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ICAAP - a Central Pillar of Basel II

Business Breakfast Presentation

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Agenda

- 1 zeb/introduction
 - 2 zeb/references
 - 3 Basel II and ICAAP
 - 4 Ensuring a sustained risk-bearing capacity
 - 5 zeb/ best practice of ICAAP implementation
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1 zeb/introduction

2 zeb/references

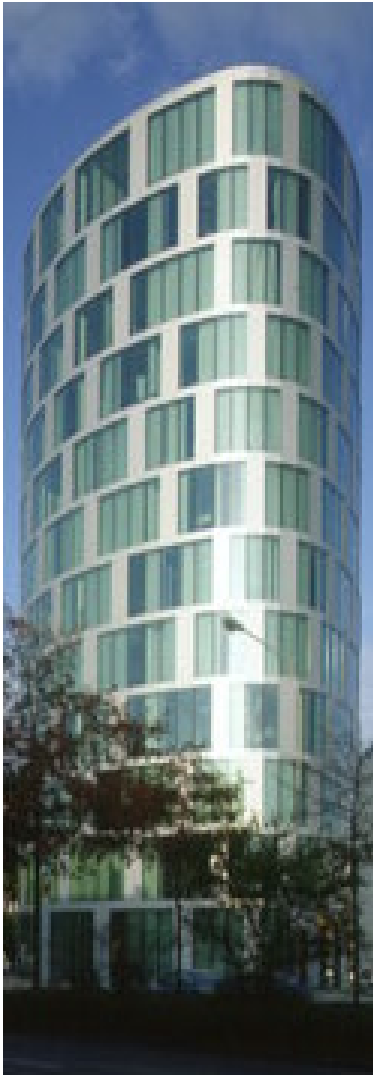
3 Basel II and ICAAP

4 Ensuring a sustained risk-bearing capacity

5 zeb/ best practice of ICAAP implementation

Over the last sixteen years zeb/ has acquired a leading position for providing advisory services to banks and other financial services companies

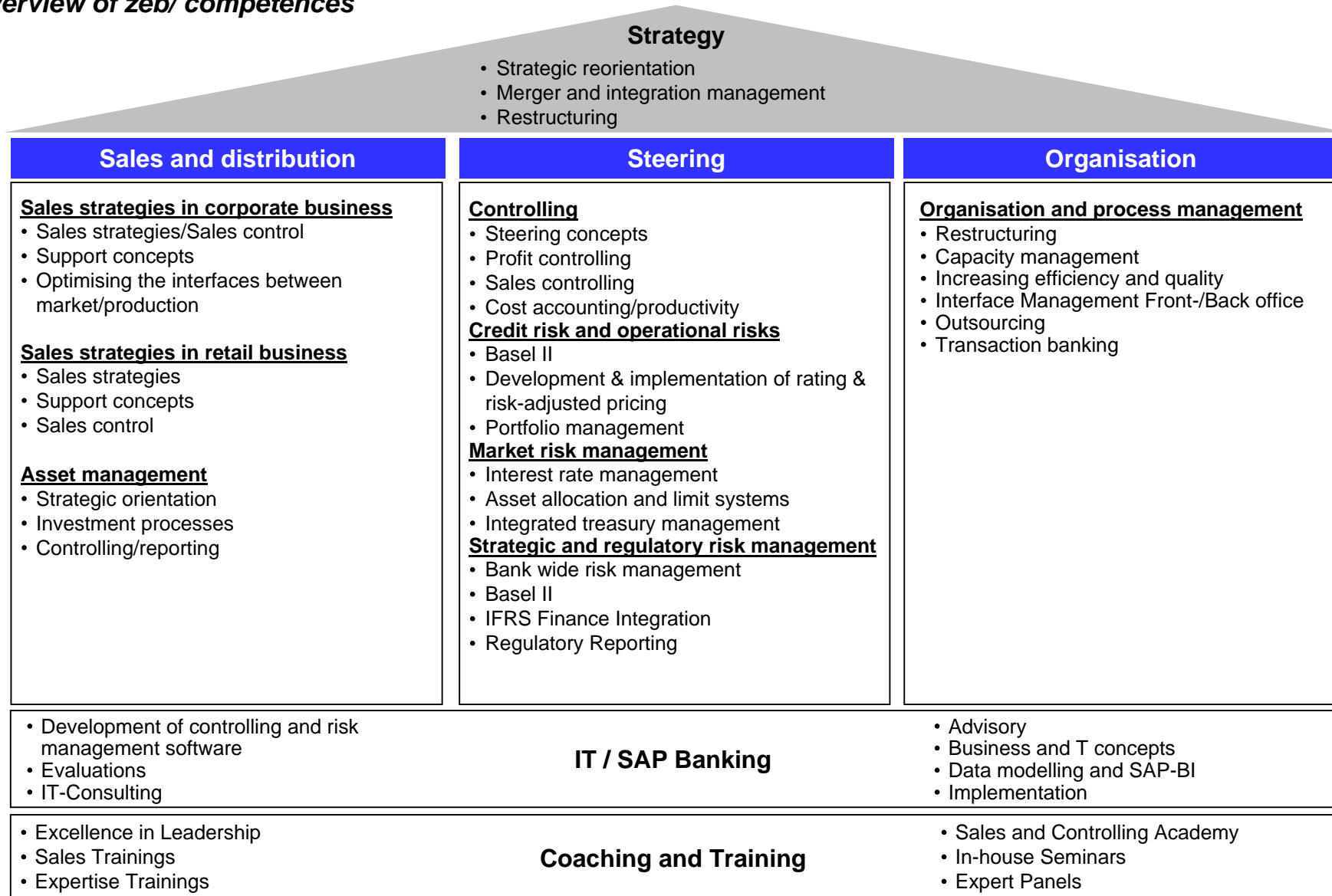
Company data (as of: 05/2008)



