WHAT AI CAN BRING TO BUSINESS APPLICATIONS

Frank Niemann
Vice President - Enterprise Applications & Related Services

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INTRODUCTION

Artificial intelligence is currently evolving from a niche technology to the mainstream. It offers, among other things, new ways to analyze various sets of data, help optimize planning processes, automate voice/text interactions and responses, and suggest possible next steps, e.g. in sales or customer service. Such features provide the basis for a higher level of automation and increase efficiencies of both processes and people.

Business applications have been providing efficiency gains and automation for business processes for quite some time. Quite a large number of companies rely on enterprise software to run their businesses. One major driver is their need for insights based on accurate enterprise-wide data to make decisions as fast and as relevant as possible.

The intersection of AI and business applications

Therefore, artificial intelligence can very well complement business applications, for instance, by guiding the user through ERP, by automating the analytics process, or even by making some recommendations. In addition, the combination of the two can help companies to reinvent their business processes as well as their business models. The use of AI in the application context is an area of dynamic innovation – many major software vendors, Internet platform providers, start-ups as well as IT services companies have developments underway.

A business perspective on AI

We have conducted a comprehensive European survey among decision-makers from various departments, including sales & marketing, finance, production and supply chain, and IT.

Our analysis and comments provide an overview as well as detailed perspectives considering countries, industry segments, and company sizes .

78% of the companies describe AI as a basis for process improvements or automation. Some even believe it is strategically important for their business.

KEY FINDINGS

IT: enhancing cyber security, automating user support and asset monitoring

Improvements in cyber security is a key challenge for many companies. 83% of IT managers expect that AI has the potential to help them in their fight against intruders and malware. Another 77% regard AI as a way to automate user support tasks.

AI benefits: business process improvements and automation

53% of European businesses are convinced that AI can help them to improve existing processes and increase the level of automation. Only 25% think that AI is strategically important. Only a minority of 22% regard it as a future topic.

Improvements are expected in areas such as customer lifecycle management as well as better products and services. Most of all, companies believe that AI will help to reduce human errors.

Production: predictive maintenance and adaptive manufacturing processes

Predictive maintenance has become a popular AI use case. 75% of executives in production departments like the idea of scheduling maintenance based on predictions. They also regard AI as an approach to increase the adaptability of manufacturing processes to deliver new products and services.

Highest value contribution: automation of workflows and less human interaction

78% of companies say that AI offers high value in the automation of work flows so that less human interaction will be needed. 73% believe that this technology will lead to a faster completion of business processes. More and better recommendations for actions are expected by 72%.

Investments: AI-ready applications and tools to AI-enable solutions

Almost half of the companies surveyed already have some kind of AI technology in place today. However, in the short term, 56% want to invest in business applications with AI features and 55% in AI technology that can augment their solutions. Further investments in the mid-term are planned for systems integration (51%), hiring AI experts (58%), and process & strategy consulting (59%).

Marketing & sales: a better understanding of the customer

74% of marketing and sales executives see great value in AI to better understand customers' attitudes by analyzing social media and e-mails.

Main obstacle: legal and compliance-related restrictions

Neither the lack of a business case nor the fear of job losses are the largest obstacles for using AI in the context of business applications. For 82%, the biggest problems are legal and compliance aspects.

Finance & accounting: fraud prevention, predictions, and automation

78% of the managers of finance departments are convinced that AI will help them to detect and prevent fraud much better. A similarly large group expects that AI has the potential to help make predictions about their company's financial situation. Automation in accounts payable management as well as bank reconciliation are other areas where AI can make a manager's life in finance easier.

Providers of cloud-based applications are the preferred AI technology provider

92% name cloud application vendors as their preferred provider in respect to business applications. Only 28% think the same of on-premises software vendors. For 85%, a systems integrator with AI competencies is the provider of choice. 70% favor an AI tool specialist. Of course, a business application provider must be able to implement AI. However, companies also expect them to provide applicable use cases.

Supply chain management: automation of planning and fulfillment

Almost all of the heads of the SCM department (91%) see a great value contribution in the automation of supply chain planning and fulfillment. This means that executives of this department can benefit the most from AI.

AI strategy under development

Only 11% have an AI strategy in place today. However, within the next two years, the share will increase to 74%. The remaining 26% are at least discussing such a strategy, which means that nobody disputes the importance of this. The company board and the IT department are strongly involved in AI strategy, the lines of business to a much smaller degree.

The most common way to support AI strategy is development of a new business function for a company-wide AI deployment (74%) or the development of internal AI skills (65%).

