



SUMMARY

DEVELOPMENT TRENDS IN THE FINANCIAL SECTOR

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IN COLLABORATION WITH FINANSFORBUNDET

PREAMBLE

The financial sector is undergoing a transformation resulting in more highly educated staff being employed in the sector and continuous changes in job roles and tasks. In the coming years, a cloud migration process of outdated IT technology platforms will be implemented. Furthermore, both ESG and AI may lead to changes in the financial value chain. This is expected to impact on the sector's future competence requirements and is already evident in more highly educated

staff being employed – not only IT experts but also mathematics-economists and jurists. Cloud migration will give banks an opportunity to differentiate service solutions for different customer segments through collaboration with FinTech partners, however, exactly how this development will manifest itself is by no means clear.

Based on this, and to enhance Finansforbundet's (Union of Financial Sector Employees)

advice to members, policy development, and other activities, Finansforbundet has tasked Hanne Shapiro Futures and HBS Economics with uncovering development trends in the sector, including the specific competence strategies pursued by the sector in view of tomorrow's competence requirements. This publication is a summary of the main report entitled 'Udviklingstendenser i den finansielle sektor' (Development Trends in the Financial Sector).

This chapter summarises the main findings of the analysis. First, an outline of the most important quantitative results concerning developments in the past decade. Then follows detailed qualitative insights into the development trends in competence requirements, business models, and strategies faced by the sector's enterprises. Finally, a description of the results forecast for the sector up to 2030 by detailing four different scenarios for the strategies and business models expected to drive the demand for manpower in the sector.

DEVELOPMENTS IN THE SECTOR FROM 2013 TO 2023

For the past ten years, the sector has undergone a major transformation. In 2023, the sector employed almost 87,000 staff, which is about 4,500 more than ten years ago. However, significant shifts have occurred across sub-branches in the sector, as the number of people employed in banks and mortgage banks have dropped from constituting 60 per cent of the sector in 2013 to 46 per cent in 2023.

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- Fewer employees work directly with customers.

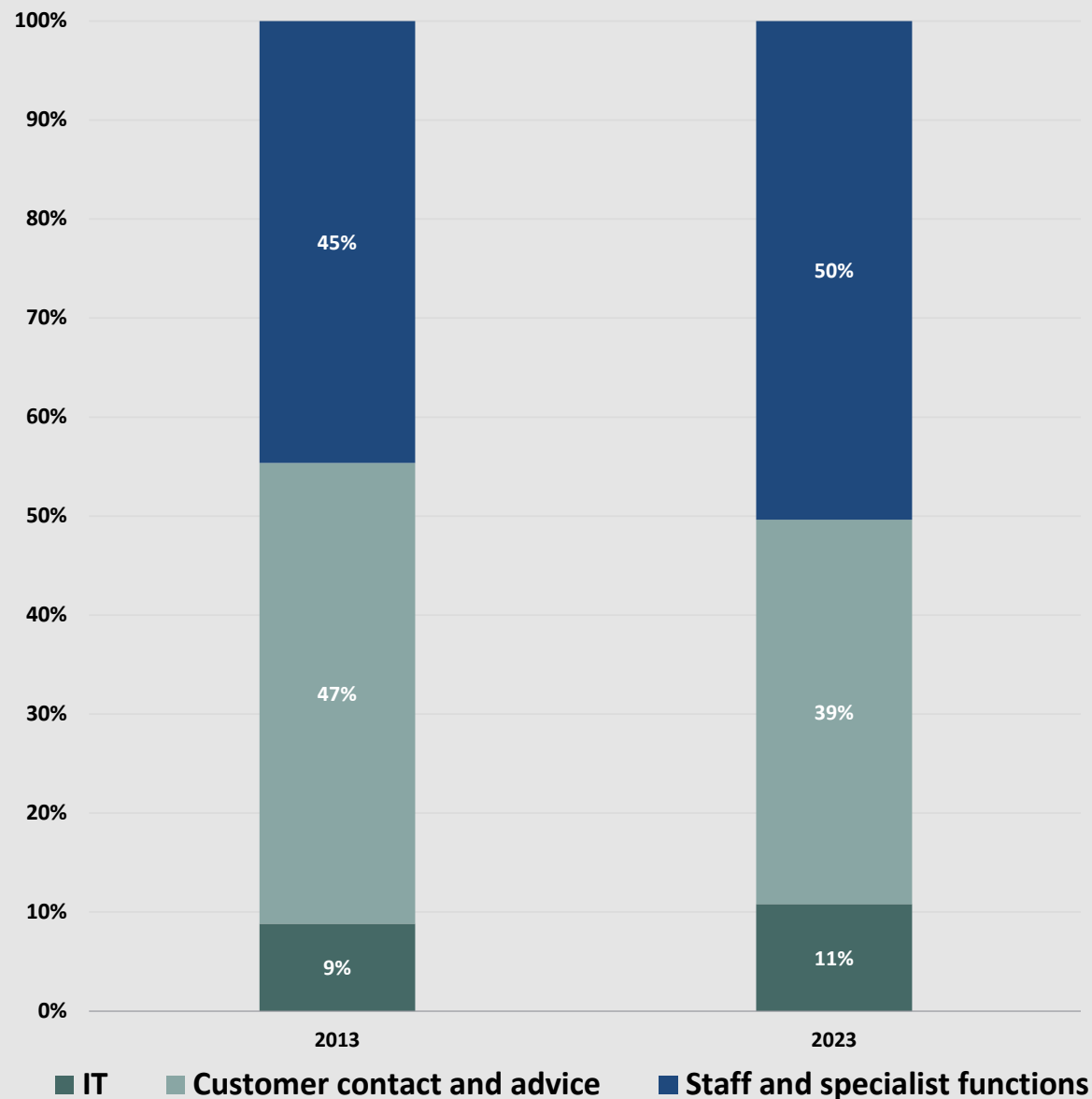
- Growth in employee numbers is particularly great within a number of specialist functions.
- A pronounced 'academisation' of the sector, greater than that seen in the rest of the labour market.

