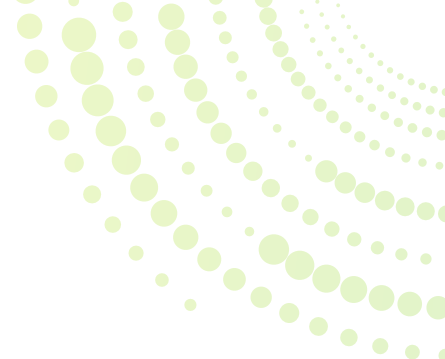




Actuarial Transformation in the Nordics

A survey of 26 of the largest Life & Non-life insurers

June 2026



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Executive Summary

This survey of 26 Nordic insurance companies looks at the current state and future direction of actuarial departments across life and non-life insurers.

It is not surprising that reserving, modelling and assumption setting is at the core of the actuarial departments. However, it is somewhat surprising that the knowledge gained from those processes is not used in financial planning to a larger extent when so many are organised within the domain of the CFO.

On average, actuarial departments consist of 14 full-time employees. Currently, more than half of actuarial resources' time is spent on production activities such as data preparation, assumption setting, and reporting. About half of the companies strive to shift focus to insight generation and ideation. Multiple companies explicitly mention automation, as a means to reduce time spent on production. This is very much in line with our general expectation of a way of working within financial reporting in the future.

Overall, the actuarial departments are very alike with limited variation in the expectations of future staffing. Given the rapid developments in AI and the models' capabilities within mathematics and programming that are core actuarial skills, we would have expected larger variation in the responses. We expect AI can enable transformations from existing systems much more rapidly and cost effectively compared to earlier.

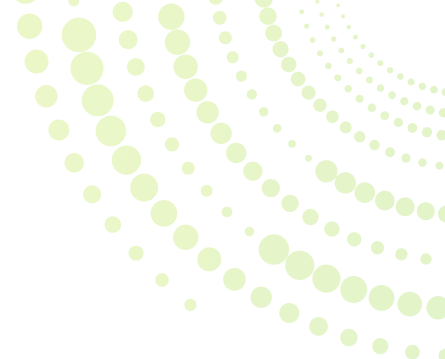
Most companies today use their own developed platforms for actuarial modelling rather than commercial solutions. More than half use multiple data warehouses for storing actuarial data. Only one company reports having a single source of truth, while 16 reports having one with exceptions, and nine reports not having one. Here seems to be a clear potential for improvement, and it is also something we see in other business areas of insurance companies. Generally the companies are satisfied with data quality.

The key priorities in the coming years are:

- Automation of manual processes,
- Digitalization, and
- Shifting focus from production to insights generation and ideation.

Regulatory compliance with IFRS 17 and the Solvency II Review also require significant effort. Cost reduction is rated as the lowest priority across all segments.

Nordic actuarial departments face significant challenges in cross-organizational collaboration, data governance, and skills availability as they pursue digital transformation. Companies show strong intent to shift from production-focused work to insights and innovation, with automation emerging as a key priority and far less reliance on AI to facilitate the transformation. This may be an area that is not given the right attention in the planning of the coming years.



Introduction

This article presents insights derived from a comprehensive survey conducted among the largest companies in the Nordic insurance and pensions sector, complemented by in-depth interviews with key actuarial leaders. The survey aimed to capture current status, expectations, and challenges related to actuarial tools, processes, and transformation trends within the industry. By analysing responses from a diverse range of companies — spanning life and non-life insurance providers, various market sizes, and organisational structures — this study seeks to deepen the understanding of the evolving needs of actuarial departments.

The findings highlight critical areas such as technology adoption, data management, digital transformation strategies, and the shifting role of actuaries in decision-making and innovation. Through these insights, the article aims to foster an informed dialogue on how the actuarial profession can adapt and thrive amid rapid technological advancements and changing regulatory landscapes. Ultimately, the goal is to support the development of future solutions that enhance efficiency, accuracy, and strategic value in actuarial work, ensuring the sector and the actuarial profession remains resilient and forward-looking.

The survey was sent out to 36 life and non-life companies, with 26 responses received, representing a response rate of 72%. The respondents include chief actuaries and heads of actuarial functions from companies ranging from medium sized insurers to large multinational groups with operations across multiple Nordic markets. The results have been anonymised in this report to protect confidentiality while enabling candid insights into challenges and opportunities.

The article is structured around four key dimensions of actuarial transformation: firstly, the evolving responsibilities and roles within actuarial departments; second, the current state of technology infrastructure, data governance, and organisational capabilities; third, the actuarial modelling approach and platform utilisation; and fourth, the vision and strategic priorities for actuarial departments over the next three to five years. The interviews are placed as dividers between the sections.

The full list of the companies that have contributed to this article is seen below.

Aktia Life Insurance	GF Forsikring	PensionDanmark
Alm. Brand	Gjensidige	Protector Insurance
AMF	Handelsbanken Liv	SEB Pension och Försäkring
ATP	If	SpareBank 1 Forsikring
Danica Pension	Købstædernes Forsikring	Storebrand Livsforsikring
DNB Livsforsikring	Skandia Liv	Swedbank Försäkring
Fennia	Länsförsäkringar Liv	Tryg Forsikring
Folksam Liv	Mandaturn	Velliv
Folksam Sak	PenSam	

Priorities and structures in the Nordic actuarial departments

Introduction to the survey and the responders

Among the 26 surveyed insurance companies, 17 classify themselves as life insurance companies and nine classify themselves as non-life insurance companies. The geographic operation is concentrated to Denmark and Sweden, with a smaller representation from Norway and Finland. Additionally, four companies operate across multiple countries. The surveyed companies comprise a mix of listed companies, mutually operating companies, public limited companies (not listed) and subsidiaries of listed companies. 16 of the surveyed companies report under International Financial Reporting Standards (IFRS), with the majority being either subsidiaries of listed companies or listed companies themselves. Four of the mutual companies report under IFRS.

The companies surveyed demonstrate considerable variation in organizational size. Most of the companies have between 1,000 and 4,999 employees or between 500 and 999 employees. A smaller proportion of companies employ between 100 to 249 or 250 to 499 employees. Few companies have fewer than 100 employees or more than 5,000 employees.

In terms of total revenue and total assets, the surveyed companies vary significantly. Most of the companies (16 out of 26) reported total revenue of more than EUR 1 billion in 2025, while one reported as little as under EUR 100 million for the same year. Regarding total assets, the companies are more evenly distributed across the ranges: 'Under EUR 20 billion' (ten companies), EUR 20 billion to 49.9 billion (eight companies), and 'More than EUR 50 billion' (eight companies).

Number of companies in asset categories

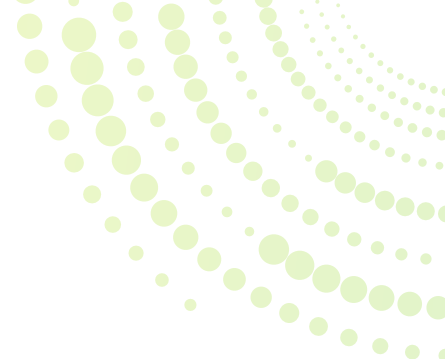
EUR 1bn - 4.9bn	5
EUR 5bn - 9.9bn	1
EUR 10bn - 19.9bn	4
EUR 20bn - 49.9bn	8
More than EUR 50bn	8

Resources and responsibilities

This section will give some insight into the actuarial resources, both human and technical, and responsibilities in the companies.

The actuarial departments in Nordic insurance companies report primarily to the Chief Financial Officer (CFO). Across the companies surveyed, 58% report to the CFO, 19% to the CEO (Chief Executive Officer), and 12% to the CRO (Chief Risk Officer) while the remaining 12% report to others such as Head of Business Analysis, Head of Product Development and Head of Financial Planning and Analysis.





