









Table of Contents

Α	Executive summary4					
В	GenAl at a glance5					
С	GenAl's value drivers in manufacturing6					
D	GenAl use case prioritisation framework7					
E	Examplary GenAl use cases in manufacturing9					
F	Technical foundation for implementing GenAl 13					
G	Why start now and how to get started 15					
Contacts						





A Executive summary

This paper is intended to serve as an introduction to generative AI (GenAI) in manufacturing. It presents GenAI's value drivers and provides a framework for prioritising GenAI use cases and developing an implementation roadmap. It also gives an overview of the key GenAI use cases in manufacturing, including deep dives, and elaborates on the technical foundation required.



Four key takeaways

Start today

Every manufacturing company can and should start their AI transformation today, regardless of their digital/data maturity.

Financial impact of GenAl

GenAl could boost Europe's annual GDP growth by 0.4% to 0.7% by 2030¹. Given the projected GDP growth of 1.4% without Al, this represents a substantial economic impact. Its effect on the manufacturing industry offers significant advantages across various manufacturing processes by improving the quality of work (right first time), increasing efficiency and effectiveness, and automating processes.

Balancing value, risk and data maturity

Each GenAl application must balance potential value creation against inherent risks and effort required to provide high-quality and accessible data.



Technical foundation

GenAl applications need to be built on the right foundation, from a technology and data perspective. Organizations can choose between different GenAl implementation approaches, from out-of-the-box to highly customized. And for many use cases, GenAl needs to be combined with other forms of Al.

¹ https://www.strategyand.pwc.com/de/en/industries/financial-services/embracing-the-genai-opportunity.html.



B GenAI at a glance

In the era of Industry 4.0, manufacturing has been revolutionised not only by the internet of things (IoT), but also by artificial intelligence (AI). With the recent rise of generative AI (GenAI), this transformation has been taken to the next level.

While the concept of AI has been around for many decades – it is the Dartmouth conference of 1956 that is considered the event which founded AI as a discipline and since then it has undergone significant development. But what is AI, and how does the even newer phenomenon of GenAI relate to it?

Artificial Intelligence (AI) refers to computer systems that can perform tasks which typically require human intelligence, such as decision-making. These systems are trained on specific datasets and use algorithms to make predictions, recognise patterns and automate processes.

Machine learning (ML) is a subset of AI that focuses on developing algorithms and statistical models which enable computers to learn from and make predictions or decisions based on data.

Deep learning (DL) is a specific approach to ML that uses artificial neural networks to process and analyse large amounts of data, allowing machines to recognise patterns and make complex decisions.

Generative AI (GenAI) utilises large language models (LLMs) to autonomously generate content based on a users' requests, called prompts. Since the launch of ChatGPT in 2022, GenAl has given rise to a lot of hype and has brought the topic of AI to the top of organisations' agendas once again. In its traditional form, AI involves the development of algorithms and models that can perform specific tasks by learning from the data associated with that task. These Al models are trained on narrow historical datasets - e.g. for one particular business process - and can make predictions or decisions based on the patterns they learn from them. Traditional AI has proved to be highly effective at such restricted tasks, but its effectiveness in broader applications is limited by the need for extensive human involvement in the training process - for example, labelling training datasets, or providing feedback on predictions.

GenAI, on the other hand, leverages the power of LLM's that have been pre-trained on broad datasets and are thus able to generate content such as text or images without the need for explicit programming or re-training. By understanding the underlying patterns in the data, GenAI can generate new and meaningful outputs that align with the input it receives.

The pre-training of LLM's typically happens without company-specific data. However, companies can integrate own data into their GenAl applications based on different usage patterns:

- Prompt engineering: Own data can be integrated directly into the prompts. However, there are technical limitations of the data size and additional costs for the prompt.
- Retrieval-augmented generation (RAG): Own data such as documents or databases can be provided as an additional source of information to the LLM, from which it can retrieve relevant information to answer the users' prompts. However, this required the data to be well prepared in advance.
- Fine-tuning: Own data can be added to the LLM through re-training, thus changing the behavior of the model.
 However, this is considered a time- and resource-intense process.

