



Steinbeis University Berlin STI Advanced Risk Technologies

iNTeg-Risk Project - Early Recognition, Monitoring and Integrated Management of Emerging, New
Technology Related, Risks

University of Stuttgart - ZIRN

Program

(ver. of Dec. 8, 2011)

European Master of Risk Engineering and Management and the respective Professional Certification Program

(part of iNTeg-Risk Project Education & Certification WP4.10)

Course I-R1

Introduction to Risk Management

December 12-16, 2011

Haus der Wirtschaft, Willi-Bleicher-Str. 19
70174 Stuttgart, Germany

www.sti.risk-technologies.com
www.integrisk.eu-vri.eu



Course Lecturers

M. Gerbec, Jozef Stefan Institute, Slovenia
A. Jovanovic, Steinbeis R-Tech, Germany
O. Renn, Univ. of Stuttgart, Germany



European Virtual Institute for Integrated Risk Management
Stuttgart 2011

With great pleasure, we invite you herewith to consider attending:

Course I-R1 Introduction to Risk Management

December 12-16, 2011

Haus der Wirtschaft, Willi-Bleicher-Str. 19
70174 Stuttgart, Germany

Dear Colleague,

With this course we open the series of courses which all belong to joint effort of iNTeg-Risk project (represented by EU-VRi and other partners), University of Stuttgart (ZIRN) and Steinbeis University Berlin (STI Advanced Risk Technologies) to set a modern, modular and distributed model of education and certification in the area of Risk Engineering and Management with particular emphasis on the issue of emerging risks, in particular those related to new technologies.

The course is embedded into the certified and accredited system of SHB (Steinbeis University Berlin) and means that each course brings credit points for academic and/or professional education.

We wish you a successful and enjoyable participation and good networking with lecturers and participants of the course.

We are looking forward to welcoming you in Stuttgart.



*(A. Jovanovic, iNTeg-Risk Project
Coordinator, CEO EU-VRi)*



(O. Renn, President EU-VRi)

Short Description

The course covers the main topics of industrial safety, starting with different aspects of risks and terminology used in the field. The main part of the course is dedicated to the related EU directives. The course outlines goals, scope and required measures / obligations considering acute (accidents) and chronic (pollution) risks. Special focus is given to major accident prevention and related process safety risk assessment methodology.

Furthermore, the course

- is illustrated by number of examples
- presents commonly used method and tools and
- provides exercises and preparation for the final exam.

As introductory, the course is dedicated to the wide range of participants, such as:

- professionals dealing with risk issues on management or operation level,
- individuals with no previous experience in the field of risk management, but willing to extend their knowledge and take up new roles in risk management in their companies,
- students of Steinbeis Master of Risk Engineering and Management program and similar programs.

At the end of the course students are expected to have basic knowledge about:

- general terms used in the area of risk, safety, hazard, risk and risk assessment...
- respective EU regulation/directives such as REACH, Seveso II, ATEX, and the obligations resulting from them
- main elements of the process safety assessment (input data, hazards identification methods and tools, scenario elaboration and assessment of related risks...), including major accidents prevention policy
- safety measures, based on regulatory requirements, as implemented in the different EU member states.

