Are Nordic organisations ready for AI?

The effect of AI on how organisations think about their digital transition and skills

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Nordic organisations and AI

The effect of AI on digital transition and skills needs

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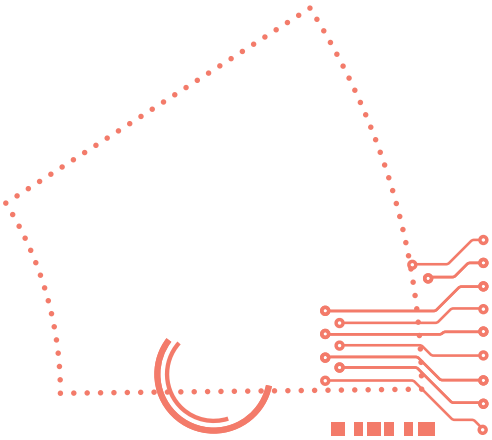


Definition of terms: AI and generative AI

This report defines **artificial intelligence (AI)** as technology used to carry out work normally thought to require human intelligence. AI systems use algorithms and large amounts of data to predict, recommend and make decisions. Both software (e.g. for translation and image recognition) and physical devices (robots and drones) use AI.

Within the wide-ranging landscape of AI technology, the report defines **generative AI** as a distinct category of systems that read and understand linguistic input and then *generate new content* in the form of text, images, video, etc. The best-known generative AI tools include Open AI's ChatGPT and DALL-E 3, Google's Bard and Midjourney. The report reflects the fact that the questionnaire differentiated between AI in the broad sense and generative AI.

INTRODUCTION

The printing press, steam engine and internet are among the few innovations in human history that have triggered such profound cultural, economic and social transformations that we talk about the time before and after the advent of them. Artificial intelligence (AI) has the same potential to radically transform society, organisations and working life.

The public launch of ChatGPT suddenly made AI and generative language models available to everyone, and the technology gained traction in homes and workplaces almost overnight. We seem to be on the cusp of an extraordinarily rapid technological revolution, so it is important to ask whether we are ready for the radical changes ahead.

Although the Nordic nations are among those to have benefited most from the digital transition, we cannot take it for granted that this trend will continue. We need to be part of the ground-breaking new AI wave. We also need to use the latest technology ethically and responsibly, build a strong skills base and identify uses that will make us world leaders. Our future is at stake.

Given the many common denominators in the Nordic Region, the organisations behind this analysis wanted to know what leaders think about AI and how they are navigating these new waters. Leaders in every sector and country need to face up to AI and what it means for their strategy, organisation and workforce.

We set out to investigate whether Nordic organisations have started introducing new tools and adjusting their strategies accordingly. We wanted to know about their expectations and whether leaders think they have the right people with the requisite mindset and skills to make the most of AI's potential. In short, we asked: Are Nordic organisations ready for AI?

The report reflects the views of 1,200 Nordic leaders in the private and public sectors on navigating the global AI transition. We have supplemented the data with case studies to provide a unique insight into how some of the most prominent Nordic organisations are tailoring their strategy around AI and into the work they are doing to enhance the digital skills of the staff at the forefront of these changes.

We hope you will find it an interesting read.

On behalf of the partners involved

Mette Beck-Nielsen
CEO, Digital Dogme

Main findings

Many already use AI – few strategically

- More than half of Nordic organisations already use AI, ranging from 61% in Finland to 52% in Norway, 48% in Denmark and 45% in Sweden.
- The most frequent use is 'text generation' (31%), which may indicate that *generative AI*, particularly text-based tools, is making headway in the Nordic Region.
- Nordic organisations typically use AI for operational purposes, e.g. automating processes or improving products and services..
- Although over half have worked with AI, only 15% have drawn up a strategy for its use.

Great expectations

- Two-thirds of Nordic organisations expect to use (more) AI in the next three years
- Half expect AI will make them more competitive.
- Only a little over one-third of respondents expect to use AI in management work.

New skills needed

- 35% of Nordic organisations are recruiting staff with digital skills, including the ability to assess when and how best to use AI.
- The report identifies higher demand for 'digital integrators', i.e. employees capable of applying digital technologies to new products and business concepts, but who do not design, develop or maintain digital solutions.
- Organisations primarily expect to address these needs via internal training and courses run by private providers, such as consultants. Only 17% expect to hire or fire staff to raise the level of digital skills..

Part 1

Current uses

Part 1 of this report covers how Nordic organisations are using AI at the moment. First, it looks at the differences between four Nordic countries (Denmark, Finland, Norway and Sweden), and then at relevant differences in size and sector.

Over half of Nordic organisations already use AI – and it is particularly prevalent in Finland

More than half of the respondents (51%) said they use AI for at least one of ten specified functions (see Figure 3), a significantly higher number than similar studies. For example, Statistics Denmark (2022) reported that only 24% of Danish companies used AI.[1] In other words, the study suggests that AI is growing rapidly throughout the Nordic Region.

Finland stands out, with 61% of respondents reporting that they already use AI. In Norway, the figure is 52%, in Denmark 48% and in Sweden 45%.

The result indicates that Finland's national AI strategies and government initiatives (e.g. the project 'Elements of AI') may have influenced the use of AI throughout society.[2]

Larger organisations use AI more

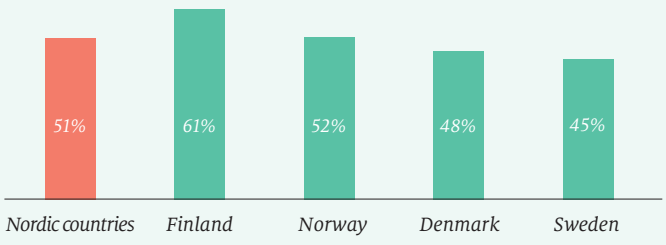
Large organisations (i.e. those with 251+ employees) use AI the most (68%). The figure for medium-sized organisations (51–250 employees) is 55%, and for small organisations (1–50) employees it is 45%. This finding is consistent with similar studies by Eurostat and national statistical agencies in the Nordic Region, all of which show higher usage in big organisations.3 Stanford University's 'AI Index 2023' and McKinsey's 'The State of AI in 2023' show that 50% of organisations worldwide use AI.4 5

The fact that around half of all small and medium-sized organisations now also use AI may be a sign that AI-based tools are now more readily available, because of the generative AI wave, with platforms like ChatGPT, Bard, Midjourney, etc.

At the sector level, the differences are minor and statistically insignificant, with 55% of public-sector managers reporting that their organisations use AI, compared to 50% in the private

Figure 1 ***Proportion of respondents whose organisation uses AI for at least one function***

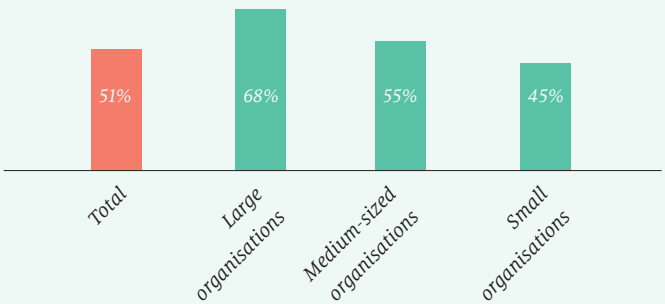
n=1211 for Nordic countries,
n=290–311 for the individual countries



Note: Statistical uncertainty, max ± 5.6 percentage points, i.e. there are significantly more users of AI in FI than in DK and SE. The difference between FI and NO is insignificant.

Figure 2 ***Proportion of respondents whose organisation uses AI for at least one function***

Small organisations n=780
Medium-sized organisations n=187
Large organisations n=244



Note: Statistical uncertainty, 5.8 percentage points for large organisations, 7.1 for medium-sized and 3.6 for small, i.e. significantly more large organisations use AI than medium and small ones.

sector. The lower figure for the private sector is probably due to the predominance of SMEs.

Text generation is the most widespread function

The other eight categories were used in 9–16% of organisations. Larger organisations (with 251+ employees) and public institutions use a broader range of AI functions. Although organisations in Finland use more functions than those in the other countries, there is no significant difference between the countries in terms of the extent

The survey shows that 31% of Nordic organisations use AI to generate text. The questionnaire does not break this category down further, but it includes the aforementioned generative AI tools such as Open AI's ChatGPT or Google's Bard, which can summarise and reformulate texts and perform a range of other communication tasks. The second most frequent use is 'data analysis' (19%), a broad category that covers, e.g. analyses of sales figures, prices, etc., as well as other types of data for which a wide range of AI-based tools can to which the individual functions are used. Figure 3 also confirms that 49% of Nordic organisations do not use AI.