Based on pre-trained LLM's and company-specific data provided additionally, GenAl can perform tasks such as:

- creating new content, such as text, images, code and even designs;
- retrieving and searching for specific information within documents or datasets;
- extracting, merging and filtering documents or other data formats; and
- transforming or improving content, including translation, rephrasing or personalisation of texts.

The fields of application of GenAl are vast and span across industries and functions. It is therefore expected to have a significant impact on society and the economy: GenAl could inject trillions of dollars into the global economy by 2025².

This white paper explores the impact of GenAl on the manufacturing sector.

https://www.pwc.ch/en/services/consulting/customer-centric-transformation/generative-ai.html.



C GenAI's value drivers in manufacturing

Based on conversations with numerous industrial enterprises, we have observed that many companies are not yet entirely clear about the value proposition of GenAl in manufacturing. Common opinion suggests that companies should build a solid digital foundation first, before adopting GenAl. There is also a belief that GenAl is a better fit for other areas because manufacturing involves complex, physical processes, and so the benefits of GenAl are not as immediately evident in manufacturing as they are in backoffice functions such as finance or customer service.

This chapter elaborates on the value of GenAl and the wide range of opportunities GenAl provides in manufacturing. It then explains why GenAl can be applied regardless of a company's current digital maturity.



GenAl offers four key value drivers for manufacturing:



Right First Time



Efficiency



Effectiveness



Automation

Right first time

GenAl eliminates errors and associated reworking in nonvalue-adding but important tasks, such as writing reports and maintenance orders.

Efficiency

GenAl facilitates faster decision-making, eliminating time-consuming research by providing answers to key manufacturing-related questions. For example: "What is the part number of the motor in this machine, do we have it in stock and when will it be available for delivery?"

Effectiveness

GenAl not only provides recommendations, but can also state how likely those recommendations are to succeed, enabling data-driven decision-making. For example: "Last time this failure occurred, changing the heat exchanger solved the problem", "cleaning valves 7, 9 and 12 sorted the issue on three out of the last five occasions", or "machines A, D and E are the root cause of your long lead times."

Automation

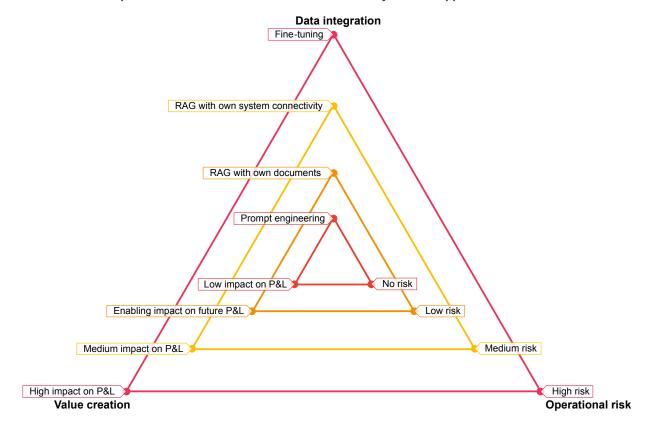
GenAl can automate processes in production. For example, it can automatically generate and schedule maintenance work orders based on a machine's condition.

What if you could start your GenAl transformation today, regardless of your digital maturity?



D GenAI use case prioritisation framework

Fig. 1 GenAl use case prioritisation framework based on data maturity and risk appetite



We have created a framework to help you develop your roadmap for using GenAl in manufacturing. It is also intended to challenge the common perception that a high level of digital maturity is required before you can start using GenAl.

The key is value creation

There needs to be value behind every GenAI use case (see chapter C). When considering value, we recommend examining the value of the underlying enablers associated with a use case, as those enablers have the potential to decrease the cost and time needed for developing new use cases.