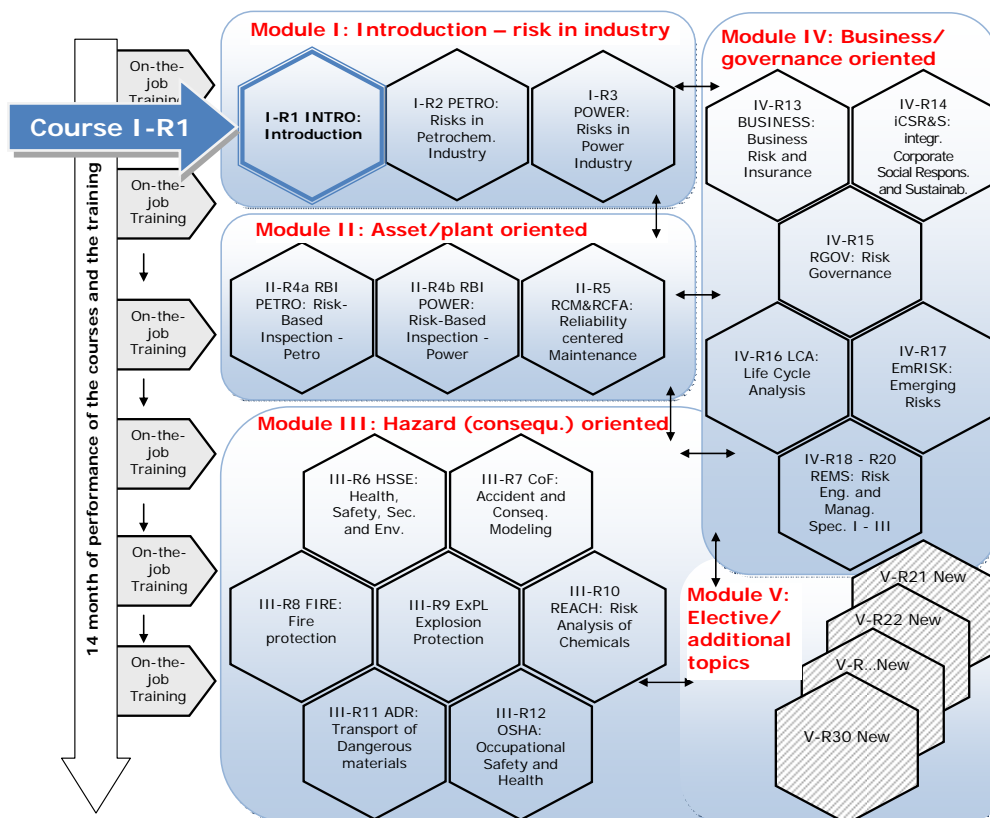
As an option, the course covers the issues of risk perception and risk communication and tackles the method of stakeholder involvement in technical risk management.

The course participants will receive the training material consisting of textbook and transparencies (download), as used by the lecturers during the course.

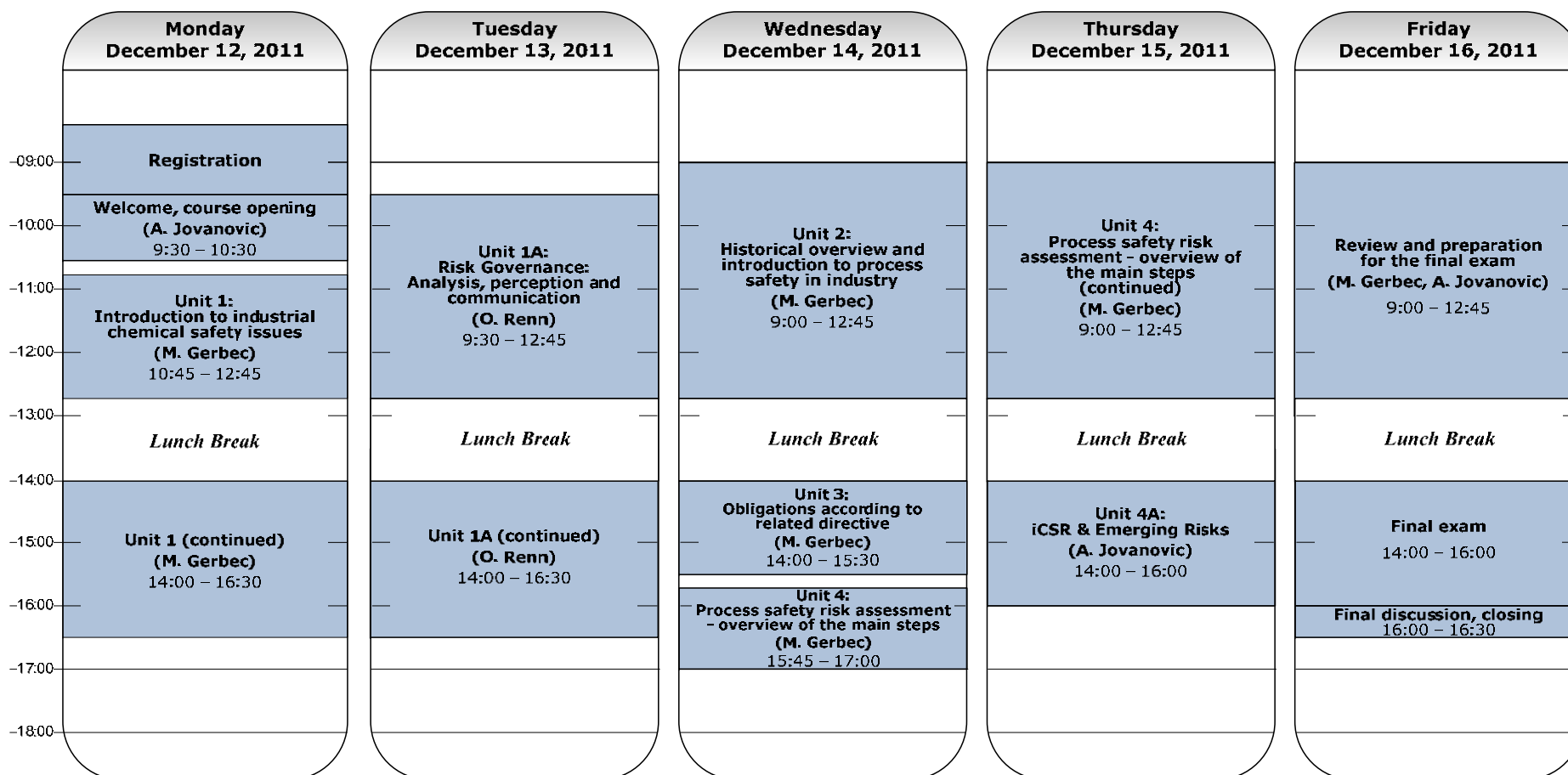
The language of handouts and course will be English.

