

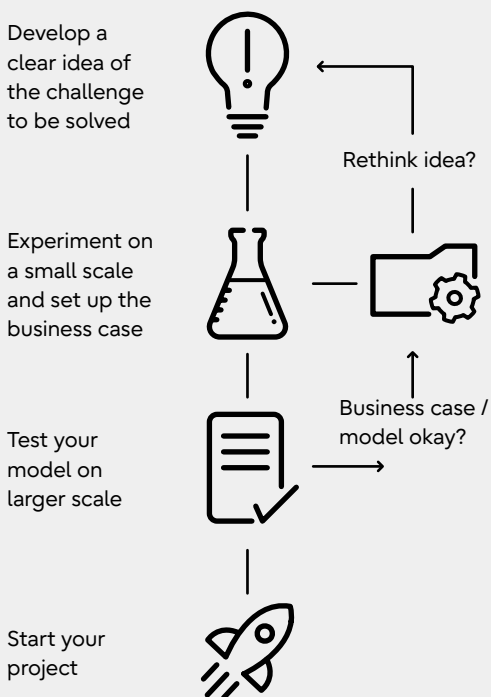
Going beyond with AI

How Artificial Intelligence (AI) generates ongoing business value in a challenging world



At Fujitsu, we have a mission: to help our customers generate value from data. AI is increasingly becoming a key technology here. AI makes it possible to leverage the diversity of data to gain business insights, minimize the likelihood of human error, improve overall business efficiency and increase innovation in today's connected world.

Best practice for launching AI projects



What is the best path to an AI solution?

Experts estimate that only 10 to 15% of AI projects reach productive operation. Why is that? In short, because AI is unpredictable. In IT projects, the exact opposite is true – the results of each step of an application can be accurately predicted. For this reason, you have to approach AI projects differently than IT projects.

Do-it-yourself (DIY) or with experts?

Frankly, developing an AI solution in-house is only something for companies that have sufficient know-how and resources. The challenges start with the idea and the business case. This is because the business problem often has to be segmented into sub-problems so that the targeted AI solution delivers clear added value in the end. Then there's the AI model: should you develop it yourself or use an off-the-shelf one that must, however, be adapted to your own business case? The same applies to the AI infrastructure: although there are numerous cloud offerings, whether these ultimately pay off and meet the compliance requirements must be carefully examined.

By the way, in about 50% of the project requests we receive, no AI solution is needed at all, but an automation solution. And in more than 70% of the cases where an AI solution is actually needed, solution modules already exist. Adapting these to the specific requirements of a project with experts is easier, faster and more cost-effective than any DIY attempt.



Use cases for AI in day-to-day practice

AI is already being used across industries and in the public sector. The areas of application are as diverse as the challenges facing companies and society today. A glance at the AI technologies for analyzing images and videos already shows how extensive the possible uses are. Intelligent video surveillance systems, for example, enable cities to optimize traffic flow or support law enforcement agencies in solving vandalism. In retail, they help improve product placements and the deployment of sales staff in line with visitor flows. Banks, in turn, are reducing unauthorized ATM withdrawals through the use of AI-based facial recognition and intelligent video surveillance. AI also plays a big role for autonomous vehicles, of course – on roads and rails. Another example is the automatic recognition of e-cars with the aim of building charging infrastructures along driving routes for the increasing share of e-cars.

- AI and supercomputers from Fujitsu shed light on drug resistance in cancer treatment – in one day instead of 4,000 years with standard technology
- Fujitsu high-performance computing (HPC) and AI technology help develop sustainable processes for ammonia production
- Fujitsu AI-enabled data analytics help cities to keep traffic flowing smoothly, shorten travel times and reduce traffic emissions
- Fujitsu AI-enabled augmented defect recognition solutions boost aircraft inspection productivity by 50%
- Fujitsu AI-powered diagnostic tools help physicians analyze CT scans
- Fujitsu quantum-inspired computing and AI help develop solutions for space debris removal

Creative approaches make AI solutions unique

In industry, improving quality control in order to reduce complaints and returns is a major field of application for visual AI solutions.