In our framework, GenAl use cases are therefore evaluated based on four levels of value creation:

- (1) Low impact on profit and loss (P&L)
- (2) Enabling future impact on P&L (will enable at least one additional medium- to high-impact use case)
- (3) Medium impact on P&L
- (4) High impact on P&L

Factoring in the data integration

The approach of data integration for GenAl is determined by the type, amount, and quality of data, as well as the level of company-internal knowledge needed for a particular use case. If production processes and systems are extensively connected and data is thoroughly cleansed and enhanced, then there is no limit to the potential GenAl-related use cases. But even if your organisation is not yet fully prepared for advanced methods like RAG or fine-tuning, there are still great opportunities for GenAl use cases that can be leveraged with simple methods like prompt engineering. The framework therefore includes four levels of required data integration:

- (1) Prompt engineering
- (2) RAG with own documents
- (3) RAG with own system connectivity
- (4) Fine-tuning

Operational risk of GenAl solutions

Generating information comes with operational risks around the trustworthiness of the GenAl's output. We truly believe that high-risk use cases can also deliver benefits that are significant enough to outweigh the risk of failures. However, we do not recommend starting your GenAl journey with medium or high-risk use cases.

The framework includes four levels of operational risk, related to the impact of the outcome:

- (1) No risk
- (2) Low risk
- (3) Medium risk
- (4) High risk

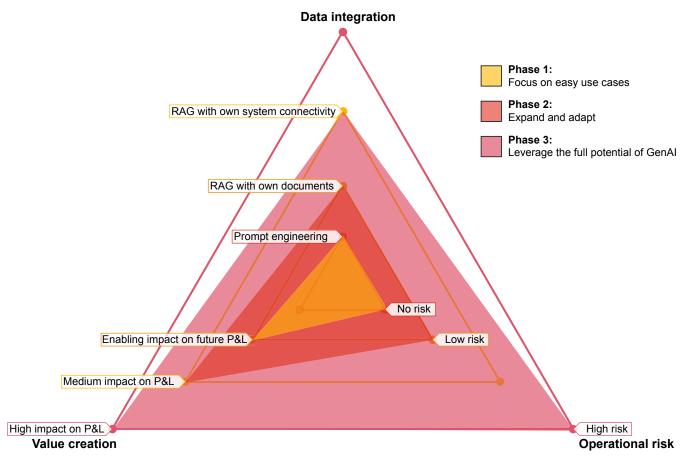
As you embark on your GenAl implementation journey, it is advisable to begin with accessible use cases that utilise pre-trained models and focus on prompt engineering. These are characterised by no additionally required data integration and the ability for users to create effective prompts. However, this limits the amount and type of data that can be processed by the GenAl solution, which typically enables smaller use cases with lower impact on profit and loss (P&L), as illustrated in the orange segment of the triangle in figure 2. Starting with this initial phase enables any company to become an early adopter and begin integrating GenAl in manufacturing. The barrier to entry is very low, given the minimal risk concerns, enabling companies to quickly realise several measurable benefits. This is where every company can start today.

In the second phase, as your organisation becomes more confident in using GenAl and your data maturity evolves, you have the opportunity to expand the application of GenAl by providing more own data, in particular documents to the LLM through RAG approaches. This can be seen in the red triangle in figure 2. Such a progression not only builds on the foundational knowledge gained, but also enhances the quality and potential impact of your GenAl solutions.

The ultimate goal, as a leader in the field, is to harness GenAl use cases that have a high impact on P&L by applying sophisticated, customized GenAl approaches. This might include fine-tuning of LLM's, but most use cases can typically be covered with RAG when implementing connectivity to own systems with appropriate routing and query translation logic. This scenario is depicted in the pink triangle in figure 2. In this phase, balancing the operational risk with value potential and data integration effort is complex and necessitates a tailored evaluation for each specific use case.

This strategic framework includes the key aspects to consider when prioritising GenAl use cases, thus provides a starting point for planning your organisation's GenAl journey. When planning the actual implementation of specific use cases, further aspects like software costs, skill availability, change management and workers council agreements also need to be considered.