RELEVANCE OF AI

Strategically important or just hype?

Companies expect that AI has the potential to help improve existing business processes. This could be the reduction of errors, a higher quality as well as a greater level of automation.

Therefore, AI is not just hype. For many companies, AI holds the potential for better business outcomes.

25% AI is strategically important for our future business.

53% AI is not strategically important, but provides the basis for process improvements and automation.

22% AI is currently not important but an interesting technological development for the future.
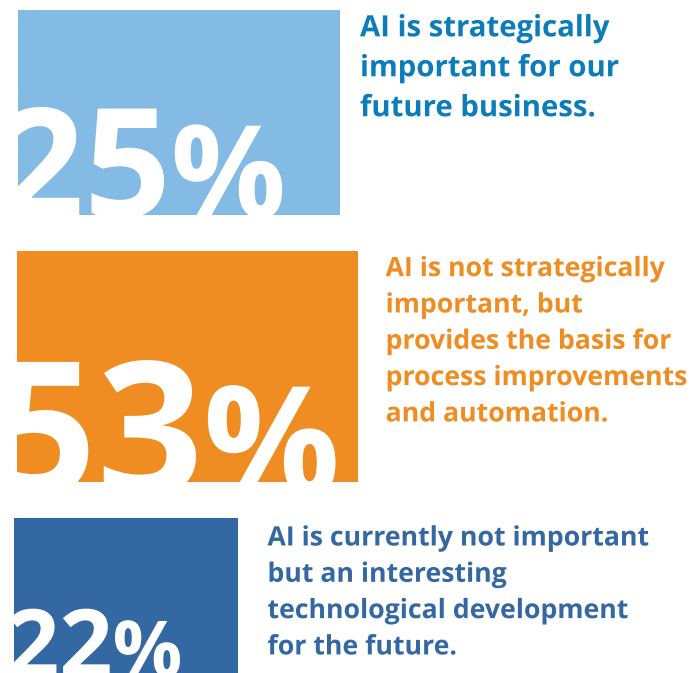
Fig. 1: Which of the following statements best describes the relevance of AI for your company?

Detailed view

View by country: In Spain and Italy, fewer companies see AI as strategically important. In the UK, the share of respondents who see AI as strategically important is the highest compared to any other country.

View by company size: Depending on the company size, the perception of AI regarding its importance and its relevance for today differs. Many more larger companies (those with more than 2,500 employees) call AI strategic, while there are many smaller companies (those with less than 2,500 employees) that believe AI to be an interesting future topic.

View by industry: A larger share of manufacturing companies (27%) see AI as a future technology than companies from services, trade, and transport (16%) industries.

Recommendations:

- Consider AI as important to improve and automate business processes (both internal and customer facing). This is where the potential benefit lies for most companies.

- We are convinced that AI can and will be the basis for new and innovative services based on processes that do not exist today. However, to benefit from AI in this respect, a much broader approach is required, which may involve organizational changes.

POTENTIAL PROCESS IMPROVEMENT

Regarding the improvement of existing processes, the biggest impact companies expect comes from the reduction of human errors. These could be incorrect data inputs, mistakes when performing tasks, wrong decisions, or tasks that people forget. AI is frequently used today to provide support at the user interface level, for both customers and employees. Chatbots (software that conducts conversations with humans via audio, video, or text, also called conversational agents) allow for a dialog which can help people to fill out forms correctly. AI technology can check the plausibility of data entries, guide users through processes, and make sure they are completed. Also, AI provides mechanisms to automate repetitive tasks, which can free employees from these duties.

According to the survey results, all activities surrounding the customer are another area where AI can provide huge benefits. As AI can leverage vast amounts of customer-related data, the technology can support companies in optimizing the customer lifecycle, which is associated with an increase in customer intimacy. Interestingly, improvements in customer relations is ranked higher by respondents than automation of business processes or automation of helpdesk tasks in IT operations.

In your opinion, to what extent would AI provide benefits for your company in each of the following areas?