In the analysis, employees in the financial sector are divided into three main job areas:

- Customer contact and advice
- IT
- Staff and specialist functions.

Of the three areas, customer contact and advice were traditionally the largest group in the sector. In 2013, 47 per cent of the sector's employees held a post within this area. In 2023, this dwindled to a mere 39 per cent. On the other hand, employee numbers in the other areas have risen, so that IT now accounts for 11 per cent against 9 per cent in 2013, while staff and specialist functions have risen from 45 per cent in 2013 to 50 per cent in 2023 and are now the largest main job areas in the sector.

FIGURE 1: BREAKDOWN OF EMPLOYEES IN THE FINANCIAL SECTOR BY CHIEF AREAS OF WORK



Source: register data from Statistics Denmark.

Note: individuals without a DISCO code have been excluded.

Of the underlying job-profile levels, notably the specialist functions have experienced growth. In ten years, the number of compliance staff and employees within the

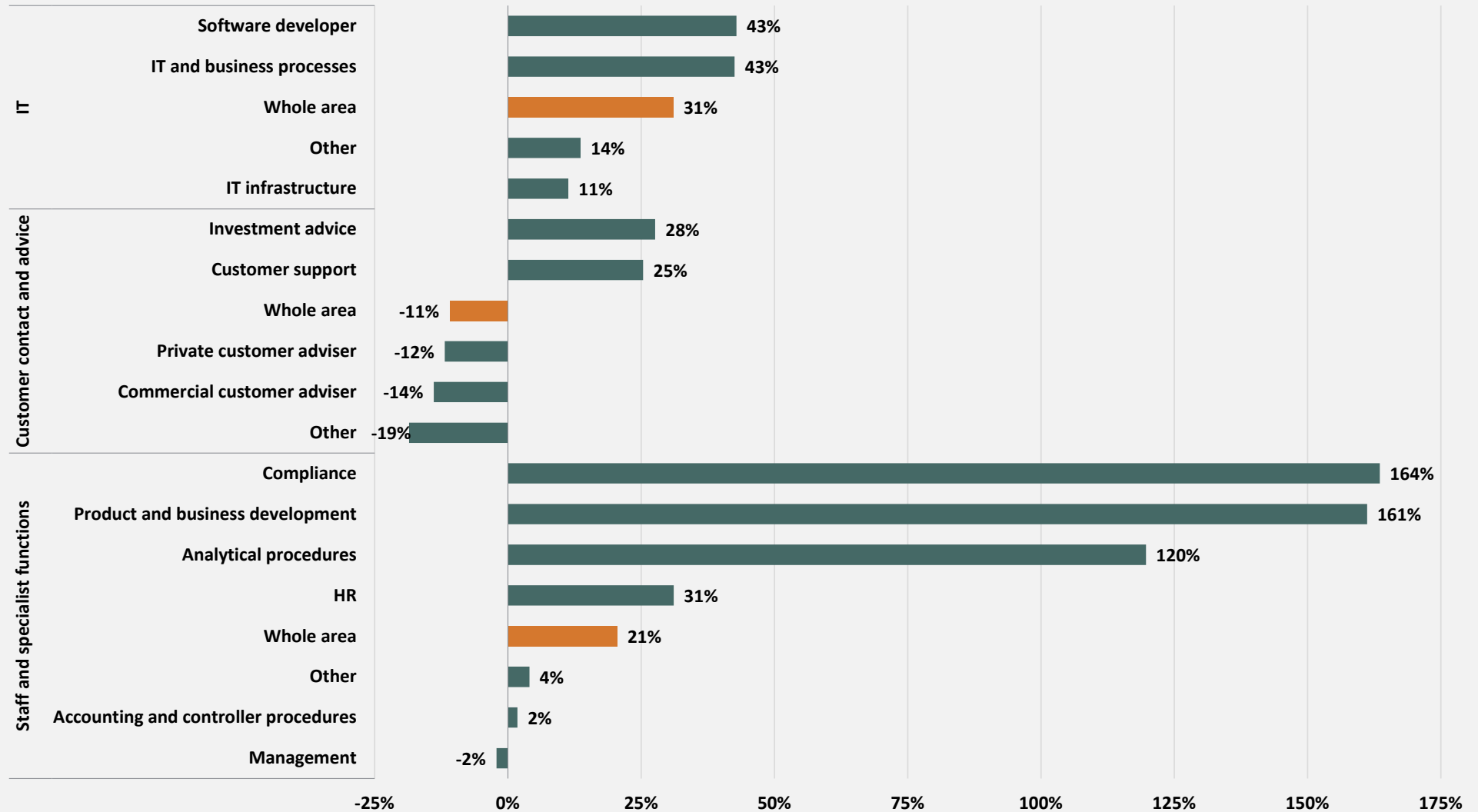
field of product and business development have almost trebled, while the number of analysts has more than doubled. Within the customer-oriented functions, the drop