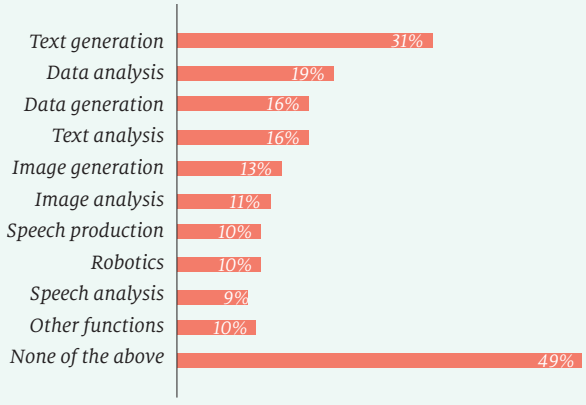
The main use is to automate and improve products and services

The 623 Nordic organisations that report using AI for at least one function do so for a wide range of purposes. The two functions that dominate – process automation (43%) and improving products or services (42%) – are both operational and seek to improve efficiency and achieve optimisation in day-to-day operations. At the other end of the scale, only a few use AI in HR

Note 1: https://www.dst.dk/da/Statistik/nyheder-analyser-publ/nyt/NytHtml?cid=31880
Note 2: https://www.elementsofai.com/
Note 3: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Use_of_artificial_intelligence_in_enterprises
Note 4: https://aiindex.stanford.edu/wp-content/uploads/2023/04/HAI_AI-Index-Report-2023_CHAPTER_4.pdf
Note 5: https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai-in-2023-generative-ais-breakout-year#/

Figure 3 ***Percentage who answered yes to: 'Is artificial intelligence used for any of the following functions in your organisation? You can choose more than one answer'.***

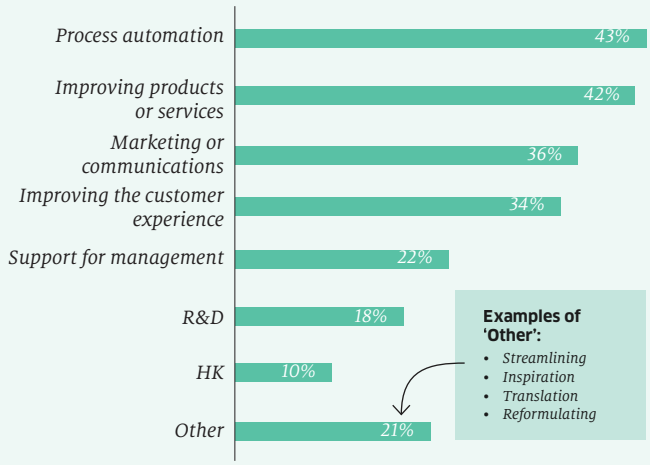
1211 (n = 16)



Note: Statistical uncertainty, max ± 2.6 percentage points, i.e. text generation is significantly more widespread than the other functions.

Figurw 4 ***What is the main purpose(s) of your organisation's use of AI? You can choose more than one answer.***

n= 623 (those using AI)



Note: Statistical uncertainty, max ± 3.8 percentage points, i.e. process automation and improving products or services are significantly more widespread than the other options.

(10%), R&D (18%) or to support management decisions (22%). In addition, 21% of respondents indicated that they use AI for purposes other than those specified in the questionnaire, e.g. 'streamlining', 'inspiration', 'translation' or 'reformulating'. The examples suggest that many organisations are still uncertain about AI.

The public sector automates, the private sector communicates

The study shows that public-sector organisations, in particular, use AI to automate processes – 53% compared to 40% in the private sector.

Conversely, private-sector organisations make greater use of AI for marketing or communication (42% vs. 18% in the public sector).

Decisions at executive level – but few AI strategies

According to the respondents, decisions about AI are taken mainly at the executive level (43%), followed by the board level (15%). More than half of those who use AI state that decisions about its use are taken at the highest level. Despite this, only 15% of these organisations have drawn up an AI strategy. It is also noteworthy that 9% were unsure whether their organisation has an AI strategy. This suggests that AI use may be high, but organisations are at an early stage of implementation. In other words, AI is not yet deeply integrated into organisations in the form of goals, written policies and rules for its use.

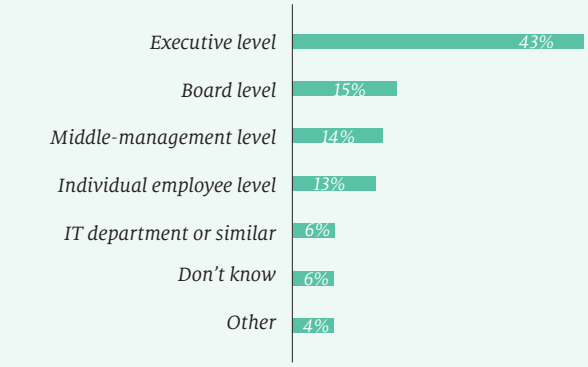
Large organisations are more likely to have an AI strategy

The survey also identifies differences between small and medium-sized organisations (1–250 employees) and large ones (251+ employees), with large organisations more likely to have drawn up an AI strategy (23%), compared to small and medium-sized organisations (13%).

Conversely, the survey also shows that 26% of managers in large organisations simply do not know whether their organisation has an AI strategy. This finding is perhaps unsurprising,

Figure 5 ***At which level in your organisation are decisions taken regarding the use of AI?***

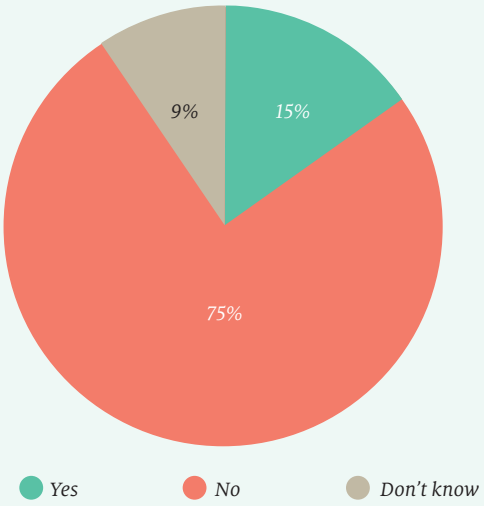
n= 623



Note: Statistical uncertainty, max ± 3.8 percentage points for both results, i.e. significantly more organisations take decisions at executive level than at the other levels.

Figure 6 ***Has your organisation drawn up a strategy for the use of AI?***

n= 623



Note: Statistical uncertainty, max ± 3.8 percentage points for both results, i.e. significantly more organisations have not formulated an AI strategy compared to those that have.

as in large organisations, even senior and middle management are often unaware of everything that is going on. However, this level of uncertainty also indicates that large organisations, too, are at an early stage of their AI journey.

Lack of clarity and prioritisation by management are the main reasons for not using AI

A large proportion of Nordic organisations (49%) are not using AI. As previously mentioned, these are mainly small organisations in the private sector. When asked why, 44% of 'non-users' responded that its potential applications are unclear or uncertain. Although it is not possible to break the dataset down meaningfully at industry level, it is important to point out that the questionnaire was sent to a wide range of sectors, in which the added value of AI is more or less visible within the organisation. Under 'Other reasons', we find various iterations of the opinion that AI is irrelevant to the organisation's work. This indicates that many organisations have yet to identify clear AI potential, which suggests a great deal of uncertainty about what it is, and which solutions use AI.

Only 1 in 5 organisations have explored generative AI

Only 21% of Nordic organisations have run projects aimed at studying the potential uses of the kind of generative AI tools that came to prominence in 2023. Finnish organisations (26%) stand out as the most proactive, Norwegian organisations (14%) as the most reluctant. Of the organisations that have run such projects, four out of five already use AI.