Actuarial department responsibilities



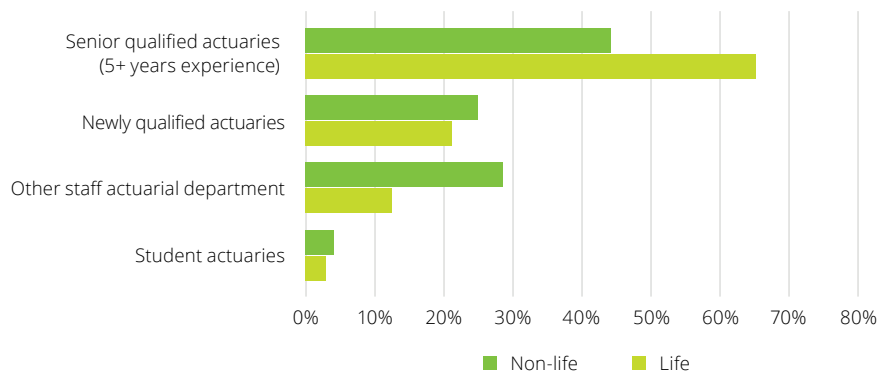
For three out of the 26 entities the head of the actuarial department has all seven responsibilities. Three other responsibilities are mentioned as other responsibilities and these are

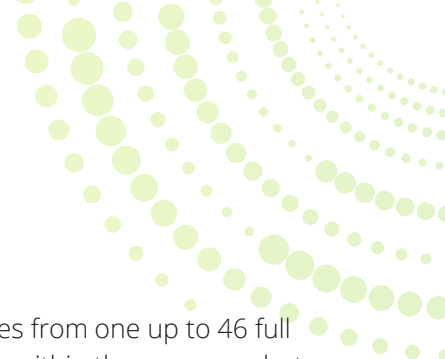
- The responsibility of a partial internal SCR model
- The responsibility for reinsurance placement and accounting
- The responsibility for reporting the associated risks to the board.

From the results of the survey, the distribution of the qualifications of the staff in the actuarial department varies quite a bit. On average, it is observed that most of the staff are senior qualified actuaries, followed by newly qualified actuaries and almost a similar amount in the category “Other”. This “Other” category includes staff with educational background in economics, mathematics, physics and statistics.

It is not surprising that reserving, modelling and assumption setting is core to the actuarial departments. However, it is somewhat surprising that the knowledge gained from those processes is not used in financial planning to a larger extent when so many are organised within the domain of the CFO.

Qualifications of staff





On average, the actuarial department consists of 14 full time employees (FTE), but it ranges from one up to 46 full time employees (FTEs). On average, the actuarial department is 3% of the total employees within the company, but ranges from less than 1% up to 14%. For the smaller companies with more than 500 employees in total the average number of actuarial FTEs is ten, whereas for companies with total employees between 500 to 4,999 have on average 18 FTE, lastly the largest companies with more than 5,000 employees have on average 13 FTEs.

Total number of FTE	Life	Non-life	Average FTE actuaries - Life	Average FTE actuaries - Non-life
Less than 100	1	0	·	·
100-249	4	0	10	·
250-499	3	1	11	·
500-999	4	2	21	7
1000-4999	5	4	17	21
More than 5000	0	2	·	13

Looking at the actuarial FTE's per billion EUR assets ranges it is observed that for the companies with assets under EUR 20 billion the average number of actuarial FTEs is 13, for companies with assets within the range EUR 20 billion to 49.9 billion the average is eleven and for companies with assets over EUR 50 billion the average number of actuarial FTEs is 19.



Simen Gaarder's Perspective



Simen Gaarder and Gjensidige

Simen Gaarder has been working for Gjensidige for 40 years. He has held positions Head of Actuarial Department, Chief Risk Officer and Group Chief Actuary for the last eight years.

Gjensidige is a leading Nordic non-life company listed on the Oslo Stock Exchange, with operations in Norway, Sweden and Denmark.

Role and responsibilities

Our actuarial team is primarily responsible for technical insurance provisions, supporting management with quantitative analyses, and ensuring accurate IFRS 17 reporting. We are part of the CFO department and focus heavily on developing and maintaining reserving tools and models.

“Our main task is to motivate both development and stable operations, ensuring that our actuarial work supports sound decision-making and regulatory compliance.”

The “now”

Currently, we are not engaged in any large transformation projects but are continuously involved in improving our data warehouse. Over recent years, we have transitioned from SAS to cloud-based platforms like Databricks, leveraging Python and SQL for more efficient and streamlined reserving processes. AI and language models are increasingly integrated into our workflows, including report writing and programming. We have strict guidelines for AI use, but we are actively exploring AI's potential, especially in programming and analysis. We have also increased recruitment of data scientists to complement traditional actuarial skills, reflecting the growing importance of data science in our work.

The future

Technological development is an ongoing journey for us. We mostly take an incremental approach, identifying opportunities, and working closely with IT to implement improvements. Our strategy is to build most of our software in-house, which has become more feasible with increased Python expertise and AI-assisted coding. AI is already used in new solutions, such as analysing weather factors affecting insurance pricing.

“AI helps us develop more detailed and faster analyses, but we must always validate results carefully.”

The vision

My top priorities are to ensure stable operations within reporting including communication to management and the board, strengthen the interaction between pricing and reserving, and continue adopting new tools and technologies. We expect faster and more detailed reporting in the future, though challenges remain due to multiple core systems across markets, especially as we grow in Denmark and adapt to the competitive Swedish market.

“We see a future where actuarial work is more integrated across life and non-life, with micro-reserving and tariffing becoming feasible thanks to enhanced data capabilities.”

Current structure of the actuarial department

This section examines how actuarial departments across the Nordic region allocate their resources and plan for future staffing needs. The analysis covers three main areas:

- How actuarial teams currently distribute their time across different activities
- What staffing changes companies expect over the next three years
- How staffing strategies relate to technology infrastructure and organizational characteristics.

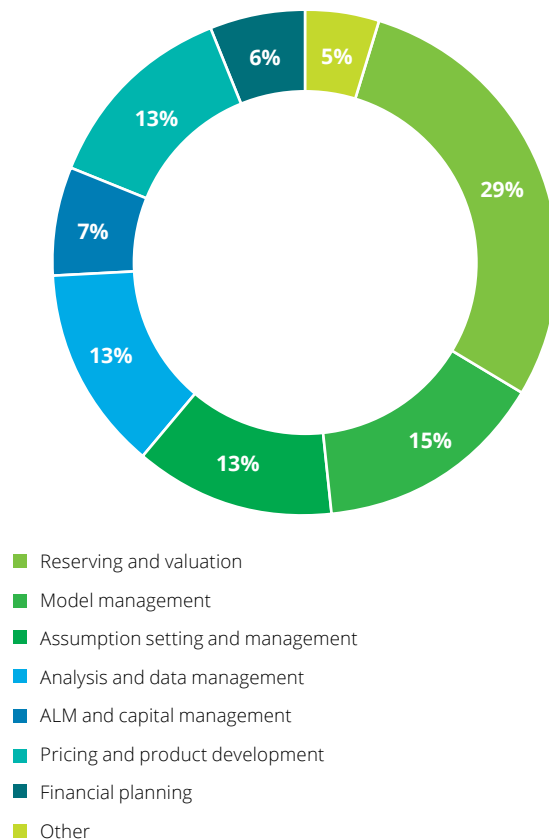
The survey collected detailed information on the breakdown of actuarial work across

- production activities (data preparation, assumption setting, reporting),
- insight creation and decision support (enriching the reporting),
- innovation and ideation (product development and analyses).

Additionally, respondents provided their expectations regarding changes in total staffing levels and shifts in the mix of skills and capabilities within their departments.

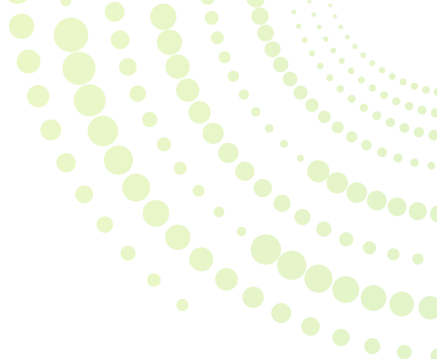
The data also reveals patterns across different company types — life versus non-life insurance, listed versus mutual companies, and organizations of varying sizes — offering insights into how different segments of the Nordic insurance market approach workforce planning.