is primarily due to a 12-per-cent drop in the number of private customer advisers, the largest job profile in the sector, which still makes up about half of the total area

of customer contact and advice, coupled with a 14-per-cent drop in the number of corporate customer advisers.

The shifts experienced by the sector are not only defined by the types of job held by the sector's employees. They are equally, if not more so, defined by a pronounced rise

FIGURE 2: RELATIVE DEVELOPMENT OF NO. OF EMPLOYEES WITHIN EACH JOB PROFILE FROM 2013 TO 2023



Source: register data from Statistics Denmark.

in educational levels, where ever more candidates come from higher-education institutions. Hence the sector could be said to undergo 'academisation'. From 2013 to 2023, the share of sector employees with a short-, medium-, or long-cycle higher education has risen from 38 to 57 per cent. The rise being greater for employees with a long-cycle higher education, as their share rose from 14 to 25 per cent. In comparison, during the same period, the share of employees with a long-cycle higher education only rose from 33 to 41 per cent elsewhere in the Danish labour market.

The 'academisation' is partly due to a general enhancement of competences, manifested in the fact that educational levels have risen within all three main job areas. It is also partly due to the shifts across job areas and job profiles having occurred, where fewer employees work in customer-oriented functions, which traditionally required a lower educational level and was filled by staff with vocational backgrounds while, conversely, more staff were employed in the areas of IT or compliance, business development, and analytical work, where the educational level of employees is usually high.

THE SECTOR'S ABILITY TO ATTRACT EMPLOYEES IS GOOD – BUT THERE ARE CHALLENGES IN THE IT AREA

This development has meant that the various higher-education programmes in business and financial economics are now the commonest educational backgrounds for newly qualified employees in the sector, where before it was vocational financial training. In addition to the newly qualified, the sector also attracts many new employees from other sectors and the inflow of employees to the financial sector has therefore risen over the past ten years. The largest net inflow of employees from