**Overview of all modules and courses in the curriculum
European Master of Risk Engineering and Management**

No.	Module/Course title
Module I: Introduction - risks in industry	
I-R1	INTRO: Introduction to Risk Management (Risk and Safety Management in Industry)
I-R2	PETRO: Risk Analysis in Chemical/Petroleum Industries
I-R3	POWER: Risk Analysis in Power Industries
Module II: Asset/plant oriented risks management	
II-R4a	RBI-PETRO: Risk Based Inspection - Petro
II-R4b	RBI-POWER: Risk Based Inspection - Power
II-R5	RCM&RCFA: Reliability Centered Maintenance and Root Cause Failure Analysis
Module III: Hazard oriented risks management	
III-R6	HSSE: Health, Safety, Security and Environment
III-R7	CoF: Accident and Consequences Modeling
III-R8	FIRE: Fire Protection
III-R9	Exp: Explosion Protection
III-R10	REACH: Risk Analysis of Chemicals
III-R11	ADR: Transport of Dangerous Materials
III-R12	OSHA: Occupational Safety and Health
Module IV: Business/governance oriented risk management	
IV-R13	BUSINESS: Business Continuity Risks & Insurance
IV-R14	iCSR&S: integrated Corporate Social Responsibility and Sustainability
IV-R15	RGOV: Risk Governance
IV-R16	LCA: Life Cycle Analysis
IV-R17	EmRISK: Emerging Risks
IV-R18 - R20	REMS: Risk Engineering and Management – Special I - III
Module V: Elective/Additional Topics	
V-R21 - R30	



Course Nr. I-R1: Introduction to Risk Management - Overview



Agenda

December 12, 2011

Conference room K5

Kienestraße 35, 70174 Stuttgart (across from Haus der Wirtschaft)

08:30 – 09:30	Registration
09:30 – 09:45	Welcome and course opening (A. Jovanovic)
09:45 – 10:30	iNTeg-Risk project - goals, partners, beneficiaries, project results
10:30 – 10:45	Coffee break
Unit 1: Introduction to industrial chemical safety issues (M. Gerbec)	
10:45 – 12:45	Introduction to industrial safety issues (process safety, occupational safety, environmental protection, consumer safety) <ul style="list-style-type: none"> • Explanation on different aspects of the term safety
12:45 – 14:00	Lunch break
14:00 – 16:00	Introduction to industrial safety issues (cont.) <ul style="list-style-type: none"> • Topics of REACH, Occupational safety and health, including Atex, ADR, IPPC and Seveso
16:00 – 16:30	Review and conclusions of the Unit 1: Questions and answers

December 13, 2011

Conference room K5

Kienestraße 35, 70174 Stuttgart (across from Haus der Wirtschaft)