- Beginning of the business activity: 1992
 - 87 m EUR of turnover in 2006
 - 41 partners
 - 640 employees
whereof 325 management consultants, 195 IT developers and IT consultants
 - Projects in Germany, Austria, Switzerland, Luxembourg, Liechtenstein and Central and Eastern Europe
 - Offices: Berlin, Budapest, Frankfurt/Main, Hamburg, Kiev, Munich, Münster, Prague, Ulm, Vienna, Warsaw and Zurich
-

As an industry specialist zeb/ covers all consulting areas for financial services companies

Overview of zeb/ competences



zeb/ has conducted projects for financial institutions of various size and business focus – its customers are located in Western Europe and CEE

Selected zeb/ clients

[Western Europe]



[Central and Eastern Europe]

1 zeb/introduction

2 zeb/references

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5 zeb/ best practice of ICAAP implementation

zeb/ has already gathered extensive project experience in central and eastern Europe concerning Basel II topics

zeb/ project references in CEE (I)



- **Basel II implementation**
 - Implementation of Basel II requirements in all CEE subsidiaries
 - Coordination of Rollout process, business support of all subsidiaries (Retail and Non-Retail), in house-consulting
 - Risk management conception under Basel II requirements (pillars 1 and 2)
 - Introduction of the calculation kernel and of zeb/ data warehouse
 - Data quality management and analysis of the IT-systems
 - **IRB Approval in Vienna and all CEE subsidiaries**
 - Support for review of all IRB approval document
 - Securing of completeness for local and central documents
 - Clarification of business gaps between head office and subsidiary
 - **ICAAP implementation in Raiffeisenbank Poland**
 - Review of the local documentation concerning risk management
 - Gap-analysis of the documentation with regard to the group and local ICAAP requirements
 - Suggestions of handling measures in order to close the identified gaps
 - Set up ICAAP implementation plan
 - **ICAAP implementation in Raiffeisenbank Slovenia**
 - Review of the local documentation concerning risk management
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 - Set up ICAAP implementation plan
 - ICAAP Implementation
-



- **IRB Approval in Vienna**
 - Support for the preparation and handling of legal condition
 - Structuring of central and local legal conditions regarding identical issues
- **IRB Approval in Erste Bank Croatia**
 - Support for the review of all IRB approval document
 - Securing of completeness for local and central documents
 - Clarification of business gaps between head office and subsidiary

zeb/ has already gathered extensive project experience in central and eastern Europe concerning Basel II topics

zeb/ project references in CEE (II)



- **IRB Approval process**
 - Support for the preparation and conduction of IRB approval process
 - Preparation and support for handling of legal condition
 - Preparation and support for subsidiaries regarding IRB onsite-examination
 - **ICAAP implementation**
 - Support in the implementation of Austrian requirements of ICAAP
 - Preparation of risk steering regarding ROEC-steering
 - Support for the implementation of at bank-wide risk steering unit
 - **Basel II Rout Out CEE**
 - Status Quo Analysis regarding Basel II implementation in subsidiaries
 - Set up of the project organisation and project tools
 - Development of specific implementation plans for all subsidiaries
 - Business support regarding Basel II implementation
-



- **Rollout support for CEE subsidiaries concerning Basel II and calculation kernel RiWa**
 - Workshops for risk executive directors, for credit risk, risk controlling and auditing division directors and for staff of credit risk, risk controlling and IT divisions
 - Assuring knowledge transfer in case of local supervisor audit concerning Basel II implementation in the subsidiaries
 - **Rollout for internal audit**
 - Workshop and tests for internal audit staff concerning Basel II know-how and calculation kernel RiWa
 - Detailed transmission of know-how concerning group and local reporting requirements, Basel II national discretions and parameterisation of the calculation kernel
-



