

Actuarial Function Benchmarking of European Insurance Groups

forvis mazars

Executive summary

This report summarises the results of a benchmarking exercise across nine large European (re)insurance groups. It is based on interviews with Chief Actuaries / Heads of Actuarial conducted during January and February 2026, using consistent interview questions and supporting data. The exercise focuses on how Group Actuarial Functions are organised, resourced and governed, and how responsibilities, committee structures and technology maturity shape operating effectiveness across the actuarial environment.

A decade after the introduction of Solvency II and the requirements it introduced for the Actuarial Function (AF), the function typically remains anchored in governance and independent oversight. Reserving production is often within local Finance-embedded teams, that generally do not report to the Group AFH. In parallel, IFRS 17 has increased operational demands across documentation, validation and reporting cadence, increasing the importance of scalable processes, clear accountability, and effective technology.

The report outlines the range of differing practices observed across the benchmark. While practices do vary, in general, there is an opportunity for AFs to make better use of emerging technology and demonstrate greater value-add to the business by extending beyond the historic oversight mandate. The AF is well positioned to be an early adopter of AI and facilitate interactions and insights between Risk, Finance, Capital and Pricing functions.



9

Interviews conducted with Group Actuarial Functions of large international insurance groups

> €600B

Insurance GWP between the companies included

Key findings

Findings have been used to identify common market practices, highlight areas of differentiation and assess alignment with emerging best practice to inform future practice.

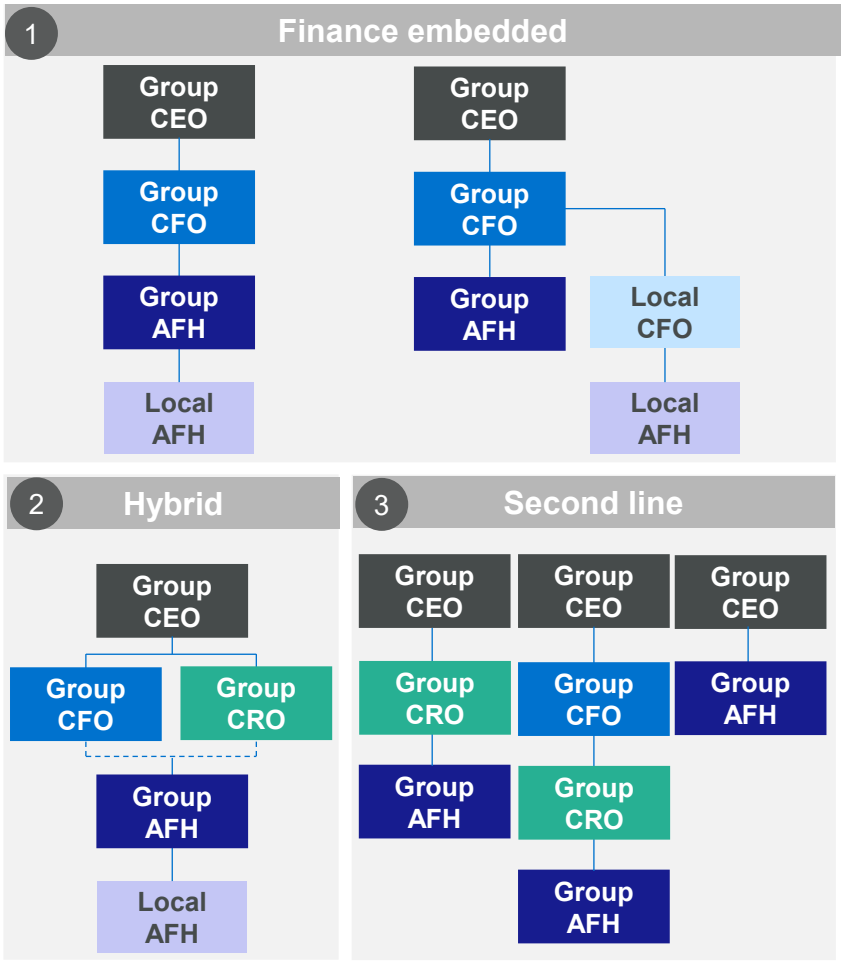
	Organisation	Resources	Responsibilities	Governance	Technology
Scope*	AFH team	Wider actuarial team	AFH team	Wider actuarial team	Hybrid: AFH + wider actuarial
Insights	• The dominant operating model is a Central AF that is responsible for oversight and embedded in Finance, with decentralised production. • The main alternative is a second line AF model. • AFs contain other teams such as reserve production or model validation in selected structures.	• Resourcing levels reflect product complexity and operating model, not scale alone. • Surveyed firms broadly have c.1–3 total actuarial reserving FTE per €1bn of gross reserves. • Around c.90% of actuarial reserving FTE work is focused on reserve production. • Extensive offshoring is limited and is primarily used to support execution capacity rather than oversight.	• The AF is positioned primarily as a control capability, covering validation, governance and regulatory opinion. • Production and model execution often, but not always, remain outside the function. • This increases reliance on clear accountability and effective challenge mechanisms.	• Reserve approval is typically through the Group Reserving Committee, although authorities differ. • The AFH provides an opinion or report to the committee. • Collective approval is common, involving the AFH, CFO, CRO and wider committee members. • Less commonly, approval sits with the Group CFO, or the Group AFH holds veto rights.	• Technology maturity remains uneven across participants. • Fragmentation in models, data readiness and workflow integration constrains scalability. • Semi-manual controls remain common and limit end-to-end scalability, even where point solutions exist.