Workload distribution

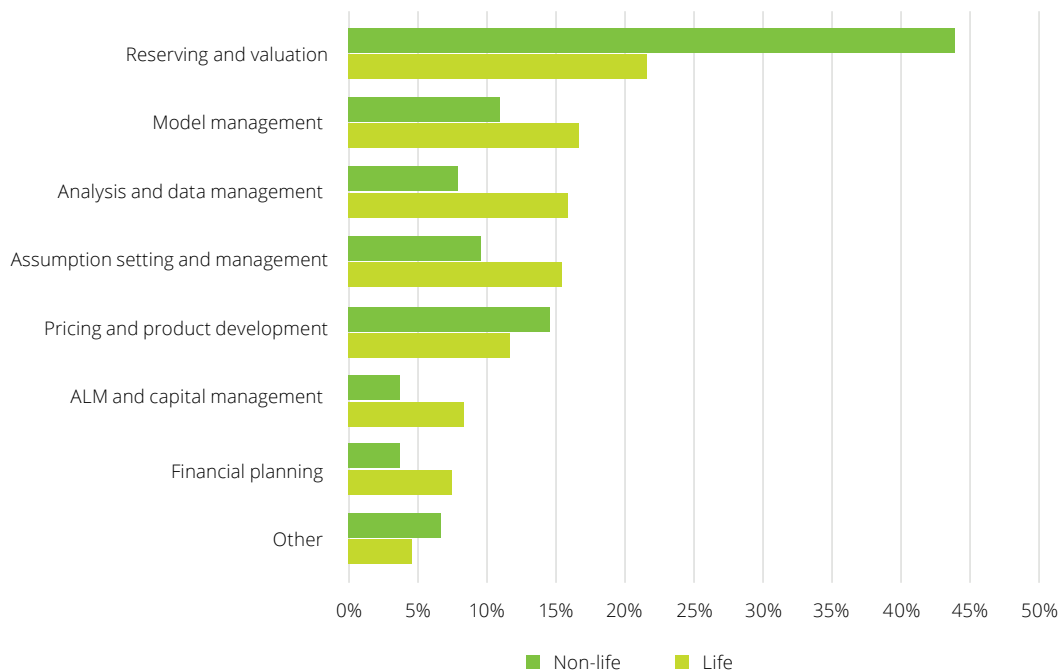


The workload of the actuarial department is on average distributed within the different areas as seen above.

There is a notable difference between life and non-life insurance companies in the split of workload distribution, with the biggest differences seen in reserving and valuation. Among the surveyed non-life companies on average 44% of the workload is spent on reserving and valuation, where in life companies only, on average 21% of the is spent on this. Life companies spend 16% of the workload on analysis and data management, where non-life companies spend on average 8% of the workload. In life companies 17% of the workload is spent on model management, where for non-life companies the workload for model management is on average 10%.



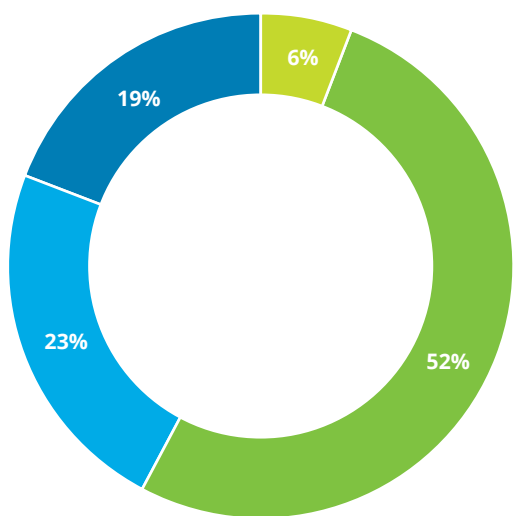
Workload distribution



When dividing the workload using a different framework, it is observed that, on average, more than half of the actuarial resources' time is spent on production. This might not be surprising to anyone; however, on a more uplifting note, the survey responses show that almost 20% of the time spent in the actuarial department is devoted to ideation.

Currently, actuarial departments are heavily production-focused with on average 50% of time spent on tasks such as data preparation (up to 80% is reported, but also down to 20%), assumption setting and reporting. 23% is spent on creating insights and support for decision making, and only 19% is spent on for example innovation, conceptualization and preparation for new legislation. However, 46% of companies (twelve out of 26) score 4-5 on "shifting focus from production to insights", on a scale from 1-5 where 1 = very low priority and 5 = very high priority, indicating strong intent to rebalance. 27% of the companies explicitly mention automation reducing manual work, with statements like "less manual processes in financial calculations," "more automated controls and calculations," and "automatisation and reporting using LLM (AI)."

Workload distribution part 2



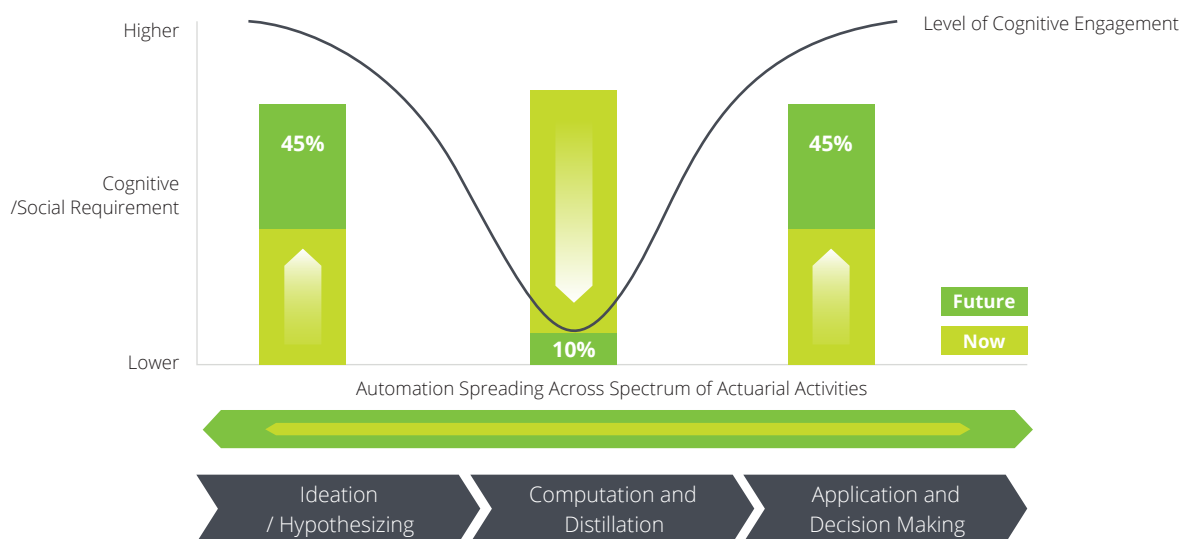
- Production (including data preparation, assumption setting and reporting)
- Creating insight and support for decision making
- Ideation (innovation, conceptualization, preparation for new legislation)
- Other

The survey responses show that almost a third predicts a reduction of staff and a third predicts an increase over the next three years.

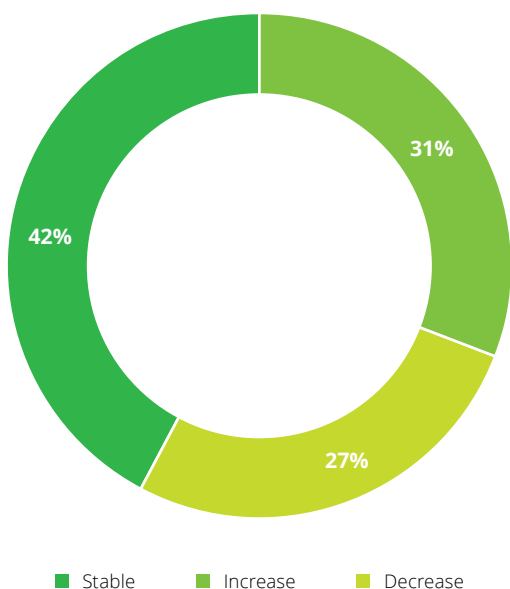


We would expect the actuarial departments to move in direction of less time spent on production and more time on insight generation and ideation, which is illustrated below:

The nature of the actuarial profession is being disrupted by technological and talent/operating innovation. This will shift human work towards higher cognitive and value-added actuarial activities.

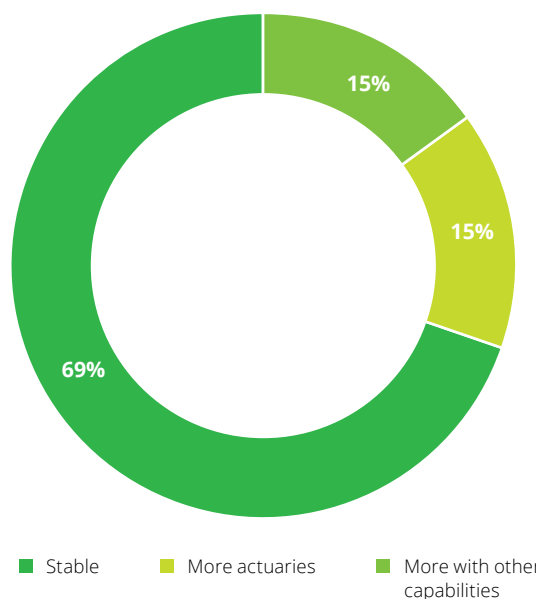


Expected movements in the number of staff over the next 3 years

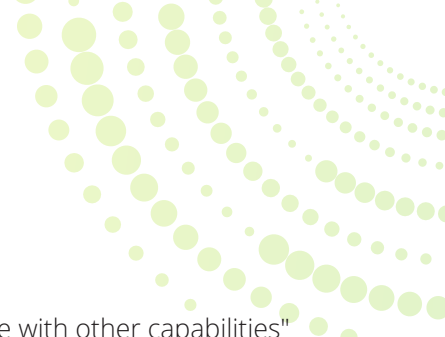


Downsizing expectations are comparable between the two segments, with life insurance at 24% and non-life at 33%, suggesting both face pressures to optimize workforce efficiency. Overall, non-life insurance is positioned for expansion while life insurance prioritizes operational stability.

