

# Actuaries in Internal Audit

ECIIA Insurance  
Committee

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# Introduction

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In recent years, two professions are increasingly crossing their paths in safeguarding insurance companies: actuaries are more and more often joining Internal Audit Functions.

In an environment where digitalisation, automation and recently also artificial intelligence are becoming integral parts of processes across almost all areas, quantitative competencies are a must have in business functions.

Likewise, actuaries and more generally colleagues with quantitative skills add significant value in Internal Audit, even more by closely collaborating with auditors coming from other key professions such as economists and lawyers.

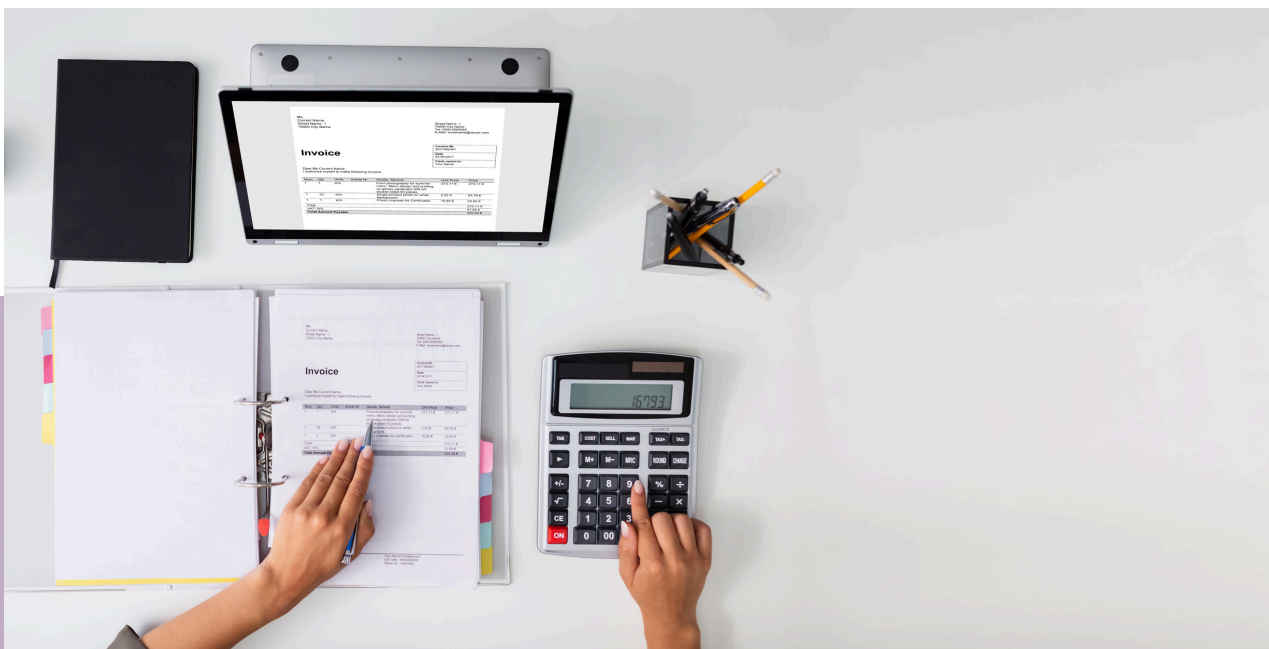
The enrichment of Internal Audit work by actuaries is not a one-way street but is based on reciprocity: Internal Audit Functions provide actuaries with a broad range of opportunities for professional and personal growth.



The present paper outlines the areas of mutual enrichment between actuaries and Internal Audit Functions, and the main reasons for actuaries to join Internal Audit colleagues.

For the considerations below, it should be kept in mind what distinguishes actuaries from other professions in the insurance sector: actuaries do not just have a quantitative background – typically, their university background is actuarial science, mathematics, physics, engineering or computer science -, but they also have acquired a broad knowledge about the core elements of insurance. Their classical activities include product pricing, reserving, reinsurance, finance, solvency assessment, and capital management as well as IT tasks related to these areas. More recent areas of expertise include data science and artificial intelligence.

