



TECHNOLOGY

# AI in the supply chain

Supply chain management and the role of software



AI has the potential to simplify and optimize the supply chain. Most of the advantages are related to AI's ability to enable high-level automation (robotics in the future) and process huge amounts of data, spanning across different domains, that were usually treated in separate silos.

It is important to note that often AI requires specific competencies depending on the level of complexity needed. One element might increase the complexity of a system or product, introducing the need for data scientists in the industry and in its supply chain. At least in the short term, everybody needs to consider this factor when creating new plans and business models.

AI needs also to be considered as an enabler of new services and completely different business models. This will have an impact in the industry, and consequently, the supply chain might be disrupted in our effort to simplify it. The number of start-ups working on AI in different industries and domains confirms this trend.

## Supply chain management

AI can and will enable real-time supply chain control, which translates into millions of dollars of savings. This is especially true for highly vertically integrated companies in terms of end-to-end supply-chain control. A few examples of where AI can provide an immediate advantage include the following:

- Optimization of stock of parts and raw materials: inventory and replenishment and reduction of forecast error. This is extremely important in a financial perspective in retail business and manufacturing operations.
- Optimization of supply chain reaction to changes or fluctuation in demand: control of the supply chain and costs or optimizing procurement.
- Decision-making in comparison to humans: robots may be used in various manufacturing process steps instead of relying on persons or suppliers.
- The need for fast decisions, expertise, accuracy, overload resistance, and safety.

## The role of software

Software is having a significant impact at many levels of the supply chain in every industry. Specifically, machine learning is impacting several industries and the ways various companies are positioning themselves as suppliers. Companies like NVIDIA moved up quickly in the supply chain from silicon vendor to solution provider where AI competence and software comprise a large portion of their business model. Vertical integration is another aspect that is affecting several industries through M&A.

## Bottom line

If we are looking at the supply chain from the OEM perspective, it is clear that the supply chain will be "simplified;" but it is also a certainty that the supply chain will be disrupted by AI and ML. In other words, this simplification will also complicate the life for some "links" in the chain.

For more information: [technology.ihs.com](https://technology.ihs.com)  Follow the conversation [@IHSMarkitTech](https://twitter.com/IHSMarkitTech)

### Americas

T +1 844 301 7334  
E [technology\\_us@ihs.com](mailto:technology_us@ihs.com)

### Emea

T +44 (0) 13 44 32 81 55  
E [technology\\_emea@ihs.com](mailto:technology_emea@ihs.com)

### Apac

T +60 042913763  
E [technology\\_apac@ihs.com](mailto:technology_apac@ihs.com)

### About IHS Markit

IHS Markit (NASDAQ: INFO) is a world leader in critical information, analytics and solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 key business and government customers, including 85 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth. Copyright © 2018 IHS Markit. All Rights Reserved