their ability to implement these technologies effectively, which includes investing in upskilling existing employees and recruiting others with the needed skills.
Skills and behaviours

The manufacturers we surveyed recognised that their future-readiness relies on more than just deploying technology. More than three-quarters (77%) of those in our second survey said that developing digital skills in their workforce was now more important than ever.

Skills seen as more important following COVID-19 crisis.

<table>
<thead>
<tr>
<th>Skill</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td>81%</td>
</tr>
<tr>
<td>Problem-solving</td>
<td>78%</td>
</tr>
<tr>
<td>Digital skills</td>
<td>77%</td>
</tr>
<tr>
<td>Risk management</td>
<td>76%</td>
</tr>
<tr>
<td>Emotional intelligence</td>
<td>76%</td>
</tr>
<tr>
<td>Social awareness</td>
<td>71%</td>
</tr>
<tr>
<td>Negotiation</td>
<td>62%</td>
</tr>
<tr>
<td>Cross-cultural communication</td>
<td>61%</td>
</tr>
<tr>
<td>Environmental awareness</td>
<td>56%</td>
</tr>
<tr>
<td>Diversity and equality</td>
<td>55%</td>
</tr>
</tbody>
</table>

More manufacturers (81%) than respondents from other sectors emphasised the increased need for employees to be able to respond quickly to changes in strategy and to adopt new ways of working. Most manufacturers (78%, higher than other industries) said that the crisis had proved the importance of problem-solving abilities.
Leadership

The sector was hit hard by the COVID-19 crisis, but the manufacturers in our survey expressed confidence in their management’s ability to take their business forward. Fewer respondents in this sector (36%) than in any other said that their leaders had failed to respond to the crisis effectively in terms of business performance. And more than three-quarters (77%) were confident that their business would survive the crisis.

The growing importance of people-focused strategies.

- Taking steps to protect and improve the wellbeing of our employees (82%)
- Responding to the needs of customers in crisis or financial distress (77%)
- Building a more empathetic and supportive organisational culture (65%)
- Strengthening our CSR initiatives and doing more to support the community (59%)
- Reducing our environmental impact (44%)

Figure 6: Share of manufacturing respondents who stated that selected factors will become more important to business strategy as a result of COVID-19 (Survey 2).

That said, 60% of respondents said the crisis had highlighted several weaknesses in their enterprise’s strategy and operations. About the same proportion (61%) expected their business strategy to change as a result.
New ways of working

Our later survey showed that manufacturers intend to boost their adaptability. The majority (72%) of respondents said that after the crisis it would be important to develop the ability to rapidly deploy people to where their skills were most needed. Even more (74%) said that it would become more important for internal functions to be able to collaborate and share ideas more easily than in the past. Similarly, 69% emphasised the heightened need to share data across internal boundaries.

Business priorities reaffirmed.

- Being able to rapidly redeploy our people to where their skills are most needed
  - Manufacturing: 72%
  - Financial services: 71%
  - Retail: 70%
  - Average of all industries: 68%

- Being able to respond quickly to new opportunities in the marketplace
  - Manufacturing: 77%
  - Financial services: 73%
  - Retail: 69%
  - Average of all industries: 70%

- Participating in the gig economy, to give us fast access to part-time and temporary workers
  - Manufacturing: 37%
  - Financial services: 52%
  - Retail: 49%
  - Average of all industries: 54%

- Sharing data across organisational boundaries, to get a real-time view of business performance
  - Manufacturing: 69%
  - Financial services: 71%
  - Retail: 66%
  - Average of all industries: 66%

Almost three-quarters of manufacturers said remote working was likely to remain an option for many front- and back-office staff after lockdowns are lifted.

Unlike service industries, in manufacturing only parts of the workforce are able to work remotely. Nevertheless, 72% of manufacturing respondents said remote working was likely to remain an option for many front- and back-office staff after lockdowns are lifted.

Figure 7: Share of manufacturing respondents who stated that selected factors will become more important to business strategy as a result of COVID-19 (Survey 2).
**Final word**

We believe that manufacturers preparing for a post-pandemic future should take action in the following areas:

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**Fast-track emerging technologies.**

Technology

IoT, AI/ML, automation tools, 5G, and advanced cloud and network technologies are all integral to the future of manufacturing. Prioritise their deployment to keep you ready for the next stages of growth.

**Think platforms.**

Technology moves fast. Think about creating platforms that help you to become more agile and better able to adapt to changing technologies and emerging business threats and opportunities.

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**Strengthen training programmes.**

Skills and behaviours

AI/ML and other automation technologies will inevitably take over more production floor and warehouse tasks, but new, human-centric roles will be also be created. Training has never been more important to help prepare your employees and your organisation.

**Balance your priorities.**

Balancing your priorities. As the use of AI/ML and other intelligent technologies grows, “human skills” such as empathy, emotional intelligence and ethical reasoning will be needed more than ever. Developing these will help your organisation to embrace new ways of working, enhance social responsibility programmes and cope with change.

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**Write your own rules.**

Leadership

No one expects you to have all the answers, but you can set the tone and be the one to write the new rules. Don’t let old working practices, outdated strategies or legacy systems hold you back: imagine the future you want for the business and start working toward it.

**Commit to social responsibility.**

Reducing carbon emissions, working with local communities and improving diversity are not just the right things to do, they make good business sense. Attracting the best talent is key to business success, and not actively breaking down barriers could hamper your company’s future.
Lead change instead of reacting to it.

Manufacturers have often pioneered new methods of working that other sectors have later assimilated. Leverage your adoption of emerging technologies to adopt entirely new processes and business models. This could pay benefits long after the COVID-19 crisis has subsided.

Learn from others and work with them.

No matter how many smart people there are in your enterprise, there will always be more outside of it. Manufacturers are no stranger to dealing with partners across industries and geographic regions. Leverage this expertise to build sophisticated ecosystems, including expertise from academia and other industries. Blend the skills and resources of your employees with outsourcing and use of the gig economy.

Find out more.

Full report

Read the full Future of Work report for more details of this research.

Webinar series

Watch our series of Future of Work webinars.