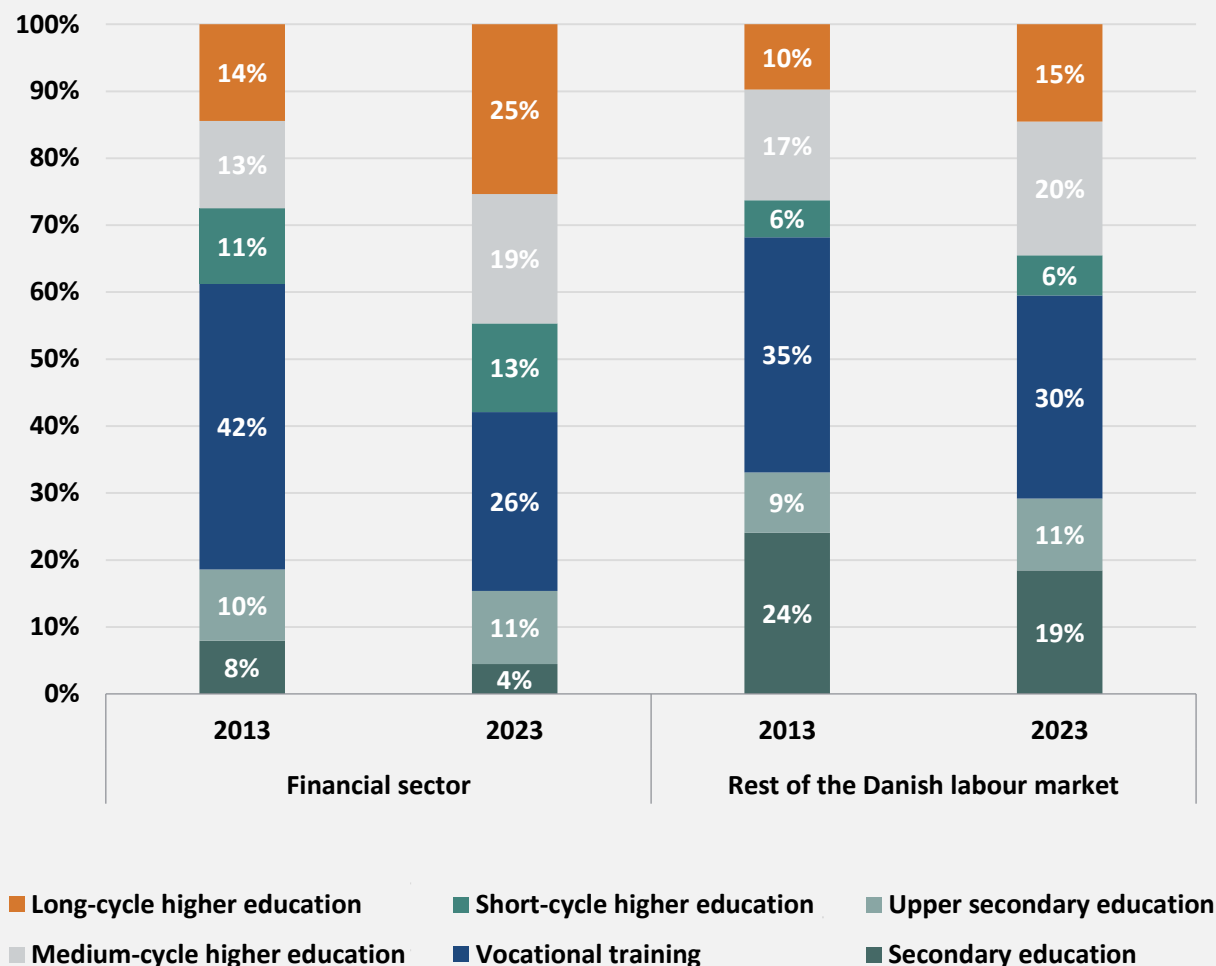
other sectors is from business enterprises and the public sector.

The ability to attract employees from other sectors can be a contributing factor to the financial sector experiencing fewer recruitment challenges than other industries. In 2023, only 5 per cent of recruitment attempts in the financial sector were unsuccessful. This is less than in all other industries, where the comparative figure for the labour market as a whole averaged 12 pct during the same period. However, if we include the cases leading to a candidate without the right qualifications being employed, the figure of unsuccessful recruitment attempts in the sector rises to 15 pct. It is still lower than for other industries, but it does mean that the financial sector, too, experiences certain recruitment problems.

These challenges specifically concern the IT area and peaked in 2023 – moreover, rising compared to 2022 levels, unlike other areas. In 2023, 10 per cent of recruitment attempts for IT jobs ended with an unfilled post compared to 7 per cent within the area of customer contact and advice and 4 per cent within staff and specialist functions. This is a change from the previous year, when the share was smaller for IT.

The challenges in the IT area are further amplified – or partly explained – by the fact that mobility within the sector from other job areas to IT jobs are limited. Job changes in the financial sector – either between two different enterprises within the sector or internally in the same enterprise – very rarely involve employees from customer contact and advice or staff and specialist functions changing to a job in IT. Conversely, there is a somewhat livelier exchange of employees between the other two job areas. It could simply be explained by IT jobs being more

FIGURE 3: EDUCATIONAL LEVELS IN THE FINANCIAL SECTOR COMPARED TO THE REST OF THE LABOUR MARKET



Source: register data from Statistics Denmark.
 Note: long-cycle higher education also includes PhDs.

specialised and hence difficult to change to for staff employed in other areas, but it still serves to highlight the greater challenges that exist in the IT area.