*Note: Labels used throughout to indicate the scope of coverage within each section. Refer to the Appendix for details. AFH team | Wider actuarial team | Hybrid: AFH + wider actuarial team

Organisational positioning of the Actuarial Function

Two main approaches to the positioning of the Actuarial Function in the group organisational structure were seen: The most common approach was to embed in Finance, reporting to the Group CFO, the second most common was second line, reporting to the Group CRO.

Common organisational structures



	1 Finance embedded	2 Hybrid	3 Second line
	55% of benchmark	11% of benchmark	33% of benchmark
Insights	• Many insurers place the Group AFH directly under the Group CFO. • In this case, Local AFHs report into either the Group AFH or local CFOs. • Where local AFH reports to local CFO, some groups have additional dotted-line to Group AF.	• Some groups use split reporting, where the AFH has a line into one executive (often CRO) and a reporting line to another (often CFO). • Lines may be differentiated as “disciplinary” or “functional”. • Local reserving heads may report directly to local CFOs.	• Several insurers follow a model where the Group AFH reports directly into the Group CRO or CEO, with CRO reporting lines being particularly common among reinsurers. • In these organisations, actuarial production activities are often embedded within Finance, while AF governance follows separate reporting lines.
Pros	• Strong Finance integration; • Faster decision-making; • Clear financial ownership	• Balances financial discipline and risk oversight; • Adaptable across multinational groups.	• Clear independence; • Stronger linkage to ERM, ORSA, stress testing and risk appetite.
Cons	• Independence can be perceived as weaker where actuarial challenge is too close to financial reporting pressures	• Can create role ambiguity if functional and disciplinary lines are not explicit; • Higher coordination cost	• Can reduce proximity to production; • Weaker finance alignment

Organisation of the Actuarial Function

Generally, the Actuarial Function comprises a number of sub-teams broadly focused on reserve-related matters. Team structures vary across participants and have often developed over time based on business needs.

Across the benchmark, the Group AF typically provides oversight, validation, methodology challenge and governance input over reserving outcomes. Production, model development and specialist capabilities vary by function scope and operating model, including how accountability is split between Group AF, local AFHs, local Chief Actuaries, Finance and reserving teams.

Model development

- Observed selectively within the Group AF.
- Where present, this capability may support multiple teams across the group rather than being limited to AF-specific activity.

Reserve production

- Present in a minority of AF structures.
- The reserving is either centralised at group for P&C business or relating to regulated entities under the remit of the AFH.

Core AF capability

Reserve oversight

Reserve validation | Assumption setting | Strategic direction

Model Validation

- Observed in some AFs, with scope ranging from internal model validation to broader actuarial model validation.
- Where included within the AF, this capability reinforces independent challenge over methodology, assumptions and model outputs.

