

BODY OF KNOWLEDGE SEPTEMBER 2015





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This document sets out the core information that underpins the rimap[®] certification. Its purpose is to define the academic and professional knowledge that candidates, organisations and individuals must demonstrate to receive the rimap[®] status. The Body of knowledge is made up of seven blocks.

The tables on pages 2 to 8 summarise the aims and scope of each of the seven blocks. The learning outcomes for each block are defined in the tables on pages 8 to 48.

THE KNOWLEDGE TEAM

The Body of knowledge was developed by a team of seven people, representing different national associations. Their experience and expertise enabled a wide variety of opinions and perspectives to be captured. The goal has been to ensure that the content is as representative and relevant as possible.

FERMA would like to thank the members of the knowledge team for their hard work and commitment in developing this document, as well as for their ongoing contribution to the certification programme. The team was coordinated by:

• Marie Gemma Dequae (BELRIM), FERMA Scientific Adviser, former Group Risk and Insurance Manager (Bekaert)

• M^a Isabel Martínez Torre-Enciso (AGERS), FERMA vice president and Head of the Finance and Marketing Department of the Universidad Autónoma de Madrid (UAM)

Other members of the team were:

• **Torgny Bogärde (SWERMA),** former vice chairman SWERMA, board member of several companies, Partner and GRC Consultant at Allevo AB

• Anna Korbut (RusRisk), Executive Risk Manager, FERMA Board member

• François Malan (AMRAE), Group Risk Manager, Nexity

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• Klemen Potisek (SI.RISK), State Secretary, Ministry of Infrastructure, Republic of Slovenia



The purpose of the rimap[®] certification is to define the knowledge-base that risk managers need to be familiar with in order to do their jobs, and to enable them to attain this knowledge in a structured way.

The certification programme defines the knowledge that candidates require to obtain the certification at both rimap[®] and rimap[®] Advanced levels.

TABLE 1. STRUCTURE OF THE BODY OF KNOWLEDGE

BLOCK 00: Business basics for the risk manager

BLOCK 01: Essentials of risk management

BLOCK 02: Risk assessment

BLOCK 03: Risk treatment I

BLOCK 04: Risk treatment II

BLOCK 05: Risk communication, monitoring and review

BLOCK 06: Specific risk management topics

The Body of knowledge is comprised of seven blocks. Each of these blocks describes the knowledge candidates are required to demonstrate, beginning with the most general information and progressing to the most specific level. This progression from general to specific is broken down into blocks, topics and chapters. For example:

BLOCK 02: Risk assessment

TOPIC 3. Risk identification techniques

CHAPTER: Methods of identifying risks and loss exposure (rimap[®] Advanced)

In this document, ISO terminology has been used, along with information from other frameworks and professional standards. The intention has been to bring together as much relevant knowledge for professional development as possible in one place, regardless of whether it is included in existing standards or not.

The structure of the blocks follows the risk management process, starting with Block 00, which covers the business basics for risk managers.

DESCRIPTION OF THE BLOCKS

Block 00

BUSINESS BASICS FOR THE RISK MANAGER

COMMENTS

Block 00 prepares candidates for the remainder of the programme by reviewing and defining fundamental aspects of business management. The goal is to equip candidates with the essential management tools they will require as they progress to more senior roles within their organisation. Block 00 will also help individuals identify the computer skills they will require throughout their career.

AIM

The aim of this block is to enable applicants to map their existing knowledge and experience to the learning objectives of the rimap[®] certification. Block 00 covers the basic knowledge, skills and techniques that are pre-requisites for developing a career as a risk manager.

INPUT

Much of the input for this block will come from candidates' prior knowledge and experience of risk management.

OUTPUT

This introductory block will enable applicants to put their existing knowledge and skills in context, and to revise basic principles in readiness for completing the other blocks.

- 1. Essentials of economics
- and international business
- 2. Basic statistics and financial mathematics
- 3. Basic corporate finance
- 4. Financial statements
- 5. Basics of general management
- 6. Legal and contract management
- 7. Basic marketing
- 8. Communication
- 9. Information technology
- 10. Change management

Block 01 ESSENTIALS OF RISK MANAGEMENT

COMMENTS

The block can be completed with variations to reflect national regulations/ standards and local factors.

AIM

This block sets out the fundamental knowledge that applicants will require for a career in risk management. It sets risk management within the broader context of the organisation. Its objective is to ensure that candidates understand the principles and frameworks that underpin an efficient and coherent risk management process that creates and protects values.

INPUT

Standards including ISO 31000, COSO ERM, FERMA, ANZ.

OUTPUT

Knowledge of the frameworks, standards and context that underpin risk management.

- 1. Introduction to the rimap[®] certification (4 pillars system)
- 2. Principles and aims of enterprise-wide risk management (including ethical principles)
- 3. Risk management frameworks and standards
- 4. Risk management in the organisation
- 5. Organisation strategy, objectives, responsibilities, and programme
- 6. Risk appetite, risk tolerance, risk attitude, risk capacity, limits
- 7. Types and impact of risk on organisations
- 8. Risk management process: identification, assessment, treatment, control, financing
- 9. Added value, cost and benefits of risk management

Block 02 RISK ASSESSMENT

COMMENTS

The main outcome of this block will be the capability to identify, compile, analyse, evaluate and measure exposure to the following: - probable risks - accidental risks - extraordinary risks business losses faced by individuals and organisations This will include the following risk categories: - emerging (for example cyber, social media and climate change risk) - reputation - regulatory - supply chain - financial - legal - property - personnel - environmental

- fraud

AIM

This block defines the process of risk identification, assessment and evaluation within an organisation. It also describes the range of analytical tools and techniques available to assess risk.