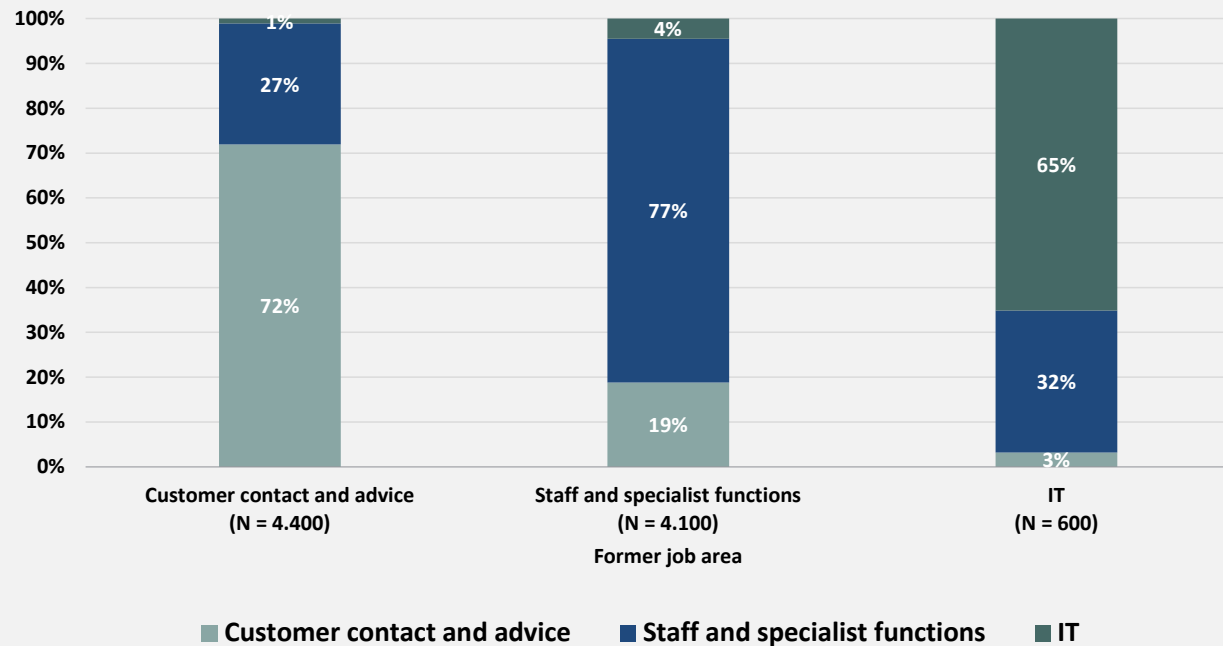
The challenges in the IT area are particularly relevant in a context where the development trends faced by the sector relate to the use of AI and data, and where the necessary digital competences are key to exploiting this potential to the fullest. These development trends are detailed in the following.

ALL SET FOR CLOUD SERVICES – DEVELOPMENT TRENDS IN THE FINANCIAL SECTOR

At present, the financial sector continues to undergo transformation driven by a series of development trends, some of which are listed below:

- Customers, both commercial and private, increasingly expect to gain access to banking services fast and easily.
- The implementation of a cloud-based infrastructure based on open standards and a microservice architecture¹ offers banks a new technological platform suited to integrate third-party solutions developed by FinTech enterprises.
- This creates opportunities for partnerships based on 'open banking' where data is shared between various actors. Parallel to this, AI technologies such as machine learning and generative AI mean that customer data can be utilised to develop services and products tailor-made to different customers ['hyper-personalisation'].
- Machine learning and generative AI increa-

FIGURE 4: CHANGES IN JOB AREAS WHEN CHANGING JOB AND/OR JOB INTERNALLY IN THE FINANCE SECTOR DURING 2022



Source: register data from Statistics Denmark.

se opportunities for automation across several functions, including compliance, where complex regulations demand ever more resources.