REDUCE THE NUMBER OF HUMAN ERRORS

65%

DEVELOP AND DELIVER NEW AND INNOVATIVE SERVICES OR PRODUCTS BASED ON EXISTING DATA

36%

OPTIMIZE CUSTOMER LIFE CYCLE MANAGEMENT

60%

INCREASE THE AUTOMATION OF OUR BUSINESS PROCESSES

36%

IMPROVE CUSTOMER SERVICE AND CUSTOMER INTIMACY

58%

RAISE THE LEVEL OF AUTOMATION IN IT OPERATIONS INCLUDING HELP DESK

25%

IMPROVE THE QUALITY, EFFICIENCY, RELIABILITY OR DURABILITY OF OUR PRODUCTS AND SERVICES

56%

IMPROVE SALES TEAM PRODUCTIVITY AND WIN RATES

16%

IMPROVE THE USABILITY OF OUR APPLICATIONS BY NON-EXPERTS

15%

Fig. 2: In your opinion, to what extent would AI provide benefits for your company in each of the following areas? ("Agree", "Disagree" and "Strongly disagree" not shown)   n = 240

Value of AI with respect to specific processes

With the help of AI, business applications can be improved in many different ways. The possibilities for improvement also apply across various departments and lines of business.

Marketing, sales and services

The challenges in marketing, sales and services are manifold. Understanding customer-related data from various sources in order to personalize offers and to identify the next best action are areas in which AI can help and provide value.

Finance & accounting

Finance & accounting departments (F&A) are forced to become more efficient by automating administrative tasks. AI has particularly been identified to create a significant value contribution related to better detection and prevention of fraud.

Supply chain management

Supply chain management remains one of the most important topics for business innovation. SCM managers have been dreaming about automated processes for planning and fulfillment. AI can deliver great benefits in the analysis of data which is necessary for planning.

IT

Protecting data, applications and IT infrastructures has always been a challenge for IT departments. AI can create a significant value contribution to enhancing security by analyzing large amounts of data and by detecting suspicious activities.

Production

For those overseeing production processes, challenges arise from the demand for more individual products and changing customer requirements. One area where AI can produce a significant value contribution is predictive maintenance. This area, which has already seen many use cases, allows for the analysis of a machine's run time data, thus taking into account scheduled outages.

Where do you see AI produce the greatest value to your company's business applications?

Marketing & Sales

say greatest value of AI is in better understanding customer attitudes

74%

F&A

say greatest value of AI is in better detecting and preventing fraud

78%

SCM

say greatest value of AI is in automation of supply chain planning and fulfillment

91%

IT

say greatest value of AI is in enhancing cyber security

83%

Production

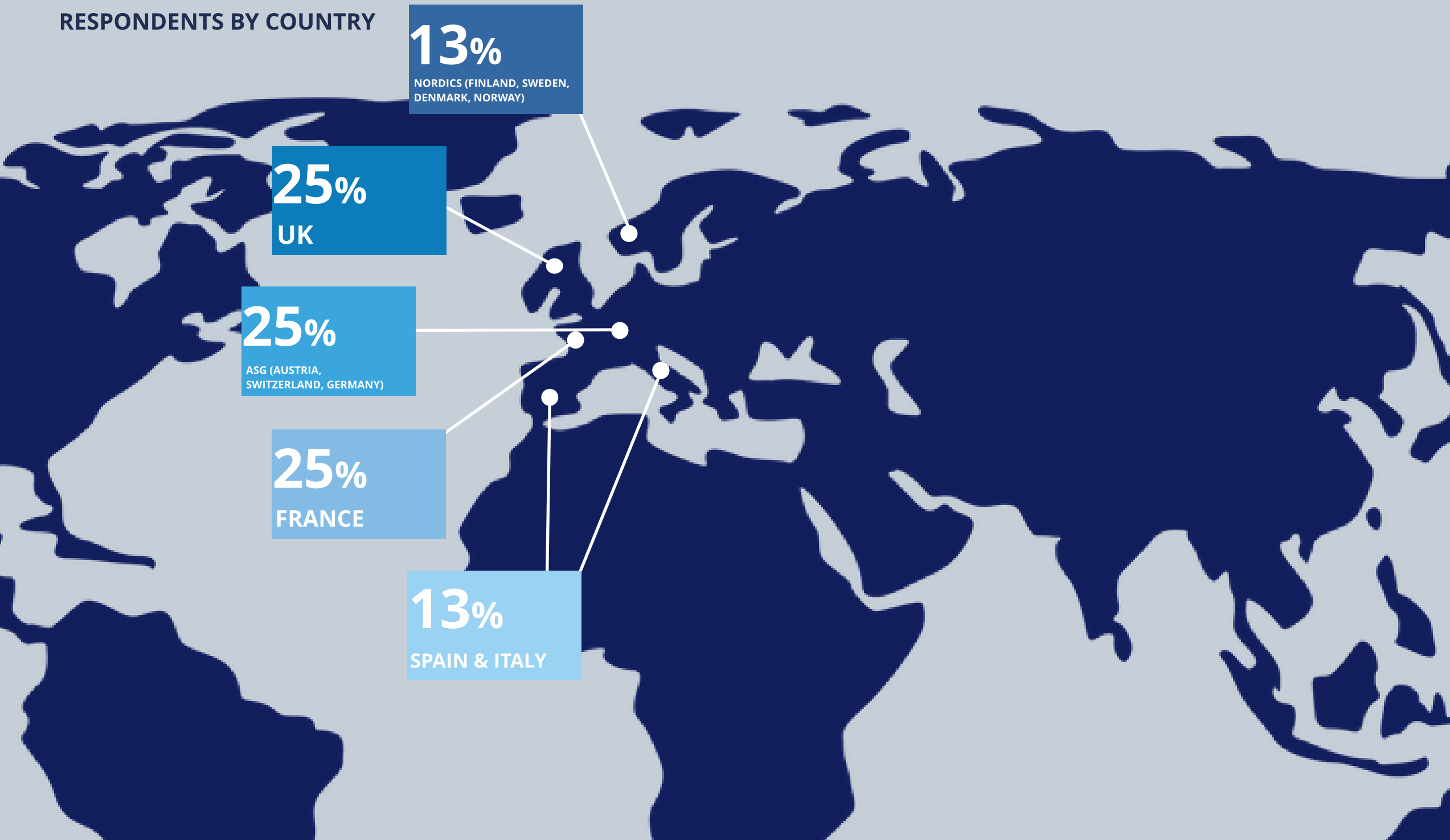say greatest value of AI is in predictive maintenance