INPUT

Risk management frameworks; statistical methods and modelling; quantitative assessment and forecasting methods; probability analysis; financial analysis; security analysis.

OUTPUT

Ability to comprehensively identify and assess risks of all types while employing theoretical valuation and forecasting methods.

- 1. Risk and uncertainty and their impact on strategy
- 2. Risk identification and classification
- 3. Risk identification techniques
- 4. Qualitative risk analysis tools and techniques
- 5. Quantitative risk analysis tools and techniques
- 6. Risk consequence, likelihood and severity
- 7. Risk modelling
- 8. Risk register, risk matrix, risk profile
- 9. Other

Block 03 RISK TREATMENT I

COMMENTS

Applicants must demonstrate that they can develop loss prevention and protection strategies, as well as engage with business units. They should show evidence of having managed different types and magnitudes of loss prevention and protection, as well as having monitored risk activity and results. Candidates must demonstrate that they understand a wide range of risk control techniques, including prevention, protection and reduction.

AIM

This block describes the mechanisms and tools that are required for the treatment of risks and losses, with particular emphasis on control and reduction measures. Its aim is to communicate the nature, purpose and steps involved in risk control.

INPUT

Economic and regulatory capital concepts; environmental and social awareness; regulatory aspects; capital adequacy; economics and capability of risk assumption and transfer; operations management; human resource management (HRM); limit setting; compliance principles; principles of crisis management; managerial accounting concepts; quality control; general approaches to business continuity planning (BCP); basic knowledge of technical equipment and tools to prevent fire, flood and natural hazards.

OUTPUT

Ability to develop decision-making frameworks encompassing risk assumption, treatment and/or transfer. Ability to develop response action planning related to IT risks; business interruption (BI); crisis management; and investigation by a governing body.

- 1. General aspects (organisation risk appetite; inherent and current level of risk; risk tolerance, treatment, transfer and termination)
- 2. Types of risk treatment/response
- 3. Risk control techniques: loss prevention, claims management and opportunities
- 4. General/financial risk-related controls
- 5. Business continuity: emergency and crisis management
- 6. Other techniques

Block 04 RISK TREATMENT II

COMMENTS

Applicants should be

able to demonstrate an

understanding of techniques

AIM

This block encompasses basic financing techniques; the principles underpinning insurance; and the primary benefits insurance contributes to society. It emphasises that a key part of the risk treatment process is risk sharing. It describes the risk financing process, with the goal of ensuring that candidates understand the nature, purpose, and steps involved in risk financing (retention and transfer).

INPUT

Actuarial science; insurance economics; procurement principles; the legal, economic and operations perspectives of captive insurance companies; the reinsurance market; principles of financial instruments; the investment banking sector; the use of fundamental and technical analysis in decision-making process; stress testing; scenario analysis; valuation and bookkeeping of insurance instruments.

OUTPUT

Ability to develop economics-based decision-making frameworks for risk transfer. Knowledge of best practice in concluding risk transfer arrangements and claims management (including set-up of internal rules and procedures). Knowledge of when and how to obtain insurance, and also when it is no longer necessary.

COVERAGE

- 1. Risk financing techniques
- 2. Insurance sector
- 3. Insurance
- 4. Reinsurance
- 5. Captive (re)insurance companies
- 6. Alternative risk transfer
- 7. International insurance market

used for financing retention, transfer, insurance or the alternative risk transfer. They should understand the criteria for making risk financing decisions, as well as how to develop risk financing strategies, along with the selection, implementation and monitoring of risk financing techniques. They should be able to demonstrate knowledge of relevant legal concepts and the legal environment in which insurance operates. They should understand the concepts of risk and its relationship to insurance, as well as the relationship between risk management and the organisation insurance policy. They should be able to develop alternative financing techniques such as insurance, self-insurance, retrospective rating, reinsurance, or captive insurance.

Block 05 RISK COMMUNICATION, MONITORING AND REVIEW

COMMENTS

Within the organisation assurance environment and the context of organisation policy, candidates should understand how to get a specific level of satisfaction with respect to the reliability of the risk management information and documentation provided.

AIM

This block will enable candidates to gain skills in communicating risk to stakeholders, and consulting with them about risk. Candidates will also develop an understanding of the importance of having a sound risk culture in order to deliver reliable risk management that encompasses all aspects of an organisation's risk profile. In addition. the block deals with components of monitoring and review, such as coverage, design of risk reports, their frequency and who should receive them. These are considered as critical parts of the risk management process.

INPUT

Basic knowledge of organisation culture; relations with stakeholders; risk information; and value added decision-making processes.

OUTPUT

Knowledge of how to produce a risk report and action plan for an organisation's senior management team.

- 1. Risk culture and the human factor
- 2. Corporate social responsibility
- 3. Communication, consultation, corporate governance and the role of the board
- 4. Risk management information systems
- 5. Risk monitoring
- 6. Risk review
- 7. Risk assurance
- 8. Risk reporting

Block 06 SPECIFIC RISK MANAGEMENT TOPICS

COMMENTS

Candidates should

have a grasp of the

concrete tools available for the management of

specific risks, such as

operational, supply chain,

incident and claims, as well as understanding

the relationship of risk

continuity and crisis

management to business

management. They should

also have an understanding

of risks relating to mergers

risk management around

and acquisitions, and

projects.

AIM

The goal of this block is to explore important business areas specifically related to risk and risk management, such as business continuity, incident and claims management, and crisis management, along with their link to strategic management.