Fig. 2 Three phases of development on a GenAl journey





E Examplary GenAI use cases in manufacturing

Example GenAl use cases in manufacturing and their value add Fig. 3

	Exemplary use case	Value creation impact				Prioritisation framework		
		Right first time	Effi- ciency	Effec- tiveness	Automa- tion	Value creation	Data integration	Operational risk
GenAl	Maintenance order generator	•	•	\circ	•	2	3	2
	Maintenance process guide	•	•	•	•	2	2	3
	Root cause analyser	•		\bigcirc	•	3	3	2
	Work instruction assistant	•	•	•	•	2	2	4
	Machine configuration assistant	•	•	•	•	3	3	4
	Operational report generator	•	•	\bigcirc	•	2	3	1
	Production controlling assistant	0	•	\bigcirc	•	0	3	1
Other forms	Work scheduling opimiser	•	•	\circ	•	3	3	2
of AI, infused by	Predictive maintenance	•		0	•	4	3	2
GenAl	Prescriptive quality	•		\circ	•	4	3	3
	Energy optimisation	0	•	0	\bigcirc	3	3	2
	Winning by the hour operator advice	0			\bigcirc	4	3	2
	Inventory evaluator	0		•	•	4	3	3
	Kanban optimiser	0		•	•	4	3	3

Value creation impact

Very high

High

Moderate

Low

None

Value creation

- 1 Low impact on P&L
- 2 Enabling impact on future P&L
- Medium impact on P&L
- 4 High impact on P&L

Data integration

- Promt engineering
- 2 RAG with own documents
- RAG with own systems connectivity
- 4 Fine-tuning

Operational risk

- No risk
- 2 Low risk
- 3 Medium risk
- 4 High risk

GenAl provides multiple opportunities in the manufacturing space. Figure 3 above provides an overview of some of the most common GenAl use cases in manufacturing, including pure GenAl use cases as well as other Al use cases which can be infused by GenAl for better performance and usability. We have evaluated these use cases based on the aforementioned value drivers and prioritisation framework.

If you are interested in exploring additional AI use cases in manufacturing, or other areas such as HR, sales or IT, we recommend reading our Applied Use Case Compass³.

The following section presents three examplary manufacturing use cases in the areas of production, maintenance and quality, giving a comprehensive overview of how GenAl can be applied and the value it delivers.

³ https://pages.pwc.de/applied-ai-compass.

Maintenance process guide

Taking the three phases of the strategic framework into account, the maintence process guide can be effectively applied as phase 1 use case. It utilises RAG with own documents, making manageable step ups from basic prompt engineering. Considering the data integration and the medium level of operational risk, it is more suitable as late phase 1 implementation where companies can handle slightly higher effort and risk.

Challenge: Maintenance processes in industrial settings are often complex and require precise execution to ensure equipment reliability and minimize downtime. Traditional maintenance manuals and guides can be incomprehensible, outdated, or difficult to interpret, leading to inefficiencies and potential errors. Furthermore, maintenance personnel might face challenges in diagnosing issues quickly and accurately, especially when dealing with unfamiliar equipment or rare problems. This can result in prolonged downtime, increased operational costs, and reduced overall productivity.

Solution: The maintenance process guide can revolutionise maintenance processes by providing dynamic, interactive maintenance guides tailored to specific equipment and situations. It can analyse historical maintenance records to provide instructions on troubleshooting. Maintenance personnel can interact with the GenAl system using natural language, receiving step-by-step instructions, visual aids, and video tutorials tailored to the specific maintenance task at hand. Ensuring that personnel always have access to the most current and relevant information, GenAl can integrate and continuously update knowledge from various sources, including manufacturer manuals, industry best practices, and previous maintenance records.