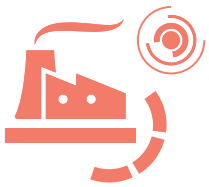
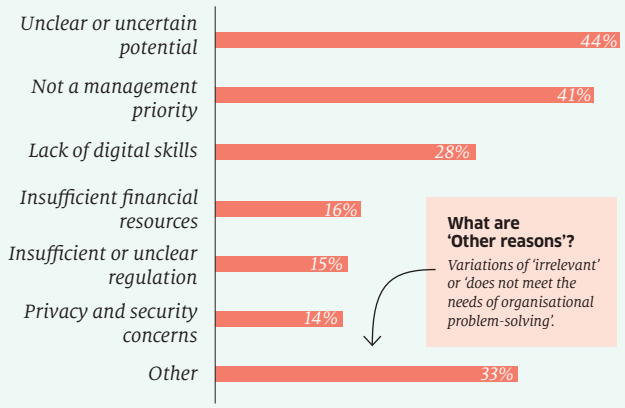


Figure 7 ***Why does your company not use AI? You may choose more than one answer.***

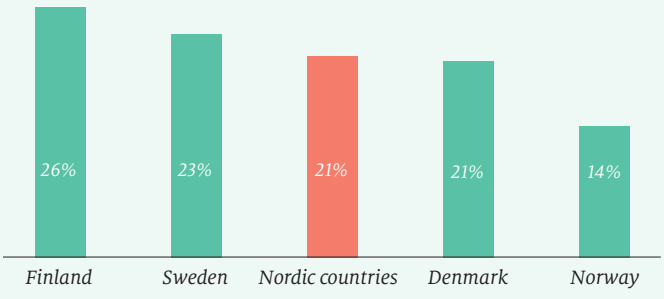
n= 558



Note: Statistical uncertainty, max ± 4.1 percentage points, i.e. 'unclear potential' and 'not a management priority' are significantly more widespread than the other reasons.

Figure 8 ***Proportion of respondents whose organisations have initiated projects to study potential uses of generative AI***

n=1211 for Nordic countries,
n=290–311 for the individual countries



Note: Statistical uncertainty, max ± 3.9 percentage points between the countries, i.e. significantly fewer Norwegian organisations have initiated specific projects on generative AI compared to the other countries.

Part 2

Expectations

While Part 1 of the report provided insight into how Nordic organisations are using AI, Part 2 is about how they view it in the near future.

Two-thirds expect to use (more) AI in the next three years

The study shows that a considerable majority (66%) of respondents have generally high expectations and expect to use (more) AI in the next three years. Again, Finland is in the lead (70%), while Denmark (64%) lags behind its neighbours. However, the differences are statistically marginal, and expectations are generally positive throughout the Nordic Region.

The differences are more significant regarding expectations of whether AI will improve organisations' competitiveness in the next three years, ranging from 57% in Finland to just 42% in Denmark. The figures show that not all organisations expect greater use of AI to translate into added value and an improved bottom line.

The respondents also have relatively lower expectations for the use of AI in management, understood as using AI tools to support leaders in their work, e.g. in risk management or forecasting market trends. On this parameter, positive responses ranged from 44% of Norwegian respondents to just 28% of Danes.

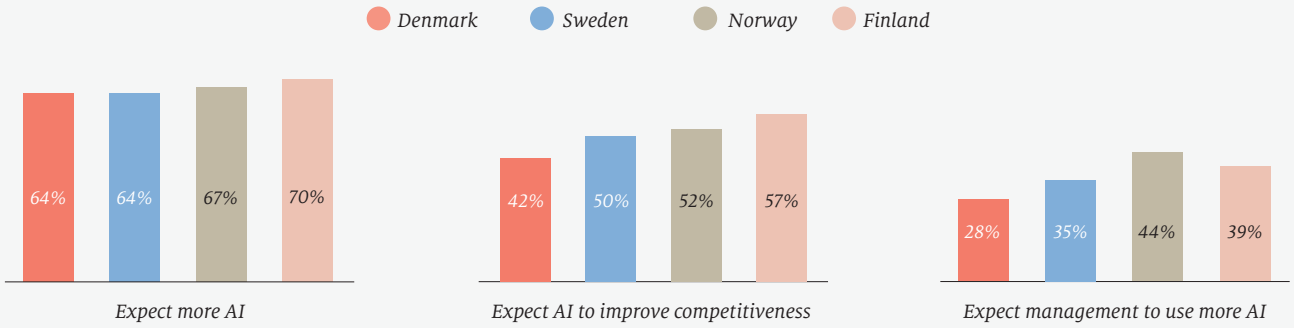
Higher expectations in the public sector

The responses also reveal an interesting distinction between the public and private sectors. Asked whether they agree or strongly agree that AI will play a more significant role in their organisation, public-sector organisations have higher expectations (75%) than private ones (63%). This difference is presumably driven partially by the fact that the public-sector organisations in the dataset belong to the category of large organisations (250+ employees), which already use AI more and, therefore, have more positive expectations for the future.

Similarly, when it comes to using AI to support management, public-sector organisations (48%) have higher expectations than those in the private sector (33%).

Figure 9 ***9 Proportion who answered 'agree' or 'strongly agree' with the following statements***

n=290–311



Note: Statistical uncertainty, max ± 5.6 percentage points between countries, i.e. there are only a few significant differences between the countries.

Part 3

The need for digital skills

The final section of the questionnaire asked managers about their organisations' needs for digital skills in the AI age.

More than a third of organisations lack specific digital skills

The study found that 35% of Nordic organisations lack particular digital skills. The specific ones in demand range widely from very basic digital abilities to a deeper understanding of the potential uses of AI.

Expectations for employees in the next three years

The respondents anticipate that their needs will change. When asked to identify the competencies they expect staff to need in three years, three overall categories emerged.

The first is skills as **digital users**, e.g. using relevant basic software such as e-mail programs, cloud systems, etc. These are the basics expected of employees, both now and in the future, in all industries and sectors.

The second is that Nordic managers expect their employees to be **good enough at analysis** to assess the potential of digital technologies, including the risks and relevant ethical issues. Analytical skills are not about being a super-user of a given technology but about assessing usage scenarios.

The third category is that many managers expect their employees to be **good at discovering new technology**. This involves ensuring that staff stay up-to-date and experiment with new technology, so the organisation improves – or at the very least maintains – its overall level of digital competency.

Examples of responses:

'[My employees must have] general skills in digital communication.'

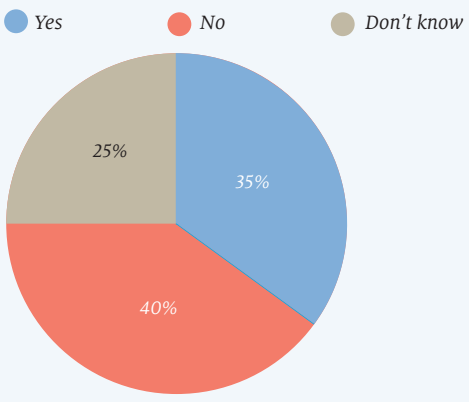
Swedish manager

'[My] employees must have a general understanding of what AI is and which tools to use in given situations.'

Norwegian manager

Figure 10 ***Does your organisation currently lack digital skills?***

n= 1211



Note: Statistical uncertainty, max ± 2.87 percentage points.

Examples of lack of skills:
'Basic digital skills'
'Insight into new tools to simplify work'
'Understanding uses of AI'

'[My employees must have] the ability to master and utilise the digital skills needed in modern working life.'

Finnish manager

'[I expect my employees] to develop their digital skills as new technologies emerge, so that the general level remains high.'

Danish manager

More 'digital integrators' in the next three years

The questionnaire asked which of three specified 'digital roles' respondents consider the most important for adding value in their organisation, both now and in three years' time (see the definition of the roles in the box beside Figure 11).

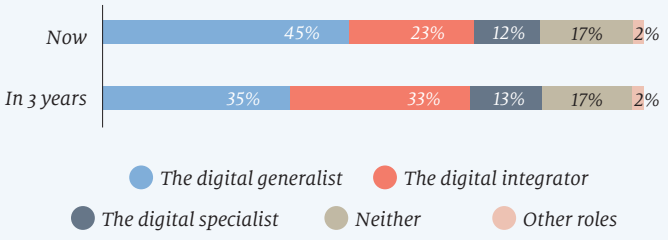
At present, almost half (45%) of organisations consider 'the digital generalist' the most critical role. 'The digital integrator' is significantly less in demand (23%), and 'the digital specialist' is in the least demand (12%). However, the situation is different when it comes to expectations of who will generate the most value three years down the line. The proportion who see 'the digital generalist' as the most important falls to 35%, while the need for 'digital integrators' rises to 33%. In other words, the respondents envisage the ability to integrate digital solutions into new products being crucial in a future in which they expect AI to play an even greater role. The survey also indicates that they expect demand for digital specialists to remain more or less unchanged, from 12% today to 13% in three years' time. The proportion who replied that 'none of the suggested roles' (17%) or other roles (2%) are the most important also remains unchanged.

Generative AI not expected to impact staffing levels significantly

Regarding expectations for specific generative AI tools, Nordic organisations do not necessarily equate the emergence of generative AI with changes to staffing levels. In fact, only 11% expect higher levels, and even fewer (6%) expect lower levels. In other words, the study indicates that the vast majority of organisations do not expect to hire or fire employees, despite the prospect of more widespread and readily available generative AI tools.

Figure 11 ***Which of the following 'digital roles' do you think will be most important for your staff?***

n=1211



Note: Statistical uncertainty, max ± 2.8 percentage points, i.e. there is a significant difference between the need for digital integrators now and in three years.

