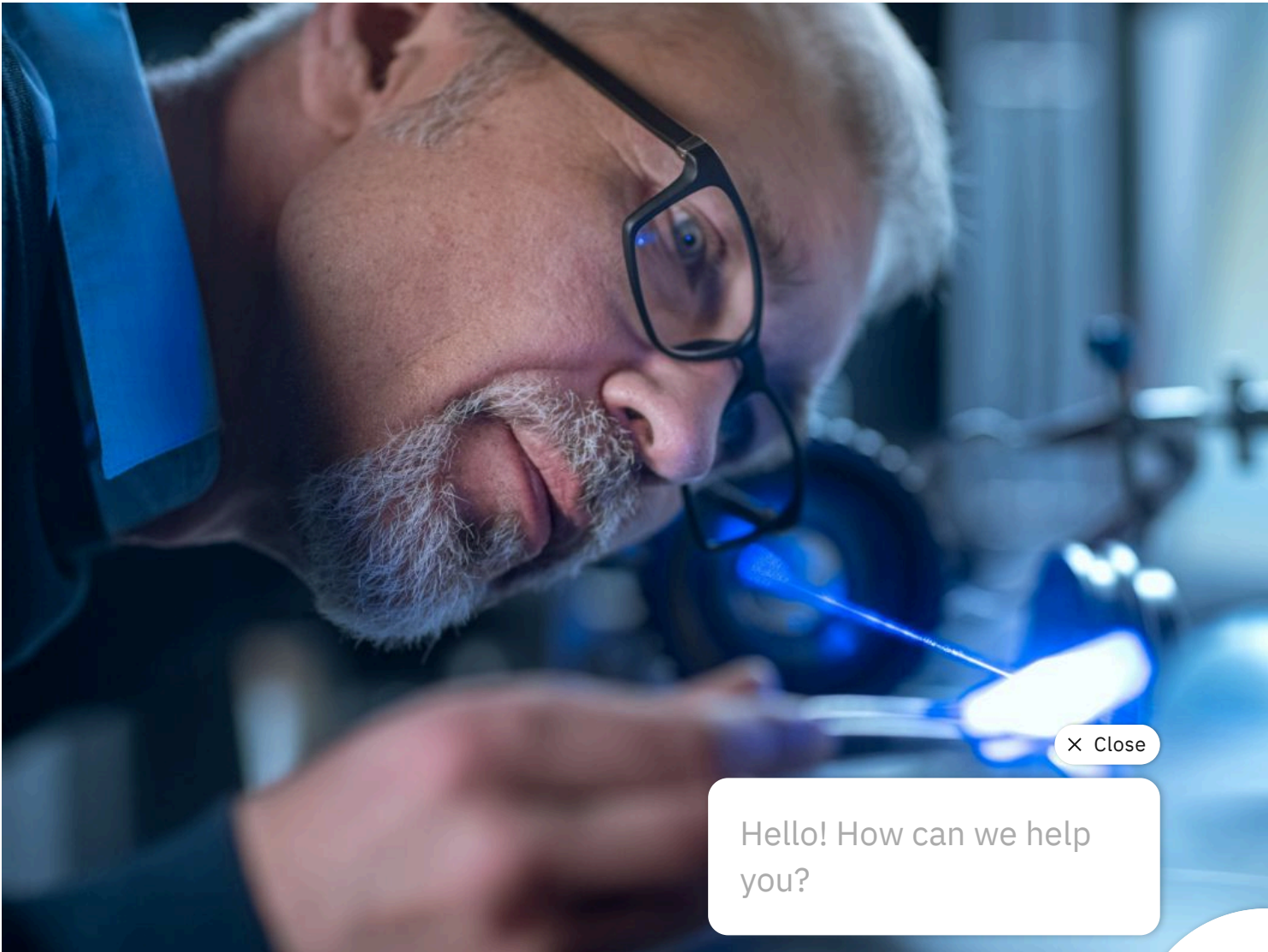


# Finding R&D informat with AI

MIKOPTIK + IBM



# Streamlining knowledge sharing

MIKOPTIK, a leading advanced micro-nano processing system solution supplier, needed to streamline its R&D processes. The company manufactures a wide variety of complex electronics—ranging from high-end electronic circuits to micro-electromechanical systems to solar energy and micro-nano devices and beyond. The required R&D on those product lines is equally complex and multifaceted.

At the time, one area in the company's R&D process—the exploration of product-related information intelligence, technical design and engineering blueprinting—was particularly resource-intensive, leading to productivity challenges. The complexity inherent in product design, engineering optimization and roadmap planning exacerbated these issues, while siloed R&D applications made it difficult for engineering and production teams to collaborate.

What's more, knowledge management in engineering and product design heavily relied on a few key engineers, causing significant risk to ongoing access to core technical expertise. Overcoming these challenges was paramount to the company's ability to enhance the efficiency and sustainability of its operations.

The emergence of generative AI brought hope to MIKOPTIK. They had been persistent in their search for a company with rich technological accumulation, mature experience in corporate management and an international perspective to help them build a multinational organization structure. At this juncture, they found IBM through XPower, a leading provider of intelligent and digital integrated system solutions in China.

## 40%

boost in access to engineering information

## 5

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reduction in lead times from engineering design to production planning

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# An AI-powered solution

XPower brought in IBM to help develop an automated knowledge base management system and application. The solution aims to automate the knowledge management building and implementation process throughout the R&D lifecycle.

The solution consists of [IBM® watsonx™ Assistant](#) as the virtual assistant interface, [IBM Watson Discovery](#) for data discovery, classification and management, [IBM Cloud Pak® for Business Automation](#) to automate workflows and data retrieval and [IBM Cloud Pak for Integration](#) to connect the various R&D systems to each other.

By integrating watsonx Assistant, Watson Discovery and large language models (LLMs), the solution can streamline access to the knowledge base and enhance the interactive Q&A process. The solution significantly improves efficiency and productivity within the R&D operations by providing seamless access to vital information and facilitating collaboration across teams.

## Boosting operations and customer satisfaction

The implementation resolved many of the issues the company had when accessing critical R&D information and yielded substantial positive results:

- Increased efficiency of engineering information external technical review by 40%.
- Shortened lead times from engineering design to production planning by 50%.

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- Improved technical service correspondence and customer service experience, stabilizing at 90% from the previous 50%.

Overall, the solution helped the company greatly enhance its operational effectiveness and customer satisfaction. All in all, it was a win-win-win for MIKOPTIK and IBM.



## About MIKOPTIK

[MIKOPTIK](#) (link resides outside of ibm.com) is an innovative, industry-leading high-tech company specializing in production equipment and process solutions for high-end electronic circuits, IC boards, advanced packaging, micro-electro mechanical systems (MEMS), pan-semiconductors, solar energy and micro-nano components manufacturing.

MIKOPTIK was established in 2016 with a registered capital of 150 million yuan, which adhered to independent technology innovation, and completed independent integration of technology, operating procedures, data analysis, CAM, alignment systems, digital drive engine, optical lenses, independent innovation of optical lasers and platform systems, providing a strong and sustained support for the development of relevant fields.

MIKOPTIK has advanced R&D application labs and clean rooms in Suzhou and a technical and after-sales service team consisting of hundreds of experienced professionals, thus the business develops all across the South Korea and Southeast Asia.

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### Solution components

IBM® watsonx™ Assistant



IBM Watson Discovery

IBM Cloud Pak® for Business Automation



IBM Cloud Pak for Integration



## Fast, friendly customer care

IBM watsonx Assistant is a product that helps build better virtual agents to drive enterprise productivity.

**Learn more**



**View more case studies**



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