

AI AND ROBOTICS AUTOMATION IN CONSUMER-DRIVEN SUPPLY CHAINS

A rapidly evolving source
of competitive advantage



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EXECUTIVE SUMMARY

The linear models of many consumer goods supply chains have remained largely unchanged for decades – they rely on bulk materials and produce standardised products in large centralised factories to maximise economies of scale.

Now, however, this traditional model is fundamentally changing. We're shifting towards consumer-led, data-driven, highly complex supply networks. These are operated by a more age-diverse workforce where employees move from company to company every three to five years. The consumer increasingly drives innovation from the heart of the supply network, rather than being on the receiving end of a supply chain.

These shifts demand mass product customisation, more accurate supply chain planning and synchronisation, and faster multichannel retail responsiveness that go far beyond the abilities of the typical workforce and infrastructure. They require instant visibility, quick decision-making and increased flexibility across the whole network. This will enable innovation, ensure optimum service levels and deliver growth at low cost.

Recent advances in Artificial Intelligence (AI) and Robotics automation have the potential to overcome these challenges and revolutionise supply chains.

PA Consulting Group and The Consumer Goods Forum, through this End-to-End Value Chain Learning Series paper, show that behind the hype, the adoption of AI and Robotics automation is an inevitable evolution you can't ignore. It will become a major source of competitive advantage.

Change will happen, but not overnight. The only way to learn how AI and Robotics automation best fits your culture and your strategy is to experiment. In order to capitalise on the opportunities, you should:

- **tailor and constantly evolve your strategy**
- **align your strategy to the business ecosystem**
- **adapt your workforce to collaborate with, not compete against, machines**
- **implement changes in an agile way**
- **protect your organisation against the risk of cyber attacks.**

To put these opportunities in context, we explain the disruptive consumer trends driving AI and Robotics automation. We emphasise how this requires supply chains to evolve into truly consumer-driven networks. We also define the core cyber and physical aspects of the technology and give examples of relevant applications in supply chains. And we explore the potential impact on the workforce and offer suggestions on how organisations can prepare themselves.

AI and Robotics automation in supply chains offers great potential for organisations that are willing and able to embrace it. This paper will help you find out how to make it work for your organisation.