The digital roles

The digital generalist uses basic and generic tools (such as email programs and other software) for work in specific areas.

The digital integrator is skilled in the use of new technologies and capable of incorporating them into new products and business concepts, but does not design, develop or maintain digital solutions.

The digital specialist's main function is to design, develop and maintain digital solutions.

NB: These descriptions were presented to the respondents.

The survey also shows that half of Nordic organisations (50%) do not expect generative AI to cause any significant changes to staff composition and staffing levels. One-third do not expect generative AI to lead to either recruitment or redundancies, but they do anticipate internal changes to roles, team composition, etc., while maintaining current staffing levels.

Finns are the most optimistic that AI will create jobs

At 19%, Finnish managers are the most optimistic that AI will create jobs. Their Danish counterparts are at the other end of the spectrum, at 5%. Again, there are signs that the Finns have a more positive attitude to the future of AI.

The public sector expects the most changes to roles

The survey shows that 41% of public-sector managers expect that generative AI will lead to role changes in their organisation, compared to 30% in the private sector. Similarly, a majority of private-sector managers (53%) believe that AI will not cause significant changes in staffing levels in their organisations, compared to 40% in the public sector.

In-house training expected to improve digital skills

The survey also asked how managers expect to raise the level of digital skills in their organisations. The clear preference is for using in-house resources to upgrade and maintain them. Half of the respondents (52%) expect to use in-house training to raise the level of their digital skills. The highest percentage was in Norway (62%).

At 41%, private external providers, e.g. consultants, were the second most popular form of upskilling. Far fewer – only 29% – expect to use public-sector training schemes. A significant proportion anticipates upskilling through recruitment, with 32% expecting to do so via domestic recruitment and 13% by importing staff with relevant digital competencies.

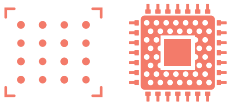
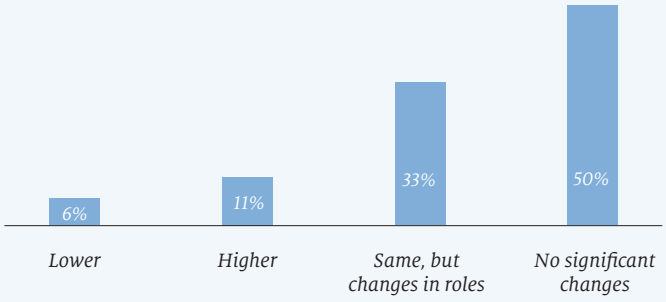


***Figure 12** Organisations' expectations for staffing levels as a result of the emergence of generative AI*

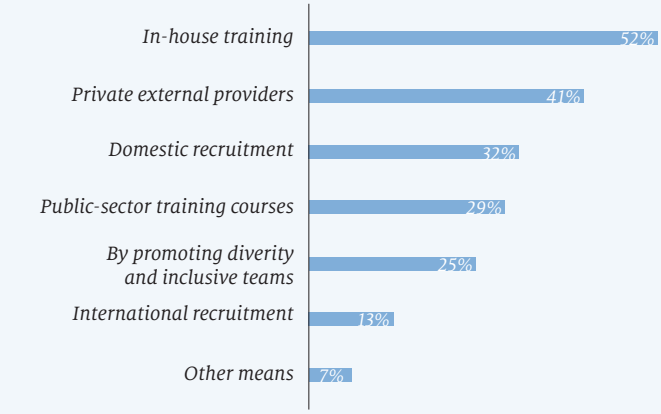
n=1211



Note: Statistical uncertainty, max ± 2.8 percentage points, i.e. all options are significantly different from each other.

***Figure 13** How do you expect to raise the level of digital skills in your organisation in the years to come? You may choose more than one answer.*

n= 1211



Note: Statistical uncertainty, max ± 2.8 percentage points, i.e. in-house training and private external providers are expected to be used significantly more than the other options.

Part 4

The Nordic Region in the world

As part of the study, LinkedIn granted access to a number of central data points that are illustrative of the distribution and development of AI competencies among the many job postings and member profiles on the platform. The findings are interesting because they provide insight into the development of AI skills in the four Nordic countries, which supplements the analysis of the questionnaire responses presented above. The LinkedIn findings also facilitate comparison with non-Nordic countries. This report's section on data and methodology includes a more in-depth description of the dataset, as well as a detailed methodological description of the various indices.

Finns second-best in the world at adopting AI competencies

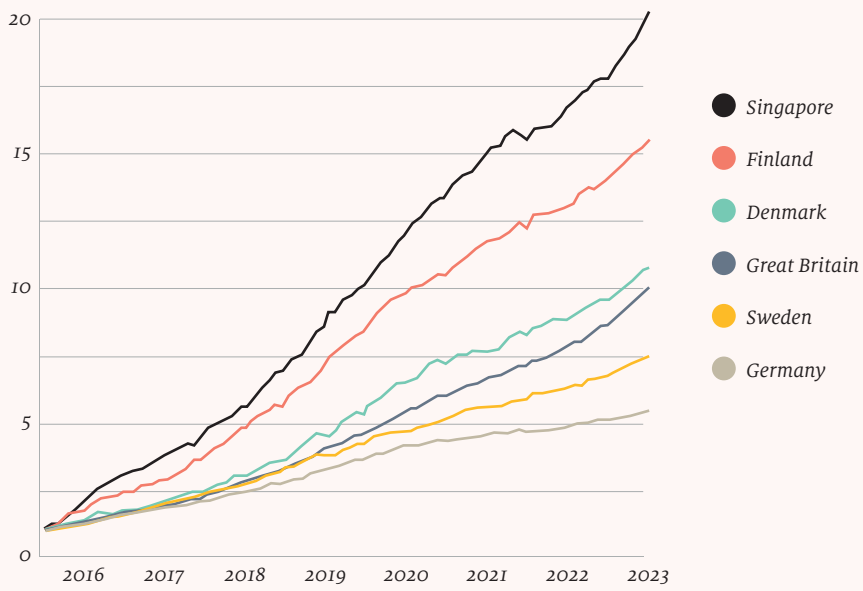
LinkedIn's 'Skills Diffusion Index' shows the rate at which members have adopted AI skills compared to the base year 2016. The graph below shows that Finland had an index of 15.6 in 2022, corresponding to a 15-fold increase since 2016. In the same period, Denmark had a 10-fold increase, while Sweden had a seven-fold increase in members' AI skills. Unfortunately, the dataset does not include Norway. This puts Finland in second place globally. Only Singapore, with a 20-fold increase since 2016, has a higher Skills Diffusion Index. Other comparable countries are the Netherlands (seven-fold increase), the UK (10-fold), the USA (11-fold), France and Germany (5.5-fold).

Employees with AI skills find jobs more often

LinkedIn's 'Relative AI Hiring Index' offers a closer look at hiring in jobs in which AI skills are a prerequisite. This index illustrates the growth in the recruitment of people with AI competencies relative to those without. Denmark came out top in the Nordic Region at the end of 2022, with an index of 1.14. In other words, growth in employment among people with AI skills was 14% higher than for employment in the economy as a whole. The corresponding figure in Finland, Norway and Sweden is only 8%.

Overall, this places the Nordic countries behind others such as France (18%), the Netherlands (21%), the UK (26%) and the USA (15%).

Figure 14 **AI Skills Diffusion Index**



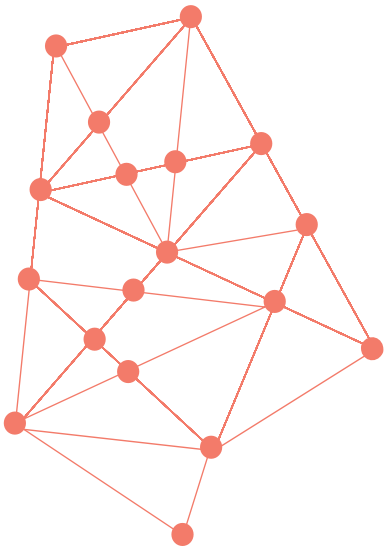
NB

The results in Part 4 of the report are based on a special type of data sourced in collaboration with LinkedIn. See the methodology section for further details.