Development in the mix of staff



Non-life insurance companies demonstrate significantly more growth-oriented staffing expectations, with 44% anticipating increases compared to only 24% of life insurance companies. Conversely, life insurance companies show a preference for operational stability, with 53% expecting stable staffing levels, whereas non-life companies expect only 22% stable levels.



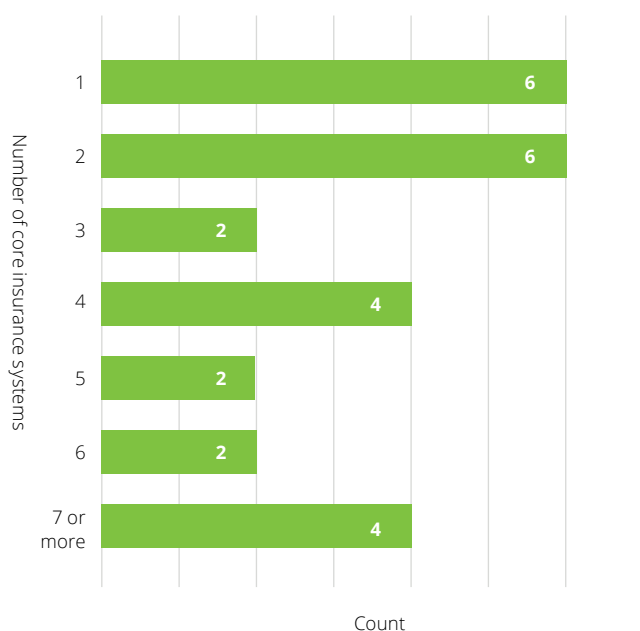
When looking at the expected movements in the mix of the staff, it is observed that 15% of the entities expect more actuaries. Looking into the combinations of answers to these two questions, it is noted that only one out of 26 companies expects a decrease in the total number of staff and more employees with other capabilities in the mix of staff which must indicate an expected decrease in the actuarial staff. Out of the seven responders expecting a decrease in staff over the next three years, six are expecting a stable mix of the staff. Out of the eight expecting an increase in the number of staff, three are expecting a stable mix, two are expecting more actuaries and three are expecting more with other capabilities. In the answers not expecting movements in the number of staff, two are expecting more actuaries and the rest are expecting a stable mix.

Looking more into the differences between life and non-life companies answers it is observed the non-life companies are expecting an increase in the number of staff to a greater extent than the life companies. Similarly, they expect more actuaries in the mix of the staff than the life companies.

Companies expecting "more with other capabilities" show higher cloud usage regarding actuarial modelling (75% versus 53%) and higher usage of stochastic modelling for their closing process (75% versus 56%) compared to those expecting more actuaries or a stable mix of abilities. Companies expecting "more actuaries" operate with more core systems on average (7.5 versus 5.0 systems) and show higher SQL server usage regarding data storage (75% versus 46%) and are also smaller departments on average (seven versus 17 FTE). 75% of the companies expecting "more actuaries" also answered that they expect AI agents in the future (where on average 53% in the other groups expect AI agents). Companies expecting stable staffing have on average four core systems, which rank lowest among the three categories (six for "more with other capabilities" and 7.5 for "more actuaries").

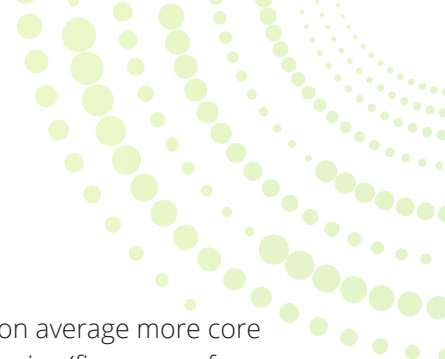
On average the companies have five core insurance systems, for the life insurance companies the average number of core insurance systems is four and for the non-life companies it is around seven. Three companies have around 20 core insurance systems.

Number of core insurance systems



Comparing the expectations of number of staff in the future with the average number of core systems, there is a correlation between the two, with the average number of core systems being highest for the group expecting an increase in number of staff.

Expectations of number of staff	Average number of core systems
Increase	6
Stable	5
Decrease	4



Companies where the head of actuarial reports to the CEO have smaller actuarial departments (average eleven FTE) compared to those reporting to the CFO (average 17 FTE). CEO-reporting companies operate fewer core systems (three versus five systems). Stochastic modeling usage is higher in CEO-reporting companies (80% versus 60%). CEO-reporting companies show more SQL server dependency when it comes to data storage (80% versus 60%). All the CEO-reporting companies surveyed expect more digital transformation in the next five years compared to the last five years. Among CFO-reporting companies, only 60% have the same expectations. CEO-reporting companies tend to be smaller organizations overall with an average number of roughly 700 employees versus CFO-reporting companies with an average of roughly 1,100 employees. The companies reporting to the CEO have no students in the actuarial department, whereas CFO-reporting companies on average have one student.

The listed companies have on average more core systems than mutual companies (five versus four systems). The listed companies operate more diverse geographically. They show higher frequency for cloud usage for actuarial modelling (86% versus 46%) and of cloud-based data platforms (29% versus 18%). Listed companies also show that stochastic modeling is more used in their closing process (71% versus 36%) and higher AI agent expectations (average score of 3.7 versus 2.8 on a scale from 1 to 5, where 1 = very limited extent and 5 = to a large extent). Mutual operating companies have slightly larger actuarial departments (on average 17 versus 15 FTE).

Overall, the actuarial departments are very alike with limited variation in the expectations to future staffing. Given the rapid developments in AI and the models' capabilities within mathematics and programming that are core actuarial skills, we would have expected larger variation in the responses. We expect AI can enable transformations from existing systems much more rapidly and cost effectively compared to earlier.



Magnus Ottesen Nesse's Perspective



Magnus Ottesen Nesse and DNB

Magnus Ottesen Nesse is leading the Actuarial Function at DNB Life Insurance, having held the role since January 2022. DNB Life Insurance is a subsidiary of DNB, which is Norway's largest bank and a key business in the Norwegian economy. DNB Life Insurance is offering group pensions and insurance and is one of the largest life insurance providers in the Norwegian market.

Role and responsibilities

Our actuarial team is organised across different sections depending on their specialisation. Actuaries working on solvency calculations, solvency modelling, and IFRS 17 calculation bases are part of the Finance and Economics section. Those focused on pricing and reserving belong to the Analysis and Profitability section, while the Actuarial Function I lead is under Risk Management. Despite this distribution, we maintain strong communication and collaboration both in daily operations and through various projects.



Actuaries play a vital role in achieving strategic goals related to profitability, growth, and efficiency. This is done through model development and monitoring risk trends. We measure success by continuously tracking results and market shares.

The "now"

We are currently working on a new pricing model for one of our largest products, where machine learning plays an important role in modelling. Additionally, projects have been initiated to improve data structure and quality with a view to enhancing modelling and analysis.

The future

Our approach to technological development tends to be incremental, focusing on processes that align with the company's strategic priorities. We carefully evaluate whether to buy external software or build solutions ourselves, balancing cost-efficiency, functionality,

complexity, and needs. AI is increasingly integrated into our work, from information gathering to problem-solving and programming.



We have trained extensively on using AI for both small and large challenges, and we are developing AI-agents to perform specific tasks. However, it remains crucial to perform thorough controls and validations to ensure model accuracy, which requires strong underlying expertise and experience.

The vision

Although I am not the chief actuary myself, from my perspective, the medium-term priorities over the next three years include driving efficiency through AI technology, ensuring high data quality, and building robust infrastructure. This will enable us to combine new technology with existing systems for more effective operations and business development.



My vision is for the actuarial team to be a trusted and relevant advisory function that contributes to efficient and sound business processes and decisions. This requires staying updated with new methods and technologies, ensuring high data quality for timely and accurate analyses, and leveraging internal collaboration.