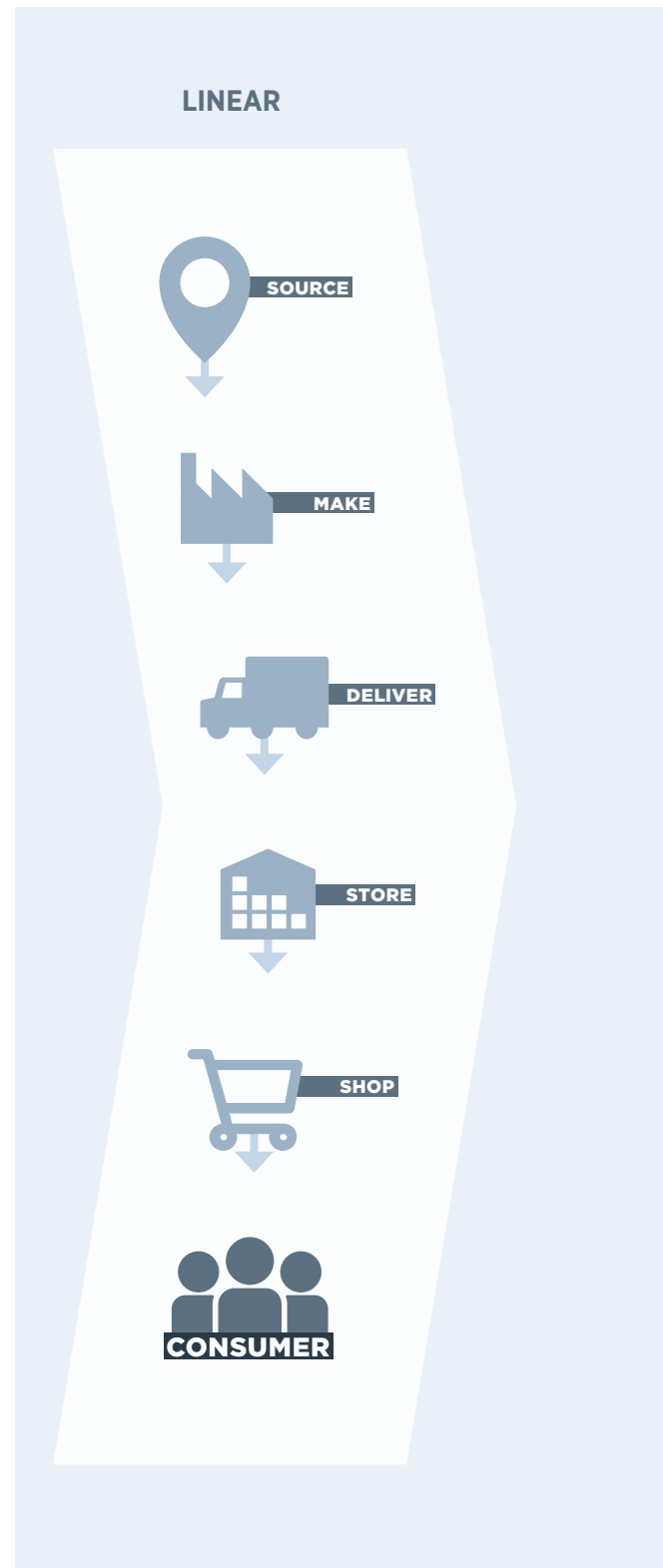
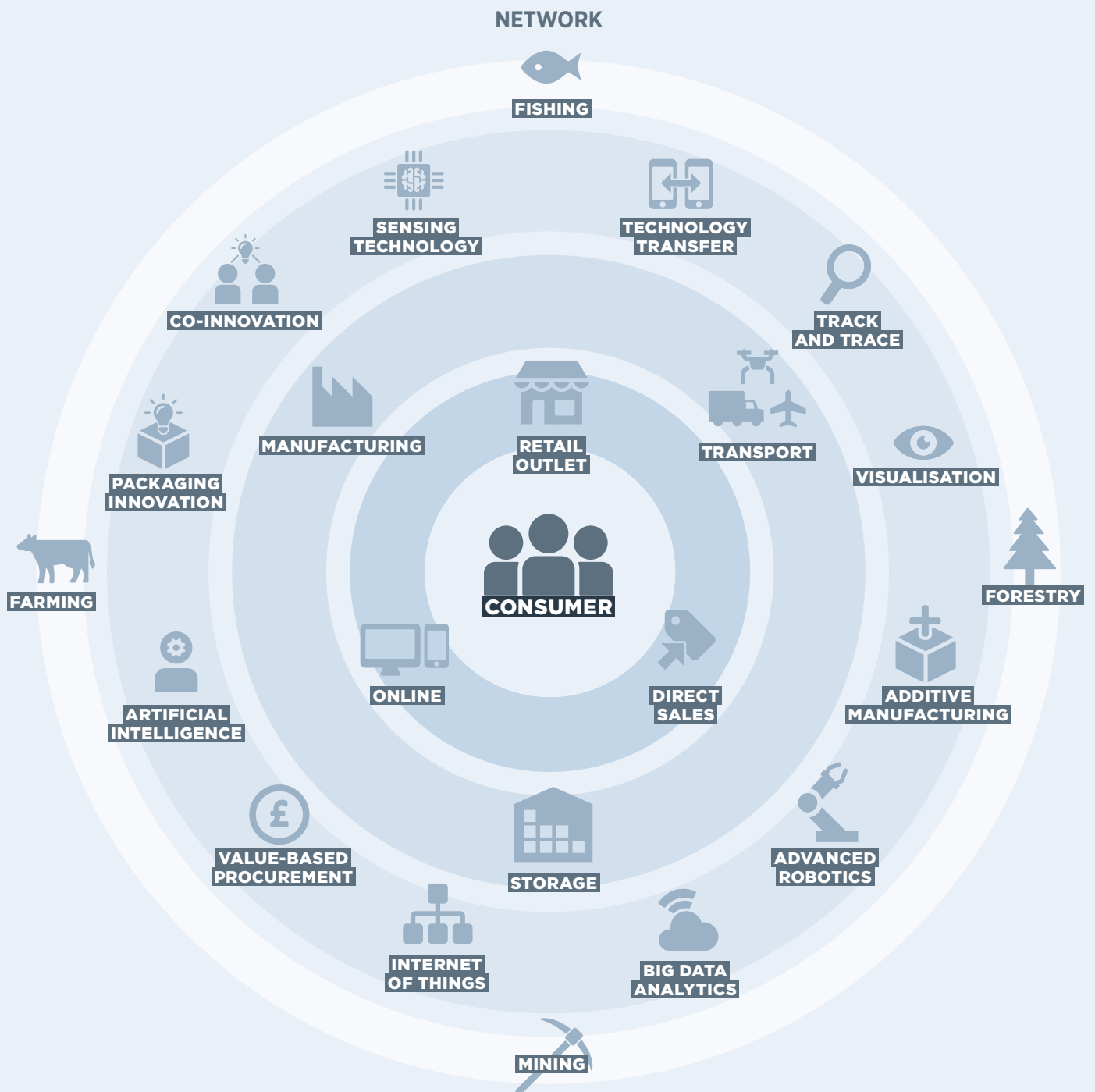


Figure 1: The transformation from linear supply chain to consumer-driven supply network

Source: PA Consulting Group



1 THE WORLD IS RESHAPING

Section highlights:

- Socioeconomic trends and rapidly developing technologies are driving overwhelming changes in consumer and retail needs.
- Consumer goods supply chains are expected to reduce costs and become more flexible.
- Managing this increasing complexity is beyond the current abilities of workforce and infrastructure, making automation through AI and Robotics an urgent need.
- The fourth industrial revolution is making AI and Robotics automation technology more affordable, practical and useful.
- The ability to leverage AI and Robotics automation in supply chains will become a major source of competitive advantage.

**The full report is available to members
of The Consumer Goods Forum.**

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