The Nordic gender gap – Finland best, Denmark worst

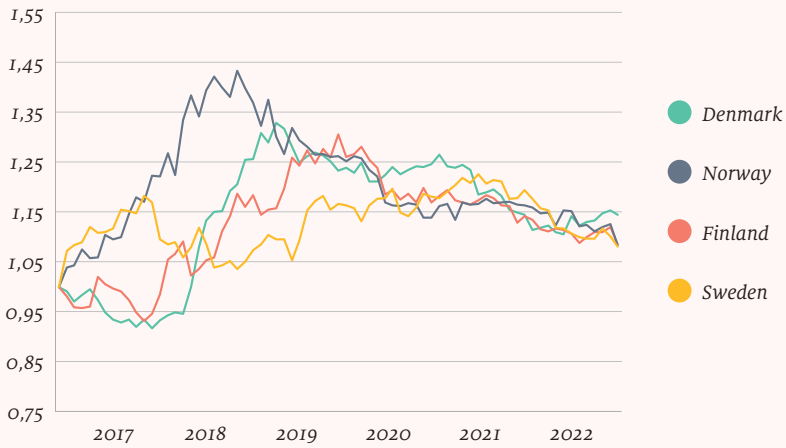
It is also possible to look at gender distribution in LinkedIn profiles that specify AI skills. In the Nordic Region, there are markedly fewer female profiles with AI skills (39%) than male (69%).

At 39%, Finland has the highest Nordic proportion of female profiles that specify AI skills, while Denmark has the lowest (27%). Globally, this places Finland at the top, along with countries such as Singapore (35%), New Zealand (33%) and Italy (36%). The figures point to a longstanding and still very pronounced gender gap in tech.



	Female	Male
Denmark	*27,11%*	*72,89%*
Finland	*39,17%*	*60,83%*
Norway	*28,57%*	*71,43%*
Sweden	*30,02%*	*69,98%*

Figure 15 ***Relative AI Hiring Index***



Part 5

Case studies – AI in Nordic organisations

The final section of the report consists of case studies of Nordic organisations that work with AI in various ways. The articles are based on interviews with managers conducted in September–November 2023.

For Topsoe, integrating AI is about being bold

In a world of technology and innovation, sometimes even a seemingly minor change has a profound impact on industries and society. In 1995, Morten Holm Christiansen underestimated the importance of Windows 95 and Internet Explorer and how that technology would affect companies and people's lives. Now, as Chief Transformation Officer of Topsoe, the world-leading supplier of solutions for the energy transition, he is determined not to make the same mistake. He says we should not underestimate the social and commercial impact of AI and generative language models:

'AI will revolutionise daily life just as much as the internet did. My mission is to keep Topsoe at the forefront of this new technology, take advantage of the opportunities and reap the competitive benefits of the development potential.'

Embracing the unpredictable

Topsoe's AI journey began with the acknowledgement that technological progress is unpredictable. The decision to embrace AI has not been without its challenges, particularly with regard to data security and privacy. However, the company decided to forge ahead and explore what this transformative technology has to offer.

'AI technology isn't new per se, but its availability and applicability in new business domains is revolutionary. In particular, generative language models like ChatGPT have really opened people's eyes to the potential. But you have to be careful about feeding these open models with business-critical data, as that can undermine the company's very existence. On the other hand, we mustn't let that deter us from testing the technology in safe environments, and that is exactly the strategy we have adopted.'

FOTO: TOPSOE

Morten Holm Christiansen, Topsoe CTO

Innovation champion

As Chief Transformation Officer, Christiansen was responsible for exploring AI's potential. He and his team quickly put their vision and mission into words, presenting the concept to the senior management and the board and encouraging them to imagine what AI could do for Topsoe. The emphasis was on real-life examples rather than a theoretical approach, as it is important to understand the

practical applications of the technology. They presented three user cases from within the organisation.

The first was a completely standardised search function. Topsoe fed over 1,200 scientific articles into ChatGPT so staff and customers could conduct quick and efficient searches of multiple complex texts. The second involved using AI for low-level coding and testing. In practical terms, this involved replacing complex formulae with text prompts. The third used the language model to generate summaries and provide input for presentations of longer texts.

'One of the most important principles in our approach to AI is learning by doing. People might read about it, but understanding the technology requires hands-on experience. So I'd like our people to start using these functions and build up the experience they need. We've created a safe environment on our intranet where staff can use ChatGPT and learn more about designing good prompts, as well as the system's pitfalls. We have around 2,800 employees, and more than 1,300 are now active users, so it has definitely been a success,' says Christiansen.

The learning-by-doing approach also includes fortnightly AI courses to inspire and engage the staff to start using the new technology, and to think creatively about how it can help them in their everyday work.

'Experimenting with new possibilities is so valuable. We emphasise that it's ok to fail or maybe feel that you're wasting time along the way,' says Christiansen.

'It's not the technology behind AI that will be crucial to our business going forward, it's whether we're good enough at deploying it creatively, adapting it to our core business and making decisions based on what we learn. 'Basically, it's all about being bold.'

Topsoe's recommendation: Get on with it!

Topsoe recommends just getting on with it. Start using AI. Select projects to test it on and then throw yourself into it. The company's pilot project consisted of a tour of the organisation, during which the team gave presentations on the potential of AI. The heads of departments then offered suggestions for how AI might benefit their teams and functions. Christiansen's team took the resulting 152 proposals and boiled them down to nine key ideas.

'The possibilities are endless, so we had to zoom in a bit to get started. But it was really interesting to go through all the proposals. They showed that the whole organisation had bought into the idea and was looking at processes in new and creative ways. Now, we have to develop solutions and test them on everything from complex production processes and HR functions to sales. 'I look forward to following up on the idea of using AI to improve our chances of winning tenders. The technology can't write actual tenders but comparing them with successful ones will hopefully identify useful patterns. It's an area with great potential, and one where results will be quantifiable quite quickly because we will be able to compare with our success rate in the past,' Christiansen concludes.

Topsoe recognises that its AI journey has only just begun, and that many in the company have yet to experience its full potential. However, by embracing experimentation, learning by doing and implementing specific tools, the company is rapidly pursuing its goal of becoming the leading AI user in its field.

OP Financial Group: The biggest financial services company in Finland's AI journey

OP Financial Group is Finland's biggest financial services company, with 2.1 million owner-customers and 13,000 staff members in over 100 branches. The company was an early adopter of AI-based technology. Its journey started in 2016 with a relatively simple question: 'We have an incredible amount of data. Could we be doing more with it?'

'The answer was yes,' says Chief Data Officer **Antti Myllymäki**. *'We set out to use AI to make the most of our data – for the good of our customers and the core business. We spent the first quarter looking for uses in the organisation and identified four key areas where AI could help: managing personal finances, investment advice, customer service and digital marketing.'*

One source of inspiration was the gaming industry in Finland, which is way ahead when it comes to the active use of data to grow business. In 2017 and 2018, OP Financial Group invested millions of euros to kickstart an AI programme. In 2018, it was ready to launch the first wave of solutions, which included a chatbot, a property-valuation tool, support for managing personal finances, B2C retail customer profiles and 30+ smaller tools.

'It was a huge investment, but it yielded solid results. We use AI in three key business areas –improving the customer experience, streamlining operations and assuring the quality of our risk management. The saving from the use of chatbots alone is €6 million p.a., and the accumulated impact on the business takes the number of millions into double digits,' Myllymäki says.

The numbers speak for themselves. In a single year, almost 700,000 people have used OP's tool for valuing property, a million have used the mobile tool for managing personal finances, the chatbots and digital assistants held two million conversations, and there were 100 million interactions using the retail customer profiling tool. Not that the company has any intention of resting on its laurels – new developments keep it on its toes and encourage innovation. According to Myllymäki, the OP Financial Group has only begun to explore AI's true potential:

'We've barely scratched the surface.'

What's so special about Finland?

Several international studies place Finnish companies at the top when it comes to deploying new technology and the workforce adapting to it. Myllymäki identifies three good reasons for this.

'Firstly, a number of our industries are leaders in technology – high-tech manufacturing, media and the gaming industry. Secondly, we have had a major public debate around AI, which has generated a buzz around the topic.

FOTO: OP FINANCIAL GROUP

Antti Myllymäki, Chief Data Officer at OP Financial Group

'Public- and private-sector participation in this debate has helped to boost public engagement with the topic. Thirdly, the workforce is generally well trained and educated, and is capable of adapting quickly to new production methods.'

Elements of AI is a free online course on artificial intelligence designed to boost progress and available to all Finns. It was developed in collaboration between public-sector institutions and private companies as part of the national AI strategy in 2017. The goal was for 1% of the population to complete the course. It is estimated twice as many have already done so. Elements of AI has been translated into 26 languages and has had 1 million users worldwide.