Benefit: Implementing the maintenance process guide with GenAl enables organisations to significantly enhance their maintenance processes. Maintenance tasks are completed more quickly and accurately, reducing downtime, and boosting overall productivity. New maintenance personnel can quickly get up to speed with interactive, easy-to-understand guides, reducing the learning curve. Standardised, high-quality maintenance procedures ensure that all tasks are performed reliably and according to best practices, thus minimizing the risk of errors. The system learns from each maintenance task, continuously improving its guidance and recommendations based on real-world data and feedback.

The maintenance process guide uses RAG with own asset and maintenance documents. The value creation is notable, with an enabling impact on future P&L through proactivly suggesting maintenance strategies in a next step. The operational risk is medium, primarily due to direct impact on production downtime. Consequently, the dependency on accurate data inputs is decisive for a fast maintenance process.

Fig. 4 GenAl maintenance process guide **Data integration** Maintenance process Value creation impact quide Right first Efficiency **Effectiveness Automation** time RAG with own documents Enabling impact on future P&L Medium risk Value creation Operational risk

10 Unleashing the potential of GenAl in manufacturing

Operational report generator

The operational report generator, characterised by RAG with own system connectivity, is well-suited for phase 2. This use case poses no operation risk, making it a good choice for expanding and adapting the GenAl application within your company.

Challenge: In manufacturing, producing effective reports or instructions in production, quality control or maintenance is crucial for enabling managers and employees to make quick and correct decisions and for undertaking various performance improvements.

For instance, a shift report needs to provide all key details relating to achievements, KPIs, abnormalities found, or issues and mitigations, such as those related to overall equipment effectiveness (OEE). In short, the next shift needs to be able to benefit from all the outcomes and learnings of the previous shift to improve performance from shift to shift.

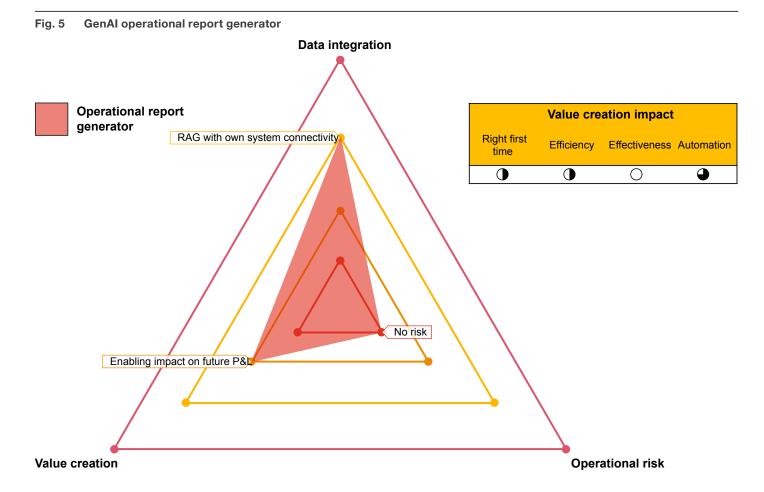
However, these reports are often poorly written and lack of processed historical data. They are not suitable for further analysis and can seldom be leveraged to improve the next shift's performance. If high quality shift reports can be made available, this should significantly increase the overall value adding time of personnel working in production.

Solution: This use case has two possible applications which provide several major benefits. The first of these involves analysing inputs from various sources, synthesising them into coherent and structured data. Additionally, basic input from operators - perhaps just a few written bullet points can be transformed into well-structured, comprehensive documentation, making the process of generating detailed and relevant reports both efficient and user-friendly.

The other possible application of this use case is a Q&A bot, which allows subsequent shifts to ask questions and thus quickly understand what prior shifts did to solve challenges and keep performance high.

In general, the solution not only standardises the report format but also ensures that key data is accurately captured and stored, making it available for further analysis.

Benefit: Implementing a GenAl-enhanced operational report generator allows manufacturing operations to significantly boost workforce efficiency, reducing the time and labour needed to generate high-quality reports. Better-quality reports will lead to better OEE. Additionally, the system's advanced data collection and analytic capabilities promote ongoing learning and operational enhancements, boosting productivity, improving quality and minimising downtime risks.



