BOSCH

Do you really need GenAI for your organization?

Or are you just following the road always taken?

Let's take a step back...

The world might be going crazy about the sudden wave of the new generation of AI, but is it really the power tool you need for your organization, or are you just worried about getting left behind?

Is Gen AI going to help you save costs, or will it add more to the expenses?

Make a smarter, more informed choice with Bosch.

At Bosch, we are helping various global industries Switch to Smarter Digital by implementing the right kind of Generative AI solutions that are reimagining business models, enhancing profitability and driving a new way to innovate.

Being a global industrial leader with just the same questions as you, we're eager to share our insights with you, helping you discern between the essential needs and the additional wants of Gen AI in your processes.

Trusted by a global clientele, spanning diverse industries.

Delivering cutting-edge Gen AI solutions to various industries - (healthcare, manufacturing, energy, and product engineering.)

Bosch Milestones - The Road to #SmarterDigital

| 280+ enterprise plants digitally transformed | 15 million connected devices | Process and value streams transformation across 60+ countries | Achieving 1.4 million energy savings |

1 — Is GenAI a necessity for your organization? Let's find out!

To determine if Gen AI solutions would be a constructive weapon for your business, the first and foremost task is to help you evaluate your current strategic vision for adopting GenAI.

Creating your Vision for GenAI

▶ The first step for us would be to arrive at clear goals and a strategic approach to Gen AI adoption tailored to suit your business goals.

▶ We will then begin to comprehend the specific applications of Gen AI and the expected outcomes for your organization.

2 — The Bosch approach to evaluating organizational needs vs. wants

Need/Use Case Assessment

This stage of the process involves the assessing and understanding specific use-cases in every business process in order to create a data-led approach to evaluate the best GenAI investments for you.

Use Case Ideation & Evaluation:

With our deep understanding of industrial business processes, we will conduct an in-depth analysis of your operations to judge feasibility. Together, we'll generate and prioritize Gen AI use cases, ensuring alignment with your business processes for optimized outcomes and ROI (Return on investment).

Executive Alignment & Goal Setting:

We'll align executives, define clear objectives, and conduct workshops to establish your organizational coherence for our Gen AI initiatives.

Skills/Talent Assessment

Here, we would focus on evaluating the skills gap in your organization, find out a way to break through this hurdle by developing communication development plans.

Talent Analysis/Evaluation:

We'll diagnose existing talent and skill gaps, assess process maturity, and provide a Maturity Assessment and Skill Gap Analysis benchmarked against industry standards.

Our next step would be to drive communication plan development for:

▶ Employee education and talent development,

▶ Offering strategies for reskilling, upskilling,

▶ And change management with budget estimates for training programs.

Partnerships for Talent Acquisition:

Our team will help you develop partnerships with leading institutions for post-work hours programs, implement skills-based sourcing, and diversity initiatives to attract Gen AI talent.

Infrastructure Assessment

This stage would be about Bosch analyzing your infrastructure, storage, and data management practices, to come up with the best GenAI solutions to improve the entire infra-ecosystem of your organization.

Actions:

We will begin by assessing your existing infrastructure components, identifying computer and storage requirements, analyzing data management practices and security vulnerabilities, and evaluating network needs.

Deliverables:

▶ We'll deliver a detailed report covering infrastructure components.

▶ We'll conduct assessments of data management practices and security measures.

▶ We'll compile comprehensive inventory documentation.

▶ Finally, we'll provide recommendations for Gen AI models that fit your budget and requirements.

3 — Technology Roadmap - the Bosch Way!

Selecting the Relevant Model and Infrastructure for Your Organisation

As part of the next steps, Bosch will help you in selecting the right Gen AI model aligning with your business strategy and integrating with proprietary data for customized results.

We will also assist you in shortlisting required infrastructure (Cloud/On-Prem) for your Gen AI deployment.