INPUT

Basic technical knowledge about IT (hardware/software, cyber risks); the merger and acquisition process (due diligence and integration); loss of profit evaluation (gross earning/gross profit); analysis of financial statements.

OUTPUT

To be able to understand the theories, best practices and trends relating to the different topics covered in this block.

- 1. Operational risk management
- 2. Supply chain risk management
- 3. Incident and claims management
- 4. Portfolio, programmes and project risk management
 - 5. Mergers and acquisitions
- 6. Business continuity and disaster recovery management
- 7. Emerging and future risks
- 8. Other topics

LEARNING OUTCOMES

Block OO BUSINESS BASICS FOR THE RISK MANAGER

CHAPTER	LEARNING OUTCOME
Macroeconomics	 measuring national income and price equilibrium in the real market: consumption; investment equilibrium in the money market equilibrium in the economy and aggregate demand
Macro dynamics	inflationeconomic growthbusiness cycles
International economy and foreign exchange market	open macroeconomicsforeign exchange rate
Principles of managerial economics	 Insights into how market economies function: what determines the price of goods and the quantities produced and consumed how government policies and other external events affect prices and quantities in which cases market outcomes are efficient and in which cases they are not main market types (perfect competition; monopoly; monopolistic competition; oligopoly)

TOPIC 2: BASIC STATISTICS AND	TOPIC 2: BASIC STATISTICS AND FINANCIAL MATHEMATICS			
CHAPTER	LEARNING OUTCOME			
Basics in statistics	Variables; population; samples; measurement of central tendency			
Probability distributions and descriptive statistics	Regression and correlation; probability; variance and standard deviation; distributions			
Hypothesis testing	Estimations; hypothesis testing; hypothesis test			
Time value of money	 simple and compound interest effective interest rates future value present value annuities amortisation 			
TOPIC 3: BASIC CORPORATE FINA	ANCE			
CHAPTER	LEARNING OUTCOME			
Fundamentals of corporate finance	 goals of corporate finance finance function and the firm's objectives corporate governance 			
Principles of valuation and discounted cash flow	 what is value? the valuation process value creation for shareholders what is cash flow? basics of cash flow analysis terminal values 			
Capital investment decisions, cost of capital and CAPM	 investment decisions: payback rules; discounting payback period method; internal rate of return (IRR); net present value (NPV) cost of capital: cost of equity capital; cost of debt capital; weighted average cost of capital (WACC) capital asset pricing model (CAPM): measuring beta; risk free rate; risk adjusted discount rates 			
Long-term financial policy	 investment decisions project evaluation: method for ranking investment proposals; capital resource rationing; common pitfalls (e.g. sunk costs; depreciation) 			
Short-term financial policy	 short-term financing: working capital short-term financing: cash management and credit management 			
Capital structure and dividend policy	leverage and the value of the firmdividend policy			
Equity and bond valuation	 valuation model of common stock bond yield measures term structure of interest rates bond price analysis risk measurement the issue process 			

TOPIC 4: FINANCIAL STATEMENT	TOPIC 4: FINANCIAL STATEMENTS			
CHAPTER	LEARNING OUTCOME			
Financial accounting, financial reporting and statement analysis	 basic financial accounting financial statements: balance sheet; income statement; statement of cash flows; statement of changes in equity financial reporting: uses of financial statements; international differences in accounting 			
Framework for the preparation and presentation of financial statements	 objective of financial statements fundamental definitions (asset; liability; equity; revenue; expense) the cash flow statement criteria for revenues recognition measurement of revenues 			
Assets, liabilities and shareholders' equity	 assets: property; plant and equipment; investment property; intangible assets; inventories; financial instruments liabilities: bonds; hybrid securities; leases; retirement benefits; provisions shareholders' equity 			
Profitability and risk analysis	 profitability analysis: ROA (return on assets); ROCE (return on capital employed) risk analysis: short-term liquidity risk; long-term solvency risk 			
TOPIC 5: BASICS OF GENERAL M	ANAGEMENT			
CHAPTER	LEARNING OUTCOME			
Management policy and process	 Management of business processes in order to optimise corporate performance: business process management (BPM) total quality management continuous improvement process 			
Introduction to business information systems	 ICT strategy IT architecture and the design and use of ICT systems Given the growth and importance of large business information systems that are able to register and process immense data sets, the use of enterprise resource planning (ERP) systems and business intelligence is also important. 			
Principles of organisational behaviour	How, why and what people think, feel and do in organisations (individual and group behaviour)			
Leadership, values and corporate responsibility	 self-management skills leadership vs. management expectations and accountabilities conflict and change management cultural differences 			
Principles of human resource management	A sound basic knowledge of human resource management (HRM)			

TOPIC 6: LEGAL AND CONTRACT	MANAGEMENT
CHAPTER	LEARNING OUTCOME
Principles of law	 introduction to legal science basic structures of legal systems legal terminology legal reasoning
Society, enterprise and corporate social responsibility	Issues and relationships related to risk
Introduction to international and European law	Evolution of the legal environment where the candidate does business
Compliance	Establishing management processes which will identify the necessary requirements (as defined in laws, regulations, contracts, strategies and policies) to assess the state of compliance
Ethics	Principles of conduct governing an individual or a group, based on moral duty and obligation, underpinned by what is good and bad
TOPIC 7: BASIC MARKETING	
CHAPTER	
Understanding the role of marketing	 what is marketing and how it fits into the organisation marketing system exchange map marketing-oriented companies models of consumer decision-making
Marketing strategies	 strategic approaches to the planning process mass marketing vs. segmentation marketing segments and the targeting process differentiated positioning strategy components of the marketing mix
TOPIC 8: COMMUNICATION	
CHAPTER	LEARNING OUTCOME
Communication skills for managers	 communication to influence and inspire promoting team-building understanding virtual team communication
Communication tools for managers	Description of different systems and tools: • video conferencing • intranet • internal media • newsletters

