

Wintershall Dea Works with IBM to Ramp Up AI Initiatives Across its Organization

More than 80 AI use cases are actively pursued today, with a growing portion leveraging Generative AI

Collaboration with IBM Consulting as well as Microsoft paves the way for sustainable gas and oil production



Armonk, Ehningen, 1. August 2023 -- IBM (NYSE: [IBM](#)): 2023: Wintershall Dea, one of the leading independent natural gas and oil companies in Europe that is now evolving into a leading gas and carbon management company, is working with IBM Consulting to establish an AI Center of Competence (CoC) while progressing multiple value-generating AI use cases that support an efficient energy production. Together, both companies maintain strong relationships with Microsoft as a technology partner: On the one hand, Wintershall Dea was already using Microsoft Azure for its data platform while IBM Consulting maintains a collaboration with Microsoft for delivering data and AI projects based on Azure.

Wintershall Dea has launched a comprehensive initiative for scaling AI to better capitalize on data and drive process and production improvement across the enterprise.

Formed by the merger of Wintershall and DEA (Deutsche Erdoel AG) in 2019, Wintershall Dea is committed to technological innovation, employee empowerment and environmentally responsible energy production. As the two companies joined forces, the need for AI to connect and capitalize on data from across the larger organization became clear. Furthermore, the company acts in a standardized environment, relies on strong partner ecosystem, and needs to meet regulatory guidelines. To better capitalize on a huge amount of enterprise data assets, the company established a holistic AI approach. Implementing AI at the heart of the company allows Wintershall Dea to coordinate AI usage across the company: as small, easy-to-implement “fireflies” but also as traditional, large-scale projects. This enables the company to work more efficiently and save costs which allows further investment in innovative ways of energy production. Furthermore, efficient data exchange and access can be guaranteed for the large eco-system of partners of Wintershall Dea.

“We are exchanging more data internally and externally than in the past,” says Kathrin Dufour, Senior Vice President of Digitization and Technology at Wintershall Dea. “And a smooth and efficient data exchange is a crucial process for us as we are working in a standardized environment, and we want to make cooperation within our ecosystem as easy as possible. Harnessing AI is key to reach this goal.”

To optimize their AI approach, Wintershall Dea selected a centralized platform and methodology working with IBM Consulting to support its data journey. IBM Consulting provides access to a huge reservoir of AI experience and the experts have a track record from working with Wintershall Dea on previous projects for more than 4 years now. For the technical foundation of the AI approach, the team at Wintershall Dea developed a component-based architecture using state-of-the-art services for data management, data visualization, Microsoft Azure OpenAI Service as well as AI model development and execution on Azure. In particular, IBM provided an adapted version of its [IBM® AI at Scale](#) methodology for Azure to maximize the power of the existing platform.

Ulrich Lorang, Vice President of Data Science, Data Governance, and Data Hub at Wintershall Dea summarizes the core idea of the AI initiative: “Driving value through AI definitely is top of mind at every step we are conducting at the CoC. And we already have several proof points that the AI projects empower our workforce and support our business objectives. Looking back, we build up everything from having just a vision until the complete implementation of the CoC in only 2,5 years and I am deeply impressed how fast we as a team managed this.”

With their new AI at Scale approach, Wintershall Dea can build AI projects that are scalable from the beginning. The CoC community was formed not only with data scientists in the headquarter, but also with Citizen Data scientists with different backgrounds e.g., geoscientists, engineers, economists, and others with strong mathematical programming skills – all who could help drive data science projects within their respective teams on site. Through a series of workshops and trainings, the oil and gas company up skills its employees to ensure the growing community is familiar with the business value of AI and the benefits of cooperation with the CoC.