- **Basel II implementation**
 - Support in the implementation of Basel II requirements in the foreign subsidiaries
 - Coordination of the Rollout in the CEE countries (Czech Republic, Slovenia and Slovakia)
 - Conception of corporate group management under Basel II requirements (pillars 1 and 2, including customer segmentation, default definition, capital requirements, reporting and risk strategy)
 - Data quality management and analysis of the IT-systems
 - **ICAAP implementation at Slovenian subsidiary**
 - Review of the local documentation concerning risk management
 - Gap-analysis of the documentation with regard to the group and local requirements
 - Suggestions of handling measures in order to close the identified gaps
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Exemplarily zeb/ supports the ICAAP implementation in the RZB group on the central and local level

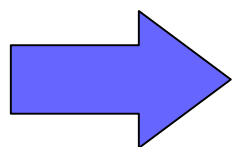
RZB Group – ICAAP Projects

ICAAP on group level:

- Development of the overall and risk strategy for each risk type
- Implementation of a Risk Assessment Scoring System
- Support of the implementation of the risk transformation
- Conception risk steering on the basis of risk earning ratios
- Capital allocation and limit system on the basis of risk earning ratios
- Concept risk bearing capacity including internal capital and risk aggregation
- Description of the risk management and risk quantification for each risk type
- Conception for stress testing for credit and market risk

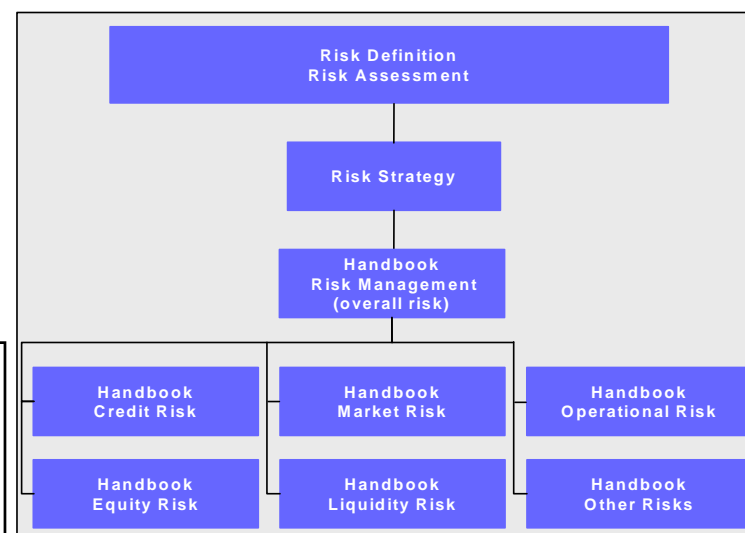
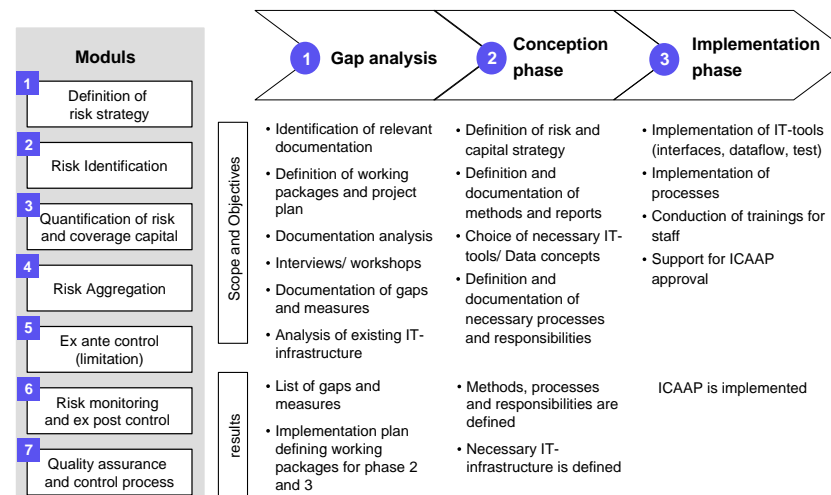
ICAAP Raiffeisenbank Poland and Slovenia:

- Review of the local documentation concerning risk management
- Comparison of the Austrian ICAAP requirements with the local risk management requirements
- Gap-analysis of the documentation with regard to the group and local ICAAP requirements
- Description of business consequences of the identified gaps and workshop discussion
- Set up ICAAP implementation plan
- ICAAP implementation



Due to the wide experience with group level solutions as well as single institute solutions, zeb/ can support virtually every financial institution with a consistent ICAAP (e.g. preparation of group-wide ICAAP framework, workshops/road shows, on-site support in the implementation, etc.)