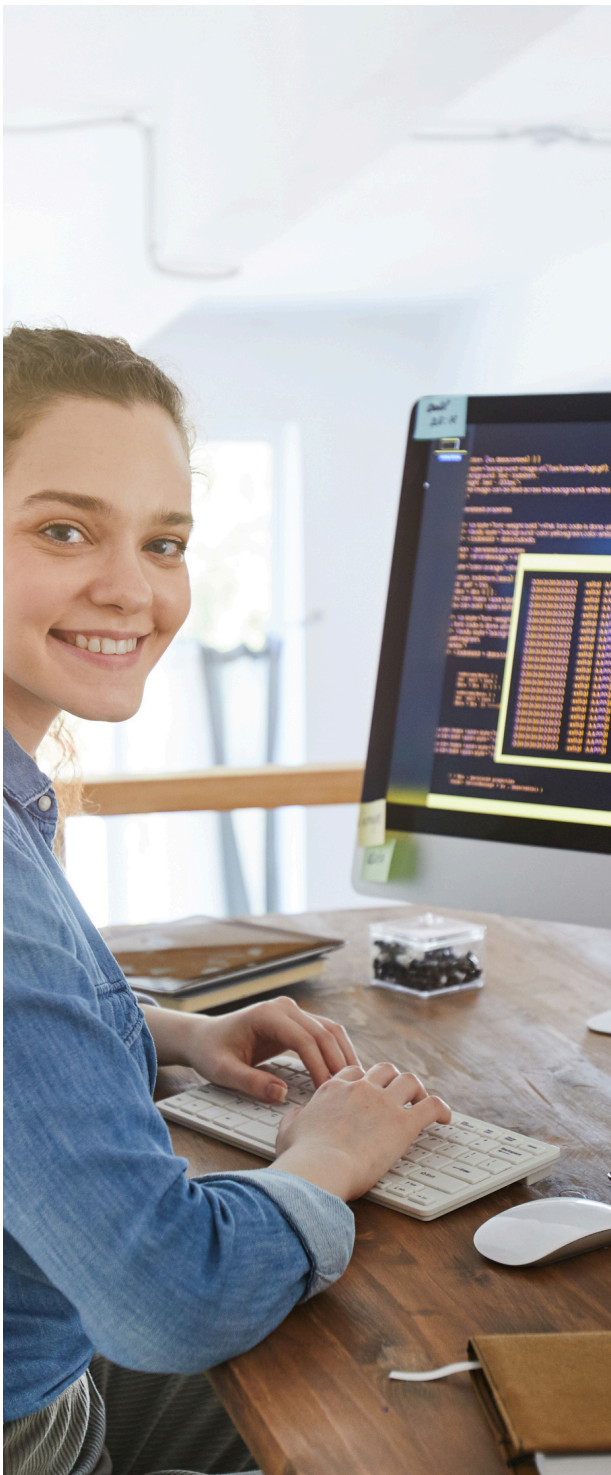
An actuary in the strict sense is a qualified member of the Actuarial Association in the country in which he or she works, although the term “actuary” is not protected by copyright. For the purpose of this paper, the term “actuaries” is used in a slightly broader sense, referring to persons with a solid quantitative university background and a sound knowledge of core insurance processes.





# What matters most in a modern Internal Audit Function

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The environment for Internal Audit becomes more challenging every year. In view of growing complexity in the insurance sector, evolving regulation and increasing expectations from regulators, geopolitical instability and a cybersecurity threat potential that is not only here to stay, but gets exacerbated every year, the work of Internal Auditors helps protecting the company in all dimensions and aspects.

**The quickly progressing digitalisation of business operations and the forthcoming industrial revolution driven by Artificial Intelligence demand not only analytical and actuarial skills, but a highly interdisciplinary approach for Internal Audit work.**

Therefore, Internal Auditors must collectively demonstrate:

- ✓ Business knowledge and audit skills.
- ✓ A mixture of different professional competencies such as economic, legal, IT, technical and analytical skills.
- ✓ Communication skills such as the ability to provide a clear, concise description of a problem and its root causes, as well as a suitable approach towards stakeholders and auditees.
- ✓ Soft skills such as teamwork, problem solving, critical thinking, conflict management, negotiation techniques, resilience, and an absolute personal integrity.

Moreover, Internal Audit stakeholders have become increasingly demanding. Auditees, who are experts in their discipline, expect Internal Auditors to have the same level of expertise to take them seriously. Boards expect “no bad surprises”, or in other words, that gaps are identified and problems are solved at an early stage before they start to hurt. Last, but not least, regulators take Internal Audit reports often as a starting point for their inspections, expecting an adequate quality and substance.

Finally, **the main criterion for evaluating the quality** of Internal Audit is usually **not what was identified, but what was missed**. Therefore, the Audit Plan must address the main risks on a timely basis setting the right priorities, and completeness of Audit assurance is key. Overall, successful Internal Auditors ask the right questions in the right moment.

In all these dimensions, actuaries can make a relevant contribution based on their knowledge, skills and professional standards.

# Where Actuaries add value in Internal Audit

Internal Audit activities are usually structured in a process that can be called the “**Internal Audit Value Chain**”, consisting in the classical elements that are part of the professional framework for Internal Auditing and governed by the international standards issued by the IIA.

Already now, analytical skills help to master the complexity that is inherent in the Audit Value Chain in a modern Internal Audit Function. They become even more crucial in companies where digital processes are predominant, that are characterised by complexity and significant risks as well as in insurance groups, particularly in those operating at international level.

The execution of the Audit Value Chain provides various opportunities for actuaries to add value by utilizing their skills, often collaborating in interdisciplinary teams with auditors coming from other professions such as economists and lawyers.



The following table highlights some examples where actuaries add value to the different steps of the Internal Audit process.



Elements of the Internal Audit Value Chain	Where actuaries add value
Definition of the Audit Universe in terms of companies and processes	● Manage complexity
Audit Risk Assessment	● Assess risks quantitatively and qualitatively Develop quantitative KPIs and algorithms as part of the risk assessment to enhance the auditors' professional judgement Manage complexity
Audit Plan Definition	● Optimization of audit coverage Manage complexity
Audit Program Definition	● Actuarial knowledge in specific audited areas
Audit Execution	● Use Data Analytics as a standard component of Audit work Actuarial knowledge in specific audited areas Discuss with auditees at eye level
Stakeholder Engagement	● Perform an in-depth dialogue on financial and technical topics Be a trusted advisor thanks to actuarial skills
Audit Operations	● Steer and implement Audit Operations, also at global level
Methodology & Technical Excellence	● Provide technical trainings for Auditors on actuarial topics
Audit People	● Enhance quantitative skills by training on the job

For some of these areas, analytical and actuarial skills are particularly important: the Audit Risk Assessment, part of Audit Execution, and part of Audit Operations. They are further described in the subsequent sections.



# How Actuaries add value in Audit Risk Assessment

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For each company, the annual Audit Risk Assessment of the business processes - overall and by type of risk - is at the basis of the Audit Plan definition. As such, it is the most important activity in Audit, since it determines the areas subject to audit engagements. If not done well, relevant risks might be missed, and audit process coverage might be incomplete.

