

# 5 advantages of enabling digital threads in manufacturing



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## The role of the digital thread in Industry 4.0



These three terms all describe the same thing: the digital transformation of manufacturing. Driven by disruptive technologies, increased automation and the addition of intelligence to manufacturing processes, this evolution is as powerful as it is irreversible.

Industry 4.0 is the next phase in the digitization of the manufacturing sector, driven by disruptive trends that include the rise of data and connectivity, analytics, human-machine interaction and improvements in robotics.<sup>1</sup>

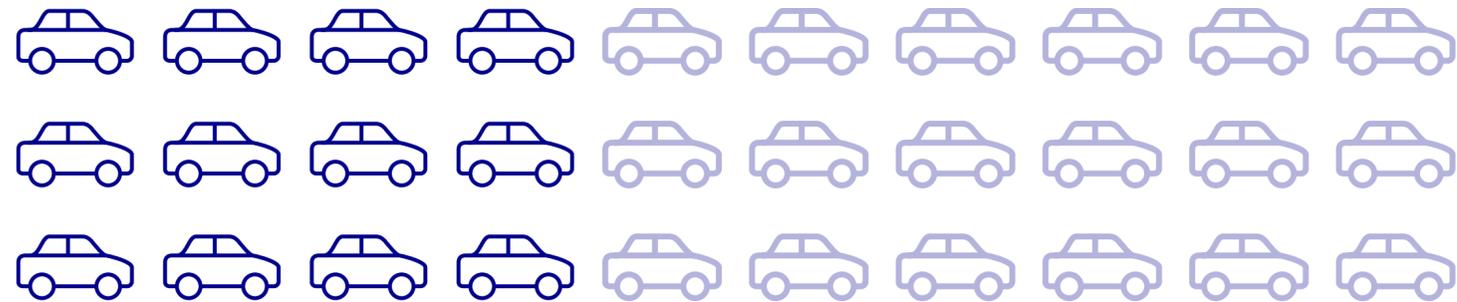
How can you be sure you're getting the most out of your data? The following examples illustrate five ways to leverage a digital thread to improve your business.

The graphic features a blue wave on the left side, transitioning into a bar chart with five vertical bars of varying heights, each topped with an upward-pointing arrow. A long blue arrow points to the right across the bottom of the graphic.

## Improve product development and feedback

Developing a new industrial product is an expensive and risky proposition. Effectively managing and analyzing information can remove much of the guesswork involved in designing a product to help ensure the features and level of quality that customers expect.