Local Chief Actuaries / local AFHs

- Local AFHs / Chief Actuaries support local reserving accountability where calculation and validation remain local.
- Reporting links to Group AF vary by structure, including direct, dotted-line or Finance / local CFO-based models.

Other specialist capabilities

Analytics, ESG / capital, transformation and department operations appear in selected AF structures, usually reflecting participant-specific priorities rather than a consistent market model.

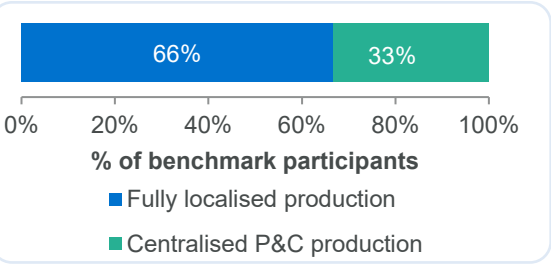
Scope: Wider actuarial team

Resourcing models

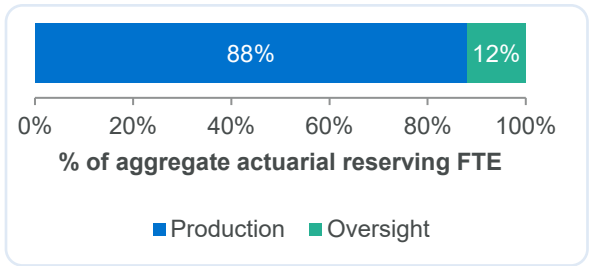
On average, 88% of actuarial reserving FTEs*(1) are deployed in production roles, compared with 12% in oversight positions. For composite insurers, benchmark data shows that 65% of actuarial reserving FTEs are allocated to Life & Health (L&H) business, requiring significantly more resourcing than Property & Casualty (P&C). This distribution may reflect the greater operational and business complexity associated with L&H activities.

Production model and activity split

Production model mix

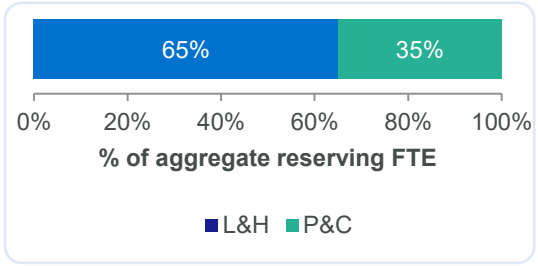


Production*(2) vs oversight activity split

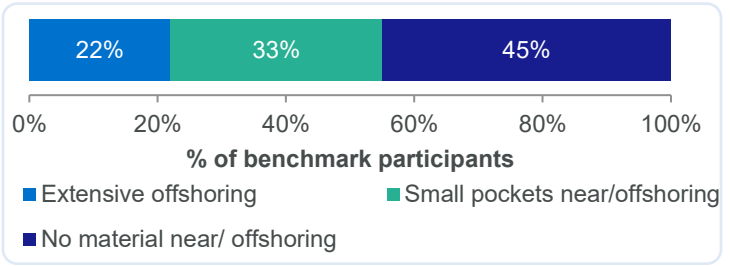


Business line and delivery model

Composite business line split



Alternative delivery model mix



Localised production

Dominant production model

Most participants continue to operate a localised reserving production model, with legal entities or business units taking primary responsibility for producing reserves. Centralisation is mainly seen in P&C reserving, where standardisation and scalable modelling are more feasible.

L&H and P&C resourcing

L&H absorbs a greater share for composite groups

L&H is more heavily resourced than P&C across composite insurers, driven by longer-duration liabilities, modelling complexity and higher reporting / governance demands. The comparison is indicative, as it does not adjust for the relative size of each business line.

Production vs oversight capacity

Production absorbs most reserving effort

The majority of actuarial effort sits in production roles given multiple reporting bases, model runs and data pipelines require large operational teams. Oversight teams stay small by design to maintain independence and focus on challenge.

