

## EAA Web Session

# CERA, Module B: Taxonomy, Modelling and Mitigation of Risks

15-19 September 2025 | online

### Introduction

#### CERA Education

The European Actuarial Academy is one of the main providers of actuarial education – especially when it comes to Enterprise Risk Management (ERM). The concept of ERM has gained significant momentum in the insurance industry and beyond.

We offer a series of four training courses and exams (through DAV) to all actuaries who want to deepen their knowledge in Enterprise Risk Management and gain the international ERM-credential CERA. The defining characteristics of the CERA-credential as offered by the European Actuarial Academy are:

- Provides the most comprehensive and rigorous training in ERM
- Is a fast-growing globally-recognised credential
- Combines a range of business and professional skills with the mathematics of finance and risk
- Equips risk management professionals to empower better business decisions and more profitable business development
- Has a wide range of applications in insurance and finance, and well beyond
- Is supported by actuarial associations worldwide
- Is recognised and transferable internationally
- Has a rigorous and advanced curriculum underpinned by actuarial science, with an emphasis on ERM and professionalism
- Offers career choices outside the traditional actuarial markets

#### The Seminar 'Taxonomy, Modelling and Mitigation of Risks'

The web seminar focuses on quantitative analyses of financial and non-financial risks of an insurance company and the effect and possible applications of risk mitigation techniques. After an introduction to the economic valuation of an insurance company, including stochastic valuation models and approximation techniques for life companies, and the building blocks of its economic balance sheet, the risk measure as well as the relevant regulatory requirements of Solvency II will be discussed. Different concepts of risk modelling covering from standard formula to fully internal models will be presented.

Methods for modelling market, credit, operational and underwriting risks will be presented in detail. The discussion covers the risk definition and identification and how it can be distinguished from other risks. Qualitative and quantitative valuation approaches will be discussed - including scenario analyses, stress tests, deterministic and stochastic assessments. Furthermore, crucial aspects of any model such as assumptions, distributions, calibration and validation are discussed, as well as limitations and criteria for the adequacy of a model for solving a given problem.

Having introduced and discussed the risk modelling, tools and techniques will be discussed that are available in the insurance business to mitigate these risks. That includes the discussion around the implications of reinsurance and securitisation as well as portfolio management. We will also present what life insurance companies subject to traditional with profit business can do to hedge their main risks.

Both elements, risk modelling and measurement as well as risk mitigation, are closely related and interact with each other, what will be reflected in the topics presented and the structure of the seminar.

The consolidated view on risks in a company and an outlook on Group models close the course.

The course has been designed for experienced practitioners who use model results in practice and seek guidance for management decisions. Therefore, the focus is not on technical details but on the understanding of risk models and their results, and on the derivation of management actions.

## Participants

The training is open to all persons who are interested in obtaining comprehensive skills on Enterprise Risk Management. The understanding of the business model of an insurance company (life and non-life) is a prerequisite that participants should be aware of. Basic knowledge of deterministic and stochastic valuation models as well as value based management is recommended.

**Please check with your IT department if your firewall and computer settings support web session participation (the programme *Zoom* is used for the web session). Please also make sure that you are joining the web session with a stable internet connection.**

**Attention: The live web session will be supplemented by several pre-recordings. These pre-recordings will be made available to participants in the form of an on-demand link after the cancellation deadline mid-August and must be viewed by each participant before 15 September. Viewing the recordings is a mandatory part of the module.**

## Purpose and Nature

This web session is one part in a course that consists of four modules. They can be booked as a whole series to fulfil the requirements for receiving the CERA designation, or individually as CPD training. Written exams on the course are offered subsequently.

Please contact your actuarial association regarding the recognition of the seminars (web sessions) and the exams. The national association has to be at least Acceding Party of the CERA Global Association so that an actuary who passes this course may receive the CERA credential. Please visit [www.ceraglobal.org](http://www.ceraglobal.org) to get information if your association is entitled to issue the CERA designation.

## Language

The language of the web session will be English. The exams will be, by your preference, in German or English. Please choose the language during the booking process. The exams are also available in Spanish for the members of the Instituto de Actuarios Españoles (Spanish Institute of Actuaries).