TOPIC 9: INFORMATION TECHNOLOGY			
CHAPTER	LEARNING OUTCOME		
Basic IT knowledge	 use of operating systems for file management, word processing, spreadsheets, presentation software, and emerging technologies data analysis and use of internet communication tools 		
ICT infrastructure	Insight into the structure and characteristics of computer infrastructure, such as servers and clients, and storage and networking equipment.		
TOPIC 10: CHANGE MANAGEMI	ENT		
CHAPTER	LEARNING OUTCOME		
Psychology of change	 principles for managing change best practice in change management fundamentals of managing the people side of change 		
Change management processes	 managing organisational change connecting change management to business projects change management strategy change management team 		
Managing change	 communication plan coaching plan overcoming resistance management plan training plan master change plan 		

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Block 01 ESSENTIALS OF RISK MANAGEMENT

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk management associations	Description; history; underlying principles; operation at national and international levels	Х	Х
FERMA	 knowledge of the national association in the country in which certification is being granted (the country where the Risk Manager is located) knowledge of FERMA and its objectives 	Х	Х
The 4 pillars	Understand the structure of the programme and the 4 pillars (knowledge, experience, CPD and ethics)	Х	Х
The two levels of certification	 understand the difference between these (rimap[®] and rimap[®] Advanced Certificate) understand how to obtain (and maintain) each one 	Х	Х

TOPIC 1: INTRODUCTION TO THE rimap[®] CERTIFICATION (4 PILLARS SYSTEM)

TOPIC 2: PRINCIPLES AND AIMS OF ENTERPRISE-WIDE RISK MANAGEMENT (INCLUDING ETHICAL PRINCIPLES)

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Principles of enterprise risk management (ERM)	The characteristics of Risk Management and what it should deliver	Х	Х
Aims of ERM	To understand the different aims of your organisation: • compliance • assurance • decision-making • efficiency of operations • effectiveness of processes	Х	Х

efficacy of strategy

TOPIC 3: RISK MANAGEMENT FRAMEWORKS AND STANDARDS [®] rimap rimap® ADVANCED CHAPTER **LEARNING OUTCOME** LEVEL (X) LEVEL (X) COSO 1 and COSO 2 (origin; objectives; COSO ERM Х Х contents) ISO 31000 Description of ISO 31000 Х Х Knowledge of any frameworks within the country in which the rimap[®] is granted Х Х Local framework (in the case of certification, the country where the risk manager is located) • FERMA framework • IRM standards Other international Х standards • ISO 31010 and 31004 • COSO 3 Knowledge of organisation-specific Internal corporate standards Х standards, if these exist

TOPIC 4: RISK MANAGEM			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Historical background	Origin of Risk Management in the US, Europe, and the country in which the rimap [®] is being granted (in the case of certification, the country where the risk manager is located)	Х	Х
Risk Management in the organisation	Reporting lines	Х	Х
Definition of three lines of defence	 Operational management Risk Management – internal control Internal and external audit 	Х	Х
Procedures for operating the three lines of defence			Х
Interaction with other departments	Relationship of Risk Management with legal; quality; safety; and environmental departments		Х
Developing a risk aware culture	 implementation of a risk culture within the organisation understanding human and cultural factors 		Х
TOPIC 5: ORGANISATION STRUCTURE ANI	STRATEGY, OBJECTIVES, RESPONSIBI D PROGRAMME	LITIES,	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk Management responsibilities	 board mandate and commitment scope of the risk management Risk Management responsibilities within the organisation 		Х
Organisation framework for managing risk	Description of risk architecture; risk strategy; risk protocols; and Risk Management policy		Х
Implementation of the framework	Tools to implement the framework and Risk Management processes		Х
Monitor, review and improve	Tools to monitor the framework		Х

TOPIC 6: RISK APPETITE, RISK TOLERANCE, RISK ATTITUDE, RISK CAPACITY, LIMITS			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definition of risk strategy	This should take into account: • risk appetite • risk tolerance • risk attitude • risk capacity • limits • CEO involvement • tools that can be used to define risk strategy	Х	Х
Applicability of risk strategy	This should take into account: • risk appetite • risk tolerance • risk attitude • risk capacity • limits • CEO involvement • understanding why a risk strategy is important	Х	Х
TOPIC 7: TYPES AND IMP	ACT OF RISK ON ORGANISATIONS		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definition of risk	 understand different definitions: risk as either a threat or an opportunity understand the origin or the consequence of risk understand that the definition needs to be stated and communicated by the organisation 	Х	Х
Types of risks	 internal or external strategic or operational HR legal 	Х	Х
Impact of risks	financial impactnon-financial impact	Х	Х
Recording risk assessments	risk registerspreadsheetcomputer-based system		Х

risk management

profile

TOPIC 8: RISK MANAGEMENT PROCESS: IDENTIFICATION, ASSESSMENT, TREATMENT, CONTROL, FINANCING

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk management process	Different types of process, including: • COSO ERM • ISO 3100 (7Rs & 4Ts) • FERMA • local standards	Х	Х
Identification and assessment (definition)	Essentials of risk assessment, including methodology (top-down vs. bottom-up approach; risk matrix)	Х	Х
Reduction and control (definition)	 Essentials of risk control or mitigation: risk avoidance or reduction (including loss prevention) risk transfer (contractual) opportunities 	Х	Х
Risk financing (definition)	Essentials of risk financing: • retention • insurance • captives • alternative risk transfer (ART)	Х	Х
Feedback mechanisms	 essentials of monitoring and reviewing performance essentials of communication and consultation 		Х
TOPIC 9: ADDED VALUE,	COST AND BENEFITS OF RISK MANAGE	MENT	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Cost of risk	Total cost of risk (TCOR): calculation and use		Х
Added value and benefits of risk management	Calculation of the optimal risk/return		Х