75%

CONCLUSIONS

For most of the European companies we surveyed, AI is relevant. For many managers, AI provides a basis to improve and automate business processes. All in all, the larger companies are more convinced about the strategic relevance and the benefits of AI.

There are many different opportunities for companies to innovate their business processes by augmenting their business applications with AI. This includes increasing the level of automation and reducing human interaction. However, it also has the potential to predict business outcomes, improve customer lifecycle management, and prevent fraud.

As many different departments of a company can benefit from AI-enabled applications, a company-wide AI strategy is almost mandatory. The good news is that all the managers we spoke to do not dispute the relevance of such a strategy. As such, AI may be part of a broader discussion on digital transformation strategy.

AI can provide great value where masses of data need to be analyzed in order to identify patterns to detect fraud or cyber attacks and to better understand what customers want. AI can have a large business impact if it can help to automate complex processes that are essential for the success of a company. The best example is the automation of supply chain planning and fulfillment.

Overall, European companies see a lot of potential to innovate their processes with new, AI-enabled applications or with AI tools that augment existing solutions. They are willing to invest in technology, training, consulting, and integration. The main barrier for respective initiatives is not a lack of ideas regarding what to do with AI in the context of business applications, but rather legal and compliance issues as well as the internal culture.

METHODOLOGY

This study is based on interviews with senior business and IT decision-makers with responsibility for AI strategies at 240 medium and large companies from the UK, France, Austria, Germany, Switzerland, the Nordics (Finland, Sweden, Denmark, and Norway), Spain, and Italy. The study was completed during the first quarter of 2018. Here is a more detailed breakdown of the participants in the study:
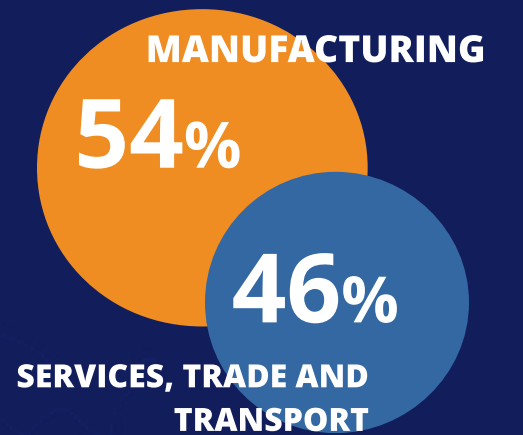
RESPONDENTS BY COUNTRY

13%
NORDICS (FINLAND, SWEDEN, DENMARK, NORWAY)

25%
UK

25%
ASG (AUSTRIA, SWITZERLAND, GERMANY)