RZB Basel II ICAAP projects



1 zeb/introduction

2 zeb/references

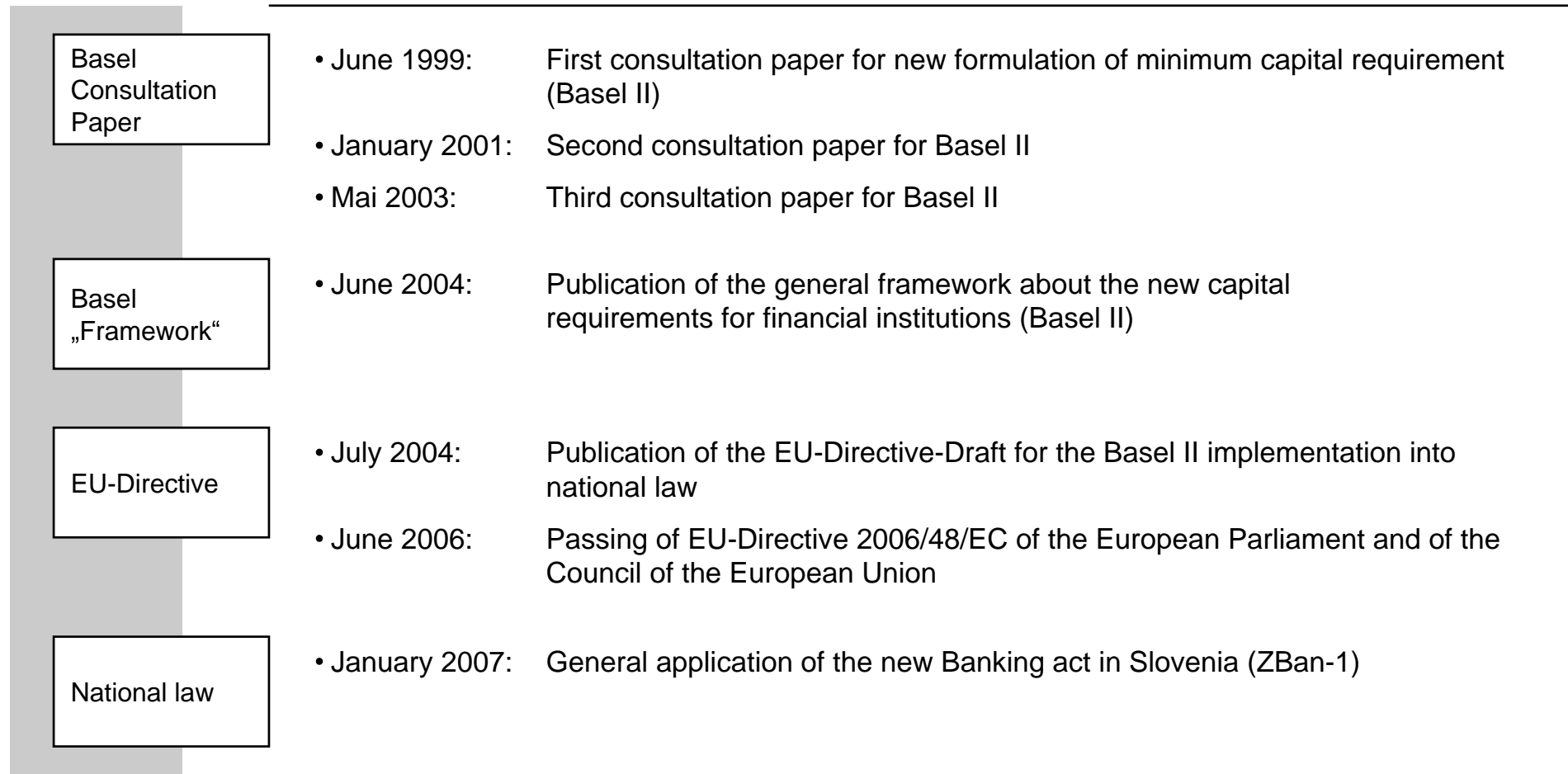
3 Basel II and ICAAP

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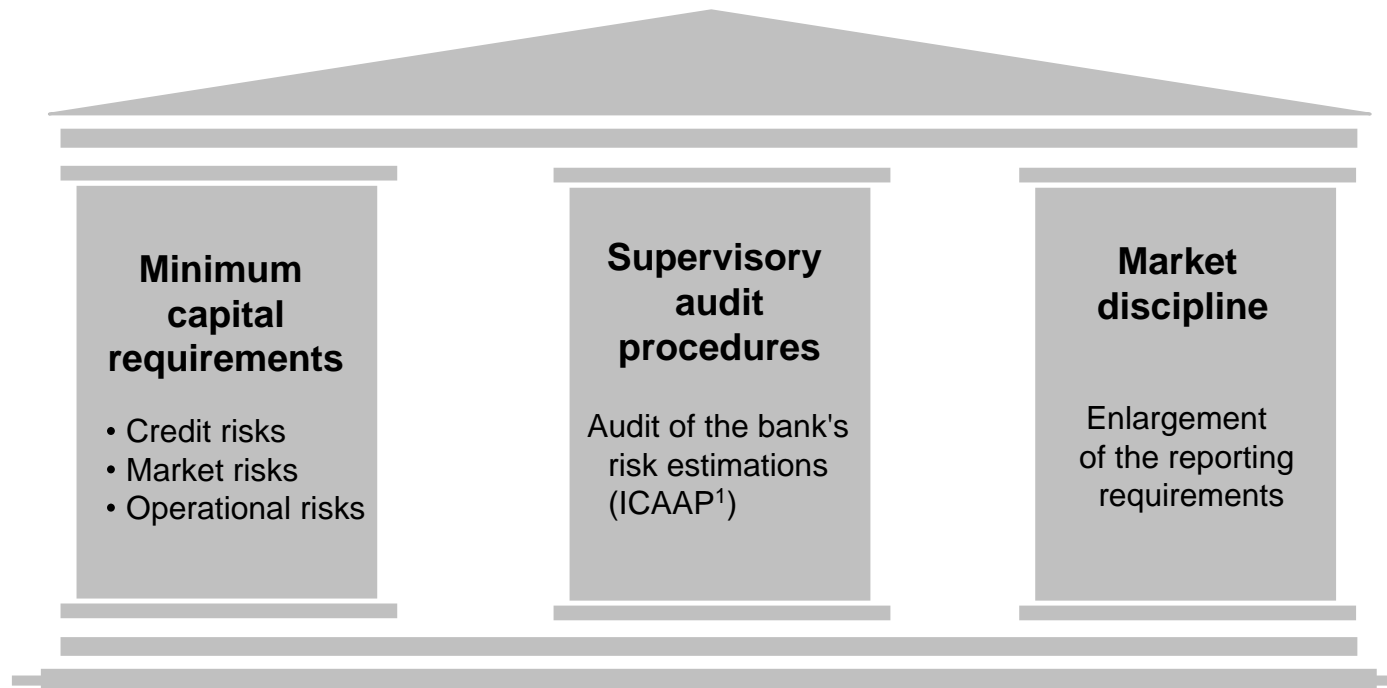
The Basel Accord („Framework“) and the thereof derived EU-Directive are the foundations of national law

Status Basel II



The three pillars of Basel II Framework cover minimum capital requirements, supervisory audit procedures and market discipline

