

A photograph of two construction workers in blue uniforms and white hard hats. One worker is in the foreground, slightly out of focus, holding a clipboard. The other worker is in the background, looking towards the right and pointing with his right hand. The background is a blurred industrial setting with warm lighting.

## HELPING A GLOBAL HEAVY CONSTRUCTION COMPANY REALIZE \$5M IN ANNUAL COST SAVINGS

### Improving quoting efficiency and transforming engineering capabilities while innovating and digitizing product lifecycle management across all service parts

The company is one of the world's leading manufacturers of construction and mining equipment, diesel and natural gas engines, industrial gas turbines, and hybrid locomotives. The company's operations span 180 countries and services some of the fastest growing industries in the heavy construction market, including construction, mining, agriculture, energy, and transportation.

The Product Support and Logistics Division (PSLD) was looking to enhance its operating profit after capital charge (OPACC) for service parts. Upon conducting an internal study, the company identified a significant issue: a lack of legitimate demand data at the time of quotation. The company's team was seeking to address the root cause of this issue and optimize the process for identification, storage, and retrieval of demand data within the New Product Introduction (NPI) process. By introducing consistent and efficient practices, the company would improve quoting and reduce costs.

**Client:** A leading global heavy construction company

**Region:** Global

**Industry:** Automotive

**Client Challenge:**

The company wanted to modernize its product lifecycle management processes, accelerate time to market for new products, foster innovation, and reduce overhead IT operational costs.

**Solution:**

Through a one-team approach, Capgemini implemented a comprehensive solution across the organization's global manufacturing processes, which called upon deep expertise within applications management, innovation, and product lifecycle management.

**Benefits:**

- A positive cost impact of \$5 million annually from improved quoting practices
- \$235,000 in total cost savings within just three weeks
- A 35% decrease in high impact tickets and an 11% reduction in overall ticket volume
- 33% increase in part acquisition and delivery velocity
- 98% decrease in Hypercare tickets – indicative of higher customer satisfaction and reduced post-implementation issues
- 14% reduction in part acquisition fail rate



Additionally, due to the pressures of an ever-changing market, the Product Support and Logistics division sought to modernize its product lifecycle management processes to meet the demands of an increasingly digital and sustainable world. The company recognized the need to accelerate time to market for new products, foster innovation through the seamless integration of modern, digital product development tools, and reduce overhead IT operational costs. To accomplish this, the company sought out Capgemini's deep industry knowledge and portfolio of capabilities to act as its business and technology transformation partner and better position the company for the future.

### **Unearthing tangible, transformative change with ADMnext**

The company had been relying on its previous provider for product lifecycle management (PLM) and application management services (AMS). However, the company decided to open the services to a request for proposal (RFP) process to explore better alternatives that could meet their evolving business needs.

The primary objectives were to accelerate time to market for new products and foster faster innovation by seamlessly integrating hardware, software, and Internet of Things (IoT) aspects into product development. Additionally, the company was eager to reduce the total cost of ownership (TCO) for IT maintenance, which was leading to higher production throughput across Information Technology (IT), Engineering Technology (ET), and Operations Technology (OT).

Through a one-team approach, Capgemini implemented a comprehensive solution across the organization's global manufacturing processes, which called upon deep expertise within applications management, innovation, and product lifecycle management. This expertise led to efficient project management frameworks using a Scaled Agile framework and a Product-oriented Delivery (POD) model to promote collaboration and streamline workflows.

This also helped position the company to adopt digital-twin and model-based system engineering, and better align its Business and IT. Altogether, the transformation included ITIL 4.0-based Application Management Services (AMS), Agile PLM projects, test automation, and PLM capability upgrades.

ITIL 4.0-based AMS were implemented for 84 applications within the Engineering IT landscape, covering a range of areas such as PLM, Certified Agile Essentials (CAE), Quality Management System (QMS), manufacturing, and material compliance. This enhanced the efficiency and reliability of the company's IT systems. Meanwhile, Agile PLM projects improved the team's agility and enabled a transition from a traditional waterfall model to a scaled agile framework with the adoption of DevOps practices. Additionally, the partners introduced a POD development model that promoted collaboration and streamlined workflows.

Utilizing test automation, the team has now automated approximately 4,000 test scripts to enable end-to-end testing for various processes. This has significantly reduced manual efforts and accelerated testing cycles. At the same time, the project team has used PLM capability upgrades to align with company's ambitions for Digital Thread, Digital Twin, and model-based system engineering.

## Driving cost savings, faster releases, and enhanced supply chain efficiency

Through a well-executed transition, the partners successfully addressed the company's challenges related to quoting and cost impact. The organization's business operations were enhanced substantially with improved time to market, faster innovation, and significant operational cost savings.

Capgemini's comprehensive solution yielded impressive results – most notably – improving product efficiencies and reducing part acquisition fail rates by 14%. Additionally, 98% of "Hypercare" tickets were eliminated, which indicates higher customer satisfaction. In just three weeks of Capgemini's involvement, the company has realized a cost savings of \$235,000 and realized a positive cost impact of \$5M annually. On top of that, the Capgemini team was able to deliver the following tangible benefits to the client:

- The number of major releases per year increased from 3 to 5 – enabling the company to introduce new features and improvements more frequently
- Part acquisition and delivery velocity increased by 33% – enhancing the overall supply chain efficiency
- The implementation of the EAU process in the systems resulted in a positive cost impact of \$5 million annually due to improved quoting practices.

## Constructing a better future together

The successful implementation of various process optimizations and technology upgrades has showcased the potential of ADMnext to drive positive changes and deliver exceptional results. The client is looking to build on this success and is already planning future projects with Capgemini.

## About Capgemini

Capgemini is a global leader in partnering with companies to transform and manage their business by harnessing the power of technology. The Group is guided every day by its purpose of unleashing human energy through technology for an inclusive and sustainable future. It is a responsible and diverse organization of nearly 350,000 team members in more than 50 countries. With its strong 55-year heritage and deep industry expertise, Capgemini is trusted by its clients to address the entire breadth of their business needs, from strategy and design to operations, fueled by the fast evolving and innovative world of cloud, data, AI, connectivity, software, digital engineering, and platforms. The Group reported in 2022 global revenues of €22 billion.

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