Openness more important than technical skills

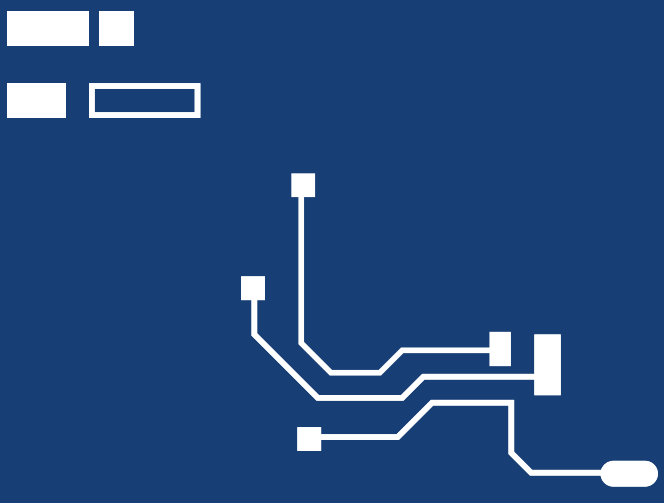
Since the first wave of AI-based solutions at OP, many new ones have been added, including invoicing tools and digital assistants. Each launch is accompanied by a dedicated training course, but the company's Introduction to AI course has made the biggest difference.

'Our 30-minute basic Introduction to AI course is by far the most popular of our voluntary courses. It is, of course, difficult to onboard everyone in such big projects. But what's interesting is that our staff embrace technology and are curious about the opportunities it creates in their everyday life. Not everyone needs to be able to develop or code. Technical knowledge may be a plus for many roles in the organisation, but the most important thing is the willingness to embrace the new opportunities AI brings,' Myllymäki continues.

The workforce has been introduced to multiple new tools over a very short period of time and proven incredibly

adaptable during the transition. However, one consideration has been paramount for OP Financial Group. For the sake of both customers and staff, the security has to be top-notch. OP has introduced five guidelines for the ethical use of AI: prioritising people over systems; operating with transparency and openness; regularly re-assessing AI's impact on customers and society; defining clear ownership inside the organisation; and protecting customer privacy.

'Trust, transparency and compliance are paramount in the finance and insurance industry. Data protection and security are vital staff skills, and our processes and guidelines are dedicated to ensuring data is used properly throughout its life cycle. This places great demands on both the implementation of AI and the upskilling of our staff. Those are the prerequisites for using AI, but the potential is far too great to ignore,' he concludes.



FTFa: Strategy and AI are closely linked in one of Denmark's largest unemployment funds

The FTFa unemployment fund has almost 150,000 members – and has thrown itself into using AI, both in-house and in its interactions with members. For managing director **Kasper Højvang Kyed**, AI isn't an either/or, it's a both/and. He stresses the importance of closely linking decisions and priorities about AI-based projects to the fund's work on strategy.

'Our first AI project (Jobmakker) emerged from our strategic project board, which prioritises projects and resources associated with delivering our strategy. Since then, we have set up an innovation board, which presents AI ideas and prioritises them in relation to parameters such as how critical they might be to our business, complexity, potential to improve efficiency and add value for our members. This ensures a link between our 'ordinary' strategic project portfolio and the more experimental AI projects, which have large potential gains but also a greater risk of failure,' says Kyed.

Jobmakker is a customer-facing AI product that writes draft job applications, gives feedback on applications and identify competencies based on data from CVs. FTFa expects to add new functions that will provide members with even greater help in their job searches, e.g. interview training and job-matching.

'Before Jobmakker, we offered telephone consultations on applications and CVs within 24 hours. The service was used about ten times a day but has now been replaced by Jobmakker, which writes approximately 1,000 applications a day (for both members and non-members). This is just one example of an AI solution that is relatively quickly replacing a core product.

'The innovation board played a significant role in ensuring that the AI ideas we work on are not just closely linked to our strategy but also address the most critical core challenges we face,' he continues.

In-house training

FTFa also has an in-house AI chatbot called Vicky, which it feeds with internal standards, workflow descriptions, etc., used by the employees. The fund is also exploring the use of an internally developed LLaMA language model with domain knowledge, which is GDPR-compliant and can, therefore, serve as the foundation for integration with complex systems. In the long term, the system will respond to members' messages, draft letters and decisions and offer assistance with the self-service solutions the fund plans to add regularly.

'We operate in a sector that processes large volumes of sensitive personal information about individual members, and we come into contact with people in vulnerable situations. So when developing new tools, we have to be careful. We focus strongly on our AI and digital tools being used by members who prefer digital solutions so that we can devote human resources to those who prefer the personal touch,' Kyed adds.

FOTO: FTFA

Kasper Højvand Kyed, Managing Director of FTFa

The use of AI will also have an impact on staff composition and skills, as FTFa will need people who are curious about new technology, as well as others with more traditional interpersonal skills.

'That brings us back to the both/and approach. Our staff need a minimum knowledge of AI and its potential, as well as the motivation to test and refine the tools. They have to be bold and curious, but also think critically about how we use the systems. Management needs to be bold, too, and willing to invest time and resources in providing staff with opportunities to experiment with tools and prototypes that may ultimately prove not to be viable. We try to combine bottom-up and top-down approaches to developing ideas and upskilling, so there is plenty of leeway for experiments with AI, but the actual implementation is managed by the innovation board and at a general strategic level,' he continues.

The future

Where AI will take FTFa remains to be seen, but the director has no doubt it will have an impact on both members and employees.

'As more and more analogue services are replaced by digital ones – AI-based or not – and we automate manual workflows, the composition of the workforce will probably change. So far, our experience has been positive, but we have yet to roll out real AI solutions in our systems and specialised advice services. We would like to do this as soon as possible to get a better sense of the potential and learn how to get the best out of the interaction between our employees and AI,' he concludes.

AI moves small margins and large containers for AP Møller–Maersk

In 2016, AP Møller-Maersk changed its strategy. Instead of a conglomerate, it became an integrated logistics company with a focus on end-to-end transport solutions. Technology plays a crucial role in the new strategy, so when progress on AI and generative language models took off at the start of this decade, Maersk was ready to seize the moment.

'We had no doubt that we were facing a quantum leap with enormous potential for our industry, so we started by asking ourselves two key questions. What strategy should we adopt for AI use? And where can we deploy it?' says **Søren Vedel**, Head of Visibility Data Science at AP Møller–Maersk. The answers kicked off the logistics giant's approach to AI.

'For us, the successful use of new technology means integrating it seamlessly throughout the organisation. We have changed our in-house procedures so that the IT and business teams work closely together and share responsibility for business outcomes. We have to think in terms of scaleable modular solutions because the strategy is about more than just stand-alone use cases in certain parts of the company,' says Vedel.

The small margins

Competition in international transport and logistics is fierce. Even the tiniest advantages can have a major impact on the bottom line, be it in the analysis of shipping routes, weather forecasts, cargo handling or customs clearance – all areas in which AI and generative language models are potential game-changers.

'I really don't think people grasp the scope of the changes to come. At the moment, up to 100 people might be involved in shipping a pair of shoes from a factory in the Far East to a customer in Denmark. Maersk is now working on 'zero-touch logistics', which involves technology handling the booking, customer service, inventory management, customs papers at borders, etc., etc. All of this will benefit companies and consumers – the margin of error will be smaller, efficiency will be improved, and the solutions have the potential to be more sustainable,' Vedel explains.

Maersk's AI strategy is two-pronged. The company will develop new technologies in business-critical areas, but other models will be preferred in more general domains, such as HR and searching publicly available data – an approach also seen in other big companies.

'We already see that new and better systems are arriving on the market all the time. Many of our employees have tried them, so they would have found their way into the organisation anyway. What we have to do now is train our staff to use those systems as well as possible and work with them to develop our own solutions.'

FOTO: A.P. MØLLER – MÆRSK

Søren Vedel, Head of Visibility Data Science at A.P. Møller-Mærsk

AI skills crucial

Mærsk runs courses in AI and Data Ethics so that everybody in the company is aware of the opportunities and risks associated with AI. Over 90% of the workforce has been on these courses. In the short term, it prepares them for change and gives them the courage to try new things.

'But in the slightly longer term, our employees will need to be able to adapt on their own. In other words, they must learn to redefine processes and workflows based on AI-native versions and develop the ability to identify, develop and operate AI solutions,' he adds.

Asked whether Mærsk is concerned about developing and recruiting people with the necessary AI skills, Vedel points out that this is already a challenge.

'Going forward, the emphasis will be on identifying focus areas and recruiting specifically for the work involved. Competition for the talent pool will be fierce. But because we see AI as a clear differentiator for Mærsk, this is an area in which we need to invest. Even now, there is a shortage of qualified labour, which is why we go to great place. The company has also undergone a cultural transformation in recent years. It now has a far greater focus on tech and innovation, which is reflected, for example, in the fact that we have more than doubled the number of software engineers.'