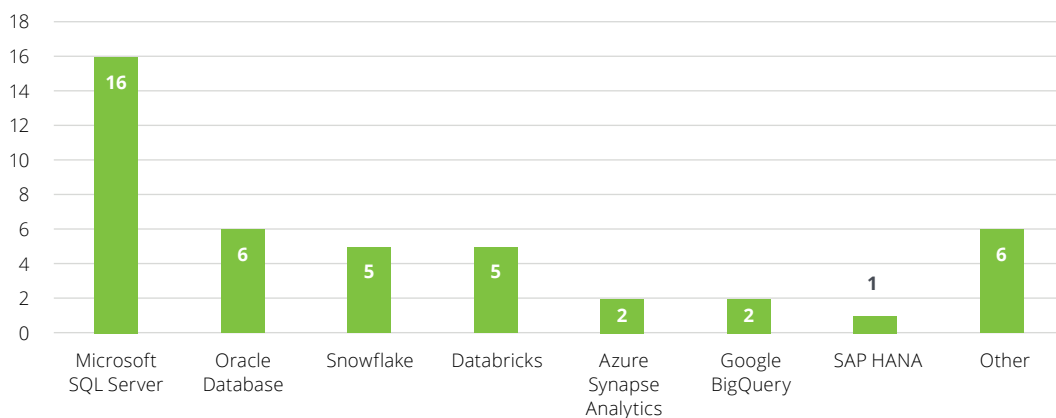


Actuarial modelling and platforms

Data preparation and management

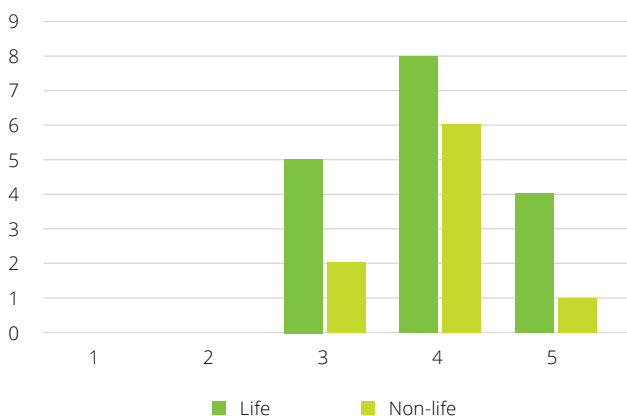
This section will take a deep dive into the actuarial modelling and platforms used to manage and work with data. First, it is noted that 16 out of the 26 respondents are using Microsoft SQL Server as either the only or one of their data warehouses. More than half of the respondents are using more than one data warehouse for storing and managing actuarial data. In the category “Other”, data warehouses as Blob Storage, VQL Denodo, SAS, IBM D2B and Teradata are mentioned. There are several who have own-built solutions, some as the sole data warehouse solution and others as an addition to the solutions available on the market.

Datwarehouse for storing and managing actuarial data

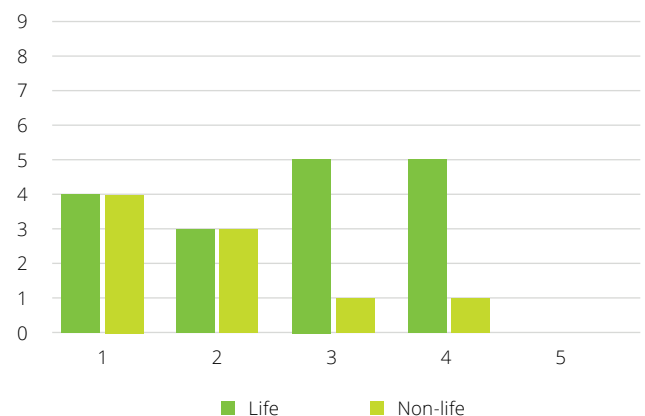


Asking the chief actuaries about the satisfaction of the quality of data used in their modelling, they all seem quite satisfied.

Rating quality of data
(1 = very dissatisfied, 5 = very satisfied)

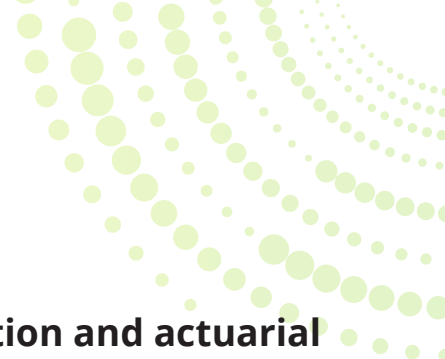


Systems based on spreadsheets and/or legacy databases
(1 = very limited extent, 5 = to a large extent)

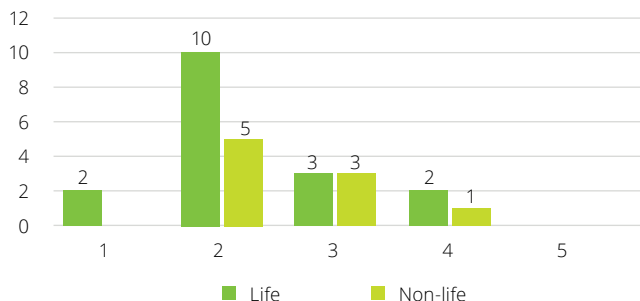


Systems based on spreadsheets and/or legacy databases are for non-life insurance companies quite limited, where the life insurance companies' systems are based on these to a larger extent.

The experiences of data errors and delays that are impacting the working day timetable at the actuarial department are



Experience of data errors and delays
(1 = very limited extent, 5 = to a large extent)



Both life and non-life insurance companies predominantly use Microsoft SQL Server (life: 77%, non-life: 33%) and Excel (life: 100%, non-life: 78%) for actuarial operations. Life insurance companies operate an average of four core systems compared to non-life's six systems. Life insurance shows higher adoption of commercial ALM tools (29% versus 0%), with platforms such as RiskAgility based on survey responses, while the non-life responses show higher adoption of cloud-based data platforms such as Databricks (44% versus 6%) and in-house solutions (33% versus 18%). Life insurance companies execute 59% of modeling in the cloud versus non-life's 56%. Stochastic modeling is used in the closing process by 77% of life insurance companies compared to 33% of non-life companies.

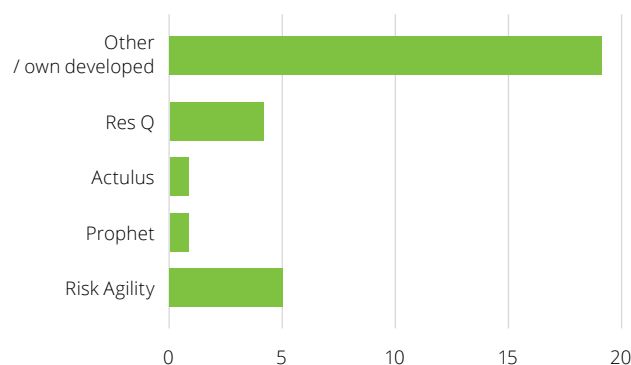
Only one company reported to have one single source of truth (a non-life company), while 16 companies reported that they do have single source of truth with a few exceptions, and nine companies reported that they do not have a single source of truth (seven of which are life companies). It is observed that for companies that either report "yes" or yes with a few exceptions to a single source of truth, they have an average reported quality of data on 4.0 for non-life companies and 4.1 for life companies. For companies that reported "no" to a single source of truth, their average reported data quality is 3.5 for non-life companies and 3.7 for life companies. This is a well-known challenge in the sector, and this correlation highlights the challenges companies might face when not having the optimal solution of having only one source of truth. Often it requires investments to arrive at the target of one single source of truth.

Technology adoption and actuarial processes

This section explores the technological advances and platforms used across surveyed companies. Most companies (19) report that they use their own developed platform for actuarial modelling, using programming languages and platforms as C# (C Sharp), Excel, R and Python.

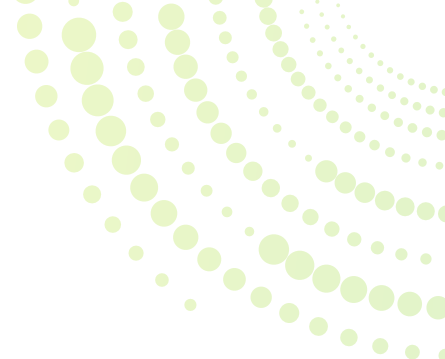
Looking into the actuarial modelling platforms used, it is observed that most of the respondents are using other or own-built solutions for their actuarial modelling platform rather than the known commercial platforms available on the market. Nine out of the 26 respondents are using more than one solution.