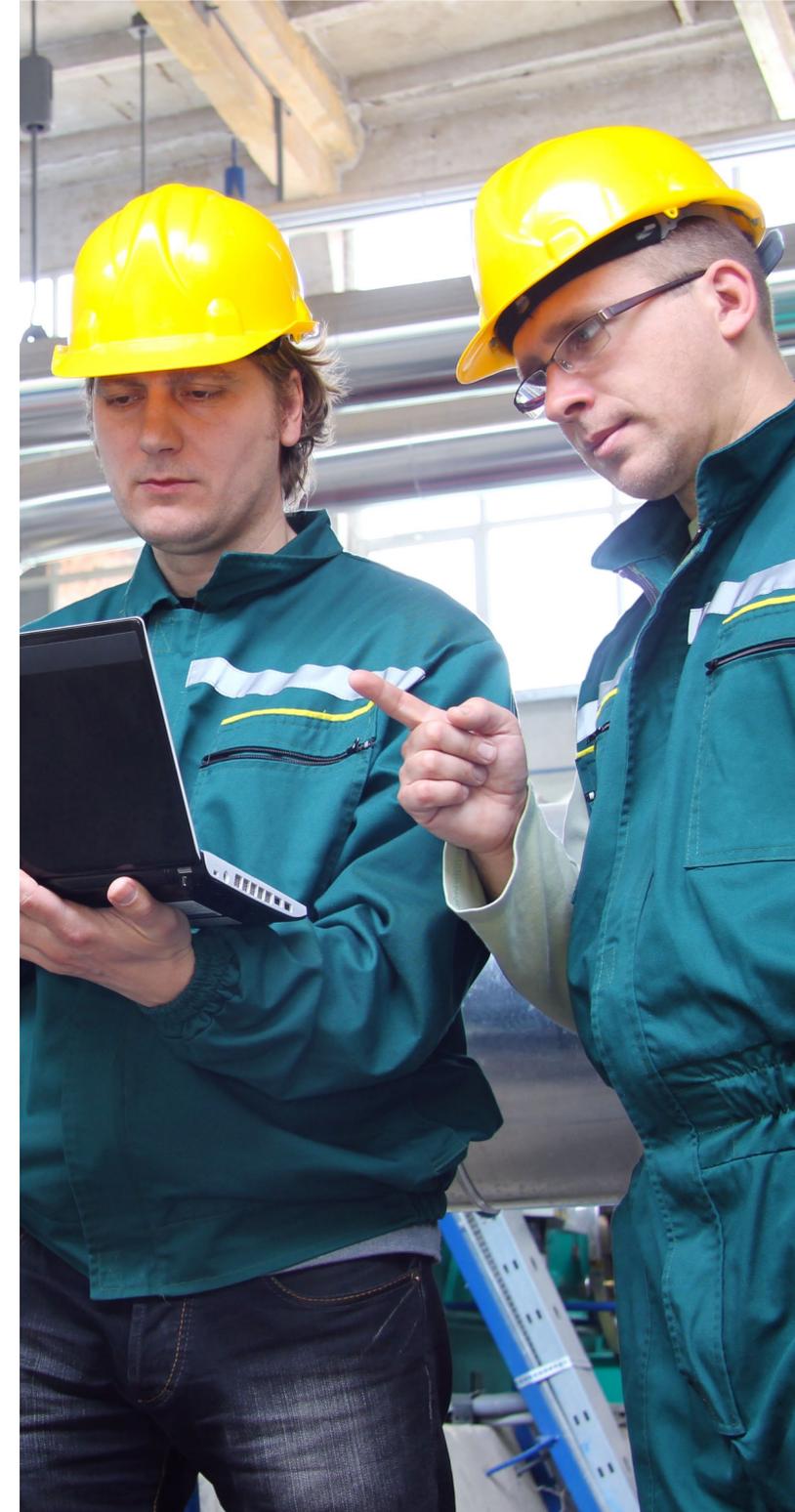
Many organizations will have true quality-related costs as high as 15-20% of sales revenue, some going as high as 40% of total operations.<sup>1</sup>



<sup>1</sup> ASQ, Cost of Quality

## Product quality

Released product data is needed throughout the value chain from manufacturing, from the beginnings of the supply chain to customer support. Managing and sharing this data can significantly improve operational quality and reduce quality related costs. It also allows for feedback and changes to be collected, reviewed and built into the product, improving customer satisfaction.



## Enhance customer experience

Superior customer experience has become essential for success. Delivering the correct bill of materials and product data to your sales and customer success teams allows them to more effectively support the customer. They are also better equipped to personalize communications via customer touchpoints, such as account or service interactions.

A functional digital thread allows analytics to improve demand forecasting by replacing manual spreadsheet interpretation with automated collection, routing and analysis of data. The result is a comprehensive view of data across business processes that more effectively identifies recurring trends.

Analyzing and leveraging data collected at different customer touchpoints—such as sales, delivery, installation, warranty and repair—provides a more cohesive view of the customer. This informs employees across all parts of the business on how to improve customer service to increase retention.

***“In one case, a customer called about the production materials used 20 years ago. Thanks to OpenText Extended ECM, we could locate the data—essential for answering warranty questions in a business that offers lifetime product guarantees.”***

**José Gala-Garza**

Project Manager

ECM Architect and Data Integrator, Cooper Standard

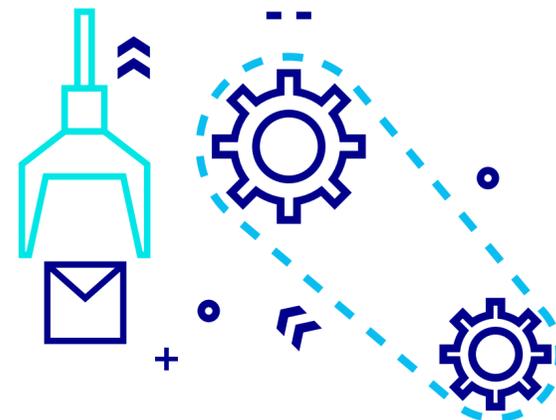
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## Improve operations to boost profitability

Operational efficiency in manufacturing is based on optimizing all aspects of the production line, as well as the inbound and outbound supply chains. A digital thread is vital for minimizing downtime, scheduling production and predicting demand in line with capacity and logistics constraints.