Alternative delivery

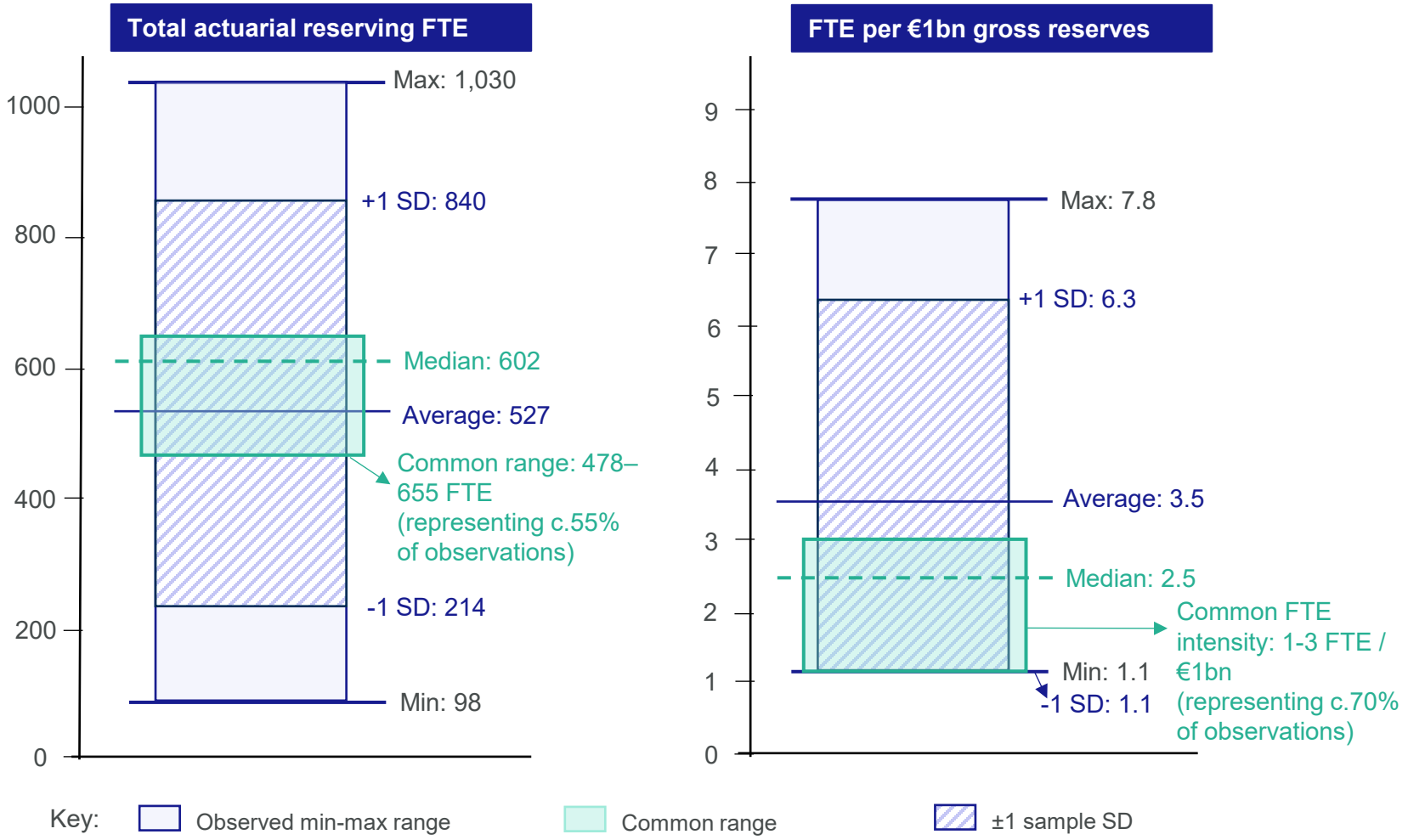
Selective use of offshoring

Alternative delivery remains selective, with only a minority of participants using offshoring extensively and others relying on smaller near/offshoring pockets. The benchmark indicates offshoring is mainly an execution-capacity lever, while oversight remains retained within the AF.