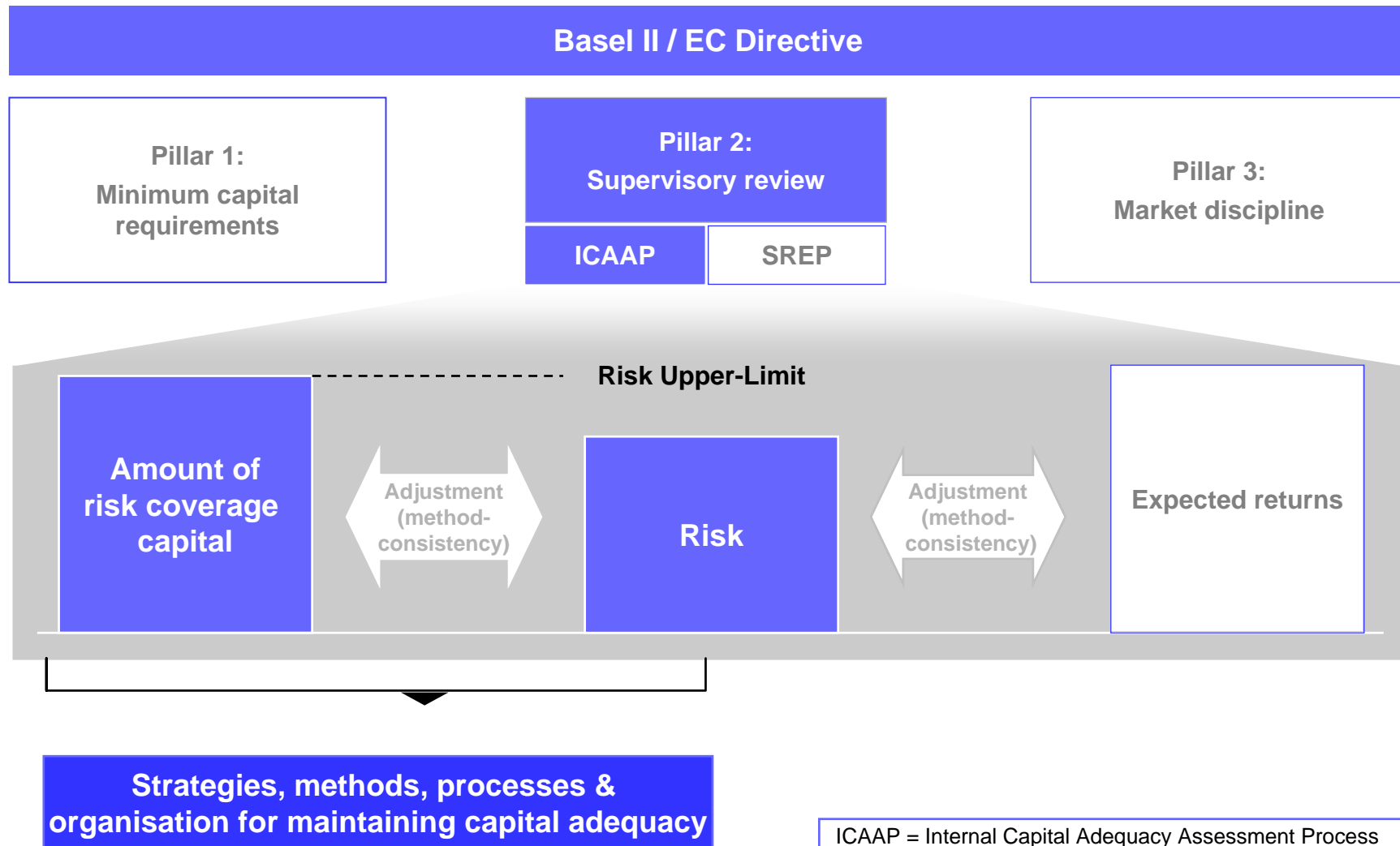
The three pillars of Basel II



- The capital requirements have a stronger focus on real risks or on business concepts (dealing with risk calculation and capital allocation)
- Inclusion of risks that have not been considered up to now (e. g. operational risks)
- Qualitative aspects become more important
- Involving markets in addition to the supervisory authorities should discipline banks