Apart from being structured and documented, the Audit Risk Assessment usually contains a Bottom-Up evaluation for each business process and a Top-Down assessment at company level. As part of the Bottom-Up Risk Assessment, the Residual Risk of each business process is evaluated from the combination of its Inherent Risk and the level of adequacy of the related Internal Control System in this area.

For both components, the Inherent Risk and the level of adequacy of the Internal Control System, the professional judgement of the Internal Auditors can be supported by algorithmic baselines based on quantitative Key Performance Indicators at business process level. The results are then consolidated at company level across business processes, in a Group also at Group level across companies, which requires a good proportion of quantitative work and greatly benefits from actuarial skills of the people working on it.

Moreover, an Audit Risk Assessment supported by algorithmic components can be further enhanced into an early warning system: by moving to frequent updates of the data at the basis of the risk evaluations, the resulting continuous monitoring system can raise alerts and red flags as soon as certain risk thresholds are exceeded. Internal Auditors can then take a closer look to identify whether there is indeed the need for a deep dive and, in case of concern, either adapt the Audit Plan as part of the regular update process or urgently launch an ad hoc audit activity.

Finally, for a strong Audit Risk Assessment, the types of risks should be added to the evaluation of the level of riskiness in business processes. This permits for each type of risk the aggregation of the Audit Risk Assessment results across business processes and hence the comparability with the operational risk evaluations provided by the Risk Management Function. Also, here, actuaries can contribute by applying their core competencies.



# How Actuaries add value in Audit execution

In the execution phase of Audit engagements, including audit testing, the required knowledge and specific technical skills obviously depend on the audited area and are often covered best by interdisciplinary teams.

Nevertheless, for auditing topics such as IFRS 17, Solvency II or Asset Liability Management, actuarial skills are a must. Especially for small Internal Audit Functions, this type of knowledge can be provided by external consultants via co-sourcing, whereas medium-sized to large Internal Audit Functions are usually better off with permanent internal actuarial resources.

The following highlights showcase the most important areas in which actuaries can provide key value to an organisation in the insurance industry by enriching the related audit work with their expertise:

## CORE INSURANCE BUSINESS

Products and Clients  
Underwriting  
Management of Life Insurance Portfolios  
Reinsurance  
Claims Management

## FINANCE, INVESTMENTS & RISK MANAGEMENT

Technical Reserving  
IFRS 17  
Solvency II  
Capital Management  
Planning and Control  
Risk Management  
Asset Liability Management  
Investments

## FURTHER AREAS

Information Technology  
ESG and Non-Financial Reporting



Of course, actuaries are not the only profession adding value in auditing the previously-mentioned areas. Audit work in Finance is typically driven by Internal Auditors with a financial background and/or related certificates such as CFA.

IT Auditors are typically recruited amongst colleagues who are proficient in IT. Overall, interdisciplinary teams with members from the mentioned professions tend to be the best solution for adding value by auditing the areas under discussion.

In general, in the context of increasing digitalisation of company processes, audit tests based on small samples selected at random are often meaningless. Therefore, most audit activities should consider entire data sets, either to perform tests on the full population or to choose samples in a relevant manner, or both.

This is why audit testing in a modern Internal Audit Function involves Data Analytics techniques as a mandatory component, unless in the specific case where data are irrelevant or unavailable.

“Data Analytics” is a generic term for data-driven tests that can have a variable degree of sophistication: from basic checks on available data, over the application of statistical routines to cross-checking data sets from different sources with respect to various properties and dimensions. In a digital environment, often a relevant part of audit findings is raised thanks to data analyses.

As an example, there are several ways to check whether the EU requirements of “Product Oversight & Governance (POG)” and of the “Insurance Distribution Directive (IDD)” are met by the business functions that are responsible for designing and distributing insurance products. A key requirement of this external regulation is that insurance products must fit the needs of the clients to whom they are sold.

Whilst classical audit testing focused on the transposition of the related external regulation into internal rules, the definition of roles and responsibilities and the verification of related controls in the product development and distribution processes, modern audit testing with Data Analytics goes beyond. Here, Internal Auditors analyse an extraction of the insurance portfolio and the products that clients actually have in their portfolio, checking whether the products sold effectively meet the clients’ needs and suit their profiles. By using data management and statistical tools, Internal Auditors can do this for the entire portfolio – or a part of it, depending on the specific testing design – instead of only analysing manually a sample of, say, 20 contracts.

However, the most important success factor for Internal Audit work is still to ask the right questions, also when applying Data Analytics, where often the most difficult part consists of defining the program of the analyses to apply. Data Analytics is a core competence of actuaries and an integral part of their education, so that they can particularly add value to the data-driven assurance which is a key part of modern Internal Audit activities.



# How Actuaries add value in Audit Operations

Apart from the audit work itself, actuaries can add significant value by enhancing Internal Audit operations, particularly in a global Internal Audit Function.

By implementing and enhancing global digital systems for all elements of the Audit Value Chain, routine tasks can be automated, and time can be freed up, so that Internal Auditors can dedicate their time and attention to more value-adding tasks.

The landscape of digital tools, data bases and systems should cover the identification of the Audit Universe in terms of companies (make company information immediately accessible for Auditors) and business processes (provide a common underlying model), the Audit Risk Assessment as described above, and structured data fields on all aspects of the Audit execution phase.

**Digitalising audit operations not only enhances the working experience for internal auditors but also leads to efficiency gains and an increase in overall productivity.**



By analysing the proprietary data of Internal Audit, actuaries and Internal Auditors with analytical skills can provide insight on root causes, common trends and underlying risk drivers by business area, and overall, for a company or a group.

By adding data from several years to the analyses, developments in the course of time and further trends can be identified, providing Management and Boards with valuable information and impulses for strategy and steering.