Preventing breakdowns or incidents before they happen is a critical step in risk management and key to ensuring your plant is operating at maximum efficiency. Total visibility into logistics, inventory and dealer networks can also help to eliminate bottlenecks in the end-to-end production lifecycle.



***“The construction and maintenance of plants take years. Every day, new documents are created and are part of company-wide processes. These documents must always be available in the right place at the touch of a button. Our employees have to be able to exchange content simply with both customers and suppliers. The OpenText solution makes this possible.”***

**Christian Niederhagemann**  
Chief Information Officer  
KHS GmbH

[Success story »](#)



## Extend existing product lines

Digital threads help to aggregate information from different sources, allowing new service offerings to be created. After-sales and service are often more profitable than the original purchase.

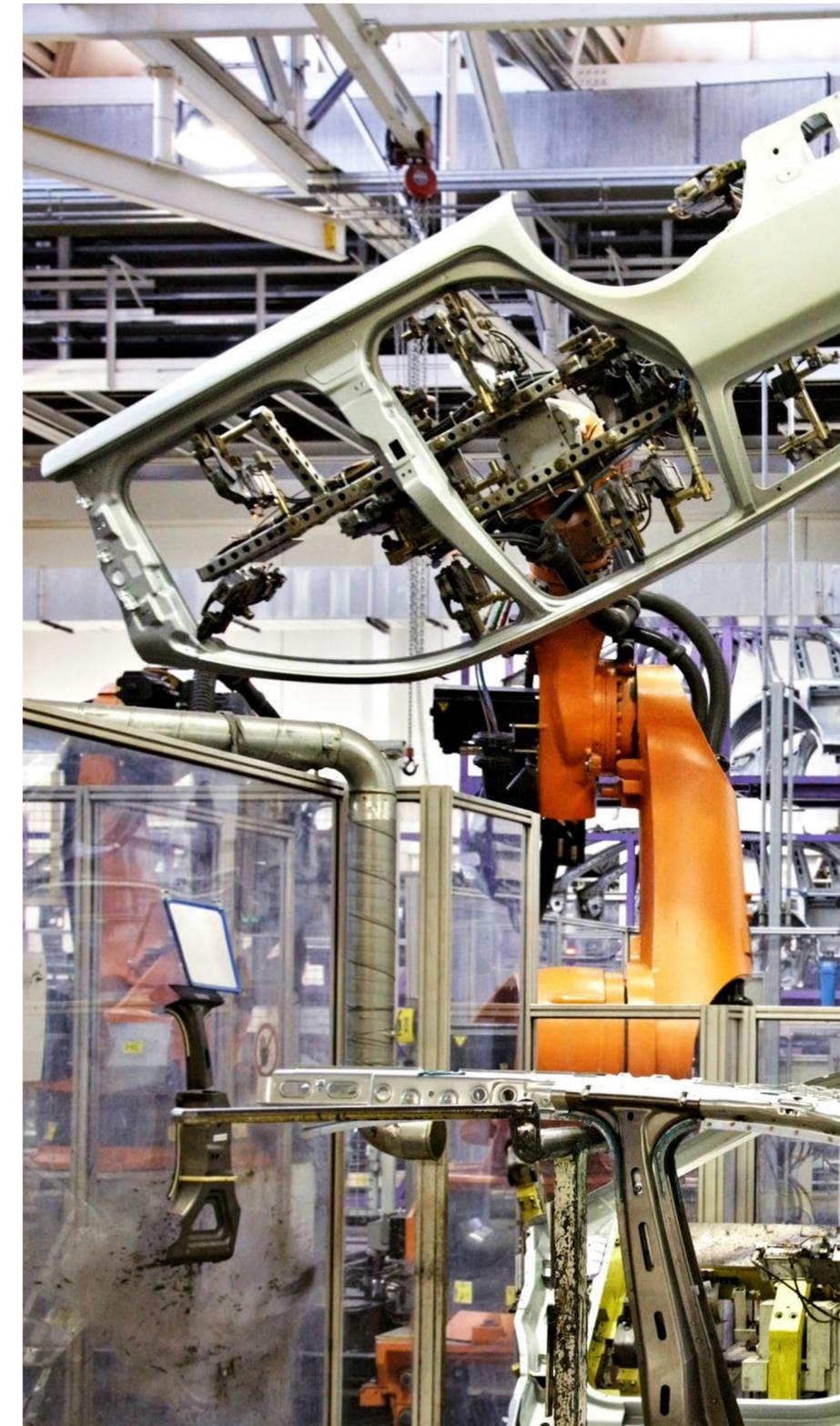
### After-sales

By using data collected from sensors installed on products and equipment, analytics can help create additional service packages to generate new revenue streams.

