mendix × vivix

Vivix is a leading Brazilian glass manufacturer that has evolved from digitizing operations to building an AI-enabled industrial ecosystem.

Leveraging Mendix as its application layer, Vivix created an industrial data fabric that connects operational systems, data, and AI agents—enabling predictive maintenance, intelligent decision-making, and measurable business outcomes across manufacturing, logistics, and production operations.

THE CHALLENGE

Turning data into intelligence

As Vivix expanded its digital transformation efforts, the company faced a familiar manufacturing challenge: data existed everywhere across shop floor systems, edge devices, and enterprise applications, but it **remained difficult to contextualize, govern, and use effectively.**

While previous modernization initiatives had improved data collection, operational teams still **lacked a scalable way to connect information, embed intelligence into workflows, and support AI-driven decision-making across the business.**

Rather than deploying isolated AI solutions, Vivix needed a reusable architecture capable of integrating operational technology, enterprise systems, analytics, and AI into a single foundation that could scale across multiple use cases.

"There are very few complete solutions in the market, so we had to build our own. Mendix made that possible. We scaled Mendix in our organization very fast. We created one integrated and seamless architecture."

Aristóteles Terceiro Neto
Industrial Transformation Manager

THE SOLUTION

Embedding AI into workflows

Vivix developed an industrial data fabric that **connects HighByte, Snowflake, AWS, Siemens technologies, Altair, and Mendix** into a unified architecture supporting data, analytics, governance, and AI across the organization.

Using Mendix, the company delivered **more than 22 enterprise applications and 85 fully digitalized processes** spanning maintenance, logistics, and production operations.

These applications embed AI directly into workflows, providing decision support, automation, predictive insights, and operational recommendations in real time.

The company also deployed **AI-powered maintenance assistants, logistics optimization solutions, predictive maintenance tools, and digital twin capabilities,** creating a connected ecosystem where applications, data, and AI agents work together to support daily operations.

"Our logistics team struggled to track key variables like where glass racks were, how long customers held them, and the best way to collect them. With AI, we can now anticipate these scenarios and act proactively."

Murilo Ferreira
Senior Industrial Transformation and Digital Squad Leader

THE RESULTS

Scaling the agentic enterprise

By combining Mendix, AI, and its industrial data fabric, Vivix has generated significant operational and financial value across the business.

AI-powered maintenance applications **reduced root cause analysis time by 85%, saved more than 2,000 hours annually, and generated over $1 million in annual savings** through predictive maintenance initiatives.

In logistics, AI-enabled optimization **reduced freight contract costs by 50%** and **improved glass rack return cycles by 10 days**, providing greater visibility and control across the reverse supply chain.

Vivix also created a digital twin of its furnace operations, **improving energy efficiency by 5%,** extending furnace lifespan, and unlocking millions in savings.

Today, the company supports more than 180 projects on the same architecture and has **deployed 20+ AI agents**, with plans to scale significantly further.

"We created our own Vivix AI framework. We understand six pillars as the foundation for all AI solutions. We have rules for how to connect shop floor, edge, and cloud. We guarantee data quality, lineage, and versioning."

Aristóteles Terceiro Neto
Industrial Transformation Manager