- The primary object is to reach stability of the financial sector

ICAAP ensures the appropriate risk coverage at any given time by the allocation of risk coverage capital

Regulatory foundation of ICAAP



1 zeb/introduction

2 zeb/references

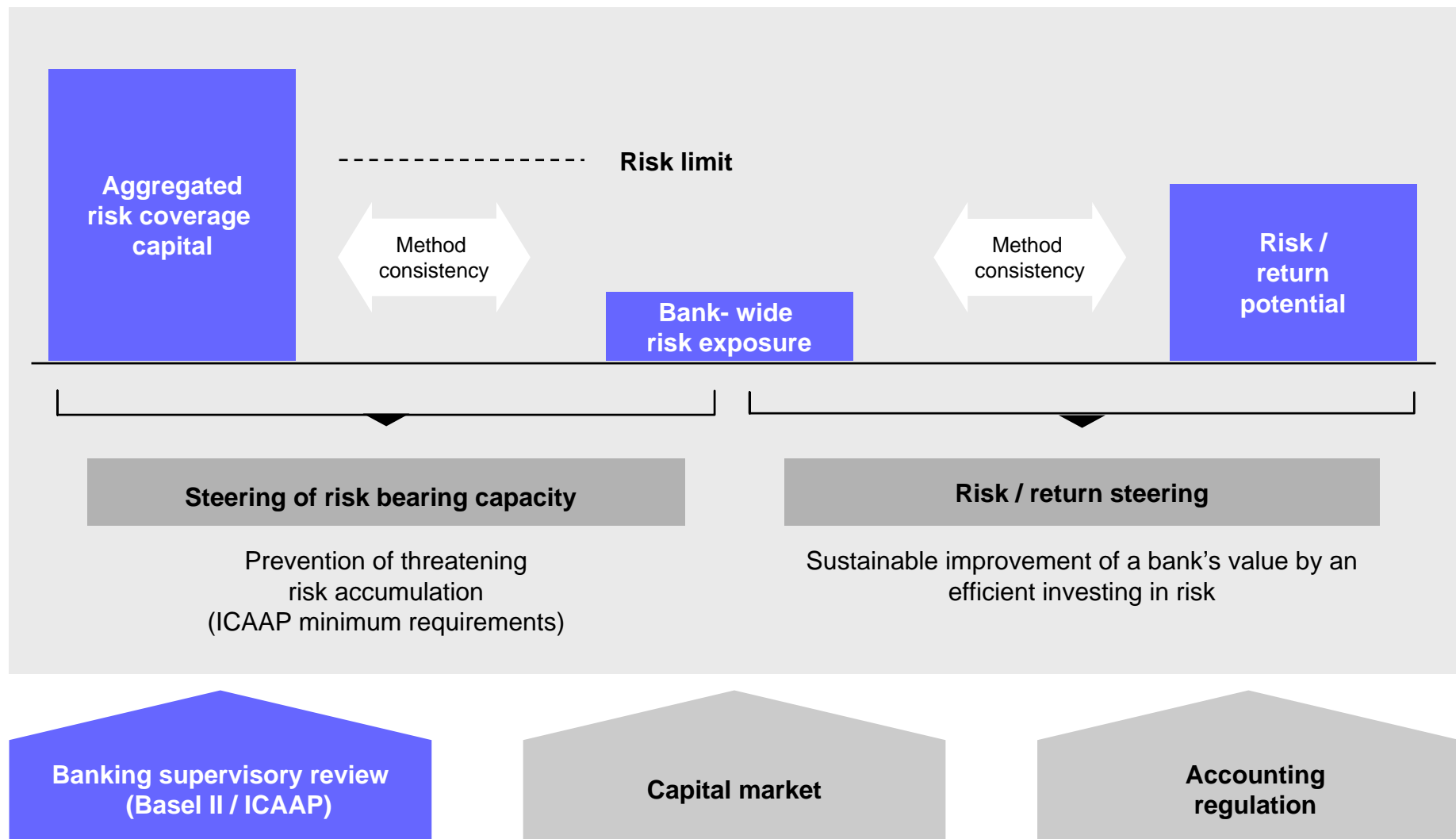
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ICAAP is based on the calculation of the risk bearing capacity – the covering of risk at any time by appropriate risk coverage capital