Finalizing your Gen AI Technology Architecture & Data Architecture

The next phase would involve integrating Gen AI models with your existing systems and tech stack, leveraging frameworks for seamless integration.

We'll finalize the Gen AI Reference Architecture, incorporating Context Management, Model Hub, and MLOps Platform, and develop data architecture for quality data access.

Bringing Gen AI to Life for You

The final phase of the process would be testing, and refining GenAI model based on your feedback and real-world testing.

We'll then conclude by integrating and deploying our customized GenAI solutions with your existing systems. We will monitor its performance, addressing biases with LLMOps.

Transforming Pharmaceutical Research: Leveraging AI for Efficient Document Analysis

The Challenge:

Our customer, a leading pharmaceutical company, is dedicated to developing and delivering vaccines and medicines worldwide. Their R&D team faces significant challenges, including:

- ▶ Tedious and time-consuming analysis of key domain documents.
- ▶ Error-prone manual studies.
- ▶ Delays in the R&D process due to manual information retrieval methods.

The Solution:

To address these challenges, Bosch has implemented a cutting-edge generative AI-based document analyzer solution. Key features include:
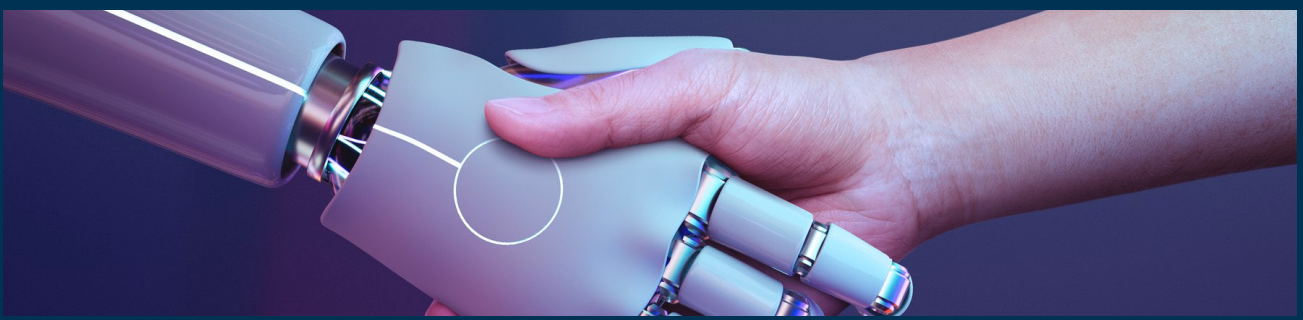
Smart summarization to distill complex documents efficiently.	Real-time document training for up-to-date insights.	Answering user queries directly from relevant domain-specific documents.	Summarizing document sections based on user input.	Comparing multiple documents swiftly and accurately based on user-defined criteria.

The Benefits:

The customer experienced:

~90% reduction in time to search for information	User Friendly and Easy to Adapt Solution

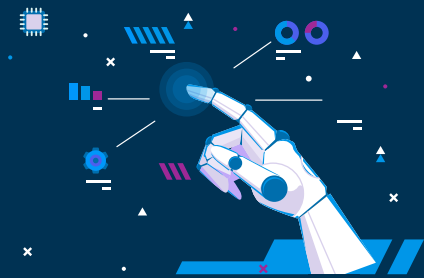| Accelerated R&D Process	Reduction in Manual Errors

Bosch Gen AI Adoption: BOSCH FEUERBACH PLANT

The Challenge:

The Bosch Feuerbach plant has historically relied on manual inspection methods for fuel-injection components.

The complexity and variability of products, coupled with diverse production line structures, rendered traditional rule-based and AI-assisted optical inspection impractical.

The Solution:

Bosch has developed a scalable Generative AI solution capable of identifying product variants and error patterns across different production arrangements and sequences.	The solution builds upon a foundational model pioneered by Bosch research and utilizes extensive datasets from the Bosch manufacturing network.	Synthetic data generation further refines the model, tailoring it for precise on-site applications.