As suppliers of digital infrastructure to the vast majority of banks, notably the data centres are instrumental in defining the digitisation of the financial sector. This has so far hampered the integration of FinTech solutions, however, in the near future, outdated IT infrastructure will be replaced by a cloud-based infrastructure and a modular software-based IT architecture based on open standards. This will enable the integration

of state-of-the-art solutions offered by third parties, such as FinTech enterprises, rather than having to develop them from scratch. In this way, by fully exploiting AI and data on customer behaviour, banks will be able to offer personalised customer solutions to a far higher extent.

GENERATIVE AI – STRATEGIC CHOICES

Danish banks have various approaches to generative AI² as a development opportunity. While some banks have launched projects with a view to building AI competences, notably within back-office functions, others apply a wait-and-see strategy until data centres

are ready with cloud-based solutions. Particularly smaller banks focusing on niche markets, such as ESG, will not necessarily give priority to digitisation and AI as the key to heightened customer satisfaction and closer customer relations. Differences in the focus placed on digitisation is also reflected in branch structures, where some banks have extended their branch network parallel to the digitisation process, whereas others have closed some of their branches as a result of digitisation.

Banks that have invested in AI within machine learning and now focus on generative

AI continue via concrete pilot projects to explore the possibilities and business value of generative AI.

Generative AI can create real-time tailor-made content and tailor-made products based on individual customer interaction, which offers possibilities for personalisation ['hyper-personalisation'] to an unprecedented degree. Contrary to classic machine learning, which usually requires time to 'learn' customer patterns, generative AI is capable of adapting output instantly. Furthermore, generative AI increases automation opportunities over and above the opportunities presented by machine learning. Within the field of investments, for example, generative AI can generate alternative portfolios based on various risk profiles and goals. Moreover, generative AI can automate a series of reporting tasks as well as create more advanced customer solutions to handle complex customer enquiries and provide answers that are more comprehensive than the traditional chatbots driven by machine-learning.

Since generative AI is still in the early phases of development in the financial sector, capable of functioning partly as intelligent tools to support employees in various functions and partly of boosting automation opportunities, it is difficult to predict the precise productivity gains. International experience seems to indicate that advanced exploitation of AI will result in substantial productivity gains, however, it is not clear how these are utilised. In a Danish context, the question is, therefore, whether investments in generative AI are done as a cost-reduction exercise or in added-value creation and deeper, personalised customer relations, as this will impact on developments within jobs and employment.

ORGANISATIONAL AI FRAMEWORK

Initial experience with generative AI stresses the importance of an involving and experimental approach for employees to explore the potential and limitations of technology in practice. This may help reduce the fear of AI potentially taking over jobs and foster an open dialogue about future work tasks. It is essential, therefore, that management communicate clearly the strategic goals of their investment in AI and the potential consequences for employees' job roles, and furthermore clarify how staff can be prepared for future changes. The organisational framework is underpinned by a data governance practice with focus on transparency and ethics concerning data exploitation.

STRATEGIC ROLE OF HR

The rate of development and complexity places great demands on employee's competences, since developments are increasingly based on agile processes. For this reason, HR plays a growing strategic role. Using business developments over a three-to-five-year perspective, HR will need to be able to translate and operationalise competence requirements as a basis for implementing the development strategy.

While some financial enterprises report growing recruitment problems, this is by no means true of all. Those banks that do not experience major recruitment problems pursue several recruitment and retention strategies. Besides a systematic approach to talent pipelines and recruiting foreign nationals, these enterprises have implemented initiatives that systematically underpin development opportunities for individuals via increased mobility and internal recruitment supported by target figures and a close dialogue with managers. Experience indicates that this reduces employee turnover.

NEW COMPETENCE PROFILES AND COMPETENCE REQUIREMENTS

Developments within AI combined with a growing focus on data exploitation lead to the creation and filling of new specialist profiles in the sector, for example, mathematics-economists, data scientists, and mathematicians. At present, the focus on ESG is incipient. Banks where ESG is integrated into the advice given to, for example, commercial customers, point to competences that enable advisers to assist SME customers with their assessment of green technologies as regards investments or purchases and, likewise, be able to refer them to impartial technology advisers.

The growing focus on digitisation and AI as an innovation issue means that employees, regardless of job functions and tasks, will increasingly be expected to possess competences within data handling, data quality, business development, and communication via data, an understanding of the functionality, possibilities and limitations of different AI technologies, and compliance skills. Such interdisciplinary competences give employees a common frame of reference, and this promotes cross-disciplinary interaction and creates results.

In addition, competences such as being able to collaborate, think out of the box, and show empathy are seen as complementary to machine intelligence and considered absolute key to interaction and value creation in development teams.