### Service

Analyzing real-time data about a product's performance in the field can provide valuable insight. Gathering data consistently enables you to benchmark typical performance. When anomalies are discovered in the data, you can predict potential problems that may lead to product failures and equipment breakdown.

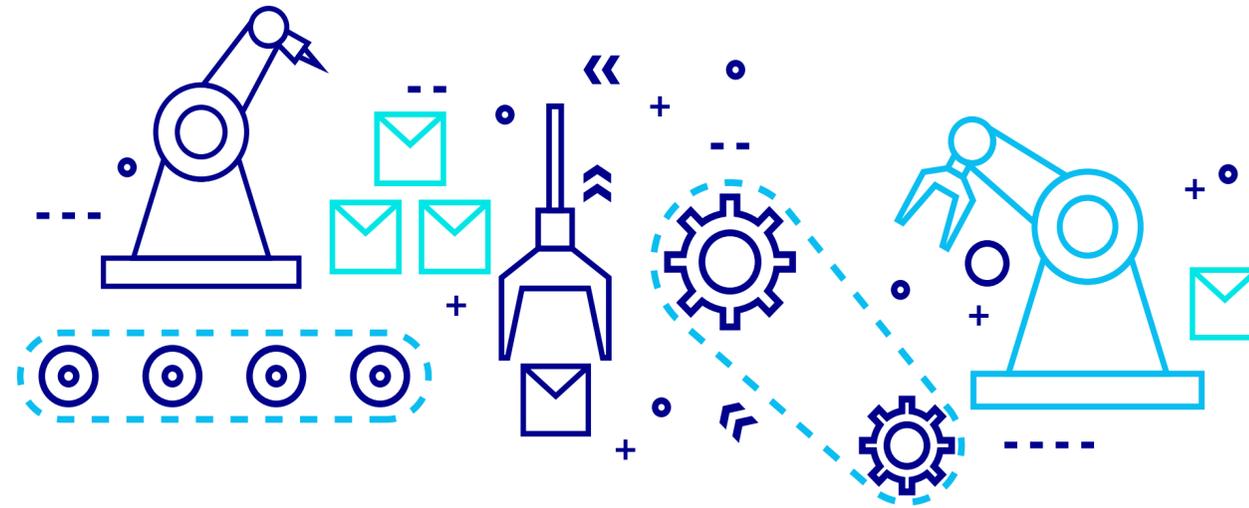
This allows you to schedule corrective maintenance and repair before an actual failure occurs, maximizing product use while delivering superior customer service.



## Automate repetitive human processes

In addition to improving production, companies are also using data in the digital thread to revolutionize back-end processes.

Robotic process automation (RPA) combines analytics, machine learning and rules-based software to capture and interpret existing data-input streams. It can be used to process a transaction, manipulate data, trigger responses and communicate with other enterprise applications. Most repetitive, data-intensive tasks and workflows, previously handled manually, can be conducted more efficiently and accurately by “analytics robots.”



Industrial robots significantly improve the production line and RPA can bring similar benefits to accounting, human resources, customer service and other business areas.



## A digital thread provides the competitive edge

Manufacturers must evolve to stay ahead of competitors. With a comprehensive digital strategy, you can gain a competitive edge and the necessary insights to improve

- **operational productivity**
- **business efficiency**
- **customer demand**
- **customer experience**

By combining your vast amounts of data with new predictive and cognitive options, your organization can take full advantage of the powerful, intuitive and constantly learning features of today's digital and analytics platforms.

### Additional resources:

**Solution:** [Digital Thread for PLM](#)

**Product:** [OpenText™ Extended ECM for PLM](#)



### About OpenText

OpenText, The Information Company, enables organizations to gain insight through market leading information management solutions, on-premises or in the cloud. For more information about OpenText (NASDAQ: OTEX, TSX: OTEX) visit [opentext.com](https://www.opentext.com).

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