*Note: (1)Considers the total number of actuaries involved in reserve production and oversight, rather than those just specified to be within the Actuarial Function. Data only available for 7 participants. (2)Production FTE are estimates based on the interviews.

Relative resourcing levels

Broadly firms have 1-3 FTE involved in the reserving process per €1bn of gross reserves (including oversight and production, inside and outside the AF). Some outliers were noted. The variation reflects the different types of business written, different operational set ups and the aspects of complexity that are not represented by size of reserves.



The survey shows a wide range in the total actuarial reserving FTE (including both oversight and production, even where production sits outside the Actuarial Function) across the groups (from c. 100 to c. 1000).

This is partly a reflection of the size of the groups and can be adjusting for size using gross reserves as a proxy. Actuarial reserving FTE per €1bn of gross reserves varies from 1 to 8. Five of the seven groups have between 1 and 3 FTE per €1bn of gross reserves.

Some organisations with very large reserves operate with relatively lower FTE per €1bn of reserves, suggesting economies of scale, simpler liability structures, large policyholder reserves or stronger reliance on automation and standardisation. Others show higher relative resourcing intensity, likely reflecting more complex product mixes, heavier regulatory or local statutory reporting burdens or more decentralised operating models.

*Note: Total FTE common range and common FTE intensity are shown as an observed middle cluster, not a formal quartile range.

Responsibilities of the Actuarial Function

This distribution of responsibilities highlights that generally no single function owns the reserving process end-to-end, with responsibilities shared across Finance, local actuarial teams and Group actuarial oversight. Local reserving or Finance teams generally own reserve production, model execution and report production, while the AF typically provides oversight, validation, challenge and methodology input rather than production ownership.

Reserving process and governance

1. **Assumption setting**
   Local ownership with Group oversight
   78% of groups retain local actuarial or reserving teams as primary owners, with varying Group-level standardisation and oversight.

2. **Model running**
   Consistently executed locally
   89% of groups position model execution within local reserving or accounting teams, often within Finance or with offshore support.

3. **Model development**
   Divergent models but 3 clear approaches
   Model development is local, centrally developed with local operation, or centralised for specific lines of business. AF rarely performs development.

4. **Accountability and regulatory responsibility**
   Strong split between 'Owner' vs 'Validator' models
   Local reserving actuaries, mainly in Finance, are accountable for reserving across almost all groups. Regulatory responsibility is mostly outside AF except where locally required.

5. **Reporting and committee interaction**
   Dual-layer reporting and variable AC engagement
   Local teams typically produce reports with Group AF commentary or oversight. Audit Committee interaction is highly variable, with no consistent market standard.

Wider responsibilities and interactions

Pricing and underwriting

Mixed actuarial involvement

Some firms have strong involvement through formal pricing committees and profitability checks; others maintain separation, limiting oversight and weakening technical governance.

Reinsurance

Involvement varies by transaction and governance model

Several groups require actuarial involvement in large reinsurance transactions, while others keep actuarial distant from strategy and design.

Capital management

Close integration only in higher-maturity models

High-maturity peers show close integration between actuarial, ALM and capital teams. Elsewhere, capital strategy sits mainly with Finance or Treasury.

Model governance and risk interaction

Role ranges from governance input to data provision

Some insurers involve actuarial directly in internal model change and ORSA design; others restrict actuarial involvement to data provision only.

Scope: Wider actuarial team

Reserving governance

Across all participants, the governance of reserves follows a consistent two-tier structure with local accountability and group-level oversight. Local teams own reserve calculation and validation, while the AF provides independent validation and governance challenge. This is typically delivered through a multi-layered structure involving local, regional and Group-level reserving committees, although the degree of centralisation varies across participants.

Group reserving - Group AFH role

The Group AF provides independent validation, methodology oversight, and may hold veto rights over methodologies. Most groups have a formal Group Reserving committee, chaired by the Group CFO (sometimes CRO). Membership at these committees commonly include Group Chief Actuary, Group CFO, Group CRO, Local Chief Actuaries.

Regional review

Some governance models include a regional or intermediate layer, providing further review and escalation between local reserving committees and Group-level reserving governance.