25%
FRANCE

13%
SPAIN & ITALY

RESPONDENTS BY WORKFORCE

50%
1000 - 2499 EMPLOYEES

50%
2500 EMPLOYEES OR MORE

RESPONDENTS BY INDUSTRY

54%
MANUFACTURING

46%
SERVICES, TRADE AND TRANSPORT

RESPONDENTS BY POSITION

IT Director/Head of IT or Deputy
24%

CIO
8%

Head of Enterprise Applications
7%

Chief Data Officer
6%

Head of Sales/ Marketing/Customer Service/Experience or similar position
21%

Head of Logistics /Supply Chain or similar position
14%

Head of Finance & Accounting or similar position
11%

Head of Production /Manufacturing /Operations or similar position
8%

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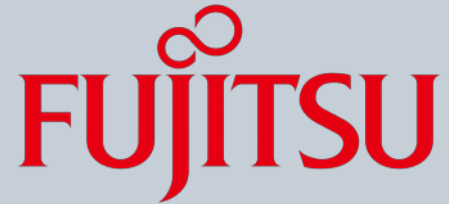
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Artificial Intelligence in EMEIA

With its Human Centric AI Zinrai, Fujitsu is making its extensive, deep-seated AI expertise and technologies more easily available to customers. Zinrai takes a Human Centric approach, where the needs and input of people and society are given the highest priority. Overlaid on this human-centric foundation, Fujitsu works alongside customers and ecosystem partners to apply Zinrai, with the purpose of co-creating valuable solutions using best-of breed technologies from across the globe.

Fujitsu's AI capabilities in Europe are organized across a network of competency centers, which make its innovative AI services highly accessible to our customers – including an Innovation Center for Data Analytics in Madrid, Spain, which is focused on heritage data integration, our Industry 4.0 Center in Munich, Germany and our specialist AI Center of Excellence in Paris-Saclay, which we recently expanded.

In the EMEIA region, Fujitsu's Zinrai services focus on key aspects of business, such as Quality Control (manufacturing quality assurance, building/ structural maintenance, rail maintenance, drug design and till-fault prediction, for example); customer flow analysis (oil and gas and service stations); city infrastructures (airports, railways, roads, retail environments including malls, retail chains and urban development); the public sector (security, Police, etc.); and predictive maintenance (utilities, manufacturing, telecom, transport, etc.).

For more information, please visit:

http://www.fujitsu.com/emeia/themes/ai

http://www.fujitsu.com/emeia/businesssolutions/ai

Dr. David Snelling

Program Director Artificial Intelligence, CTO Office EMEIA

Mob.: +44 7590 293 439

Dave.Snelling@UK.Fujitsu.com

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T-Systems is partnering with its customers as they address the digital transformation. The Deutsche Telekom subsidiary offers integrated solutions for business customers, including one-stop shopping: from the secure operation of legacy systems and classical ICT services, the transition to cloud-based services (including international networks, tailored infrastructure, platforms and software) as well as new business models and innovation projects in the Internet of Things. The application of Artificial Intelligence is an integral part of these solutions. T-Systems has shown in multiple productive projects how Artificial Intelligence can improve the business processes in the areas of Travel, Transport and Logistics, as well as manufacturing and predictive maintenance. Combining business processes expertise with state of the art knowledge in machine learning and artificial intelligence is key to the successful delivery of such solutions. T-Systems can provide all this thanks to its global reach in fixed-network and mobile communications, its highly secure data centers, a comprehensive cloud ecosystem built around standardized platforms and global partnerships, and the ability to offer top levels of security.

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"The NTT DATA Group is making great strides developing business services and global operations as it fulfills its vision of being a Global IT Innovator.

The Group's broad spectrum of employees provides a diverse range of localized IT services to clients around the world. As we establish our presence on the global stage, our next goal is to make NTT DATA known to an ever-widening range of clients and prospects.

We want NTT DATA to stand out from other global businesses through our dedication to putting the needs of our clients first and ensuring that innovation and Japanese quality are at the heart of all we do."

Toshio Iwamoto Representative Director, President and Chief Executive Officer, NTT DATA Corporation

For more information, visit www.nttdata.com.

Frank Litsch

Executive Digital Consultant AI
Phone: +49 151 18 45 86 96
frank.litsch@t-systems.com

Christoph Charles
Digital Competence Leader Digital Processes
Phone: +49 151 14 27 75 95
christoph.charles@t-systems.com

Henrietta Lacey-Gutsell

Director
EMEA Analyst Relations
henrietta.lacey-gutsell@nttdata.com
Phone: +44 (0) 7734 937 367

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PAC - CXP Group

15 Bowling Green Lane
EC1R 0BD London
United Kingdom

Phone: +44 207 251 2810

Fax: +44 207 490 7335

Info-uk@pac-online.com

www.pac-online.com

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