Wintershall Dea primarily conducts two types of AI projects: small, easy-to-implement “fireflies” and traditional, large-scale projects. A “firefly” is a Wintershall Dea concept for conducting a quick, scalable AI project to solve a simple problem, e.g., extracting key values from more than 2,000 PDF documents and feeding that data automatically into a spreadsheet. Other “fireflies” use the power of Generative AI to efficiently summarize reports or search for relevant information in Wintershall Dea's knowledge base to increase productivity across the company. “Generative AI can fuel a new era of efficiency and optimization, helping to unlock untapped reservoirs of productivity,” says Max Schemmer, Engagement Lead at IBM Consulting.

Besides the “fireflies”, the company pursues larger-scale AI projects that generate foundational technology leadership within the industry. One example includes an AI-driven solution for maintaining its gas and oil wells, started in Norway and now rolled out globally. Especially data from subsea wells in operation are today analyzed with AI capabilities which allows the engineers to detect potential leakages more accurate. This benefit of AI usage not only helps Wintershall Dea to maintain their wells, but also helps to protect the environment and to make energy production safer and cleaner.

Reflecting on the collaboration, Stephan Bloehdorn, Practice Leader AI & Analytics at IBM Consulting says: “Getting to a maturity level where AI is routinely and effectively leveraged at corporate scale requires a dedicated effort that combines business strategy, organization, technology, and company culture. We are very

happy that Wintershall Dea has the confidence in us to support their AI journey. With their holistic and integrated approach as well as their drive and energy to achieve real results at every stage of the journey they are a pioneer in AI management.”

Learn more about ways we are working with Wintershall Dea [here](#).

IBM Consulting accelerates business transformation for our clients through hybrid cloud and AI technologies, leveraging our open ecosystem of partners. With deep industry expertise spanning strategy, experience design, technology, and operations, we have become the trusted partner to over 3,000 of the world’s most innovative and valuable companies, helping modernize and secure their most complex systems. Our 160,000 consultants embrace an open way of working and apply our proven co-creation method, IBM Garage, to scale ideas into outcomes.

About Wintershall Dea:

Wintershall Dea is transforming from the leading European independent gas and oil company to become a leading European independent gas and carbon management company. We have more than 120 years of experience as an operator and project partner along the entire E&P value chain. The company with German roots and headquarters in Kassel and Hamburg explores for and produces gas and oil in 11 countries worldwide in an efficient and responsible manner. With activities in Europe, Latin America and the MENA region (Middle East & North Africa), Wintershall Dea has a global upstream portfolio and, with its participation in natural gas transport, is also active in the midstream business. And we develop carbon management and low carbon hydrogen projects to contribute to climate goals and secure energy supplies. More in our [Annual Report](#).

As a European gas and oil company, we support the EU's 2050 carbon neutrality target. As our contribution we have set ourselves ambitious targets: We want to be net zero across our entire upstream operations – both operated and non-operated – by 2030. This includes Scope 1 (direct) and Scope 2 (indirect) greenhouse gas emissions on an equity share basis. Wintershall Dea will also bring its methane emissions intensity below 0.1 per cent by 2025. We endorsed the World Bank’s Initiative ‘Zero Routine Flaring by 2030’ and continue to support the initiative aimed at eliminating routine flaring in operated assets by 2030. In addition, we plan to support global decarbonisation efforts by building up a carbon management and hydrogen business to potentially abate 20-30 million tonnes of CO₂ per annum by 2040. You can find more about this in our [Sustainability Report](#).

Wintershall Dea was formed from the merger of Wintershall Holding GmbH and DEA Deutsche Erdoel AG, in 2019. Today, the company employs more than 2,000 people worldwide from almost 60 nations.

More information on the Internet at <http://www.wintershalldea.com> or follow us on [Twitter](#), [Facebook](#), [LinkedIn](#), [YouTube](#) and [Instagram](#).

About IBM:

IBM is a leading provider of global hybrid cloud and AI, and consulting expertise. We help clients in more than 175 countries capitalize on insights from their data, streamline business processes, reduce costs and gain the competitive edge in their industries. More than 4,000 government and corporate entities in critical

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