The operational report generator demonstrates enabling impact on future P&L by leveraging the creation of high-quality reports to the next level and enabling additional GenAl use cases after a successful implementation. The solution can be realized with prompt engineering to summarize information and create a well-written report. The operational risk is considered low, as the solution primarily focuses on enhancing reporting processes without significant disruptions to ongoing production processes.

Root cause analyser

Fig. 6

The root cause analyser can be applied as early adopter in phase 3, focusing on leveraging the full potential of GenAl and maximising its capabilities. The implementation of the analyser allows companies to enhance problemsolving processes and drive operational efficiency while maintaining a low operational risk profile.

Challenge: Identifying the true root cause of failures, quality issues or shortfalls in overall equipment effectiveness (OEE) in manufacturing is often hindered by a lack of links between data sources. These can make root cause analysis time-consuming, difficult or sometimes even impossible, preventing effective resolution and continuous improvement. Moreover, identifying root causes often requires the right skillset.

GenAl root cause analyser

Solution: A root cause analyser leverages GenAl to integrate and analyse data across multiple systems and processes. GenAl models process this complex, often unstructured data to detect patterns and anomalies. By adding other forms of Al, the system not only identifies potential root causes but also ranks them based on likelihood and potential impact, providing clear, prioritised results. On top of this, it can answer specific queries, such as "Why has my OEE dropped in area 1?", generating a ranked list of probable causes.

Benefit: Deploying a GenAl-driven root cause analyser significantly enhances the accuracy and speed of diagnostic processes in manufacturing. This precision allows for more effective interventions, reducing downtime and preventing identified issues from occurring again in the future. The system's comprehensive analysis abilities also support continuous improvement, ultimately leading to higher-quality products and more efficient operations.

The root cause analyser utilises RAG with customised interfaces and logic to query data from various system databases to accurately pinpoint the causes of failures in production, thus preventing issues from recurring and enhancing operational quality. By reducing downtime and operational costs, the GenAI improves overall efficiency and reliability, hence having a medium impact on P&L. The operational risk is seen as low because there is typically no closed loop to production processes, but rather quality experts reviewing root causes and deriving mitigation actions for future operations.

Operational risk

Root cause analyser

RAG with own system connectivity

Right first time

Efficiency

Effectiveness Automation

12 Unleashing the potential of GenAl in manufacturing

Medium impact on P&L

Value creation



Technical foundation for implementing GenAI

Implementing the above use cases requires the right foundation, from both a technology and a data perspective. This foundation not only facilitates the deployment of use cases but is also essential for providing users with the functions they need.

Designing the right technical solution requires consideration of several aspects:

- Choice of Al model: For each use case, a variety of Al algorithms may be applicable, including GenAl as well as other forms of Al. GenAl shall primarily be used for natural language user interaction, as well as analysis or generation of unstructured data such as text or images, while other forms of AI are needed for quantitative data analysis such as predictions, simulations, and optimisations. Choosing the best combination of algorithms requires a comprehensive review of the relevant data and according assessment of the required analytical functions, as well as the related model implementation and operations costs. Furthermore, a "make or buy" decision needs to be made, since more and more out-of-the-box AI solutions are being offered for specific manufacturing use cases, while custom solution development may be needed if complex own business logic or system interfaces are required.
- Data privacy and security: If the solution involves sensitive or confidential data, using a publicly accessible and out-of-the-box solution such as ChatGPT may raise concerns about data privacy and security. Using a private instance of a public cloud GenAl model, or even setting up a GenAl model in an own environment allows for more control over data handling and security measures. In an enterprise environment in particular, private and internal data must be kept secure at all times - not least in order to comply with regulations.
- Technical expertise: Developing a custom GenAl application requires expertise in various areas of Al, such as software engineering, natural language processing (NLP) and machine learning. If your organisation lacks the necessary skills or resources, using an out-of-the-box solution is likely to be a more feasible option.