## Lecturers

### Prof Dr Hubert Bornhorn

Hubert Borthorn is a professor for mathematics and statistics at the Faculty of Business at Dortmund University of Applied Sciences and Arts. He is a member of the German Actuarial Association (DAV). Hubert studied mathematics in Münster and Oxford and holds a Ph.D. and a master's degree in mathematics from WWU Münster. Hubert's areas of expertise include Financial Risk Management, Asset Management for insurance companies and Actuarial Mathematics. Before attaining his current position he worked almost 10 years for a life insurance company.

### Dr Steve Brüske

Steve Brüske studied Mathematics and made his PhD in Münster. He has been working as an actuary at HDI Global SE in Hanover since 2007, where he is responsible for creating the internal models and head of actuarial function. Since 2012 Dr Brüske has been a member of the DAV, the DAV Working Group "Internal Models" and since 2018 he leads the DAV Working Group "Reporting Obligations".

### Dr Peter Henseler

Peter Henseler studied Physics at Bonn University. Since 2012 he works for Generali Deutschland Group. He heads the group Financial Risk Methodology within the Enterprise Risk Management, after having started his career in 2010 in the actuarial department of Zurich Deutscher Herold Lebensversicherung AG. He is a member of the German Actuarial Association (DAV) and CERA.

### Dr Ingo Kraus

Ingo is Head of ALM / Quantitative Methods and Models at ERGO Insurance Group, Germany. In particular, he and his team are giving quantitative support for ALM / strategic asset allocation and are in charge of many aspects of asset modeling with respect to valuation and risk management. Ingo is a member of the German Actuarial Association (DAV) and CFA chartholder. He holds a PhD in mathematics from Albert Ludwigs Universität Freiburg. Ingo's areas of expertise include Value-Based Management, Risk Management and particularly Asset Liability Management. He worked for many years in actuarial teams (product development, valuation, actuarial steering) and later in strategic asset allocation functions.

### Dr Nils Langenberg

Nils studied mathematical economics in Trier and Santiago de Compostela and holds a PhD in mathematics. He is a fellow of the German Actuarial Association (DAV) and qualified for the CERA designation in 2015. Currently, he is working as a divisional chief actuary for one of Munich Re's Life reinsurance divisions, leading the monitoring and reporting, and also being a member of Munich Re's Global Life Valuation Board. Prior to this position, he held various other functions within Munich Re since 2011, continuously within the Life&Health reinsurance area.

### Dr Michael Leitschkis

Michael Leitschkis studied Mathematics in Cologne and Philadelphia. Since 2022, he works as Group Chief Actuary at Athora. Before this, he was Principal at Milliman for about 10 years, advising Clients in Germany and the UK, and worked at Generali Deutschland Group as Head of Actuarial Modelling for five years. He had started his career at B&W Deloitte in Cologne. Michael Leitschkis is member of the German Actuarial Association (DAV) and CERA. He has delivered a number of talks and lectures on various topics of risk modeling and risk management.

### Viktor Turov

Viktor Turov studied Mathematics in Hannover. Since 2018 he works for EY as Senior Manager in the Non-Life actuarial area. Before this he was Head of the group Risk Aggregation within Group Risk Management. He started his career in 2008 in the actuarial department at HDI Global SE in Hannover. From 2015 to 2017 Viktor Turov worked for KPMG as risk management consultant. Furthermore, he is a member of the German Actuarial Association (DAV) and a member of several DAV working groups.

## **Preliminary Programme**

### Monday, 15 September 2025

09:00 - 09:15	Welcome & Introduction
09:15 - 10:30	Approaches & Models for Economic Valuation & Quantifying of Risks (Henseler)
10:30 - 11:00	Break
11:00 - 12:15	Approaches & Models for Economic Valuation & Quantifying of Risks (Henseler)
12:15 - 13:15	Break
13:15 - 15:15	Risk Aggregation (Henseler)

### Tuesday, 16 September 2025

09:00 - 10:30	Premium Risk Part 1 (Brüske, Turov)
10:30 - 11:00	Break
11:00 - 12:30	Premium Risk Part 2 (Brüske, Turov)
12:30 - 13:30	Break
13:30 - 15:00	Risk Transfer (Brüske, Turov)
15:00 - 15:30	Break
15:30 - 17:00	Reserve Risk / Evaluation (Brüske, Turov)

