WHERE DOES AN ACTUARY'S AI COMPETENCE COME FROM?

BY **SIMON HATZESBERGER** AND **MARVIN SCHNELLER**

Artificial intelligence is no longer a topic actuaries can choose to sit out. The only question is how the profession builds the competence it needs: through the syllabus for those still qualifying, and through continuing professional development for everyone already in practice. One answer is 'Fit4AI Compact', a two-day seminar that grew out of the German Association of Actuaries (DAV) and is now being taken up across Europe by the European Actuarial Academy (EAA).

AI is becoming part of actuarial work at increasing speed. For actuaries, this is not only about learning new tools, but about using them responsibly: understanding data and model limitations, translating business questions into analytical problems, recognising bias and discrimination risks, ensuring explainability and governance, and communicating results clearly to decision makers. The AAE discussion paper **What should an actuary know about Artificial Intelligence?** makes this point very clearly: actuaries have a duty to step up, combine their traditional modelling expertise, domain knowledge, and familiarity with regulated environments with new data science capabilities, and help safeguard the responsible use of AI in insurance and beyond.

That raises the practical question: where is this competence to come from? For actuaries still qualifying, the natural place is the syllabus itself, and a growing number of member associations are building data science and AI into their qualification requirements. For the much larger group who qualified before these topics appeared in any syllabus, it has to come from continuing professional development – structured, actuarially relevant, and realistic alongside a full workload.

Regulation points the same way. Article 4 of the EU AI Act requires providers and deployers of AI systems to take measures that support the development of AI literacy among their staff and among anyone else operating AI systems on their behalf. The duty is formally the employer's, but >

	Fit4AI Compact learning journey	Participants work especially on
1	AI terms & concepts	Definitions, learning paradigms, over- and underfitting, explainability, and bias
2	Ethical AI & regulation	Trustworthy AI, GDPR, EU AI Act, risk categories, and insurer obligations
3	Data science in practice	CRISP-DM, data sources and formats, data quality, data readiness
4	Hands-on AI in Python	Notebooks and environments, with classification and regression examples
5	Machine Learning	Supervised learning with decision trees, random forests, and neural networks; unsupervised learning for clustering; each with case studies
6	Generative AI	Tokenisation, embeddings, transformers, RAG, and limitations that matter in insurance

the competence itself has to sit with the actuary: an insurer is not AI-literate in the abstract, but only through the people who build, validate, and sign off its models.

This is where 'Fit4AI Compact' comes in: a two-day seminar designed by actuaries from the DAV and offered as a webinar or, on request from member associations and companies, as an in-house seminar. It is aimed at actuaries from all fields who do not yet work with data science, machine learning or AI; no prior programming knowledge is required, only an actuarial background and the wish to understand the vocabulary, methods, and limitations of these technologies in professional practice.

The seminar turns the competence areas highlighted in the AAE paper into a practical learning journey: Day 1 builds the foundations, the regulatory frame and first hands-on applications; Day 2 moves into machine learning and generative AI for actuarial insurance use cases. The overview above sets out the modules and what each covers.

Participants receive a certificate documenting the training – evidence of exactly the kind of measure Article 4 of the EU AI Act asks employers to take for actuarial work in insurance.

Together with the EAA, the format is already travelling: a web session ran in June, further online and on-site events are planned for the coming months.

What matters is not the individual seminar, but that no actuary has to face AI unprepared.

Dates are listed at actuarial-academy.com and announced in the free EAA newsletter. <

DR. SIMON HATZESBERGER is Senior Manager at Deloitte and one of the lecturers of 'Fit4AI Compact'. He is involved in various AI initiatives of the DAV, the AAE, and the IAA.

MARVIN SCHNELLER is Senior Client Manager at Munich Re Life & Health, specialising in disability insurance, AI and digitalisation. As a DAV actuary, he currently leads the ADS/AI Committee's communication activities.