When adding tools, smart engines, robots and Artificial Intelligence agents that act on the databases, Internal Auditors and actuaries working in this area can push their activities to the frontier of what is known today, and beyond. Chatbots based on Generative AI and AI-powered search engines start to be part of today's standard operations, and so are translators and tools for smart document analysis.

When it comes to enhanced audit writing and AI-powered controls, Auditors and actuaries usually partner with the company's IT department to boost their creativity whilst creating and maintaining a controlled, safe and compliant environment.



# What do actuaries need to bring for working in Internal Audit?

As illustrated in the previous sections, actuaries already bring a lot, starting from technical and analytical skills, deep knowledge on insurance core processes, a professional network and – in many countries – the duty to continuously enhance their knowledge and document this.

So, what else is needed to add value in Internal Audit? – Curiosity is important, the willingness and ability to acquire audit skills, obviously, and the energy to continuously evolve in several dimensions. Apart from technical expertise, communication skills are crucial to make knowledge available both to Internal Audit colleagues and auditees. Communication skills also include the ability to express oneself in writing, clearly and concisely.

Moreover, actuaries should bring the soft skills that are key for any internal auditor: teamwork, problem solving, critical thinking, conflict management, negotiation techniques, resilience, and an absolute personal integrity.



# What is in for me?

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One of the most important and interesting considerations is what Internal Audit Functions can do to attract actuaries and keep them. Among the most important things that Internal Audit Functions offer is the broad view on all areas of the company, combined with the constantly evolving audit engagements, which makes audit work particularly interesting.

Especially for young actuaries – but of course for all actuaries who have preserved their curiosity and their wish to see and learn something new every day – Internal Audit is an *el dorado* for their personal development.

Any modern Internal Audit Function has structured training programs in place, facilitates learning on the job and fosters the development of structured reasoning and professional judgement. Actuaries in Internal Audit get a 360° view on the company or the Group, a clear understanding of what matters for the business, perceive the most recent trends in the industry, and they can contribute to improving the company, its governance, its controls and operational processes.

In addition, the nature of audit work brings a high degree of visibility for the persons involved and a vast network they can build with their auditees, also at management level.



Regarding business knowledge and technical skills, actuaries in Audit can keep up to date on transversal topics in an evolving regulatory context. They necessarily enhance their project management competencies, since most of the Audit engagements are structured as projects with stringent execution times.

Moreover, in Internal Audit, actuaries can develop their soft skills such as:

- ✓ Conflict management (not all auditees are keen to be audited).
- ✓ Communication (discuss audit findings and remedial actions).
- ✓ Report writing (technical content in clear and simple language, without neglecting the form) and many more.

Finally, a global Internal Audit Function offers a strong international community with interdisciplinary teams, sharing of experiences and participation in global working groups, both internally in the Group and across the industry via professional organisations.

So, to attract and retain actuaries, Internal Audit Functions should communicate clearly their value proposition and the abovementioned opportunities for personal development, the contribution to improving the company and the chance to interact with colleagues from so many different areas.

The next section illustrates the personal journeys of five actuaries who decided to move to Internal Audit, what drove their decision, which challenges and opportunities they see and what they expect for the future.

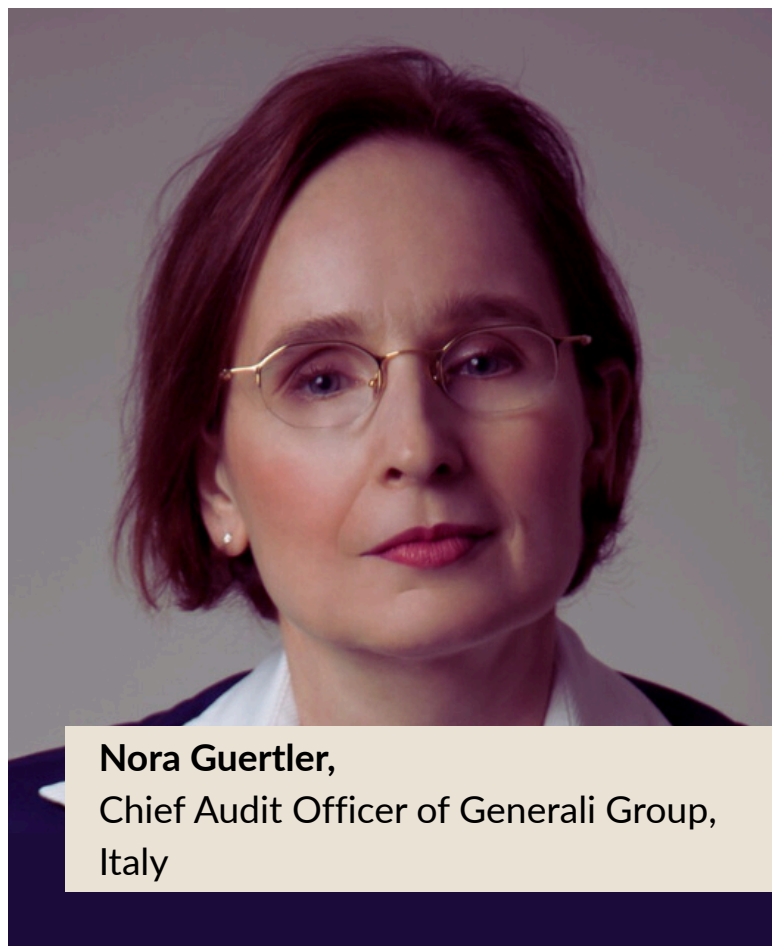
# Actuaries in Audit: Five Personal Journeys

## Personal Motivation to Become an Actuary and Move to Internal Audit

I studied Mathematics and Computer Science and always wished to “do something with mathematics” as a profession, preferably in combination with other disciplines. Then, I moved into insurance, since maths is core in this industry, and became an actuary to obtain a professional qualification and gain an oversight on all important areas of an insurance company.