Unit 1A: Risk Governance: Analysis, perception and communication (O. Renn)	
09:30 – 11:00	Introduction to Risk Governance <ul style="list-style-type: none"> • The IRGC risk governance model: Purpose and structure
11:00 – 11:15	Coffee break
11:15 – 12:45	Risk Perception and Concern Assessment <ul style="list-style-type: none"> • Why is risk perception important? • How do people respond to threats? • How can we deal with risk perceptions
12:45 – 14:00	Lunch break
14:00 – 15:30	Risk communication <ul style="list-style-type: none"> • How to be effective in risk communication? • How to respond to different types of audiences? • What are the main problems in communicating risk and uncertainty
15:30 – 15:45	Coffee break
15:45 – 16:30	Stakeholder involvement and participation <ul style="list-style-type: none"> • What are the best strategies to involve stakeholders and the public? • What methods for stakeholder participation are effective for regulating technical risks?

December 14, 2011

Conference room K5
Kienestraße 35, 70174 Stuttgart (across from Haus der Wirtschaft)

Unit 2: Historical overview and introduction to process safety in industry (M. Gerbec)

09:00 – 10:30	Historical overview and introduction to process safety in industry <ul style="list-style-type: none"> • overview of infamous industrial accidents with hazardous substances • lessons learnt from the experience
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10:30 – 10:45	Coffee break
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10:45 – 12:15	Historical overview and introduction to process safety in industry. (cont.) <ul style="list-style-type: none"> • major accident hazards • response of the society, legislation introduced (explanation of obligations)
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12:15 – 12:45	Review and conclusions of the Unit 2: Questions and answers
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12:45 – 14:00	Lunch break
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Unit 3: Obligations according to related directive (M. Gerbec)

14:00 – 15:00	Introduction to obligations within Seveso II directive
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15:00 – 15:30	Review and conclusions of the Unit 3: Questions and answers
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15:30 – 15:45	Coffee break
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Unit 4: Process safety risk assessment - overview of the main steps (M. Gerbec)

15:45 – 17:00	Process safety risk assessment - overview of the main steps <ul style="list-style-type: none"> • Understanding of the process under analysis • Required site and surroundings data, relevant properties of the hazardous substances (including R and S phrases)
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December 15, 2011

Conference room K5
Kienestraße 35, 70174 Stuttgart, (across from Haus der Wirtschaft)

Unit 4: Process safety risk assessment - overview of the main steps (cont.) (M. Gerbec)

09:00 – 10:30	Process safety risk assessment (cont.) <ul style="list-style-type: none"> • Hazard identification methods and tools • Hazard classification approaches
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10:30 – 10:45	Coffee break
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10:45 – 12:15	Process safety risk assessment (cont.) <ul style="list-style-type: none"> • Scenarios elaboration • Assessment of consequences (source term conditions elaboration, modeling, domino potential evaluation) • Assessment of scenario's likelihood (introduction to probabilities, how to consider branching of events and safety measures ...)
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12:15 – 12:45	Review and conclusions of the Unit 4: Questions and answers
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12:45 – 14:00	Lunch break
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Unit 4A: Corporate responsibility and industrial risks (A. Jovanovic)

14:00 – 15:30	Corporate responsibility and industrial risks: Mandatory requirements, common practice and trends
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15:30 – 16:00	Review and conclusions of the Unit 4A: Questions and answers
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December 16, 2011**Conference room Freiburg**

3rd floor, Haus der Wirtschaft, Willi-Bleicher-Str. 19, 70174 Stuttgart

Review and final exam	
09:00 – 10:30	Review of main course issues (M. Gerbec, Units 1,2,3,4; A. Jovanovic, Unit Intro 1A, Unit 2A)
10:30 – 10:45	Coffee break
10:45 – 12:45	Preparation for the final exam (M. Gerbec, A. Jovanovic)
12:45 – 14:00	Lunch break
14:00 – 16:00	Final exam (R. Guntrum)
16:00 – 16:30	Final discussion and closing the course (M. Gerbec, A. Jovanovic)

Venue

- Stuttgart, Haus der Wirtschaft
- Steinbeis Foundation
- Steinbeis Advanced Risk Technologies
- EUropean Virtual Institute for Integrated Risk Management (EU-VRI)