AI to cement Hesehus' place at the top

Hesehus is an ambitious company that supplies platforms and webshops to a wide range of e-commerce companies. It has grown from seven to 200 employees without the company letting up on its vision of having a skilled and motivated workforce made up of people who are always up to date with the latest developments. The market in which the company operates, the composition of its workforce and its ambition to be a market leader all lend themselves to embracing AI and generative language models. For Hesehus, the priority is to keep its people up to speed.

'We have a balanced approach to new AI-based technologies. Of course, we have to be able to offer our customers the latest tools to make their business more efficient and improve the quality of the customer experience. That's already built into our generic platform, which is used by some of the country's biggest e-commerce companies. We don't believe that AI will make everybody unemployed. It's a powerful new tool, but it's one that someone has to use. There has to be a human in the loop,' says Hesehus CTO **Martin Rud Ehmsen.**

AI policy leads the way

This balance is evident in the AI policy for staff, which is revised monthly – sometimes fortnightly – because things change so fast. This means that the policy focuses on principles rather than the specific functions of the AI tools.

'I usually say that you have to use the right kind of intelligence when using AI. This is also reflected in our AI policy, which is simple and informal, but helps employees navigate AI issues. It's not a list of dos & don'ts. If it was, we'd have to constantly update it, leaving little time for anything else,' Ehmsen explains.

The policy consists of eight principles, which serve as rules of thumb for good use of AI and as reminders to keep learning about its potential. The rules include: *Business as usual – rules still apply; Trust only yourself; Be the human in the loop; Use as little data as possible to get as much value as possible; and Protect data.*

'We very much want to signal in-house that it is the human being – the member of staff – who is responsible, and that the technology is, first and foremost, a tool to motivate and inspire. We want our employees to think for themselves first, write down what they want, and cross-check the AI answer. For example, we still need a skilled developer to ensure precision and quality, but the slightly more boring, repetitive coding work can easily be automated, which frees up resources to work on development,' he adds.

FOTO: HESEHUS

Martin Rud Ehmsen, Hesehus CTO

One of the areas in which Hesehus will embrace AI is in the development of a digital assistant for in-house use. The idea is to feed the assistant with as much data and history as possible, so the system can do things like write offers and produce estimates for project duration, as well as answer more straightforward questions regarding sick leave or the company's travel policy.

A management responsibility

Hesehus has chosen to embed AI work at the management level. Specifically, an AI task force has been set up, comprising four key staff members responsible for following trends in new technology. Their role is to 'translate' the latest knowledge for the rest of the organisation. For each development project and touch point, one of the four members sits at the table. This means that potential AI applications are taken into account from the start.

'It's a huge task because the pace of change is ferocious, but the task force tries to act as a sounding board for all of the teams in the company. Hesehus has a clear vision of being the market leader, including in the use of new tools. So we're constantly refining and improving our approach. We're lucky to have a lot of employees with an interest in technology, and we talk about AI all the time. But we also need a direction, and that's where the strategy comes in.'

'We've enjoyed huge success at the e-commerce awards in recent years, so it's only natural that we want to win the AI award at the next ceremony,' he concludes.

AI provides 24/7 in-house support

With a workforce of around 2,700, Aker BP is one of Norway's biggest oil exploration and development companies. It has recently undergone a development process that will be familiar to many other businesses. As the it has grown, so too have its administration needs. At first, the company hired support staff to help colleagues with questions related to IT, HR, training, supply chain management, etc. However, as growth continued, this solution became less effective. The support staff were overburdened with repetitive work and enquiries. While these were important, they were also time-consuming and diverted attention from key tasks such as recruitment, training and developing the organisation.

In 2018, Aker BP started working with boost.ai to address the situation. Together, they developed a chatbot, AkerAnna, which answers a wide range of administrative queries from staff around the clock and around the globe.

'We were looking for a system like Google search that would provide our staff with quick and efficient access to important company information,' explains **Hilde Andreassen**, P&O Analyst, Aker BP. *'Google, of course, knows nothing about our internal documents for company-specific operations. We needed a tailor-made tool full of information about everything from what software we use and where to find SAP approval links to where to find current production data and drilling reports.'*

It was important to Aker BP that the staff didn't view the new tool as a poorer service. AkerAnna had to be a central hub for knowledge they could access quickly and easily, but support staff still had to be on hand to deal with more complex queries.

High success rate

At first, AkerAnna was restricted to assisting with queries about HR and Facility Management.

Within months, that service was such a success that Aker BP quickly extended the virtual agent's range to cover other domains, including IT, training and onboarding. AkerAnna now answers questions and automates actions on more than 2,200 topics, averages over 3,500 chats per week and has a success rate of 90%.

'The subjects vary greatly, from standard HR requests and booking parking spaces to ordering drilling reports and even arranging for flowers to be delivered via API integrations. AkerAnna helps employees with support-related enquiries equivalent to 150 hours of work a week for the support team,' says Andreassen.

AkerAnna is an advanced virtual agent powered by artificial intelligence, based on an AI platform from Boost.ai and the latest in Natural Language Understanding.

Since it is tailored to the needs of the company, it can be scaled up to provide 24/7 support across multiple domains and business areas as Aker BP's needs grow. The solution is also code-free, which means that the company has been able to draw on the expertise of existing employees to build, deploy and maintain the virtual agent. In other words, it did not have to hire new data scientists or IT developers from day one.

New favourite workmate

AkerAnna is a hit with the staff, many of whom fondly refer to her as their favourite workmate. When it introduced the virtual agent, the company rolled out a number of in-house initiatives to drive adoption, including AkerAnna's own landing page with a scannable QR code, so employees can jump straight into the chat.

'AkerAnna is incredibly efficient. People find they can ask her anything, and she learns and improves all the time. It really says something about her reputation in the organisation. The combination of AkerAnna's deep knowledge of the company and the industry, 24/7 availability and personal support has made the virtual agent an integral part of our in-house support strategy and made our operations significantly more efficient,' Andreassen concludes.

AI and data security go hand in hand at ATP

AI and data security go hand in hand at ATP

Last year, ATP (including Udbetaling Danmark) answered 2.5 million phone calls and sent out more than 24 million letters, dealing with everything from pensions to child support, parental leave allowances and housing benefit. The enormous amounts of data that flow through ATP need to be processed securely and precisely, which places heavy demands on any new technology. However, that has not prevented the organisation from exploring the market for generative AI, explains **Pernille Vastrup**, CFO & Corporate Functions at ATP.

'ATP has introduced several AI-based solutions in recent years. We are constantly studying, testing and running trials with new solutions that can make processes more efficient and generate value. More specifically, for several years, we have been using machine learning to identify patterns that indicate issues like welfare fraud.'

AI is used to support the core business in several ways, e.g. automating routine tasks to free up staff time for more complex work. Chatbots can also improve customer service and provide faster and more accurate answers when advisors in the various departments have to respond to queries.

'Our customers and clients increasingly expect us to provide a good service and do our jobs more and more efficiently. It's only natural that our work on the joint government digital strategy includes AI-based solutions,' Vastrup explains.

Calculated risks

When developing and implementing new solutions, ATP works with calculated risks. Instead of devising a single, fixed model to apply throughout the organisation, it experiments with specific tasks. The group has already developed a speech synthesiser that has provided many thousands of automatic answers to phone calls, and a note-taking project is underway that will make the process of transcribing conversations between employees and customers more efficient. All of ATP's experiments take a number of specific points into consideration.

'We have drawn up five basic principles for the more general use of AI, such as ChatGPT and Google Bard. The idea is to protect data, avoid using sensitive personal data, not rely on artificial intelligence to make decisions and be open and curious about AI. Like everyone else, we are very aware of the challenges and risks associated with the development of new AI projects and tools. ATP has the biggest database in Denmark with data on every single citizen, so cyber security plays a vital role. The development of new technology and AI solutions must not compromise people's trust in us.'

FOTO: ATP

Pernille Vastrup, CFO and Corporate Functions at ATP

Focus on in-house training

Regarding the need for new staff skills, Vastrup doesn't envisage ATP facing any specific challenges.

'Every organisation needs various different types of employees. In effect, AI means we need a new category with slightly different skills in our already diverse workforce. Just like any other organisation, we have to relate to new and rapidly changing developments in AI, just as we do in a lot of other areas,' she continues.

ATP has already launched multiple upskilling initiatives for AI, generative language models and machine learning. These range from Tech Labs, where employees can try out different technologies, to presentations fitted in at the end of the working day.

'One of our initiatives is an internal process called Digital Genius, which seeks to enhance digital creativity. A dedicated New Tech team assesses and tests the ideas it generates, as well as other ideas from employees, and monitors trends and opportunities. We then discuss these ideas in the senior management group. We're optimistic about the future of AI and plan to keep exploring and implementing AI solutions. This will improve our business units and efficiency and provide a better service to our customers,' the CFO concludes.