Actuarial modelling platforms used

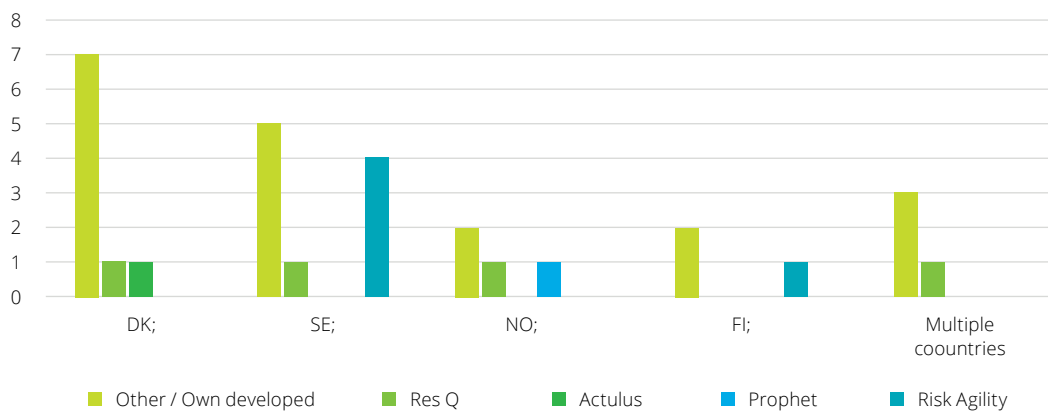


Based on survey responses the platforms Actulus, Prophet and RiskAgility are only used by life companies, while ResQ is mostly used by non-life companies (three out of four). Interestingly, it shows that eight out of the nine (89%) surveyed non-life companies use their own developed platform, while among life companies only eleven out of 19 (65%) surveyed companies use their own developed platform.

When examining the use of different platforms in the survey responses across countries, it is noted that use of own developed platforms is most common in Denmark (seven out of 19) and Sweden (five out of 19), while RiskAgility is mostly used by companies covering Sweden (four out of five) as seen below.



Actuarial modelling platforms — Countries



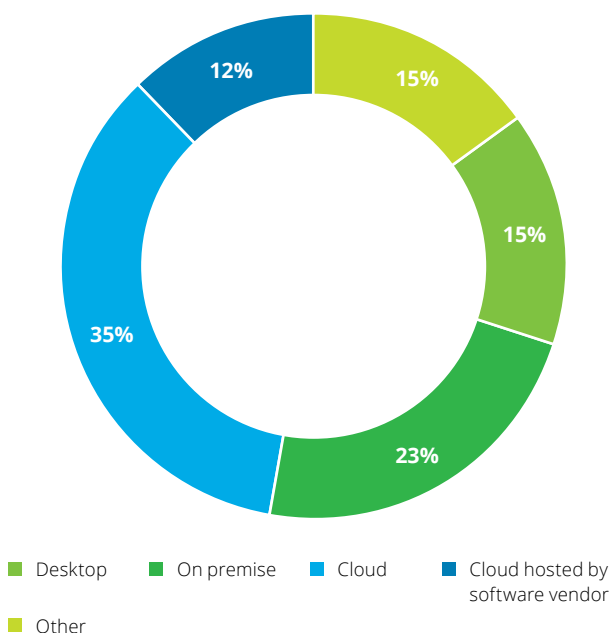
The amount of own developed actuarial tools is in our experience much higher than in other markets. To some extent, this reflects the Nordic products being somewhat different from other markets plus that the companies are relatively smaller and thereby the own development task also is smaller.

Most of the respondents are running their actuarial modelling on cloud hosted by software vendors, but almost 25% are running on desktops. In the category "other" three out of four are running on desktop and a cloud solution.

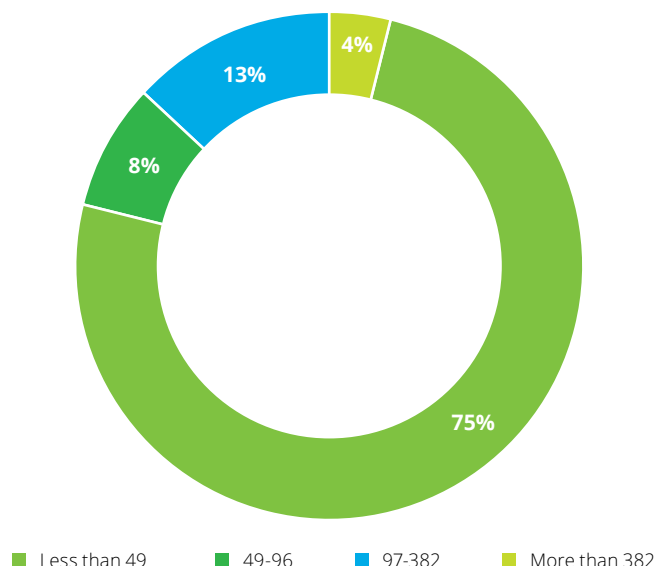
When asked for the number of accessible kernels the majority have access to less than 49 kernels, and only 4% (one out of the 26 respondents) have access to more than 382 kernels.

It may be insightful to examine the difference in the number of accessible kernels between respondents whose closing processes include stochastic modelling and those whose processes do not. Among entities that use stochastic modelling—whether fully or partially—71% have access to fewer than 49 kernels, 14% have access to between 49 and 96 kernels, and another 14% have access to between 97 and 382 kernels. In contrast, for entities that do not include stochastic modelling in their closing process, 80% have access to fewer than 49 kernels, 10% have access to between 97 and 382 kernels, and 10% have access to more than 382 kernels.

Actuarial modelling — running platform



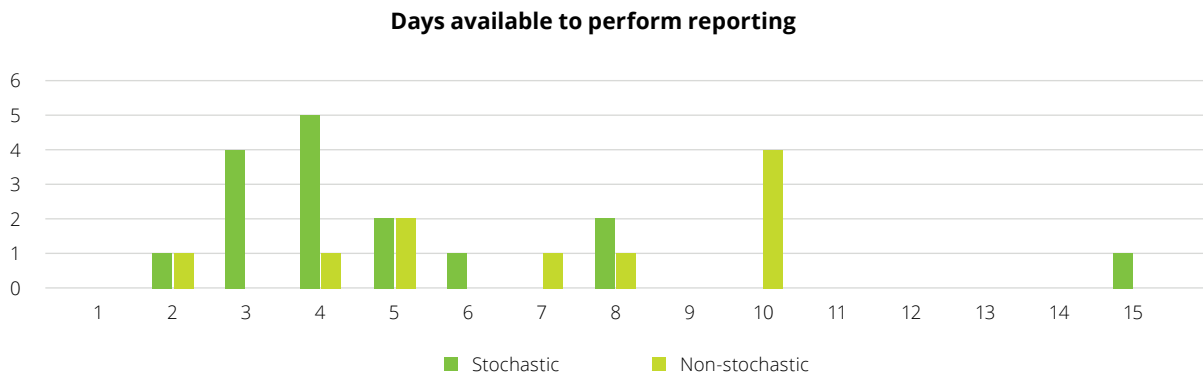
Actuarial modelling — running platform





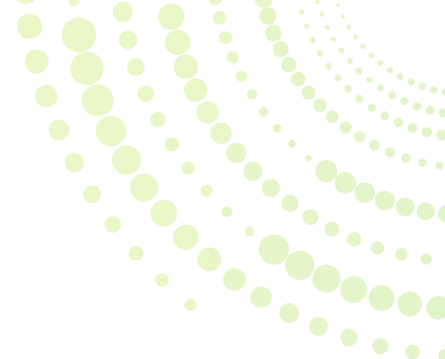
The participants were asked whether they use stochastic modelling in their closing process. Nine companies answered yes, seven answered "Yes but only for a limited part of the business" while ten answered no.

The average working days available to perform the reporting on a quarterly basis are six days and range from two days to 15 days. For the companies answering no to stochastic modelling in their closing process, the average working days available are seven days, whereas the group including stochastic modelling in their closing process has five days on average.



Annual IT cost for running modelling set-up is less than EUR 50 thousand for 38% of the companies surveyed, while 29% of the companies have annual IT cost of EUR 200 thousand or more. The subgroup having annual IT cost between EUR 200 to 399 thousand has the highest average of core systems with nine systems, where the general average is five core systems.

Annual IT cost	Average core systems	Average number of FTEs
Less than EUR 50k	4	10
EUR 50-99k	6	15
EUR 100-199k	2	8
EUR 200-399k	9	20
More than 399k	4	25



Helge Blaker's Perspective



Helge Blaker and If

Helge Blaker has served as Chief Actuary at If since 2006, leading actuarial operations at the Nordic region's largest non-life insurance company. If originated from the 1999 merger of Norway's Storebrand and Sweden's Skandia, subsequently merging with Finnish Sampo and latest acquiring Danish Topdanmark in 2024. Operating across the Nordics and Baltics, If employs over 10,000 professionals serving approximately 4.6 million customers.