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Block 02 RISK ASSESSMENT

TOPIC 1: RISK AND UNCERTAINTY AND THEIR IMPACT ON STRATEGY			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definitions of risk and risk management	 understand risks and acquire the fundamentals of risk identification develop the ability to gather the necessary internal/external data and information for risk modelling and its validation 	Х	Х
Uncertainty and likelihood	Acquire the basis for risk quantification and understand ways to handle related issues	Х	Х
Risk influenced strategy	 principles of risk-based strategy setting and adjustment integration of strategic management and risk management 		Х
Risk policy	 ability to formulate risk policy, taking into account the organisation's strategic goals; risk attitude and appetite; industry sector; and market understand why and how the policy should be reviewed and adjusted to serve its purpose 		Х

Risk tactics	 ability to decide on proper and timely tactical adjustments to the adopted risk strategy within changed circumstances ability to communicate the necessary changes (including exit strategy) in comparison with the base scenario (both quantitatively and qualitatively) 		Х
TOPIC 2: RISK IDENTIFIC	ATION AND CLASSIFICATION		-* @
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk classification(s)	 awareness of principles underlying different risk classification approaches (origin; impact; subject; industry sector) ability to conduct proper risk identification and classification within the organisation 	Х	Х
Description of principal risks	Overview of the nature and impact of risks including: • financial • quality • liability • asset • environmental • personnel • transport • IT • intellectual property • criminal	Х	Х
Identification of principal risks	Develop competency in identifying risks which may significantly impact on or impair an organisation's ability to perform and/or survive (i.e. continue as a 'going concern')	Х	Х
Correlated and consequential risks	Develop competency in acquiring a basis for comprehensive assessment of net risks		Х
Classification of loss exposure	 understand the nature of losses understand what constitutes an adequate approach to risk treatment (avoidance; reduction; retention; transfer) 		Х

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Methods of identifying risks and loss exposure (introduction)	Brainstorming; checklists; surveys; loss histories; financial statements	Х	Х
Methods of identifying risks and loss exposure	 strategic (objectives-based) scenario analysis via identification of risk sources (taxonomy-based) failure mode and effect analysis (FMEA) incident analysis 		Х
Other methods	For example ISO 31010; COSO ERM		Х
TOPIC 4: QUALITATIVE RI	SK ANALYSIS TOOLS AND TECHNIQUES	5	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Quantitative methods	Brainstorming; checklists; surveys; external data and information	Х	Х
Qualitative risk analysis tools and techniques	Probability impact matrices; risk scoring		Х
TOPIC 5: QUANTITATIVE	RISK ANALYSIS TOOLS AND TECHNIQU	ES	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Quantitative methods	For example probability theory	Х	Х
Statistical methods	 ability to calculate volatility understanding the concept of the Greeks regression trends understanding actuarial methods 		Х
Quantitative risk analysis tools and techniques	 Monte Carlo simulation decision trees factor analysis sensitivity analysis 		Х

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Qualitative approach	 identifying hazards and associated risks option analysis checklists audits use of sources (hazard studies) fault trees cause and consequence diagrams 	Х	Х
Quantitative approach	 choice of adequate historical data use of statistical methods forecasting scenario analysis 	Х	Х
TOPIC 7: RISK MODELLIN	G		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk modelling in general	 Develop competency in: identifying risk exposure and risk factors implementing and validate risk models identifying model limitations interpreting statistical analyses conducting stress tests and scenario analyses 		Х
Capital asset pricing model	Understand the relationship between risk, return and value of assets		Х
(CAPM)	,		
(CAPM) Economic capital	Understand the relationship between the impact of possible risks and the capital needed to allow for these, along with risk pricing		Х

TOPIC 8: RISK REGISTER, RISK MATRIX, RISK PROFILE, RISK MAP			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk register	Develop competency in organising a organisation's risk register, given its sector, size and complexity	Х	Х
Risk matrix	Develop competency in defining a risk matrix and adequate risk response given a organisation's sector, size and complexity		Х
Risk profile	 understand the approach to defining a organisation's risk profile competence to distinguish between perceived and actual risk profiles use of this concept to achieve a target risk profile 		Х
Risk map		Х	Х

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Block 03 **RISK TREATMENT I**

TOPIC 1: GENERAL ASPECTS (ORGANISATION RISK APPETITE, INHERENT AND CURRENT LEVEL OF RISK, RISK TOLERANCE, TREATMENT, TRANSFER AND TERMINATION)			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Organisation risk appetite	 competence to define risk appetite ability to manage risk tolerance understand the role of the risk manager/chief risk officer/risk committee understand the relationship between economic capital and regulatory capital 	Х	Х
Economics of risk treatment	Knowledge and competence to provide senior management with basis for decision-making on risk treatment		Х
TOPIC 2: TYPES OF RISK 1	REATMENT/RESPONSE		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk response	Able to make decisions on whether to tolerate, treat, transfer or terminate	Х	Х

