Casebook Embedded AI: driving practical innovations across industries

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Embedded AI is quietly transforming industries by making devices smarter and processes more efficient. Imagine if your devices could think, act, and adapt independently. With embedded AI, this isn’t just a vision, it’s happening now, driving innovation across industries.

From instant insights to privacy-first solutions, it’s revolutionizing how we tackle challenges. And the best part? These aren’t distant, abstract examples. Our cases focus on local, Belgian companies, showcasing how they leverage this technology to create tangible value.

Curious to see it in action? Our latest casebook showcases five local case studies that demonstrate how embedded AI technology is reshaping processes and creating value across diverse sectors, right here in Belgium.

Download the casebook

Peek Inside the Casebook: Real-world applications of Embedded AI

Smarter factories with iot sensors

Embedded AI in IoT sensors is revolutionizing industrial operations by analyzing sound, visuals, and emissions directly at the source. Belgian innovator VersaSense uses this technology to reduce downtime through real-time anomaly detection while minimizing reliance on cloud processing.

Privacy-first analytics on mobile devices

By processing smartphone data like movement and acceleration locally, embedded AI enables real-time insights while preserving user privacy. Sentiance, based in Belgium, applies this approach to monitor driving behavior and mobility patterns without cloud dependency.

Reliable gas monitoring in IoT applications

Combining advanced gas sensors with embedded AI, VOCSens, a Belgian company, ensures precise monitoring by automatically adjusting for temperature and humidity. This innovation improves reliability and extends battery life, particularly in IoT applications.

Real-time anomaly detection in manufacturing

Edge-based AI models analyze vibration and current data locally to detect equipment anomalies in real-time, reducing downtime and improving maintenance. iQunet, another Belgian player, demonstrates the effectiveness of this technology in industrial settings.

AI-enabled smart lamps for elder care

Embedded AI in smart lamps processes movement and posture data in real-time, providing immediate fall detection and health insights while maintaining user privacy. Belgian-based Nobi's approach exemplifies how this technology enhances safety and care in elder care environments.

Curious for more? Download the casebook!

These are just glimpses into the incredible ways embedded AI is reshaping industries. Want to see the full stories, insights, and applications?

Download the Embedded AI Casebook to discover how companies are using smarter technology to tackle real-world challenges.

Download the casebook

The European EmbedML project aims to accelerate the integration of machine learning in products with embedded hardware.

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More information about the project

EmbedML | Accelerating the integration of machine learning in products with embedded hardware

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