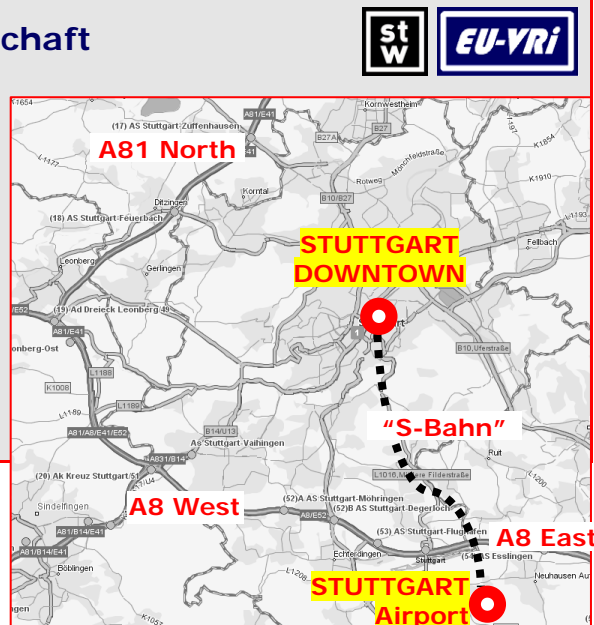
Haus der Wirtschaft,
Willi-Bleicher-Str. 19
70174 Stuttgart, Germany
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+49 (711) 1839-781
www.stw.de

Walking from the main railway station (Hauptbahnhof): Take the main street (Koenigstrasse) for about 500 meters up to the main place Schlossplatz. Between the bookstore WITTMER and the ESPRIT, you have to turn right (kleiner Schlossplatz), go straight ahead, cross the 'Theodor Heuss Strasse' and you will reach automatically the 'Willi-Bleicher-Strasse'.

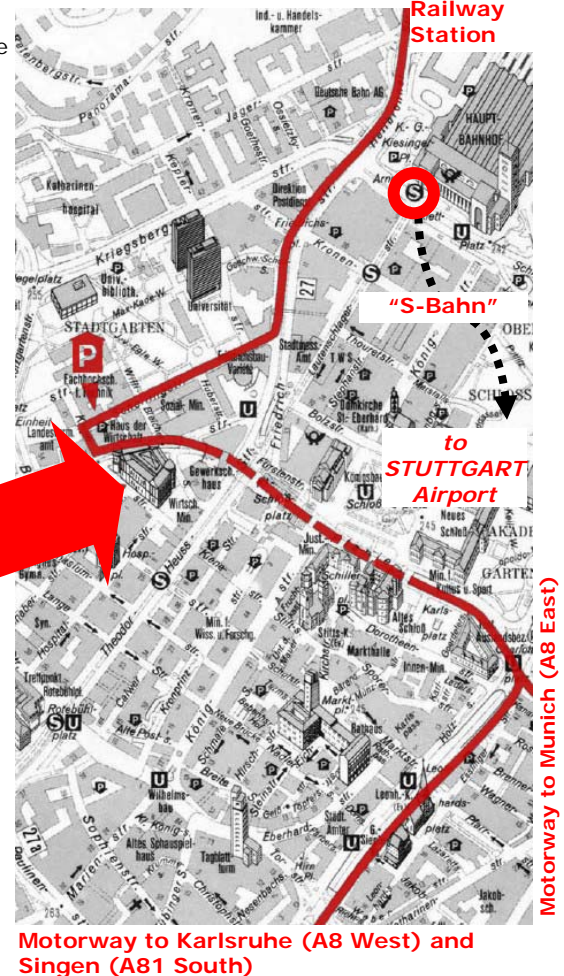
Public transportation: Take any of the subway lines ("S-Bahn") S1 to S6 (**S2 or S3 from the airport!**) and get off at the main railway station (Hauptbahnhof). Then follow the instructions above. Alternatively: use the tramway (the "U-Bahn") lines U9 or U14 and get off at the stop "Friedrichsbau".



By car: From the main motorways follow always "Stuttgart Zentrum" or "Stuttgart Stadtmitte". Take exits "Degerloch" when coming from Munich (Autobahn A8), exit "Vaihingen" when coming from Karlsruhe (Autobahn A8) or Zurich (Autobahn A81), or Zuffenhausen when coming from Heilbronn (Autobahn A81).
Park at "Hofdienergarage" in front of Haus der Wirtschaft (access to garage from Schellingstraße).