• Integration into existing processes and systems: Evaluate how the solution will integrate with existing processes and systems within your organisation. Which business processes will be impacted and how might implementing GenAl affect workflows? For example, if operators mainly interact with the MES to complete their work orders, it may be necessary to integrate the GenAl use case into your MES in order to ensure that operators work efficiently and can use the interface. This will ensure that the solution seamlessly blends into their way of working. And the workers council should then also be involved early-on.

Depending on the above considerations, there are several ways of rolling out a GenAl application based on Microsoft technology:

Copilot for Microsoft 365

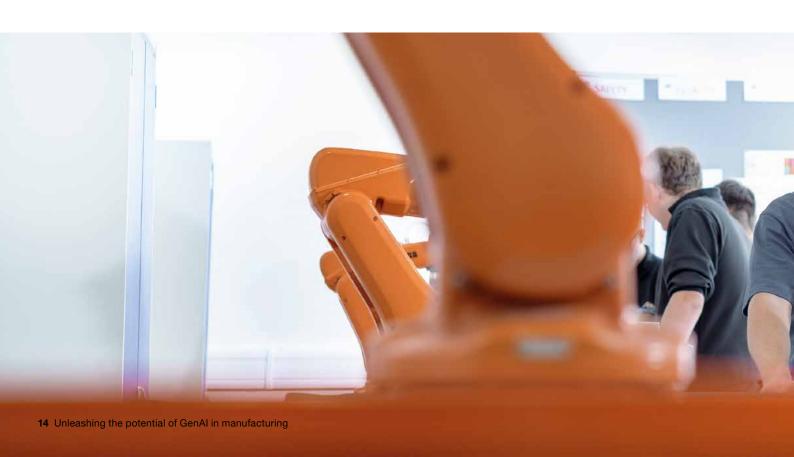
Copilot for Microsoft 365 is a standard technology that is available out-of-the box and can be activated within the Microsoft 365 office environment. It addresses a wide range of use cases that are associated with general productivity and efficiency, and is integrated into standard apps such as Microsoft Excel, Powerpoint, Teams and Word. Its functions include:

- transcribing meetings and generating condensed minutes as a summary;
- creating, modifying or improving PowerPoint slides based on instructions, or generating speaker notes based on slides; and
- accelerating data analysis and identifying trends in data in response to natural-language questions in Excel.

Successful implementation of Copilot for Microsoft 365 does requires some preparation on the organisational front. The effectiveness of Copilot is directly linked to the quality of the data and how well organised it is. This includes data labelling: accurate categorisation and tagging enables Copilot to rapidly search, generate and recommend relevant content. Additionally, management and organisation of data play a vital role in establishing proper data structures and formats, ensuring clean and non-redundant data. To fully leverage the capabilities of Copilot, it's vital that you invest in comprehensive training and enablement to equip individuals with the necessary skills and knowledge to maximise the benefits and usage of Copilot, including understanding its features, functions and best practices.

Microsoft Azure OpenAl Service

If you're looking to develop your own GenAl applications and use cases tailored to your specific requirements, Microsoft Azure OpenAl Service offers a platform to do this. This approach allows greater customisation and control over your GenAl applications. The deployment of this kind of GenAl requires the use of a large language model (LLM) - typically by leveraging an existing LLM rather than building one from scratch. Azure OpenAl Service provides easy access to pre-trained LLMs via REST API, while Azure Al Studio provides a web-based interface and playground for interacting with the OpenAl services and developing custom applications. It also allows you to use your organisation's own data by connecting to data storage media. An example of a solution that can be enabled through Azure OpenAl Service is a conversational assistant, which provides employees with a private instance of ChatGPT that has customised functionality and a secure environment for private data usage.