Local reserving – Group AFH role

The Group AF exercises independent validation throughout this process, reviewing local methodologies and results, escalating areas of concern and validating consistency with Group standards.

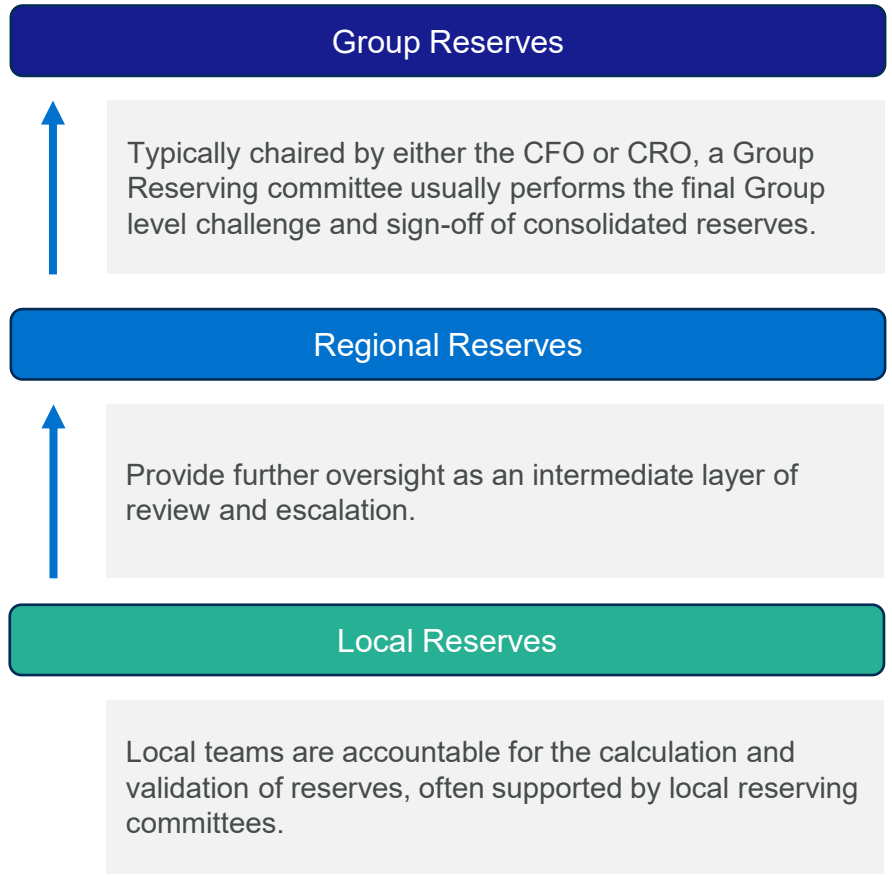
Local reserving – Local AFH role

Local reserving committees are common and play an active challenge and review role before escalation to Group. In some cases, local AFH is responsible for reserves.

Committee engagement and reporting

Group AFH attendance across committees ranges from 33% to 78%, with reserving committees showing the highest attendance. The Group AFH is rarely Chair and only occasionally has voting rights; reporting involvement is strongest under Solvency II regulatory reporting, with financial reporting largely being owned by Finance with the AFH providing oversight, challenge and methodology input rather than reserve sign-off.

Observed Group AFH reserving governance activities



Technology maturity

The survey considered the extent to which technology is shaping the way actuarial functions operate. Firms are seeking to improve governance, reporting speed and delivery efficiency, while continuing to manage the constraints created by infrastructure, data quality and fragmented system landscapes. A number of recurring themes arose, including generally moderate levels of automation maturity, continued dependence on semi-manual processes and a cautious but growing interest in the use of AI within actuarial workflows.

Scope: AFH team

Automation Maturity | Moderate progress (c.2.5/5)
Extent to which recurring actuarial tasks are automated.
Maturity levels vary widely: some firms are more advanced, but most remain in the mid-range, with L&H notably less automated.

AI adoption | Early stage (c.1.5/5)
Extent to which AI is used in actuarial workflows beyond pilot use cases.
Use of AI is still largely confined to selected pilots, with little evidence of integration into core actuarial processes.