Role and responsibilities

Our actuarial team's primary responsibility is to ensure that technical reserves are accurately calculated and signed off in the actuarial opinion, while ensuring compliance with laws and regulations. We regularly engage with management to discuss drivers behind reserve developments. The reserving function has implicit consequences for other areas like pricing, as reserves must align with eventual claims payments. The actual reserving process in If is decentralized. Local actuaries do the first line work and cooperate closely with business owners.



Success is measured by the ability to stand behind our reserving assumptions and by successful audits without significant disagreements.

The "now"

We are currently engaged in a major transformation project focused on integrating the Topdanmark system into If's systems in stages, aiming to harvest synergies and streamline processes. This includes replacing an outdated ERP system and adapting to IFRS complexities, which have increased the volume and complexity of accounting combinations.

The future

Technologically, we are moving away from SAS towards Databricks, a process that is ongoing and challenging. While reserving tools have not been directly affected, surrounding processes have evolved significantly, with prior centralisation efforts allowing actuaries to focus

more on analysis than data handling. AI is currently used primarily to improve data quality, such as structuring free-text fields, though manual work remains necessary.



AI's role in modelling is less clear but has potential in data segmentation for reserving granularity and homogeneity, balancing bias and variance to provide useful feedback to pricing.

The vision

We aim for more continuous and faster closing processes, placing greater emphasis on quality control and standardising model usage across products. Current practices are still influenced by historical choices and individual expertise within lines of business. While multiple accounting principles remain a challenge, IFRS 17 seeks to minimise their impact by focusing on best estimates across standards. Solvency II and IFRS 17 have run in parallel, increasing the focus on documentation and formalities over the past decades.



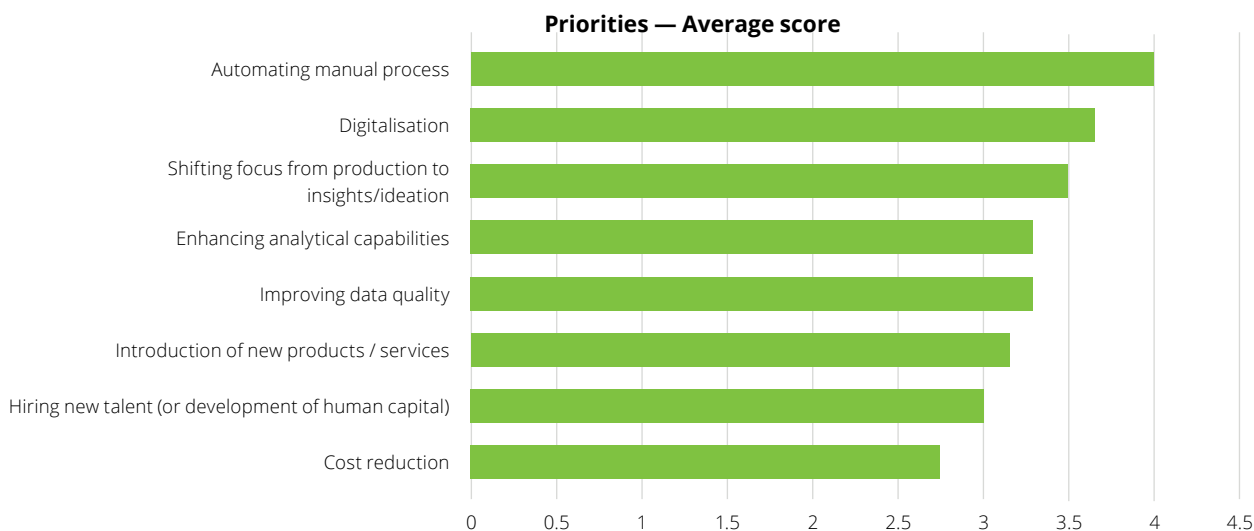
Actuaries now carry significantly more responsibilities, and despite the challenges of integrating many systems into our common actuarial system (CAS), we have succeeded in doing so effectively.

The Future of Nordic Actuarial Departments

The survey places significant focus on expectations for the future of the actuarial department within companies. The questions address, among other things, anticipated changes in human resources and the expected adoption of AI.

Prioritisation for the future

The survey asked the entities to what extent the following strategies were a priority for the actuarial department over the next twelve months, where 1 is considered as very low priority and 5 is considered as very high priority. In the table below the priorities are ranked from highest to lowest based on the average score given by the respondents.



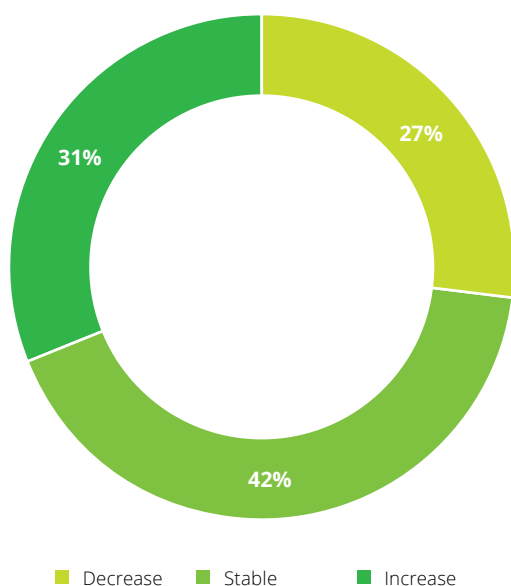
Over the next three years, the actuarial departments' top priorities reflect a strong focus on technological advancement, regulatory compliance, process optimisation, and enhanced business collaboration. A significant number of responses highlight the preparation and migration to new insurance systems, including phasing out legacy platforms and adopting a new core system. This transition aims to ensure stable and secure operations that provide a solid foundation for further development and innovation. Other priorities mentioned are the adaptation to new legislation and regulatory frameworks such as the result of the Solvency II Review and IFRS 17, reducing manual processes in financial calculations, and fully integrating newly acquired businesses.

Within the Danish life insurance companies, the development of modelling health and accident insurance is on the list of priorities in the actuarial department over the next three years, which most likely reflects the poor results for this business area over the past years.

Expectations for changes in the actuarial workforce

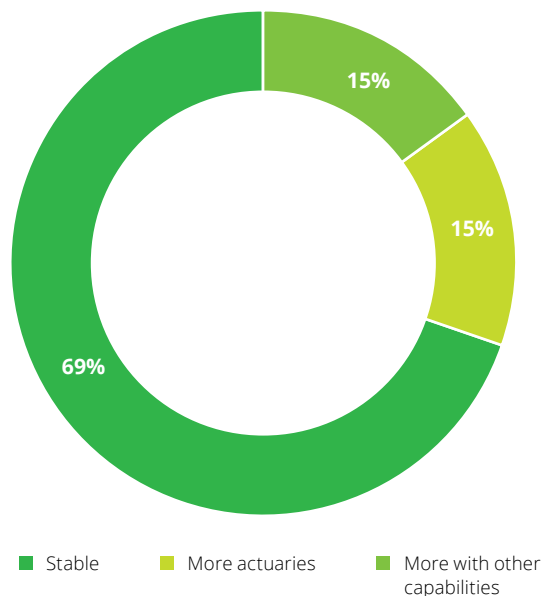
As examined in the section *Current structure of the actuarial departments* the survey responses show that almost a third predicts a reduction of staff and a third predicts an increase over the next three years.

Expected movements in the number of staff over the next 3 years



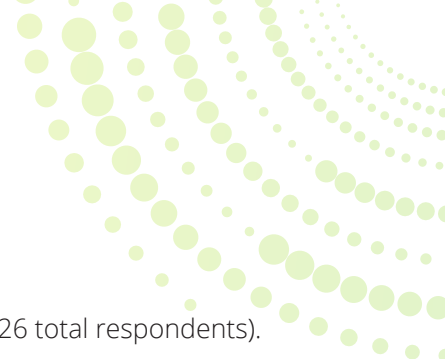
When looking at the expected movements in the mix of the staff, it is noted that 15% of the entities expect an increase in actuarial staff. Looking into the combinations of answers to these two questions, it is observed that only one out of 26 companies expects a decrease in the total number of staff and more with other capabilities in the mix of staff which must indicate an expected decrease in the actuarial staff. So out of seven expecting a decrease in staff, six are expecting a stable mix of the staff. Out of the eight expecting an increase in the number of staff, three are expecting a stable mix, two are expecting more actuaries and three are expecting more with other capabilities. In the answers not expecting movements in the number of staff, two are expecting more actuaries and the rest are expecting a stable mix.

