

# INTRODUCTION OF A DATA ANALYTICS SOLUTION IN TEST PARTS MANAGEMENT AT THE BMW GROUP

Capgemini Invent supports the BMW Group in the conception and introduction of a data analytics solution to manage test parts requirements

## Future-proof demand planning

Manufacturing companies have increasingly focused on the stable and reliable supply of vehicle parts, driven partially but not exclusively by an ongoing semiconductor crisis. The complex supply chains in the automotive industry are particularly prone to supply bottlenecks. In addition to the enormous demand for vehicle parts in serial production, considerable quantities of hardware are also required several years in advance for the testing and validation of new models. The main challenge in this early phase is to create reliable forecasts of the parts required to validate new vehicle models. With high-quality forecasts and a comparison of the prediction values and the order values, bottlenecks in the vehicle parts supply can be minimized at an early stage.

In addition to the introduction of new business processes, the BMW Group is taking on this challenge with a new analytics tool, which was introduced in close cooperation with Capgemini Invent and SAP. By aggregating the existing and historically grown system landscape in this environment, data on parts requirements can now be centrally presented and analyzed. Based on the resulting data transparency, the tool provides active support in the creation of reliable forecasts and the management of bottlenecks in parts supply.

## State-of-the-art cloud analytics solution

Capgemini Invent supported the project from the initial setup and change management to process and requirements management, implementation, and rollout. An interdisciplinary project team with consultants from Capgemini Invent as well as from other areas of the

## Overview

**Client:** BMW Group

**Region:** Global

**Industry:** Automotive

### Client challenge:

Security of supply is becoming increasingly relevant in product development. In order to be able to confidently meet this challenge, minimize scrapping costs, and provide suppliers with early planning security, the BMW Group was looking for a solution that could transparently display parts requirements.

### Solution:

Capgemini Invent is providing conceptual support for the introduction of a data analytics tool in the SAP Analytics Cloud, which can be used to create resilient forecasts and actively manage any bottlenecks that arise in vehicle part supply management.

### Benefits:

- The solution represents a single source of truth for the demand and supply situation of test parts in product development
- Guaranteed optimal supply of test parts
- Minimized the number of supply bottlenecks and scrapping costs due to best possible forecasts for test part requirements
- The automated overview of all test parts required currently and in the future saves time

Capgemini Group supported the BMW Group in the analysis and definition of business and technical requirements. Capgemini Invent experts established an agile project structure and organization while also driving the change process, which included communication as well as stakeholder and committee management.

Another area of focus was the definition and integration of new company processes as well as the derivation and tracking of business requirements in an integrated system. To identify relevant source systems, the existing system landscape was analyzed. Furthermore, Capgemini Invent supported the specification of new system interfaces, data migration, and the optimization of the data structure of the existing system landscape.

Throughout the entire implementation phase Capgemini Invent has served as an interface between business and IT for the integration of processes into the new system landscape. To ensure seamless operations, the team developed an agile test environment and provided comprehensive test planning, monitoring, and reporting. With the involvement of key users, the BMW Group and Capgemini Invent developed a training concept, created

corresponding training documents, and implemented training courses.

## Optimized processes and user experience

Together with Capgemini Invent and SAP, the BMW Group has rolled out a modern and future-proof data analytics application, which is intended to make a significant contribution to optimizing the supply of parts in product development and reducing the associated costs.

The application increases the degree of automation and digitalization through data-based algorithms and the mapping of various sub-processes in the tool. It transparently displays aggregated data for parts demand, also available as a graphic, from different, heterogeneous source systems as a single source of truth. In addition, the intuitive and user-friendly interface of the web-based tool simplifies access to the data. By merging different data structures and optimizing the data quality with various calculation logics, the resulting information content provides more depth and detail.

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