G Why start now and how to get started

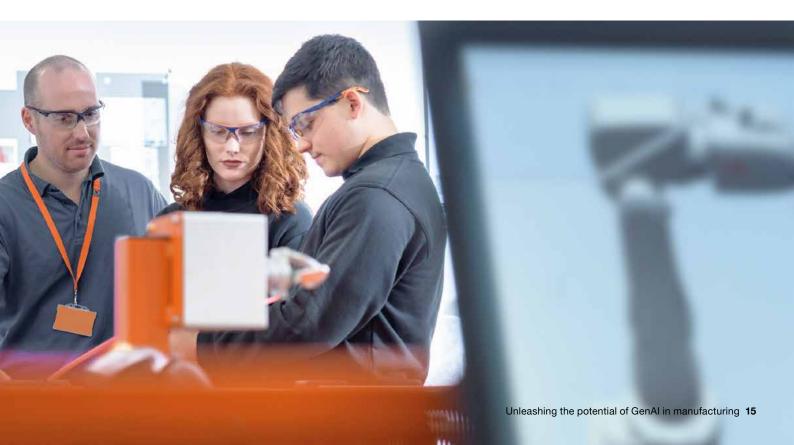
It is important to recognise that GenAl technology is evolving rapidly, with tools and features continuously improving and new solutions emerging on the horizon. However, GenAl is a technology that is here to stay and organisations must find ways to leverage it meaningfully. Use of GenAl enables organisations to optimise production processes, reduce costs and improve efficiency.

To implement GenAl successfully, the following points should be taken into account:

- Alignment with overarching strategy and business objectives: It is essential to focus on high value creation and select the right use case (see chapter D). If your selected use cases are in line with your company's strategic goals, you can ensure that your resources and efforts are directed towards meaningful benefits and make a contribution to the overall success of your enterprise.
- Be domain/industry specific: While ChatGPT and similar generalised GenAl tools are widely valuable, especially for general work productivity, it is crucial to recognise that the highest impact GenAl use cases usually emerge within specific business domains. Being domain specific ensures that your Al solutions are tailored to the unique challenges and opportunities of a particular industry, sector or task. Using the right data foundation and

models to meet the unique requirements of a particular business domain enhances the likelihood of long-term success and a seamless fit.

- Continuously improve and adapt along the way: Harnessing the full power of GenAl requires a commitment to continuous learning and adaptation. The technology itself iterates rapidly, and its range of applications is subject to dynamic shifts. Therefore, a constant pursuit of learning is necessary in order to stay abreast of advancements, adapt to emerging trends, refine strategies and incorporate feedback from real-world implementation. Moreover, the ability to pivot in response to unforeseen challenges and ethical considerations is crucial for ensuring that GenAl remains relevant and is used responsibly.
- Enablement and training: For successful implementation of a solution, it is essential to provide enablement and training to your workforce. This includes educating employees about the capabilities and benefits of GenAl, but also about its limitations and shortcomings. This will allow them to use GenAl meaningfully and with the right approach. Ultimately, enabling and training your workforce will ensure that your employees are equipped with the knowledge and skills required to leverage GenAl and use the technology in their daily work.





Contacts



Michael Bruns
Partner
Tel.: +49 160 2600192
michael.bruns@pwc.com



Andreas Odenkirchen
Director
Tel.: +49 1511 5535019
andreas.odenkirchen@pwc.com



Julia Kopp Senior Associate Tel.: +49 175 6378675 julia.kopp@pwc.com



Victoria Reifschneider Manager Tel.: +49 160 2028899 victoria.reifschneider@pwc.com

Further contributors:

Jens Wunderlin, Christian Koch, Toufik Al-Khawli and Janina Bauer

About PwC

Our clients face diverse challenges, strive to put new ideas into practice and seek expert advice. They turn to us for comprehensive support and practical solutions that deliver maximum value. Whether for a global player, a family business or a public institution, we leverage all of our assets: experience, industry knowledge, high standards of quality, commitment to innovation and the resources of our expert network in 151 countries. Building a trusting and cooperative relationship with our clients is particularly important to us – the better we know and understand our clients' needs, the more effectively we can support them.

PwC Germany. More than 14,000 dedicated people at 20 locations. €2.93 billion in turnover. The leading auditing and consulting firm in Germany.