Development on the mix of staff



Looking more into the differences between life and non-life companies answers, it is observed that non-life companies are expecting an increase in the number of staff to a greater extent than the life companies. Similarly, they expect more actuaries in the mix of the staff than the life companies.

As mentioned before, the variation among the companies is very limited both in terms of the expected number of staff and the mix of staff. We would have anticipated a larger shift towards other capabilities, but it can also reflect that the expectation is that actuaries will develop competencies also in new areas.



AI and digitalisation

AI development, digitalisation and automation of manual processes are top priorities for most of the respondents. A lot of the time used in the actuarial departments is routine tasks and operations during financial reporting. These tasks take up time that otherwise could have been used for developing new models, analyses shaping strategic decisions and similar higher-value activities that drive stronger business outcomes.

Looking ahead of the short-term priorities and into the next five years 15 out of the 26 the entities expect more digital transformation compared to the last five years; seven expect the same amount for the next five years as the previous five years and only two expect less.

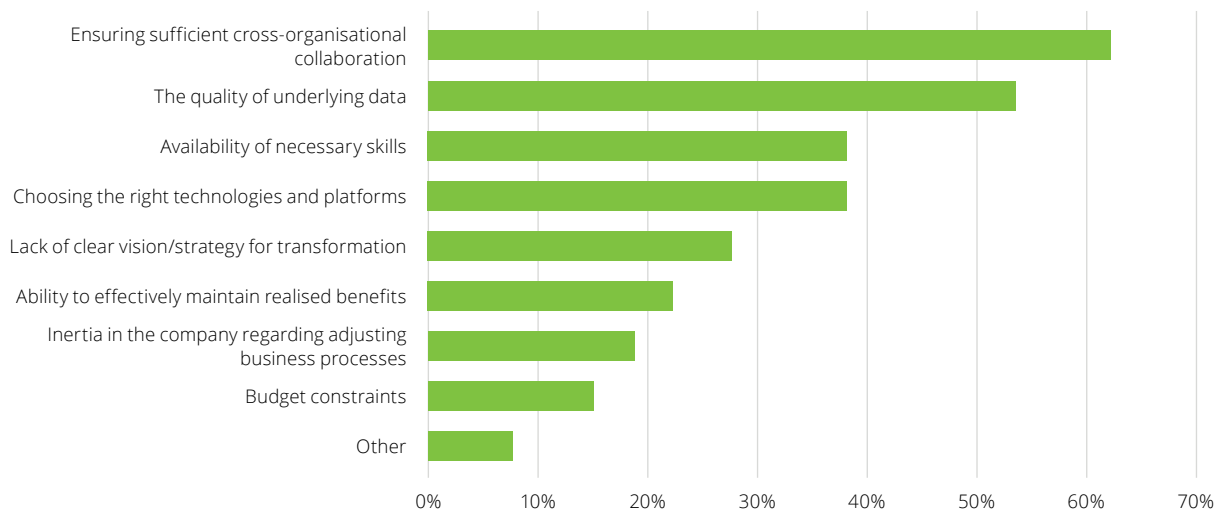
The majority (70% of life insurance companies expect the usage of AI agents in the actuarial department within three years, although only half of these expect it for other than testing purposes and 30% are not expecting AI agents within three years. Non-life insurance companies show lower AI agent expectations at 33%, where a third of those believes it only will be for testing purposes and 67% of the non-life companies are not expecting AI agents. Non-life insurance companies expect higher efficiency gains from AI compared to life (on average a score of 3.5 versus 3). Both segments cite AI development as a top capability

to develop (nine out of the 26 total respondents).

Companies who do not expect future AI agents have smaller actuarial departments (average twelve FTE versus 17 FTE for those expecting AI), operate with more core systems (average six versus four systems), and show lower cloud usage for actuarial modelling (46% versus 67%). These companies predominantly report to the CFO (55%), and report quality of underlying data less as a challenge regarding implementing digital transformation (36% versus 64%). Among the companies that identify themselves as dependent on spreadsheets and legacy systems (who answered '4' or above), 50% answered that they expect AI agents in the future. Among the companies who scored the expected efficiency gains due to AI at '2', 83% responded that they do not expect AI agents at all.

Ensuring sufficient cross-organisational collaboration is the biggest challenge for digital transformation across all companies (62%), followed by the quality of underlying data (54%) and availability of necessary skills (39%) and choosing the right technologies and platforms (39%). Life insurance companies cite availability of necessary skills more frequently (53% versus 11%) and choosing the right technologies and platforms (47% versus 22%), while non-life companies cite organizational inertia more (33% versus 12%) and the quality of underlying data (67% versus 47%).

Expected challenges within digital transformation



Geographical differences are marginal, with companies covering other Nordic countries than Denmark (Sweden, Finland and Norway) showing more frequent data quality concerns (81% versus 42% for DK). Skills availability is consistently cited across all segments (33-43%). The top three challenges remain consistent across company types and geographies.



Jan Auerbach, Nordic Insurance Lead



Senior Partner, Jan Auerbach, Monitor Deloitte

Jan Auerbach is a strategy partner in Monitor Deloitte leading Deloitte's Insurance business in the Nordics. He works across the Nordics and EMEA and is part of Deloitte Global Insurance Leadership team.

Before joining Deloitte ten years ago, he has spent some 20 years working for multinational insurers in the Nordics, in Paris and more than ten years in London.

The Nordic Life & Non-Life Actuarial Survey is a very interesting read. In doing so it might be beneficial to reflect on the actuarial domain in a broader, strategic context; as well as doing a bit of compare and contrast with established international trends.

“Business as Usual – just better”

Reading the report, there is a continued clear focus on the core of the actuarial operations. Rightly so, one might say. And with the profitability of Nordic insurance – of which the actuaries certainly can take their fair share of the credits – Nordic actuaries are pretty good to the craft to being with! Several survey respondents report core and finance system transformations and data platform change. This of course necessitates maintaining actuarial business as usual is a priority in itself with surroundings changing.

I cannot quite escape the feeling though, that maybe the ambition levels are a bit low?

“ AI seems less of a priority in the Nordics than internationally.

Some 30% of Chief Life Actuaries and 67% of P&C Chief Actuaries do not expect to use Agentic AI over the next 3 years. That is comparatively very low for international standards. Especially as many of the surveyed insurers are having system challenges hence driving fragmented and manual processes, we would often see a “straight to AI” design or what we call an “Agentic AI process wrapper”. As the survey shows that the actuarial function has a limited focus on cost reduction, this might be part of the reason for experimenting with AI is less of an urge.

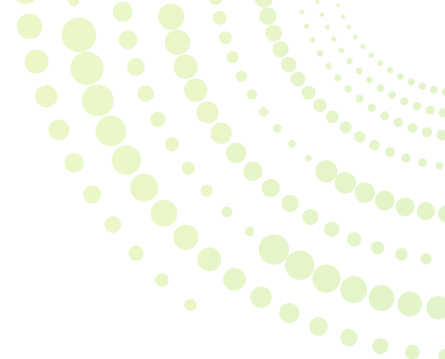
In general, using AI as a tool to help on the basic actuarial operations to allow the actuarial team to work closer with business and underwriter units seem to be the internal “go-to” trends.

“The role of the Actuary”

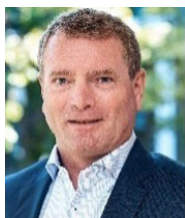
Internationally, there is a clear trend of actuaries working much closer with BUs that what I read from this survey being the ambition of Nordic chief actuaries. We have for a long time spoken about “HR-Business Partner” and “Finance-Business Partner”, and we are starting to see very clearly defined “Actuarial Business Partners”, including the Chief Actuary handling herself/himself with much more gravitas in the executive office. Actuaries have much to offer.

Examples are strong involvement in Business Performance Management improving reporting, analysis and forward-looking guidance for business decision making (way beyond just new tariffs and rate adequacy). Strategic support on product and distribution economics and sense-making of market movements; including model build for scenario testing. One example which is apparent in the Nordics in the actuarial support to “market pricing” or “dynamic pricing” (tactical pricing) and more Customer Lifetime Value estimation and pricing (strategic pricing).

It is interesting to follow if the international trends within the actuarial domain spread into the Nordics. I come across a lot strategic and business problems in my job working with insurers both at executive level and within the BUs “line of fire”, where such involvement would be warmly welcomed.



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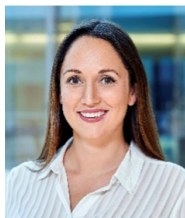


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