



Artificial Intelligence

Why is AI so pivotal?

Artificial Intelligence (AI) is a game-changing technology trend for the finance sector, enabling businesses to streamline their processes, unlock insights from data and deliver better and more innovative products to their customers. At Deutsche Bank we take a holistic approach to how we harness technology opportunities to deliver better outcomes for our clients – and that means blending AI with human expertise.

With generative AI, businesses can leverage automation tools, open application programming interfaces (APIs) and flexible business processes to revolutionise their operations, achieving higher speed, quality and cost effectiveness.

Banks rely on data to run their business and serve their clients. By using AI and machine learning (ML) for data analytics and processing, they can create new or improved products and services, and increase efficiency. With the heavy lifting done by the technology – there is better headroom for analysis, targeted advice, and innovation – which in our view is mainly human-led.

AI models can be trained to offer new or better products and services to our clients, with wide ranging possibilities. Our clients demand flexibility, pay-per-use, and scalability based on market conditions. As a global bank, we are ideally positioned to make this happen.

The technology has a huge potential to transform banking worldwide, with an estimated impact of more than US\$360bn (McKinsey). For Germany alone, AI could potentially generate 13% growth in GDP, EUR330bn in savings and EUR150bn in revenues (Association of Internet Society).

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AI at Deutsche Bank

Deutsche Bank's approach

Using AI and ML is a key part of the bank's [2025 strategic vision to achieve sustainable growth](#). We aim to further harness the power of modern technologies, especially in the areas of cloud and artificial intelligence, to lead the future of our industry and create value for our clients. We believe that AI and ML has the potential to become indispensable for every aspect of our business, from internal processes to client facing interactions and capabilities.

While we are actively investing in this technology, one of the cornerstones of our approach is "Responsible Velocity". Our aim is to balance speed and security for our clients.

Our AI ambitions are closely linked to our cloud journey

We have chosen the cloud as the foundation of our technology transformation to unleash the power of Generative AI and Large Language Models (LLM) for our employees and clients.

We have one consistent approach to innovation, data, control, and talent. This approach guides our cloud transformation and our strategic cloud and innovation partnership with [Google Cloud, which we formed in December 2020](#). This partnership enabled us to build a modern data analytics and AI/ML platform and to accelerate the use of this innovative technology across the bank. Our close strategic collaboration with Google allows us to experiment and work on the latest AI/ML technologies and tools.

To further accelerate our adoption of AI solutions, we announced a multi-year [innovation partnership with NVIDIA](#) in December 2022. NVIDIA and Google Cloud have a [strong strategic partnership](#) which we are benefiting from.



“At Deutsche Bank, we are leveraging our partnerships with top-tier technology firms, like Google and NVIDIA, to develop AI capabilities spanning content management, anomaly detection, workflow optimization and other use cases to bring new services and capabilities to our clients”

Paul Maley - Global Head of Securities Services

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We are exploring a number of promising Generative AI/Large Language Model use cases with our technology partners

In 2023, Deutsche Bank launched a bank-wide business driven AI programme. As part of this programme, we are exploring several use cases including AI-chatbots to answer common questions by clients, AI-tools to support software developers with generating code, testing and documentation, as well as the analysis and processing of unstructured data. We are also early adopters of Google’s suite of new generative AI solutions and Large Language Models.

These cutting-edge technologies are enabling Deutsche Bank to deliver more value, faster and with less resources.

How the Corporate Bank deploys AI

The Corporate Bank has been using AI to automate manual processes and to improve customer advisory services for several years.

In **Cash Management**, our Data-Driven Treasury team is offering treasurers a cash flow forecasting solution. In this solution, AI is applied to amend transaction due dates to expected payment dates. Forecasts are constantly updated whenever new information is received. Over time, the models learn and improve without any human intervention.

Cash Management also uses AI/ML in a pilot to improve the responses to RFP questions.

In **Trade Finance & Lending**, Deutsche Bank is using Named Entity Recognition to extract information such as organisations, persons, locations and vessels from scanned client documents (invoices, transport documents, packing lists, etc.). These extracted data attributes are used to perform sanctions and embargoes checks. The system is currently getting extended for extraction of goods related information from unstructured sources like the goods description in SWIFT messages and in client invoices. The extracted goods information is supporting goods-related due diligence checks and the goods related sanctions check.

In **Customer Service**, the Corporate Bank uses AI to help understand and assign client queries to the correct departments within the bank. The solution reads and analyses messages coming into group mailboxes; it then categorises and routes the messages to the correct teams and structures the request accordingly. This helps to assign the cases to the correct officers in a timely manner.

Emerging uses for Generative AI in banking

In the short term, and given that finance is a regulated industry, we expect that most of the 2024 Generative AI use cases in banking will likely be of “Copilot” type; where AI models are used to support bank employees’ activities. This will first be seen in internally focused Operations and Risk Management use cases such as:

- Coding support: Providing software engineers access to productivity improvement tools like Github Copilot
- Anti-Financial Crime support: Improving monitoring capabilities
- Document generation: Semiautonomous content drafting, customisation, and translation
- Document Q&A: Analysing a large number of long documents
- Information extraction: Managing a wider range of document types and entities

- Data analytics: Leveraging Gen-AI to query and analyse structured datasets

From a Front Office perspective, we also expect banks to start experimenting with Generative AI to help with:

- Turnaround time reduction (e.g. KYC, Issue resolution)
- Personalisation of products, services, and marketing activities

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“From a Client Experience perspective, the opportunities we see to apply generative AI and use cases where also Machine Learning can be used are numerous, ranging from better client guidance, to better products, to solving service requests. All exciting developments in the omnichannel world of service.”

Dennis De-Weerd - Global Head of Client Experience Corporate Treasury Services