

Dear Colleagues,

The Bulgarian Actuarial Society (BAS) is pleased to invite you to the **Enterprise Risk Management Seminar** organized by the BAS and Actuaries Without Borders section of the IAA (AWB). The seminar will take place in Sofia on the 14-16, November 2017.

Following the requirements and new syllabuses of the IAA and AAE the Bulgarian Actuarial Society added Risk Management as a new discipline in its qualification program. The current three days seminar is designed to cover all different aspects of the topic. The Risk Management plays an important role in the recent years, especially in the context of the Solvency II requirements. The ERM seminar is strongly recommended for all members of the BAS.

### **Lecturer**

#### **Carlos Arocha**

Carlos Arocha has over 25 years' experience in the life and general insurance and reinsurance industries. Carlos focuses on Enterprise Risk Management, Solvency II advisory services, Appointed Actuary consulting mandates, development and validation of internal risk models, reinsurance optimization programs and miscellaneous quantitative risk management projects. Since 2011, Carlos has been Managing Director for Arocha & Associates, a consulting firm based in Zurich.

He is passionate about enhancing the potential of actuarial staffs through knowledge transfer and the delivery of tools, modelling platforms and data management systems.

Carlos has worked in companies such as Swiss Re, Mercantile & General Re, Watson-Wyatt (now Towers Watson) and Hewitt Associates (now Aon Hewitt), in Mexico, the United States, Canada, and Switzerland.

He is co-founder of the Swift Academy Project, an initiative that delivers state-of-the-art training knowledge transfer solutions to global insurance markets, Past Chairman of the Board of the Yverdon Insurance Consortium, Secretary of the Leadership & Development Council of the Society of Actuaries, and Ambassador of the Society of Actuaries in Switzerland. Carlos is a mentor of the Integrated Projects Course, Master of Actuarial Science at Columbia University, New York.

Carlos earned a BSc in Actuarial Science from Anahuac University, Mexico City, is a Fellow of the Society of Actuaries, and a Member of the Swiss Association of Actuaries.

Carlos was born in Mexico City and has lived and worked in Houston and Zurich. He is a dual Mexican/Swiss citizen.

### **Participants**

This seminar is intended to all interested professionals, such as actuaries, risk and capital managers, controllers, supervisors and auditors from all types of insurance industries.

Participants should have a basic knowledge of Solvency II.

This seminar will be helpful for professionals working in life, health as well as in general insurance business.

### **Language**

The language of the Seminar will be English.

## Program

Detailed program is presented below.

## Dates

The seminar will take place on 14<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> November, 2017 from 8:30 till 17:30.

## Location

“Central Hotel Sofia”, 52, Hristo Botev Blvd, Sofia 1000, Bulgaria.

## Registration

In order to register for the Seminar, please follow the steps listed below:

- Fill in the Registration form attached and send it via e-mail addressed to Ms. Vanya Stoicova at [bas@bitex.bg](mailto:bas@bitex.bg) until 05.11.2017. Because of the limited number of places available, priority will be given to the registrations received first. Receive a confirmation via e-mail from BAS that your Registration form has been received.
- Transfer the Seminar fee amount to BAS bank account.
- Receive a final confirmation via e-mail on your registration by BAS.

## Payments

The registration fee is BGN 200 for members of the BAS and BGN 450 for non-members of the actuarial society. Fee transfers should be made to the Bulgarian Actuarial Society's bank account only after receiving a confirmation that you are registered as a participant.

Please find below the payment details.

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Bulgarian Actuarial Society's Bank account:

Unicredit Bulbank

Ivan Vazov Branch

BIC: UNCRBGSF

IBAN: BG53 UNCR 9660 1000 6461 00  
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## CPD credits

For BAS members the attendance of this 3-days seminar gives 24 CPD credits.

Management Board,  
Bulgarian Actuarial Society

*Tuesday, 14 November*

## Enterprise Risk Management Seminar

08:30 *Registration & welcome coffee*

08:45 *Welcome & Opening on behalf of the BAS*

### The World of ERM

09:00 Plenary session

**Risk measurement and management**

**A brief history of ERM**

**The regulatory framework**

**Advisory risk frameworks**

**Proprietary risk frameworks**

**Quantitative risk management**

**Benefits of ERM**

10:30 *Coffee break*

### Risk Categories and Identification

10:45 Plenary session

**Definitions of risk**

**Risk identification tools**

**Risk identification techniques**

**Strategic risk management**

12:15 Discussion

**Assessment of risks in the Bulgarian insurance and banking sectors**

12:30 *Lunch*

### Risk Modeling

13:30 Plenary session

**Extreme Value Theory**

15:00 Individual exercises

**EVT sample problems in R**

15:30 *Coffee break*

16:00 Plenary session

**Quantifying specific risks**

**Unquantifiable risks**

17:00 Individual exercises

**Sample problems in R**

17:30 *Adjournment of first day*

*Wednesday, 15 November*

## Enterprise Risk Management Seminar

08:30 *Welcome coffee*

### Aggregation of Risks

09:00 Plenary session

#### Measurement and modeling dependencies

10:30 *Coffee break*

10:45 Plenary session

#### Copula models

12:00 Individual exercises

#### Copula illustrations in R

12:30 *Lunch*

### Risk Measures

13:30 Plenary session

#### Useful statistics

#### Portfolio risk: analytical methods

#### Monte Carlo methods

#### Coherent measures of risk

14:30 Individual exercises

#### Calculation of VaR, TVaR and other metrics in R

15:30 *Coffee break*

### Enterprise Risk Management Tools and Techniques

16:00 Plenary session

#### Responses to risk

#### Operational risk management

#### IAA's Note on ERM for Capital and Solvency Purposes

#### Risk appetite, risk tolerance and risk limit setting

#### Risk appetite and capital allocation

17:00 Discussion

#### Formulating a risk appetite statement

17:30 *Adjournment of second day*

*Thursday, 16 November*

## Enterprise Risk Management Seminar

08:30 *Welcome coffee*

### The Enterprise Risk Management Process

09:00 Plenary session

**Risk strategy, risk architecture and risk protocols**  
**Approaches to risk management**  
**The role of the board and corporate governance**  
**Solvency II and ERM**

10:30 *Coffee break*

10:45 Plenary session

**Overall Structure**  
**Design, implementation and monitoring of an ERM framework**

12:15 Discussion

**Major obstacles in the implementation of an ERM framework**

12:30 *Lunch*

### Case Studies

13:30 Plenary session

**The 2007—2011 global financial crisis**  
**Barings Bank**  
**Equitable Life**  
**General American**  
**Korean Air**  
**LTCM**  
**Space Shuttle**

15:30 *Coffee break*

### Trends in Enterprise Risk Management

16:00 Plenary Session

**Countrywide risk management**  
**Risk transparency**  
**Consequences of Solvency II**  
**Risk management education**

17:15 *Adjournment of day three*

17:30 *Closing*