After several years spent in Finance and Risk Management in Generali Germany, I moved to Head Office to lead the Group Audit Function. What attracted me was, inter alia, the 360° view on the Group, the chance to help improving the company, the interaction with so many colleagues and the multi-cultural environment.

***“Every day brings a new surprise, so far not even one single day has been boring.”***



**Nora Guertler,**  
Chief Audit Officer of Generali Group,  
Italy

## Opportunities, Growth, and Development in Internal Audit

Since Audit offers a broad view on the company and a high degree of visibility also towards Top Management, it is a career booster for the colleagues in our Function. This holds especially for actuaries, who can complement their technical skills with soft skills, that are essential in Audit, and other competencies such as some useful legal knowledge. What is crucial, is to preserve curiosity, have a balanced judgement and personal integrity.



## How Actuarial Skills Enhance Audit Work

Actuaries have significantly strengthened our Data Analytics competencies, which has already helped to identify so many audit issues, by simply analysing data, now as part of almost all audit engagements, and examining concrete outcomes of business processes – in all areas of the company. Actuaries are crucial for broadening the knowledge base in our audit teams, especially when it comes to leveraging on AI and learning how to use these new techniques. Last, but not least, our actuaries are helping a great deal in creating a level playing field in the communication with business functions that are dealing with quantitative topics. This holds at all levels of our organisation, including myself.

## Challenges Actuaries Face in Internal Audit

Compared to a traditional actuarial environment, communication is much more important.

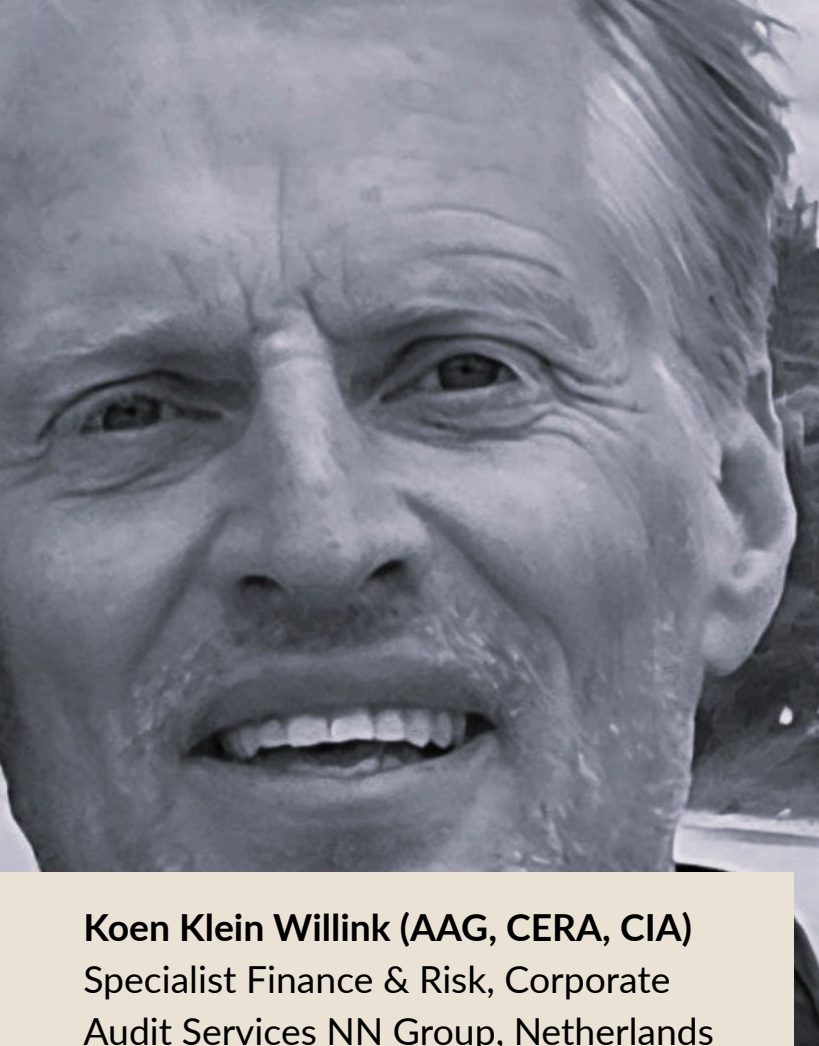
As an actuary and analytical person, you should keep in mind that some conclusions that seem clear and immediate to you might need more explanations when talking to people from other professions, who in turn have different competencies. What I find particularly interesting is the collaboration with other professions and the opportunity to learn from them.

## Satisfaction and Perspectives on the Actuary's Role in Audit

What I find most rewarding as an actuary in Internal Audit is the fact that, with our work, we can contribute to improving the organization and helping our Group to achieve its strategic objectives. My perspective has significantly broadened since I moved to Internal Audit, as my work as Generali's Group Chief Audit Officer covers the whole organization. Every day brings a new surprise, so far not even one single day has been boring.

## Audit Attractiveness and Its Future Evolution

To attract and retain actuarial talent in Internal Audit, communication is key. After building up the first actuarial competence centre, it gets easier, since actuaries love to join other actuaries with whom they can collaborate. Actuaries in Internal Audit will further gain importance in the future, in an industry on its way towards digitalization. Internal Audit must understand the processes, techniques and tools to assess as part of our work. Actuaries can help with this, especially with AI entering the stage – both as a technique to use and as an object of our audit activities.



