BMW uses Vendia to reduce late-stage defects, lowering overall costs

≋ Vendia | BMW

88%	**3** weeks	**$5M**
Cost reduction	Time to value	Savings vs. failed project

Headquartered in Germany, the BMW Group is a multinational manufacturer of luxury vehicle and motorcycle brands BMW, MINI, Rolls-Royce, and BMW Motorrad. With 30 production facilities and sales in more than 140 countries, BMW is one of the world's largest producers of motor vehicles, crediting its commitment to sustainability and resource management as key to its success.

INDUSTRY

Manufacturing

LINE OF BUSINESS

Production planning & control

USE CASES

- Traceability

- Reconciliation

KEY CAPABILITIES

- Data lineage

- Immutable ledger

- Serverless architecture

- Low-code/ no-code integrations

- Built-in consensus

CHALLENGE

Identifying product defects at the source of damage and assigning costs

In the automotive industry, each new vehicle takes a village to build. Or in the case of BMW: a diverse network of logistics and distribution partners across its supply chain. From start to finish, a single BMW vehicle can involve upwards of 15 or more handshakes and inspection points between different supply chain and logistics partners.

Because of this, top priorities such as quality assurance, early damage detection, and conflict resolution often become complicated matters when working across a multi-party production line. Not only is it hard to pinpoint when, exactly, a product defect occurs, but it's exceptionally difficult to determine which party is liable for the incurred costs—especially as costs grow more expensive the longer a defect goes unnoticed.

> " The automotive industry—including BMW—relies heavily on partners for flawless execution. A shared view of data between partners is critical for responding to market changes.
>
> — Kasper Sage, Partner at BMW i Ventures

Track-and-trace visibility empowers BMW to resolve supply chain issues early on, reducing late-stage defects

To solve this complexity, the BMW team set out to build a distributed data exchange for its partners to upload product data at each handshake across production. By tracking information such as part details, potential defects, photos, and videos, BMW leaders would be able to see early on where product defects are occurring and trace damages back to the responsible parties.

But despite identifying the business need for the exchange, BMW found itself hindered by its existing cross-company data-sharing mechanisms, which lacked the scalability and maturity required to develop the solution. Evaluating potential vendors and blockchain technologies, BMW looked for a data automation platform that could meet the following criteria:

- Allow multiple organizations to share and retain control over their data

- Easily onboard a diverse range of partners, clouds, and tech stacks

- Guarantee consensus among all parties, ensuring that data remains verifiable at all times

BMW found all this (and more!) with Vendia, deploying its mobile data exchange application on the platform in 2021. As a result, BMW gained immediate insight and full range of visibility to proactively track, reconcile, and—most importantly—reduce product defects across its supply chain.

Reduced late-stage product defects by 88%, lowering overall costs

Built on top of the Vendia platform, the BMW solution collects photos and videos of vehicle parts or bodies that are taken during partner handshakes. Each partner uploads their media files and associated inspection information via a mobile app, where the shared data is then stored on Vendia's multi-party database.

With real-time access to data lineage across all stages of production, the BMW team is equipped to quickly identify defects and product quality issues, trace damages back to the original source, and properly assign costs to the appropriate parties. By proactively addressing damage early on, BMW reduced late-stage product defects by 88%, effectively lowering its overall costs.

> **Vendia will truly usher in the next generation of data exchange and collaboration across corporate partners.**
>
> — Kasper Sage, Partner at BMW i Ventures

Universal partner participation leads to increased efficiency

With any supply chain deployment, the barriers to entry often become too high for partners who lack the technical know-how or readiness to participate. For BMW, one of the biggest draws of the Vendia platform is how fast, easy, and accessible it is to onboard new and existing partners, regardless of what their tech stacks, clouds, or levels of expertise may look like.

For example, while some BMW partners have extensive IT resources at hand, others may only have access to mobile and web applications. Thanks to the low- to no-code design of the Vendia platform, along with its extensive network of connectors, all BMW partners are able to easily participate and share data—logistics partners can easily integrate with the solution via CSV files and drag-and-drop functionality. Most importantly: this universal access to shared data increases efficiency for every partner involved.

Mutual trust via data integrity and verifiability

Establishing mutual trust across involved parties is a critical focus point for the BMW team. Without a guarantee that another party didn't manipulate or modify data in their favor, partner disputes over who's responsible for covering the cost of damage ultimately lead to breakdowns in trust and collaboration.

Purpose-built with distributed ledger technology, Vendia replaces doubts and uncertainty over shared data with confidence and trust among all parties. Once data is entered into the application, it becomes immutable—other parties can't modify or delete someone else's data from the system and can only append to it.

And while BMW partners all share data across different areas of the production line, each partner retains full control over their owned data at all times. This lets the BMW solution function as a shared source of truth, delivering data integrity and building trust across the supply chain.

> " The beauty of Vendia is it combines the scalability of serverless computing with the security of distributed ledger technology. Enterprises can build a data exchange system that scales with whatever project they are working on while ensuring full control over access to their data.
>
> — Kasper Sage, Partner at BMW i Ventures

Continuous product improvement cycles

BMW has uncovered additional benefits from the platform's built-in data verifiability and immutability as well, such as blending data lineage properties with analytical datasets inside the organization to optimize supply chain operations.

Relevant data from this combined data set is stored in BMW's data lake, where its data science team cross-references it against other production-quality data. Doing so helps BMW create a continuous product improvement cycle, proactively identifying bottlenecks and then implementing the appropriate measures to eliminate friction.

About Vendia

Vendia is the future of collective data intelligence, combining smart APIs, databases, and distributed ledger technology inside a single platform. Vendia's data automation cloud makes it easy to share data inside and outside of the organization in real time and with full visibility, governance, and control. Companies such as BMW, Delta Airlines, Resolution Life Insurance, and Fannie Mae use Vendia to automate contextual and compliant data flows between any-to-any systems for a harmonized, accurate view of data that unlocks speed, innovation, and cost savings. Learn more about us at Vendia.com and #UnchainYourData with Vendia.