### Wednesday, 17 September 2025

09:00 - 10:30	Interest Rate Risk (Kraus)
10:30 - 10:45	Break
10:45 - 12:30	Interest Rate Risk (Kraus)
12:30 - 13:30	Break
13:30 - 14:15	Interest Rate Risk (Kraus)
14:15 - 15:00	Credit Risk (Leitschkis)
15:00 - 15:30	Break
15:30 - 17:00	Credit Risk (Leitschkis)

### Thursday, 18 September 2025

09:00 - 10:30	Operational Risk (Bornhorn)
10:30 - 10:45	Break
10:45 - 12:30	Equity Risk, Liquidity Risk (Bornhorn)
12:30 - 13:30	Break
13:30 - 15:00	Equity Risk (Bornhorn)
15:00 - 15:30	Break
15:30 - 17:00	Property Risk & Currency Risk (Bornhorn)

### Friday, 19 September 2025

09:00 - 10:30	Underwriting Risk in Life and Health Insurance (Langenberg)
10:30 - 11:00	Break
11:00 - 12:30	Underwriting Risk in Life and Health Insurance (Langenberg)
12:30 - 13:30	Break
13:30 - 15:30	Risk Transfer & Hedging (Langenberg)

All the above times are given in CEST (Central European Summer Time).

## Fees & Registration

### Early Bird Registration Fee (until 4 August 2025):

- For private customers in the EU: €1,625.00 + VAT of the billing country (example Germany: €1,933.75 incl. 19% VAT)
- For private customers outside the EU: €1,933.75 (incl. 19% VAT)
- For businesses within the EU (excl. Germany, with valid VAT ID): €1,625.00 (net, reverse charge applies)
- For businesses in Germany: €1,933.75 (incl. 19% VAT)

### Regular Registration Fee (from 5 August 2025):

- For private customers in the EU: €1,800.00 + VAT of the billing country (example Germany: €2,142.00 incl. 19% VAT)
- For private customers outside the EU: €2,142.00 (incl. 19% VAT)
- For businesses within the EU (excl. Germany, with valid VAT ID): €1,800.00 (net, reverse charge applies)
- For businesses in Germany: €2,142.00 (incl. 19% VAT)

### Important VAT Information:

- For private customers with a billing address in an EU country: VAT will be charged at the applicable rate in the country of the billing address. The final amount, including VAT, will be calculated upon invoicing.
- For customers with a non-EU (third country) billing address: Only a non-company billing address is accepted for VAT compliance reasons. 19% VAT applies to all non-EU private customers.
- For businesses within the EU (excluding Germany), Iceland, Liechtenstein, Norway, Switzerland, and the UK with a valid VAT ID: The reverse charge mechanism applies (net price; VAT will not be charged). Please ensure your valid VAT ID is entered correctly during registration.
- For all customers with a billing address in Germany: 19% VAT applies.

Please send your registration as soon as possible by using this [online form](#).

Your registration is binding. Cancellation is only possible up to 4 weeks before the first day of web session. If you cancel later, the full fee is due. You may appoint someone to take your place, but must notify us in advance. EAA has the right to cancel the event if the minimum number of participants is not reached.

Please always give your invoice number when you effect payment. All bank charges are to be borne by the participant. We will send you an invoice via email. Please allow a few days for handling.

Registration is open until two working days before the web session. If registration has already been closed for this web session, please call us or send an email to [contact@actuarial-academy.com](mailto:contact@actuarial-academy.com) in order to find out whether a late registration is still possible.

For this seminar, the following CPD points are available under the CPD scheme of the relevant national actuarial association:

Austria:	31.5 points
Belgium:	31 points
Bulgaria:	20 points
Croatia:	individual accreditation
Czech Republic:	31 hours
Denmark:	31 credits
Estonia:	31,25 hours
Finland:	17,75 points
France:	183 points
Germany:	31 hours
Greece:	42 points
Hungary:	32 hours
Iceland:	31,5 credits
Ireland	31,25 hours
Italy:	approx. 4 credits (GdLA individual accreditation)
Latvia:	31 hours
Lithuania:	31,5 hours
Netherlands:	approx. 31,25 PE-points (individual accreditation)
Norway:	31 points
Poland:	31,25 hours
Portugal:	31,25 hours
Serbia:	5 hours
Slovakia:	8 points
Slovenia:	50 points
Spain	CAC: 31 hours, IAE: 31 hours
Switzerland:	15 points
USA:	SOA (Section B): up to 37,50 hours

No responsibility is taken for the accuracy of this information.