**Koen Klein Willink (AAG, CERA, CIA)**  
Specialist Finance & Risk, Corporate  
Audit Services NN Group, Netherlands

## **Personal Motivation to Become an Actuary and Move to Internal Audit**

*Fuelled by a strong interest in social issues related to aging populations and a natural skill for mathematics and economics, I was thrilled to pursue studying actuarial science.*

*Through my professional journey in various actuarial & risk management roles, I came to recognize the critical role of the third line in the three lines of defence model. As part of the third line, we actively contribute to the company's success and uphold the essential role of insurance companies in society.*

## **Opportunities, Growth, and Development in Internal Audit**

*I am excited about the opportunities that transitioning to internal audit has brought. It has broadened my perspective beyond mere results, to scrutinizing the methodologies behind achieving those results. In my job as an auditor, I cannot stress enough the importance of elementary documentation of risk and feature analyses on insurance product and asset class levels, concepts of reproducibility of research, setting well-defined control criteria, and creating consistency in work among different risk professionals. These have become the cornerstone of my work. These principles, often overlooked, are vital to upholding the integrity and credibility of the efforts of every risk professional. It will not only strengthen the function of the risk manager and actuary but also allow them to gain new insights and improve their work even further!*

***“Navigating in the highly regulated environment of insurance companies under the oversight of national supervisors has been a rewarding challenge”***

## How Actuarial Skills Enhance Audit Work

*Our ability to delve into complex topics, identify risks effortlessly, and uncover key drivers in complex systems is like second nature to us, as actuaries. All areas where we can enhance the internal audit function. We as actuaries are among the few professionals who can oversee and identify control weak spots in the complex relation between pricing, underwriting, and risk modelling, for instance. And what about potential control flaws in data and IT design for the insurance sector? I personally think that actuaries can add value in this area. While digitalization may pose challenges for some, we as actuaries thrive in this environment as data not only helps us promptly identify issues but also allows us to quantify them effectively. I still remember my colleagues being stunned when I showed them my first data-driven audit research, highlighting the control failures within an actuarial cash flow model.*

## Challenges Actuaries Face in Internal Audit

*Like in any other job, just raising the red flag is not sufficient. Beyond the quest for solutions lies the importance of collaborating with stakeholders to achieve results collectively.*

***“The collaborative approach is key to success in the dynamic field of audit.”***

## Satisfaction and Perspectives on the Actuary's Role in Audit

*After all these years analysing complex relationships, it still brings me pleasure. It challenges me, especially if I can contribute to the company's success. Navigating in the highly regulated environment of insurance companies under the oversight of national supervisors has been a rewarding challenge. Balancing business objectives with a robust internal control framework brings me satisfaction, as I am driven by the desire to contribute to the vital role of insurance companies in society.*

## Audit Attractiveness and Its Future Evolution

*On the business floor, the third line of defence is sometimes perceived as a hindrance to progress, yet we actively contribute daily to the company's success. In our role as internal auditors, we will have to explain repeatedly to our auditees what we do, how we evidence ourselves, and what our contribution is to the company. To let our auditees realize we are in this together is hard work but gives me a lot of satisfaction when succeeding.*

*The evolving landscape of insurance supervision highlights the critical role of a well-functioning three-line of defence system. As supervisory attention shifts towards the control of quantitative aspects like underwriting, pricing, actuarial, and risk management, the blend of experience in actuarial science and internal audit positions is well-desired to address future challenges and contribute to the industry's evolution.*



## Personal Motivation to Become an Actuary and Move to Internal Audit

*My academic background and early professional experiences were rooted in Accounting and Finance. It was during my university studies in Finance that I came across Actuarial Sciences – a discovery that reshaped my career aspirations. The analytical rigor and impact of actuarial work fascinated me, leading me to pursue a career in the insurance sector.*

*Following my studies, I began my career as an external auditor, a role that instilled a deep respect for technical excellence and professional integrity. However, my curiosity and drive for continuous learning led me to explore new avenues. I transitioned into the Employee Benefits business, joining the Reserving team as an actuary, where I had the privilege of working alongside a diverse and talented group of professionals who supported my development and growth. I was then invited to join the Internal Audit function during the implementation of the Three Lines of Defence model, eighteen years ago.*



**Ana B Gonzalez ,**  
Actuarial Centre of Excellence Lead -  
Zurich Insurance Group, Spain

*This opportunity was transformative – it allowed me to gain a holistic view of the organization, from understanding customer behaviour and products to analysing financial statements.*

***“Internal Audit became a natural extension of my curiosity and desire to understand how all parts of a business interconnect.”***

## Opportunities, Growth, and Development in Internal Audit

*Working in Internal Audit offered me a unique perspective – one that spans the entire insurance value chain. From underwriting and claims to product development, capital modelling and risk, this role provides the comprehensive view of how an insurance company operates, creates and protects value. It deepens your understanding of areas such as risk appetite, capital allocation, M&A and regulatory expectations, while also offering exposure to emerging areas such as Environmental, Social, and Governance (ESG) and Artificial Intelligence (AI).*

**What makes a career path as an Internal Auditor particularly rewarding is the blend of technical and interpersonal skills it requires.**

*In addition to analytical expertise, we develop other skills, such as active listening, open-mindedness, and the ability to engage in constructive dialogue with our stakeholders across the business. These skills are essential for influencing the control environment and driving improvements. For example, several CROs and CFOs of Zurich are actuaries by background, similar to many insurance companies in the market. Ultimately, we also obtain a rare opportunity to gain a holistic view of the organization – blending technical depth with strategic insight and people engagement.*