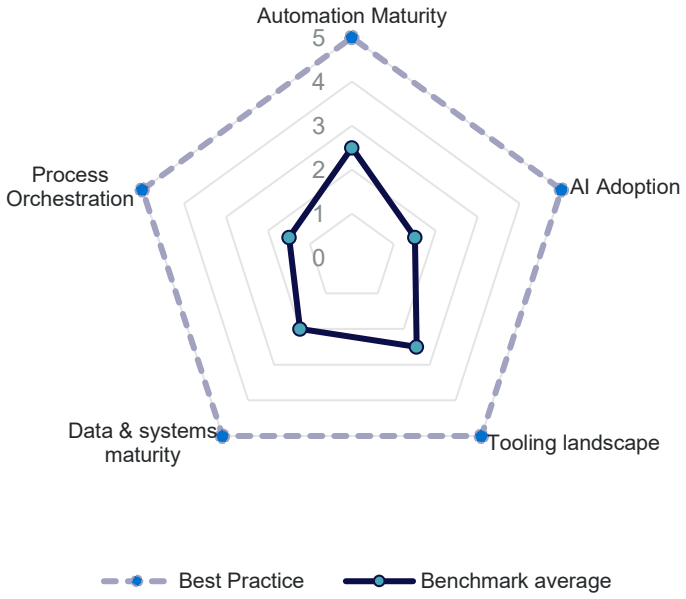
Scope: Wider actuarial team

Tooling | Mixed landscape (c.2.5/5)
Degree of standardisation across actuarial tools and modelling environments.
P&C environments are relatively standardised, while L&H remains highly fragmented across entities, with multiple local model versions still in use.

Data & systems | Legacy constraints (c.2/5)
Quality and integration of the data and systems environment in actuarial work.
Across the benchmark, firms are working with a combination of systems and partial modernisation, with integration challenges still common.

Process orchestration | Semi-manual (c.1.5/5)
Extent to which workflows are managed end-to-end through structured processes.
Only a small number of participants have established workflow orchestration, while most continue to rely on semi-manual review and validation cycles.

Indicative Technology Maturity



- Indicative 1–5 scoring based on qualitative benchmark findings and interview responses.
- Scores reflect relative positioning against best practice (5 = best practice, 3 = moderate maturity, 1 = significant gap)

The scope applied varies by technology dimension. Tooling, data & systems and process orchestration are assessed across the wider actuarial model, given their relevance across the end-to-end reserving process and all actuarial parties involved. By contrast, automation maturity and AI adoption are considered more narrowly within AFH, consistent with the report's primary focus on the evolution of the AF itself.

Skills and modelling

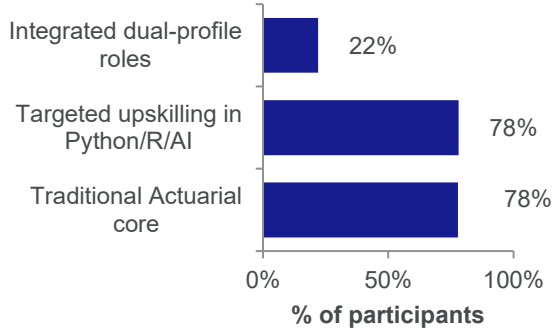
Results suggests that uneven technology maturity is not simply a tooling issue, reflecting deeper structural differences in skills, modelling environments and process design. The real constraint on transformation is rarely the absence of technology alone; it is the complexity of the environment in which that technology must operate.

Skills and Capability

Technology maturity increasingly depends on the skills profile of the function

- The market remains centred on a traditional actuarial core skill-set.
- Capability development is being driven more by opportunistic upskilling in Python, R or AI-related capabilities than by structural workforce redesign.
- More integrated actuarial-plus-technology roles are emerging but remain limited across the surveyed firms.