If quality controls have to be performed manually, they often are extremely exhausting, monotonous tasks for employees. In the pharmaceutical industry, for example, this applies to the inspection of small batches. To solve this problem, Fujitsu developed a visual AI solution to upgrade vaccine vial testing equipment. The solution inspects vaccine vials for fill level, suspended solids and damage, among other things. The special feature of this AI, which is now patented, is its algorithm – because the AI was not trained for any defects or damage, but for the ideal product. The solution can be used for a wide variety of products that are filled in clear bottles.

Fujitsu is one of the few vendors capable of implementing end-to-end AI solutions by co-creating with customers to turn business challenges into business value faster and more reliably.



Successfully overcoming hurdles in AI projects

Despite the potential benefits of AI, many companies struggle to determine how AI could be profitable in their business and where to deploy it. They also have difficulties selecting the right combination of AI software to address individual and often complex challenges. The situation is similar when it comes to identifying the right data sets to benefit from. In addition, there is a lack of experience and skills to build a suitable AI infrastructure.

For these reasons, we have created the **DX Innovation Platform** with leading technology partners such as Intel, SUSE and many others. Built around innovative tools and technologies for digital transformation, the DX Innovation Platform provides you with an AI Test Drive and broad expertise to help you find the right solutions for applying AI to your business operations in the shortest possible time.

Your benefits:

- Reliably identify how AI can transform your business
- Create the right technological framework for future-proofing your company's use of AI
- Successfully balance the needs of new technologies with issues such as data security, regulatory compliance, energy efficiency, and more
- Reduce the time to build a proof-of-concept from several months to just a few days



Gaining a competitive edge through AI

Sentiment analysis is one of the AI solutions gaining in importance. Businesses use them, for example, to analyze customer contacts from call centers or e-mail correspondence with customers. Both text and speech analysis are possible. Statistics, natural language processing (NLP) and machine learning (ML) are applied to analyze the communication.

In the future, we will increasingly find this AI technology in assistance systems. However, if you buy such a tool off the shelf, you will hardly be able to gain a competitive advantage. For this reason, Fujitsu has developed a solution stack for sentiment analysis. Building on this, we develop individual use cases with customers to analyze performance in social media channels, for example, so that marketing campaigns can be better targeted. Among other things, our Blueprint includes a management dashboard that provides decision-makers with valuable information on developments at a glance - even in real time.

You can extensively test models for your individual sentiment analysis free of charge on our AI Test Drive, which is part of our DX Innovation Platform, and at the same time gather specific experience on the ideal components for your AI infrastructure.

We apply AI technology such as



Natural Language Processing (NLP)



Advanced image recognition



Real-time video recognition



Machine Learning



Deep Learning



Robotic

For example, to build solutions for



Quality control



Predictive maintenance



Sentiment analysis



Fraud detection



Risk prediction and assessment



Interactivity and recommendations



Crowd analysis



Customer flow analysis



Social infrastructure inspection

To achieve results such as



Improved customer experience



Increased revenue



New business models



Reduced costs



Resilient digital transformation



Quality improvement



Operational efficiency

Why Fujitsu? – Where to start? – How to stay flexible?

- Fujitsu is among the top 10 most innovative AI companies in the world in terms of patents
- We invest some US\$ 2 billion annually in research and development
- Over 6,000+ Fujitsu AI deployments worldwide
- Our focus on ethics, transparency and trust makes Fujitsu AI the benchmark for responsible, explainable AI
- We help you to understand what AI can achieve within your organization and how to lay the right AI technology foundations to meet your needs both now and into the future
- Our ready-to-use AI solutions leverage existing systems and infrastructure to unlock value rather than rip-and-replace

Go beyond with Fujitsu AI:

- **Consulting and solution design:** leverage our expertise in business, technology and services to co-create your solutions
- Benefit from competencies and leading technologies from our **powerful partner ecosystem** – e.g., access to 500 subject matter experts in the ecosystem with the required expertise for AI within 24 hours
- **DX Innovation Platform:** explore the power of innovative technologies for AI, containers or complex data analysis and test your specific business cases with state-of-the-art IT infrastructures
- **AI Test Drive:** test your AI models for free with powerful technology and leverage additional expertise whenever you need it

Learn more about our innovative solutions and the DX Innovation Platform:

www.fujitsu.com/global/products/data-transformation/