## How Actuarial Skills Enhance Audit Work

*As Actuaries, we bring a distinctive skill set to Internal Audit – one that is increasingly valuable in today's data-driven environment. We are used to managing, analysing, and drawing conclusions based on large volumes of data. Our training and professional standards emphasizes the need for model governance, expert judgment, and the transparent documentation of assumptions and decisions. These principles align closely with the objectives of effective audit work. For me, the increase usage of Data Analytics in the Centre of Excellence is increasing our ability to be more efficient in audit planning and execution, really focus on what matters the most. By applying a combination of actuarial techniques with Data Analytics, we can better identify trends, outliers, and areas of volatility that may warrant deeper investigation. This is particularly powerful in areas like reserving, where understanding parameter shifts, and assumption changes can reveal underlying risks, especially in long tail products.*

*Moreover, we are also adept at navigating complex regulatory landscapes – from IFRS 17 to Solvency II and ESG disclosures. Our ability to interpret and apply these frameworks enhances the quality and relevance of audit findings. In essence, we bring a toolkit of business insight, analytical skills and regulatory fluency, that strengthens the Internal Audit function and supports its mission to protect and enhance organizational value. This makes me feel really proud of this profession and our team.*



## Satisfaction and Perspectives on the Actuary's Role in Audit

*Since the introduction of frameworks like Sarbanes-Oxley and COSO almost 25 years ago, I can see how the Internal Audit profession becomes more matured, with a stronger emphasis on adding value and safeguarding the organization. Looking at our role as actuaries in Internal Audit more specifically, this has also evolved significantly.*

*This role has grown from being technical reviewers and supporters to trusted service providers that play an important part in keeping the business safe. At the Actuarial Centre of Excellence within our Internal Audit Function, we support this evolution by providing insights to Internal Audit and business stakeholders, helping shape a dynamic audit plan, developing key skills in areas like Data Science and AI and offering on-the-job training to auditors. This blend of technical expertise, strategic input and upskilling of the team makes the role both impactful and rewarding.*

## Audit Attractiveness and Its Future Evolution

*Offering actuaries a career path that includes both actuarial and audit roles adds significant value. As Internal Audit continues to specialize in areas like Finance, IT, and Compliance, actuarial expertise should be the next focus. We have been working in this direction for the last four years with the development and implementation of the Actuarial Centre of Excellence, and we already observed the increase in the engagement of the actuaries and the recognition from the Actuarial Function.*

*Collaboration between the Actuarial Functions and Internal Audit offers significant benefits. Development programs and secondments allow actuaries to gain a broader understanding of various business units, regions, processes, and systems across the company.*

## Challenges Actuaries Face in Internal Audit

*We are involved in a wide range of audits – from Pricing to Reserving to Capital and Risk – across different insurance types, and often even in non-actuarial related audits. This diversity offers rich learning opportunities but also requires us to be flexible and invest in ongoing learning and development.*

*That said, the path can present some unique challenges. Actuarial teams within audit functions are often small, which may limit access to senior actuarial mentors or peers. This can make it more difficult to find structured guidance or share experiences.*

*Additionally, career development frameworks in audit may tend to emphasize audit-specific qualifications, which may not always fully reflect the value of actuarial credentials.*

*However, these challenges also present an opportunity: to build stronger networks, raise awareness of the actuarial contribution to audit, considering the operating model that better works in the organization (such as actuarial hubs or Centre of Excellence), and shape a more integrated career path. As more actuaries enter the field, the support structures and recognition for their role are steadily growing.*

*We, as Actuaries, bring deep understanding of models, assumptions, hypotheses and risk – areas where errors can have major consequences*

***Creating forums for actuaries in Internal Audit to share insights and stay up to date with market trends will support us in this evolution and enable to play a key role in keeping organizations resilient and safe.***





**Veronica Pajares Garcia**  
Specialist Auditor, MAPFRE, Spain

## **Personal Motivation to Become an Actuary and Move to Internal Audit**

I studied Statistics at the Complutense University of Madrid and wanted to further enhance my education with a specialization. A professor from my Operational Research course recommended Financial and Actuarial Sciences, highlighting it as a booming and promising field for employment. I worked as an actuary for nine years, and when an internal mobility opportunity arose at MAPFRE, I was interested. I had always been drawn to the audit department because it offers a broad understanding of company processes and helps identify weaknesses and mitigate risks through controls.

## **Opportunities, Growth, and Development in Internal Audit**

*Working in internal audit has given me unique opportunities that I wouldn't have encountered in a traditional actuarial role. I've gained a comprehensive view of the company by collaborating with various departments, understanding their processes, and evaluating risks and controls. This experience has enhanced my professional growth by broadening my business perspective and strengthening my ability to identify and mitigate risks. I've also applied my technical expertise in statistics and data analyses to propose data-driven improvements. Additionally, internal audit has helped me develop essential communication and leadership skills through presenting findings to senior management and has expanded my problem-solving abilities by exposing me to diverse challenges across the organization.*

## How Actuarial Skills Enhance Audit Work

*My actuarial background has been key in refining audit scopes—especially for Solvency II—by identifying risks and aligning recommendations with regulatory and strategic goals.*

*With strong data analysis and modeling skills, I've been able to detect process improvements through an evidence-based approach. My experience with the Global Risk Exposure Assessment (GREA) has further strengthened this work. Actuaries are well positioned to enhance internal audit using tools like predictive models and automation to uncover patterns, anticipate risks, and assess controls.*