AI makes Danske Bank an even more attractive workplace

Danske Bank, like many other companies, sees great potential in AI. Although generative language models such as Chat GPT and AI-driven co-pilots such as Microsoft Bing only became available to the public in the last year, Danske Bank has been studying the technology for several years.

'The decision to use AI has been an ongoing process that has evolved over time. In the eight years I have been part of Danske Bank, we have focused on AI and keeping up to date with new technology,' says Bo Svejstrup, CTO of Danske Bank.

The bank's projects can roughly be divided into three categories. First, there is intelligent automation, in which software and robots take over parts or the whole of processes. For example, when it comes to loans, advisers need to fill out various forms, often with the same data. Secondly, the bank uses machine learning to analyse transaction data, e.g. to detect fraud, so that employees don't have to review every transaction manually. If the algorithm detects patterns that could potentially indicate fraud, these are flagged up for further investigation. Finally, Danske Bank uses advanced analytical tools to assist with things like risk and credit assessments.

'The AI solutions help improve customer service and free up staff time. They support processes such as lending, fraud detection and risk assessment, which are vital aspects of our business model, and we're convinced they make Danske Bank a more attractive workplace because the technology deals with many of the routine tasks,' says **Svejstrup**.

Requirements for future employees

The point about making Danske Bank an attractive workplace is one that will strike a chord with many companies. Do we have the right skills here and now, and how do we recruit for a future in which AI use will be more commonplace? Danske Bank asked these same

Questions, and the CTO knows just what it takes to keep abreast of new technology.

'Implementation of AI requires a certain technical knowledge and understanding of business. In the short term, this requires education and training for employees. In the long term, it requires a sustained effort to keep up with new technology and ensure we can continue using AI safely and efficiently. We are not necessarily concerned about particular skills, but we are absolutely aware that realising Danske Bank's strategy necessitates ongoing investment in our staff and their development,' Svejstrup explains.

FOTO: DANSKE BANK

Bo Svejstrup, CTO, Danske Bank

The bank has implemented various initiatives, including an annual 'skills self-assessment', which provides an updated overview of the workforce's competencies and areas in need of investment. The process involves employees identifying the skills needed both now and in the future.

'We want to cultivate a learning culture in which development and training are continuous processes. New technology, including AI, increases the need for employees with a technical background and understanding of the business. At the same time, we expect that soft skills – such as critical thinking, problem-solving and the ability to learn quickly – will become even more crucial, as we have to adapt quickly in a constantly changing technological landscape. We also see an increasing need for employees who can act as a link between technology and business – who understand the technology and are able to use it to generate value for our customers and improve our business.'

Although AI has enormous potential, rolling out new technology isn't always a completely smooth process, Svejstrup explains:

'We have encountered challenges along the way. For example, on one pilot project with a chat robot, the technology at the time required too much input from our employees to achieve the outcomes we wanted. We have to make sure that the technology is mature enough to deliver the required results. But we're convinced AI will continue to show great potential and that the technology will become even more scaleable.'

Everybody in Netcompany is involved in AI development

FOTO: NETCOMPANY

Caroline Riisager Rust, HR Manager, Netcompany

FOTO: NETCOMPANY

André Rogaczewski, CEO of Netcompany

AI plays an increasingly important role for one of Denmark's biggest IT companies. Netcompany not only helps customers and partners use the technology strategically and safely, but it also uses AI to improve and streamline in-house processes and support its staff. This places great demands on both management and the workforce. Faced with fierce competition for the best workers, Netcompany has cultivated a strong learning culture in which employees are expected to share knowledge and mentor each other. More experienced colleagues act as role models and trainers, and the focus is on hands-on learning and knowledge sharing via internal platforms. The company also promotes social learning and collaborations that transcend departmental and national borders.

'We attach great importance to staff development and make sure they have challenges, sounding boards and training opportunities throughout their career in Netcompany. We do this because we know that it means a lot for both the individual's well-being and the quality of the service we deliver to our customers in the private and public sectors. Netcompany Academy offers all of our staff customised training, with seminars and courses that develop the characteristics required to deliver complex IT solutions to our customers,' says **Caroline Riisager Rust**, HR Manager at Netcompany in Denmark.

When it comes to recruitment, Netcompany doesn't have fixed ideas regarding its future employees.

'We recruit the best talent from a wide range of educational programmes and backgrounds. Specific AI coding skills aren't crucial qualifications. What is important to us is that our employees have basic technical skills, motivation and, above all, an understanding of and insight into the potential inherent in AI. They must also have the desire and ability to acquire new knowledge,' Rust says.

Learning by doing

An example of Netcompany's approach to in-house learning in product development is the way it uses AI. In the first half of 2023, Netcompany started running in-house tests of a solution aimed at using AI safely and responsibly. During the trial, 8,000 employees used an AI tool for everything from navigating complicated company documents and writing offers and contracts to generating and quality-assuring code. In November of that year, Netcompany launched the AI solution Easley, named after NASA's pioneering programmer Annie Easley. Easley enables organisations to make a start on generative AI with a single centralised solution that protects customer data. It can be used for a wide range of purposes and improves productivity and efficiency in general.

'It is important that companies in the early phase of generative AI don't tie themselves to specific suppliers' algorithms amd retain control over their data and document how it is used with AI. This is exactly the philosophy behind Easley,' says **André Rogacsewski**, CEO of Netcompany, following successful internal tests of the solution.

Easley isn't just a chat tool. It has already been integrated into Netcompany's core systems to ensure AI support and automation of manual processes. Easley also makes companies independent of specific AI models so they can easily be replaced with others as the models mature and evolve over the months and years to come.

'Netcompany uses Easley along with both GPT-4 and our own algorithms, which have been tailored to our needs. This enables our staff to assure quality and efficiency. As a company, we retain full control over the data, which means we wouldn't lose anything if we change suppliers of AI models in the future,' Rogacsewski says.

Netcompany's AI strategy is embedded at the senior management level. Employees are not simply encouraged to use AI, they are expected to use it wherever it makes sense to do so. Netcompany uses AI as much as possible in its business processes, as long as it improves quality or efficiency and can be implemented safely and responsibly. This is the basis for the strategy and guidelines – which are closely linked to Netcompany's ethical standards. Ultimately, it is about maximising the potential of the technology while maintaining quality and adhering to the company's values.

Data and methodology

The questionnaire

The findings in the report are based on a questionnaire survey and responses from 1,211 managers in private- and public-sector organisations in Denmark, Finland, Norway and Sweden submitted between 13 September and 17 October 2023. The study aimed to collect approximately 300 responses per country via a web-based survey or phone calls. The data set consists of 311 respondents from Denmark, 290 from Finland, 306 from Norway and 304 from Sweden. The respondents are leaders at both executive (55%) and middle management levels (45%).

The respondents in the dataset consist of 64.4% from small organisations with 1–50 employees, 15.4% from medium-sized organisations with 51–250 employees, and 20.2% from large organisations with 251+ employees. In terms of sectors, 23.1% of the responses are from public-sector organisations and 76.9% are from the private sector. Since methods of calculating the size and sector of organisations vary from country to country, it is impossible to make direct comparisons of distribution in the dataset and population. However, taking the distribution in Denmark as a general indicator, there is a preponderance of large and public organisations in the data set.6

The respondents also had the opportunity to choose one of 21 industry categories, which were then recoded in the data processing based on Statistics Denmark's industry categories.7 Compared with similar industry categories from Eurostat's calculations, the survey shows an over-representation of respondents from 'industry, raw materials and supply' (13% more than the Eurostat figure) and 'public administration, education and health' (21% more). Conversely, there is an under-representation of organisations from 'trade and transport' (6% fewer), 'business services' (14% fewer) and 'agriculture, forestry and fishing' (5% fewer).

Finally, it is important to point out that while this report has a Nordic focus, the dataset does not include Iceland.

LinkedIn data

Part 4 uses LinkedIn data from its 'AI Skills Diffusion Index', 'AI Relative Hiring Index' and '% Female Representation'. LinkedIn has defined 249 AI competencies, which form the basis for the three indices. More detailed descriptions of these and examples of how they are used in other reports are available at the links below:

Further information about the AI Skills Diffusion index: https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/PDF/future-of-work-report-ai-august-2023.pdf

Further information about the AI Relative Hiring index: https://oecd.ai/en/data?selectedArea=ai-jobs-and-skills

Note 6: https://www.dst.dk/da/Statistik/emner/erhvervsliv/erhvervslivets-struktur/firmaer-og-koncerner
Note 7: ibid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