TRADITIONAL COURSE STRUCTURES UNDER PRESSURE

Enterprises that have launched development projects featuring generative AI believe that toolbox courses such as prompting in ChatGPT is not the way to boost employees' AI competences. The international banks

viewed as leaders within AI and data-driven business development invest significantly in competence development for all employees. This competence development is conducted as continual processes rather than isolated toolbox-based courses to support employees in gaining an understanding of AI technologies, their modus operandi and limitations relative to business development and automation. Digitisation is widely exploited and learning is closely linked to tasks and job functions.

Parallel to this, there is a growing use of 'microcredentials'³ and certifications that help to visualise employees' competences irrespective of how they were gained. This development could therefore pose a challenge to traditional course structures, and it is highly critical to direct focus at the time allocated on a daily basis to learning and to reflect on real problems.

THE SECTOR'S PATHS TOWARDS 2030

Based on developments over the past ten years and the trends uncovered, four main scenarios are outlined for the sector's development towards 2030. The scenarios should be seen as potential strategic pathways for enterprises to select and, as such, not an attempt to predict how things will pan out in the future. Rather, it is an attempt to define what the effect of different strategic decisions might be. Furthermore, not all enterprises are expected to make identical decisions, but some enterprises might opt for strategies modelled on one specific scenario, whereas others will take different paths.

The four scenarios are:

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- Scenario 1: Baseline scenario
- Scenario 2: FinTech partnerships
- Scenario 3: Automation
- Scenario 4: Hyper-personalisation⁴ of the customer journey.

SCENARIO 1

In scenario 1, developments in demand for staff in the sector are forecast up to 2030 based on developments in recent years. Consequently, a drop in demand is anticipated within customer contact and customer advice and increasing demands within the other areas. The total growth in the sector in recent years is therefore anticipated to continue, which means that the demand in this scenario will be almost 16 per cent greater than today's employment – and will be driven especially by the growing demand for staff and specialist functions.

SCENARIO 2

Scenario 2 implies that enterprises will increasingly enter into partnerships with FinTech and big-tech enterprises so that they, as third-party

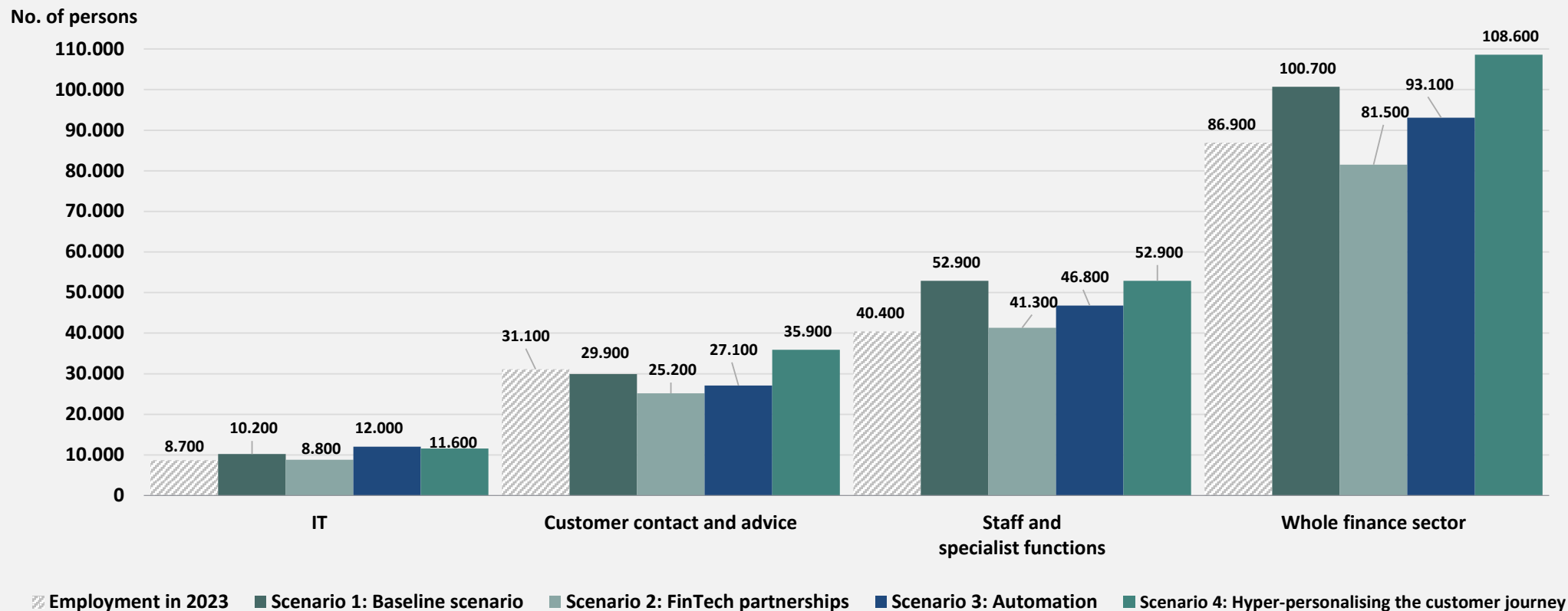
suppliers, can head the development of a series of financial services in the form of digital applications, for example, and the scenario is thus a realisation of open banking and open finance. The scenario implies a smaller demand than in the baseline scenario in all main job areas, since several tasks will be handled by third-party suppliers. Within IT and staff and specialist functions, it will counter the present-day trends which result in rising employment, and zero growth is anticipated in these areas. Further, an even greater negative growth is anticipated within customer contact and advice. Taken as a whole, it will result in a 6-per-cent drop in the sector's demand by 2030 compared to today's figures – primarily driven by notably fewer employees within customer contact and advice.