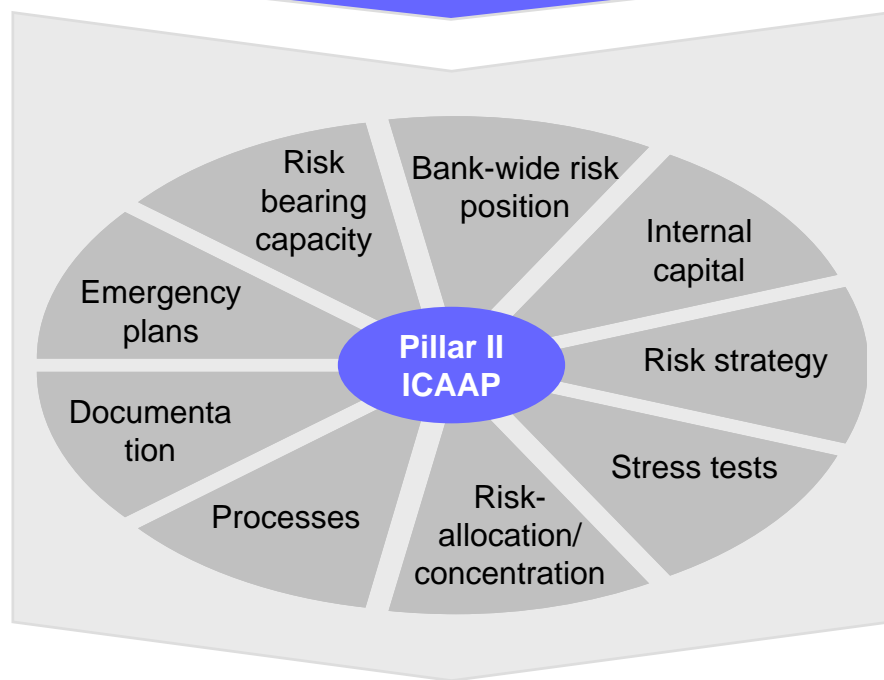
Classification of ICAAP



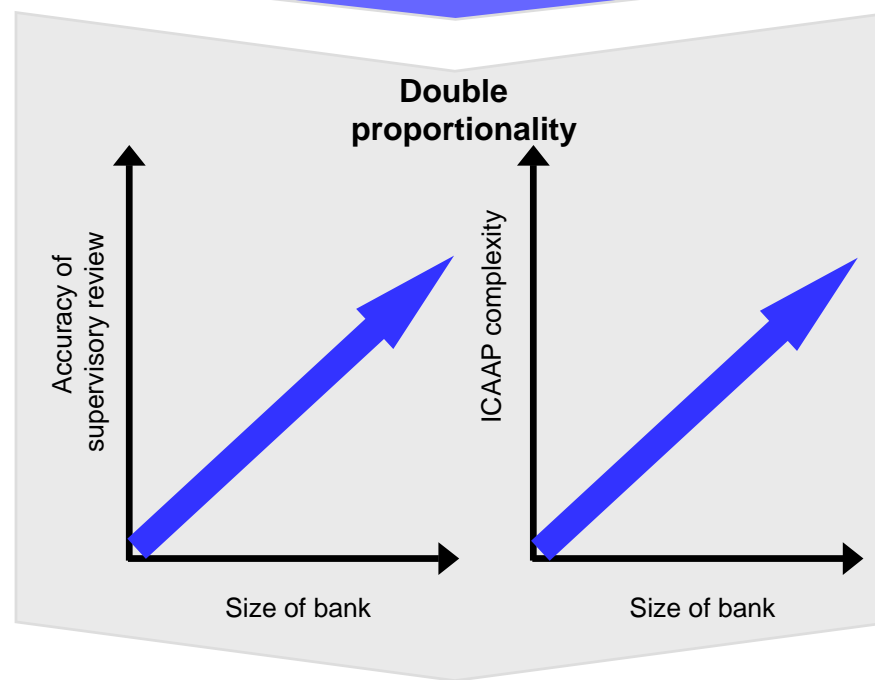
The requirements for implementing ICAAP are information concerning various sorts of risks, and a permanent surveillance of the proportionality of efforts