TODIC 1: GENERAL ASDECTS (ODGANISATION DISK ADDETITE INHEDENT AND CURDENT

TOPIC 3: RISK CONTROL TECHNIQUES: LOSS PREVENTION, CLAIMS MANAGEMENT AND OPPORTUNITIES

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk avoidance	Understand techniques for risk avoidance and evaluation of eventual opportunity cost/profit	Х	Х
Risk mitigation/preventive techniques	Understand purpose and contents of policies; programmes to address hazards; importance of and approach to structuring responsibilities	Х	Х
Loss reduction techniques	 knowledge of operations management and competence to assess opportunity control of infrastructure risks (health and safety at work; natural hazards; property fire protection; IT security; HR risks) control of reputational risks (brand protection; environment) control of marketplace risks (technology developments; regulatory risks) 		Х
Separation, diversification and duplication techniques	Understand the tools and the risk situations in which they can be successfully applied		Х
TOPIC 4: GENERAL/FINAN	ICIAL RISK-RELATED CONTROLS		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Limit setting	value at risk (VaR); credit limits; Altman Z Score and other models; concentration indices		Х
Control set-up	Control framework techniques; necessity of setting predefined criteria (for example monitoring frequency)		Х
Others	 fraud control historical liabilities (for example exposure to asbestos; liabilities related to pension funds) 		Х

TOPIC 5: BUSINESS CONTINUITY: EMERGENCY AND CRISIS MANAGEMENT			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Business continuity (definition)	Understand emergency and crisis management concepts		Х
Disaster recovery (definition)	 policies pre-disaster protection and mitigation measures continuity of operations planning post-disaster response and recovery elements of continuity planning 		Х
Business impact analyses, recovery strategies and business continuity plans	Competence to outline business continuity/disaster recovery plan		Х
Testing, training and awareness programmes	Competence to outline the main contents of defined programmes that are appropriate to the size and sector of the organisation		Х
Communication and crisis management programmes	Competence to outline the main contents of defined programmes that are appropriate to the size and sector of the organisation		Х
TOPIC 6: OTHER TECHNIQUES			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
National associations tools	Other techniques		Х

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Block 04 RISK TREATMENT II

BLOCK 04: RISK TREATMENT II

TOPIC 1: RISK FINANCING TECHNIQUES

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk retention	 Understand the following: risk absorption provisions economic and regulatory capital captive insurance concepts and their economics 	Х	Х
Risk transfer	Understand the use of financial derivatives and markets; (re)insurance covers; 'natural' hedges	Х	Х
Other risk financing techniques	Securitisation		Х

TOPIC 2: INSURANCE SECTOR			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Insurance market	 understand the mechanics and organisation of the insurance sector understand insurance sector risk transfer products know who the main actors are (brokers; insurers; insurance industry network) 	Х	Х
Insurance programmes	 local vs. international insurance programmes and regulatory perspective/influence master insurance policies vs. local policies choice of right insurance mix, for example optimal (international) coverage; claims management 	Х	Х
International insurance legislation and regulations	 particular features of different insurance policies, for instance coverage and claims management under general legislative approaches (e.g. Anglo-Saxon vs. continental law) particular features of international liability insurance policies compliance with international insurance programmes 		Х
National legislation and regulations	Knowledge of national insurance sectors, markets and solutions, and their particular features		Х

TOPIC 3: INSURANCE			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Types of insurance cover	Broad knowledge of types of insurance, e.g. property; liability; marine	Х	Х
Premium	Knowledge of how premiums are calculated, revised and taxed	Х	Х
Deductibles	 understand the rationale for deductibles for the insurer and the insured understand the economics and scenario analysis of deductibles based on mathematical probability (market/ organisation), including analysis of historical data/time series of cases 	Х	Х
Material contractual obligations	Knowledge of key legal principles and obligations with which the insured should be familiar	Х	Х
TOPIC 4: REINSURANCE			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definition of reinsurance		Х	Х
Reinsurance market	Understand the structure and operations of the reinsurance market, including the parties involved and the functioning of captive (re)insurance companies		Х
Classifications	Proportional and non-proportional (per- risk, per-event and stop-loss cover)		Х
New reinsurance techniques			Х

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SURANCE COMPANIES		
LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
	Х	Х
Knowledge of captive insurance principles and possibilities (e.g. single parent; association; industry; rent-a- captive; cell captives)		Х
Knowledge of legal/regulatory and tax aspects of captives		Х
Understand the rationale, economics and mechanics of captive insurance companies		Х
ISK TRANSFER		
LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
 understand the mechanics and organisation of the financial sector understand financial sector risk transfer products, e.g. options and bonds 	Х	Х
Knowledge of products such as: • catastrophe bonds • reinsurance sidecars • industry loss warranties • financial derivatives		Х
L INSURANCE MARKET		
LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Knowledge of: parties involved; importance; governance; regulation	Х	Х
For example: products; insurance policies ; claims management		Х
	LEARNING OUTCOME Knowledge of captive insurance principles and possibilities (e.g. single parent; association; industry; rent-a- captive; cell captives) Knowledge of legal/regulatory and tax aspects of captives Understand the rationale, economics and mechanics of captive insurance companies ISK TRANSFER LEARNING OUTCOME • understand the mechanics and organisation of the financial sector • understand financial sector risk transfer products, e.g. options and bonds Knowledge of products such as: • catastrophe bonds • reinsurance sidecars • industry loss warranties • financial derivatives INSURANCE MARKET LEARNING OUTCOME Knowledge of: parties involved; importance; governance; regulation For example: products; insurance	LEARNING OUTCOME K Knowledge of captive insurance principles and possibilities (e.g. single parent; association; industry; rent-acaptive; cell captives) Knowledge of legal/regulatory and tax aspects of captives Knowledge of legal/regulatory and tax aspects of captives Understand the rationale, economics and mechanics of captive insurance companies ISK TRANSFER rimap [®] LEARNING OUTCOME rimap [®] • understand the mechanics and organisation of the financial sector X • understand financial sector X • understand financial sector X • understand financial sector X • industry loss warranties X • catastrophe bonds Y INSURANCE MARKET LEARNING OUTCOME • industry loss warranties Evel (X) • industry loss warranties • industry loss warranties • inancial derivatives LEARNING OUTCOME • NSURANCE MARKET LEARNING OUTCOME • Knowledge of: parties involved; importance; governance; regulation X • For example: products; insurance X