Current recruitment profile

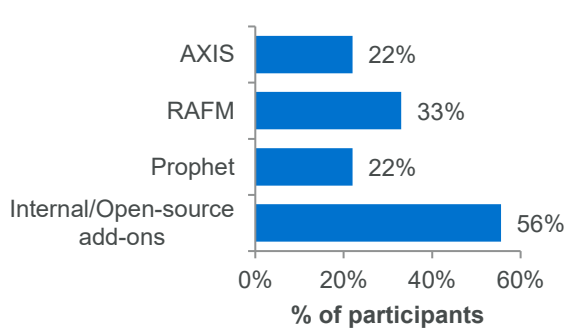


L&H Modelling Environment

L&H remains the most fragmented part of the modelling landscape

- Multiple modelling engines continue to coexist across entities and segments.
- Vendor tools are often supplemented by internal or open-source model extensions, adding further complexity.
- Centralisation varies materially: 45% operate group-wide Life platforms, 20% use hybrid arrangements, and 35% still rely mainly on local and heterogeneous landscapes.

L&H model engines in use

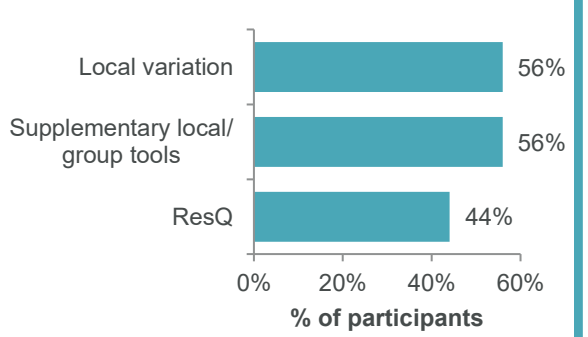


P&C Modelling Environment

P&C is more standardised, but not fully uniform in practice

- Local or group-specific supporting tools remain common for reporting, validation and regulatory needs.
- Apparent standardisation at the level of the reserving engine does not always translate into full end-to-end consistency in practice
- As a result, standardisation is stronger in P&C, but local operating complexity still persists.

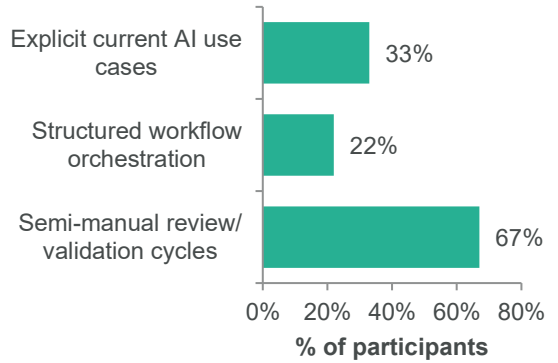
P&C modelling environment



Process Design & Governance

The pace of transformation is shaped as much by process design as by technology itself

- Process maturity remains uneven, with semi-manual review and validation cycles still common.
- Only limited evidence exists of structured end-to-end workflow orchestration.
- AI use cases are emerging but remain largely peripheral rather than embedded in core production.



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Appendix

Definition and scope

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Definition and scope of the Actuarial Function

The AF is not always explicitly defined for companies. For the purposes of this document, it refers to the team led by the officially designated and regulatory recognised, senior actuarial position in the insurance group. They may be titled Chief Actuary or Head of the AF. Given this definition, their team's responsibilities will include those defined under their group regulatory framework for the AF. Hence if production sits outside the AF as defined here, then they are not in AF for the purpose of this survey.

Reserving is used as the primary lens for comparability, while wider responsibilities and interactions of the AF (e.g., underwriting, reinsurance, risk and capital interactions) are covered where they materially affect governance, delivery and insight. In some sections a broader lens is applied to consider the entire the reserving lifecycle, particularly where capabilities and processes support multiple actuarial teams. To clarify the scope of each section, the following flags are used:

- AFH team — AFH team only
- Wider actuarial team — Broader actuarial team involved across the reserving lifecycle
- Hybrid: AFH + wider actuarial team — Section considers both perspectives

The report focuses primarily on the group AF, while also considering interactions with local AFs where relevant, and distinguishes between production and oversight responsibilities where applicable.



*Note: Findings reflect participant responses; differences in terminology and organisational labels were normalised using the benchmark definition above.