Motorway to Heilbronn (A81 North)



Motorway to Karlsruhe (A8 West) and Singen (A81 South)

Class Rooms

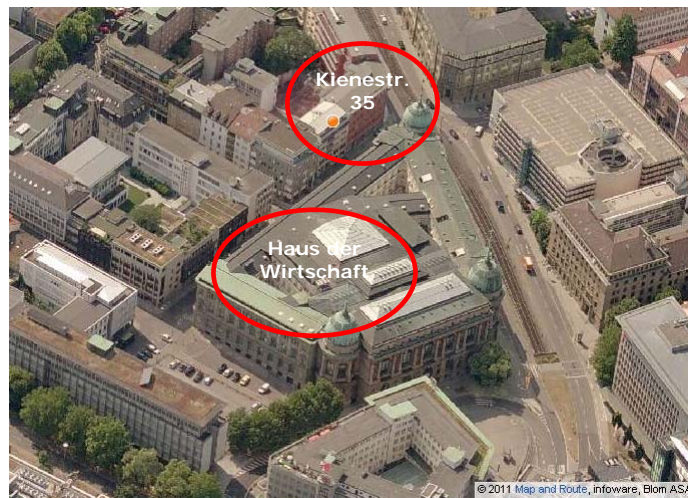
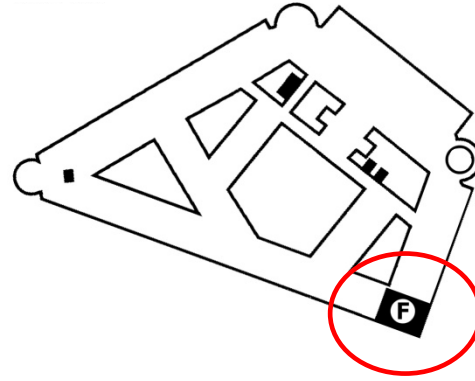
Conference room K5

Kienestraße 35
70174 Stuttgart
(across from Haus der Wirtschaft)



Conference room Freiburg (F)

3rd Floor
Haus der Wirtschaft
Willi-Bleicher-Str. 19
70174 Stuttgart



Hotels - Accommodation

Hotel Name Telephone Nr.	Web	walking distance (min) to Haus der Wirt- schaft	Regular price (€)	"Stein- beis" price (€)
For the hotels below indicate "Steinbeis Stiftung" as the keyword				
Hotel Unger	www.hotel-unger.de	3	125	86
Hotel Wartburg	www.hotel-wartburg-stuttgart.de	5	88	79
Hotel Rega	www.rega-hotel.de	10	115	101
Hotel Azenberg	www.hotelazenberg.de	10	105	96
For the hotel below indicate "SEZ152" as the keyword				
Maritim Hotel	www.maritim.de/typo3/english/hotels/hotels/hotel-stuttgart.html	5	152-189	130-160

Registration/Fees

Registration for the course is open at:

<http://www.sti.risk-technologies.com/Events/default.aspx?EventID=3572>

NOTE: If you are partner in iNTeg-Risk project please, use your iNTeg-Risk credentials for registration.

Registration Fees (+ VAT if applicable):

- 500 €, for normal registration
- 400 €, for ETPIS members
- 200 €, for iNTeg-Risk partners, members of the International Advisory Board and EU-VRi members (cost of catering and handouts)
- 0 €, for students enrolled in the course "European Master of Risk Engineering & Management" as well as for the students of University of Stuttgart covered by the agreement on education in the area of risk governance and management between University of Stuttgart and Steinbeis University Berlin.
- 200 €, for students enrolled in universities not mentioned above

The registration fee covers handouts, coffee breaks, lunches, the course reception on December 13, 2011, info service, on- and off-site (web, mail, phone).

The course is intended for 20-25 participants. The registration will be processed on the first-applied-first-served basis

Information about Credit Points*

SHB Academic Courses:	2 CPs (attendance** and exam passed)
SHB Continuous Professional Education STI 889:	2 CPs (attendance** and exam passed)
SHB Continuous Professional Education STI 889:	1 CP (no exam, attendance* only)

*) More details in the SHB Rules and Regulations (<http://www.sti.risk-technologies.com>)

**) Attendance: min 3 out of 4 lecturing days

Practical contact for the course:

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General contact:



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