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Block 05 RISK COMMUNICATION, MONITORING AND REVIEW

TOPIC 1: RISK CULTURE AND THE HUMAN FACTOR

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk communication and review	Definitions	Х	Х
Definition of risk culture	 know and understand the importance of risk culture for effective risk management understand that soft factors are even more important than hard ones understand that 'walking the talk' is critical for building a legitimate and trusting risk culture understand that risk culture is the effect of long-term work. It is built up slowly but can be quickly destroyed 	Х	Х
Risk culture criteria	 be able to define risk culture criteria understand that soft factors like risk culture can be audited and verified be able to give examples of synonyms for risk culture 		Х

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definition of corporate social responsibility (CSR)	 corporate self-regulation within the business model ensuring that all stakeholders embrace responsibility for corporate actions 	Х	
COSO: demystifying sustainability risks	Know and understand the connection between internal and external risks, and the growing emphasis stakeholders put on sustainability risks		Х
Standards	 three lines of defence corporate social responsibility vs. corporate governance 		Х
TOPIC 3: COMMUNICATI THE BOARD	ON, CONSULTATION, CORPORATE GOVE	RNANCE AND	THE ROLE OF
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Definitions		Х	Х
Communication	 understand that communication and consultation with external and internal stakeholders should take place during all stages of the risk management process understand the importance of developing (i.e. educating) board members, including providing continuous learning for Risk Management stakeholders and key users to develop an increase in Risk Management professionalism within the board understand that the board is the key client and is expected to be an educated client, ready and able to discuss Risk Management system development, rather than just being a 'passive' consumer understand communication for business lines and organisation employees, for example, tools such as eLearning understand that the board should be able to work with risk managers to define, develop and set tasks, requirements and challenges for Risk Management function, such as the format and size of the system, and the tools and instruments relevant for a particular organisation 		Х

Consultation	 Understand what responsibilities board directors have, and which questions they should ask re: risk oversight objectives of enterprise risk management effectiveness of management's Risk Management process capacity and appetite for risk consolidation of risks risk reporting (adequacy and timeliness) 		Х
Communication plans	Understand the importance of communicating and consulting with the board at an early stage		Х
Stakeholder definition	Who are the stakeholders?	Х	Х
Relations with stakeholders	 understand the importance of effective communication and consultation with stakeholders as they will make judgements about risk based on their perceptions of risk ensure that communication and consultation facilitates truthful, relevant and accurate exchanges of information understand cognitive biases and how to overcome them. Studies suggest that these play a significant role in human ability to correctly identify, assess and mitigate risks 		Х
Communication with stakeholders	 know how to differentiate risk communication for different stakeholders, depending on the types of risks understand different approaches to risk perception and the importance of timing of risk communication to reflect this 		Х
Conditions	 understand that the risk manager's role is to facilitate, advise and coordinate the Risk Management process be aware that effective governance and controls depend on clear lines of responsibility and defence. Other factors include separation of duties and dualities 		Х
	 understand that the board has ultimate responsibility for risk oversight, but all risk owners are responsible for their risk management 		Х

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CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk management information systems	 be aware of the key risk management information systems on the market and their main features (if necessary, commission your own RMIS) understand the role of Forrester and Gartner surveys 		Х
TOPIC 5: RISK MONIT	ORING		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Risk monitoring	 Understand that risk monitoring should be applied in sequence: basic qualitative risk analysis techniques (likelihood x consequences) are applicable to all organisations intermediate tools like bow- tie analysis and other semi- quantitative techniques should be applied to high risks assessed rimap[®] Advanced steps like risk modelling and quantitative techniques should be applied only to significant risks 		Х

assessment (ICSA)

TOPIC 6: RISK REVIEW			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap [®] ADVANCED LEVEL (X)
General principles	 priorities should include: strategic planning; business planning; budgeting risk assessments must be incorporated into strategy setting and business planning budgets should only be agreed and signed off after a risk assessment has been undertaken and the results taken into account 		Х
Guidance for board members	 risk assessment should be integral to any significant management or investment decision risk assessment should not be a stand-alone process, but integrated into all material decisions these decisions should be considered only after proper risk analyses have been undertaken the level and complexity of risk analysis should be proportionate to the risk appetite and the value of the decision 		Х
Risk indicators	 management reporting should include key strategic goals and KPIs for risk risk reporting should be linked to performance management and employee remuneration these indicators should be built into existing business processes and should not exist in isolation 		Х
TOPIC 7: RISK ASSURA	NCE		
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Internal audit, IT and project assurance	Process assurance		Х