SCENARIO 3

In scenario 3, there is an increased implementation of AI to ensure automation of processes to the widest possible extent. Automation will impinge on both customer-oriented processes and back-office activities, and there will be a massive focus on developing applications to teach customers to service themselves. This scenario anticipates, therefore, a drop in the rate of growth in demand for staff and specialist functions relative to recent years, and the demand for employees within customer contact and customer advice will drop even more than in the baseline scenario.

Conversely, developments in automation solutions will require more IT specialists, and the rise in the demand for IT employees will therefore be even greater than in recent years. Taken as a whole, this will lead to a slower growth in the demand for labour in the sector than indicated in recent years, implying that the demand in 2030, in this

FIGURE 5: PROJECTED DEMAND FOR LABOUR IN THE FINANCIAL SECTOR IN 2030 IN THE FOUR SCENARIOS.



Source: own calculations based on data from Statistics Denmark and STAR's recruitment survey.

Note: the figures for the three areas do not sum up to the total figure for the whole sector, as the whole sector also includes individuals without DISCO codes.

case, will be 7 per cent greater than today's employment – among other things driven by the demand within IT, which will be all of 33 per cent greater than the number employed within this area today.

SCENARIO 4

In the fourth scenario, AI is implemented to enhance employee productivity rather than to replace them. By using AI tools and

customer-generated data, a strategy directed at the hyper-personalised customer journey is pursued, offering solutions and advice targeted at specific customers, which will also imply a deeper integration into sectors outside the financial one, such as travel, transport, dwellings, and similar.

This will result in a broader value chain leading to more jobs derived from a trans-

formation of the traditional job roles. The rise in demand within customer contact and advice, and IT will thus increase towards the end of the period, whereas opposing effects will mean that the growth of staff and specialist functions is anticipated to continue at the same level. Together, this will result in a significant rise in the demand for labour in the sector, where employment in 2030 will be 25 per cent greater than today.

The four scenarios illustrate the span of how demands in the sector could develop up to 2030, resulting from the various strategies pursued by the enterprises. Across the scenarios, a 33-per-cent deviation is forecast in the demand for the sector as a whole and, within each separate job area, there are deviations of 30-40 per cent across the scenarios. This means that there may potentially be huge demands to upgrade

skills and retrain employees to ensure compliance between supply and demand, where employers' demands are met and fewer employees are rendered superfluous.

ENDNOTES

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- 1 'Microservices' denote an IT architecture consisting of singular business-oriented software components, which can be developed and replaced independently of the remaining IT landscape. They have their own delimited processes and communicate and interact seamlessly.

 - 2 'Generative AI' refers to artificial intelligence able to generate new content and solve complex problems – enabling machines to both learn from data and create new data. In the financial sector, generative AI, for example, is useful for designing virtual assistants, training other AI models via, for example, synthetic data, optimising customer experience, etc.

 - 3 'Microcredentials' is a learning method involving fewer competence-based learning modules typically designed to teach specific knowledge or skills quickly and efficiently based on proven authentic issues. It promotes flexibility, access, and relevance in the learning process.

 - 4 'Hyper personalisation' denotes that customer data such as consumer patterns, savings, investments, and communication with the bank via social media is used to offer solutions specifically targeted at individual customers, and 'personalisation' denotes that traditional market-segment methods are used, for example, to match solutions to different customer segments.
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