## Audit Attractiveness and Its Future Evolution

*To attract and retain actuarial talent, internal audit functions should emphasize the broader value actuaries can bring beyond traditional roles, offering projects where they can apply their analytical and risk management skills in diverse contexts. Providing training in areas like data analytics and artificial intelligence, recognizing their technical expertise within the team, and fostering a flexible, collaborative environment with opportunities for internal rotation are also key. Looking ahead, the role of actuaries in internal audit is expected to become increasingly strategic and multidisciplinary. Their ability to interpret complex data will be crucial in a landscape driven by data-based decision-making, and they will likely play a growing role in auditing digital processes, cybersecurity, and other emerging areas, contributing a technical perspective focused on risk control.*

## Satisfaction and Perspectives on the Actuary's Role in Audit

*One of the most rewarding aspects of my role as an actuary in internal audit is the ability to apply my technical expertise in a cross-functional environment, gaining a broader view of the organization beyond the actuarial field and contributing directly to the improvement of processes, controls, and risk management. It's especially fulfilling when we identify meaningful opportunities for improvement in the audited areas, as it reinforces the value we bring to the organization. Since joining the internal audit team, my perspective on the insurance industry has expanded significantly.*

## Challenges Actuaries Face in Internal Audit

Our audit role demands adaptability, strong communication, and the ability to influence parties while maintaining independence. Rather than building models, I now assess risks, identify control weaknesses, and make strategic recommendations. For instance, in Solvency II audits, I evaluate not only technical aspects but also governance, documentation, and data quality. This broader exposure has been both challenging and enriching, deepening my understanding of the business.

## Personal Motivation to Become an Actuary and Move to Internal Audit

*I embarked in the path to become an actuary a bit by chance, but mostly by luck... one day at lunch with my best friend, his uncle mentioned the magic word "Actuary".*

*At that time, I was studying Computer Science and I really liked statistics. Discovering a profession that combined both, in a practical and concrete way, fascinated me!*

*After several years of experience across various Life Actuarial Functions, I "discovered" the Audit function, which seemed more and more interested in Actuaries, attracting me with the promise that I would never do the same thing back to back.*

***"Audit attracted me with the promise that I would never do the same thing back to back...."***



**Simone Gervasoni,**  
Head of business audit,  
Generali ASSICURAZIONI

## Opportunities, Growth, and Development in Internal Audit

Compared to the experience in the Actuarial Function, where I had specialized mainly in one subject, once I arrived in Audit it was a bit like going back to university: lots of studying, lots of interviews, lots of exercises, lots of new people to work with, lots of new topics, and the inevitable final exam, this time with the Auditees. It feels like this experience gave me in just a few years several degrees "at the University of Insurance". For a young Actuary we could also consider it as a long "career day", in which you get to choose the area to then specialize when you grow up in the working world.



## How Actuarial Skills Enhance Audit Work

*Actuarial skills, and especially the mindset, in my experience have proven to be of great added value in various activities of the Audit function. Among all of them, the most distinctive for me has been the ability to act as an “Actuarial translator” in various areas, from the challenges with the Audit Top Managers in the discussion of highly technical topics and critical issues, to the entire Group Audit community, in preparing specific courses with a “digestible” language for non-quantitative professionals, so that the key concepts reach everyone, but also just for the osmosis effect of quantitative skills throughout the function. A second area of great importance was the ability to effectively graphically represent numbers, transforming them into a clear and direct message, starting from the risk assessment activity, moving on to the various audit phases, up to the Audit reporting on the function’s operations to the various stakeholders, especially for a Group Audit function that finds itself managing several hundreds of Audit engagements and thousands of issues every year.*

## Audit Attractiveness and Its Future Evolution

*We are not the “Insurance Police!” Sometimes we still need to make it clear, although we have already come a long way in conveying this message. This is not only a statement, but our attitude during our Audit activities - so that we can best promote our role. The future passes through the awareness that a move to Audit is a real “career and competence accelerator”, for the transversal skills, the training of rapid and smart reasoning and effective communication that can be acquired and are essential to succeed in this fascinating job!*

## Satisfaction and Perspectives on the Actuary's Role in Audit

*There are many rewarding situations in Internal Audit, also thanks to the multiplicity of activities and projects carried out during the year. Those that generally give the most satisfaction are: the possibility of adding value to often mature and highly specialized processes, leveraging best practices seen in other areas or company functions, or creating new contacts and synergies between different functions that were not aware of potential points of connection. Exploiting this role of corporate glue, thanks to the deep knowledge of insurance processes is typical for an actuary, is a perspective in which to invest.*

## Challenges Actuaries Face in Internal Audit

Being an actuary, especially in this period of strong technological evolution, implies constant updating and learning. The biggest challenge is to stay aligned with the evolution of the profession and of actuarial techniques and models - while you are less involved in actuarial technical activities on a daily basis - through specialized training and mobility in technical functions or advisory assignments in Actuarial projects. By doing so, it is feasible to remain on top of the technological evolution. An equally fundamental element is the ability to network with other actuaries in Audit functions and actively experience the community of national and international actuarial associations, to stay connected with the professional community.

# Closing Remarks

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## CONCLUSION

Actuaries in Internal Audit are a win-win situation, both for Internal Audit Functions – through the skills that actuaries bring and that enhance Internal Audit work and Operations – and for actuaries – through the visibility and diversity of their work and through opportunities for personal development and growth. The two professions have a strong motivation to intensify their collaboration.

## ABOUT US

This publication has been developed under the umbrella of the ECIIA Insurance Committee, which brings together experts from across Europe to promote sound practices and knowledge sharing within the insurance sector. The Committee serves as a platform for discussing current challenges and advancing the role of internal audit in the industry.

The European Confederation of Institutes of Internal Auditing (ECIIA) is the professional representative body of 35 national institutes of internal audit across Europe and the Mediterranean region. Its mission is to advocate for the internal audit profession, promote strong corporate governance, and support its member institutes in advocacy efforts.

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