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap [®] ADVANCED LEVEL (X)
Definition of internal reporting	 internal risk reporting is crucial in developing risk culture across an organisation communicating risks in a way that is practical, analytical yet easy to understand is key to developing an effective risk culture communication must be tailored to the needs of the audience, for example by striking a balance between being sufficiently detailed to be useful, without including complex detail that might not be understood 	Х	Х
Internal reporting tools	 understand that the more senior the level of the person assessing the corporate risk, the more aggregated and analytical the risk report should be understand that risk reporting for internal users must satisfy certain criteria, for instance: providing a clear basis for decision-making; taking different users' perception of risk into account; understanding users' objectives and interests 		Х
External reporting	 understand that not all risks should be communicated externally, but that organisations need to provide evidence that they have comprehensive risk management systems in place be aware of agency theory, which relates to so-called agency conflicts (conflicts of interest) between agents and principals in agency relationships. These can arise between shareholders and managers and between debt- holders and shareholders 		Х

Understand that risk reporting should meet the following criteria:

- feature a logical flow of information and use a consistent format
- include clear description of the results and outcomes of activities that have been carried out to influence risk probability or risk impact
- pitch information at the right level for the target audience and take their decision-making powers into account
- include an appropriate balance between quantitative and qualitative risk information
- contain all the relevant information users require
- link with other departments within the organisation, including taking steps to coordinate with them and ensure they act on the report

Communication, coordination and report-writing

Х

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Block 06 SPECIFIC RISK MANAGEMENT TOPICS

TOPIC 1: OPERATIONAL RISK MANAGEMENT

СНА	\PTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
	rational risk agement – definition			
•	rational risk agement in industry	 Analysing risks: loss protection and prevention loss mitigation solutions in different kinds of risks (for example, property- liability; transport; credit) Definition and classification of operational risks provided by the Global Association of Risk Professionals (GARP) Relationship between the three operational risk components: technology development business processes and organisational development (including internal control) human resources development (soft factors – such as moral hazard; cognitive biases; and institutional theory – must be strongly taken into consideration Concepts of 'layers of cheese' and organisational (corporate) 'pathogens', as described by J. Reason 		Х
•	rational risk agement in finance	 regulatory treatment of operational risk under Basel II and III operational risk in various financial institutions 		Х

TOPIC 2: SUPPLY CHAIN RISK MANAGEMENT				
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)	
Logistics management	 demonstrate an integrated and comprehensive approach to logistics and supply chain management understand how firms must link with their supply chain partners to gain a competitive advantage understand major economic trends which have fundamentally influenced the supply chain processes (for example: ongoing advances in IT management; increasing cost pressures) underline the role of quality management and customer satisfaction understand that an increasing focus on core activities can lead to the development of large (often worldwide) networks for supply, production and distribution 		Х	
Supply chain risk management	 understand that global supply chains face a multitude of risks develop structured and systematic approaches for assessing risks in supply chains take into account areas including: logistics; supply chain management; operations management; strategy; and international business. Use this information to develop a model of global supply chain risk management understand the interconnection and interdependence between different operational sites appreciate the difficulty of calculating the consolidated margin to declare be able to evaluate the required insurance response 		Х	

TOPIC 3: INCIDENT AND CLAIMS MANAGEMENT

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Database management	 recognise that databases underpin many business applications gain an insight into the design and the use of databases understand the model underpinning relational databases 		Х
Claims management	 demonstrate a working knowledge of handling claims, including claims practices and fraud issues be able to describe the main actors involved (brokers; experts; lawyers; insurers) understand the key legal points: deductible; limits; value 		Х
TOPIC 4: PORTFOLIO, PR	OGRAMMES AND PROJECT RISK MANA	GEMENT	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Project management with focus on risk	 understand that project management can be applied to all kinds of projects understand fundamental concepts of project management: time; resources; cash; quality demonstrate knowledge of project management techniques understand the importance of compliance risk management when working on international projects, as the regulatory landscape in other countries/locations can differ substantially from the ones from where the project (and the team) is based 		Х

CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
M&As and corporate strategy	 know how to map a path to optimise your portfolio know how to cooperate in the due diligence process be able to define an optimal portfolio of businesses, as well as the right mix of internal and external business growth be able to design a post-M&A integration approach that fits strategic and risk objectives, while also taking into account human constraints understand differences in corporate risk cultures understand the implications of M&As from an insurance point of view (for example: cancellation of existing policies; D&O) be able to describe insurance pollution; liability guarantee) 		Х
TOPIC 6: BUSINESS CO	ONTINUITY AND DISASTER RECOVERY MA	NAGEMENT	
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Business continuity management	 Learn to embed business continuity plans in the organisational culture: identify a crisis situation decide how and when to respond communicate both internally and externally lead and direct the recovery process know the contents of the ISO 22301 standard for business continuity management systems 		Х
Disaster recovery	 understand key concepts of developing business continuity and disaster recovery strategies know how to design and implement 		Х

TOPIC 7: EMERGING AND FUTURE RISKS			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Emerging and future risks	Show awareness of emerging and future risks, such as: climate change; nanotechnologies; robotics; wearable devices		Х
TOPIC 8: OTHER TOPICS			
CHAPTER	LEARNING OUTCOME	rimap® LEVEL (X)	rimap® ADVANCED LEVEL (X)
Regional specific topics			Х

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The Bank for International Settlements' (BIS) website offers important information about voluntary regulatory frameworks, like the BIS Basel I, II and III standards. (http://www.bis.org/index.htm).

The Economist website contains articles and archive material from The Economist including country surveys. (www.economist.com).

The Global Association of Risk Professionals website can offer essential resources like the 'Foundations of Banking Risk'. (http://www.garp.org).

The Institute of Internal Finance website publishes country and regional reports on various emerging market countries. (www.iif.com).