Principle of proportionality

The implementation of ICAAP requires strict changes and a good information base



The principle of proportionality: Put the effort where it matters

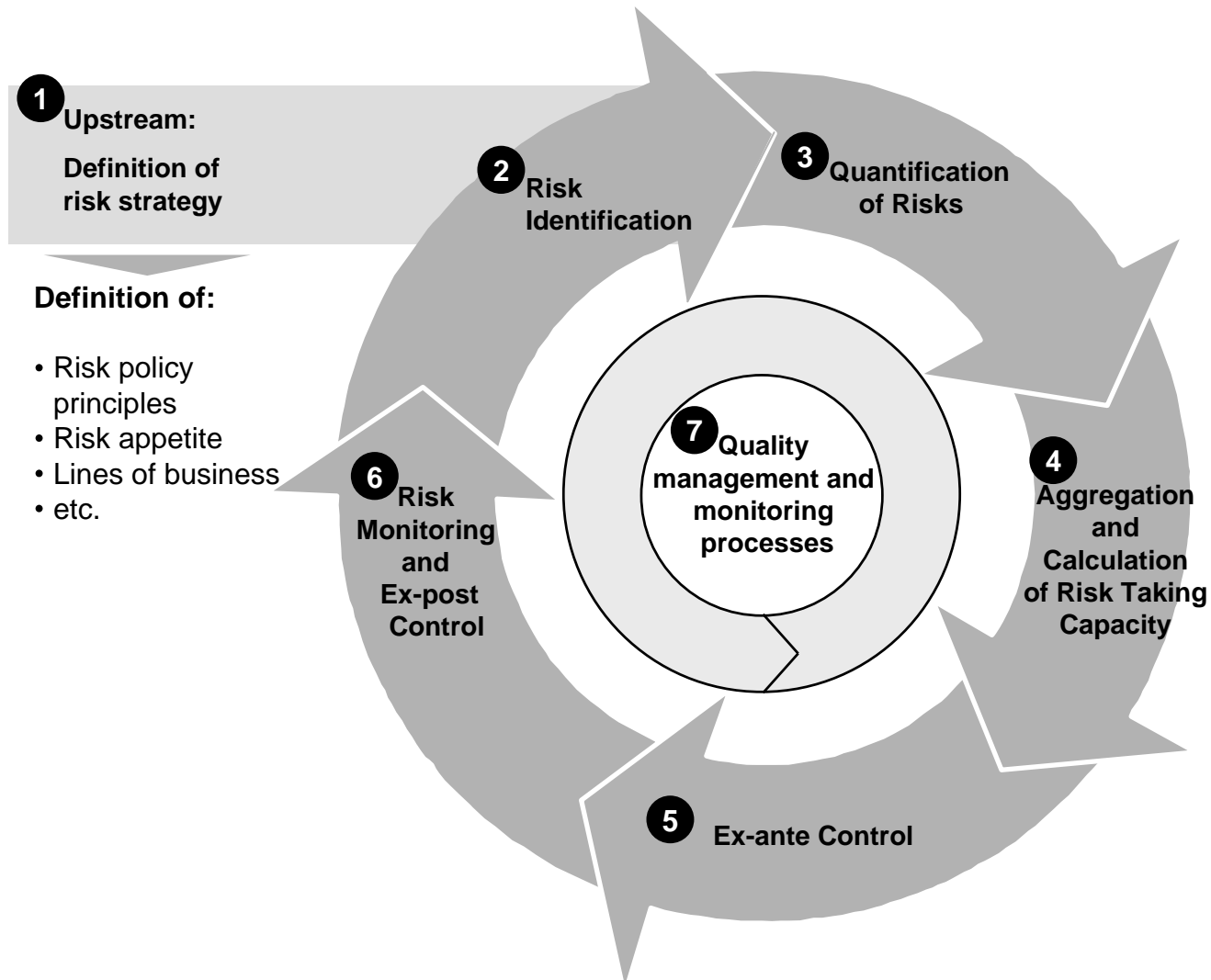


▶ Tasks required by ICAAP are usually known

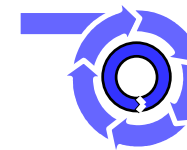
▶ Specifications dependent on type and risk size have to be defined considering proportionality

The risk-management process of banks is a continuous loop

Processes in bank-wide risk management

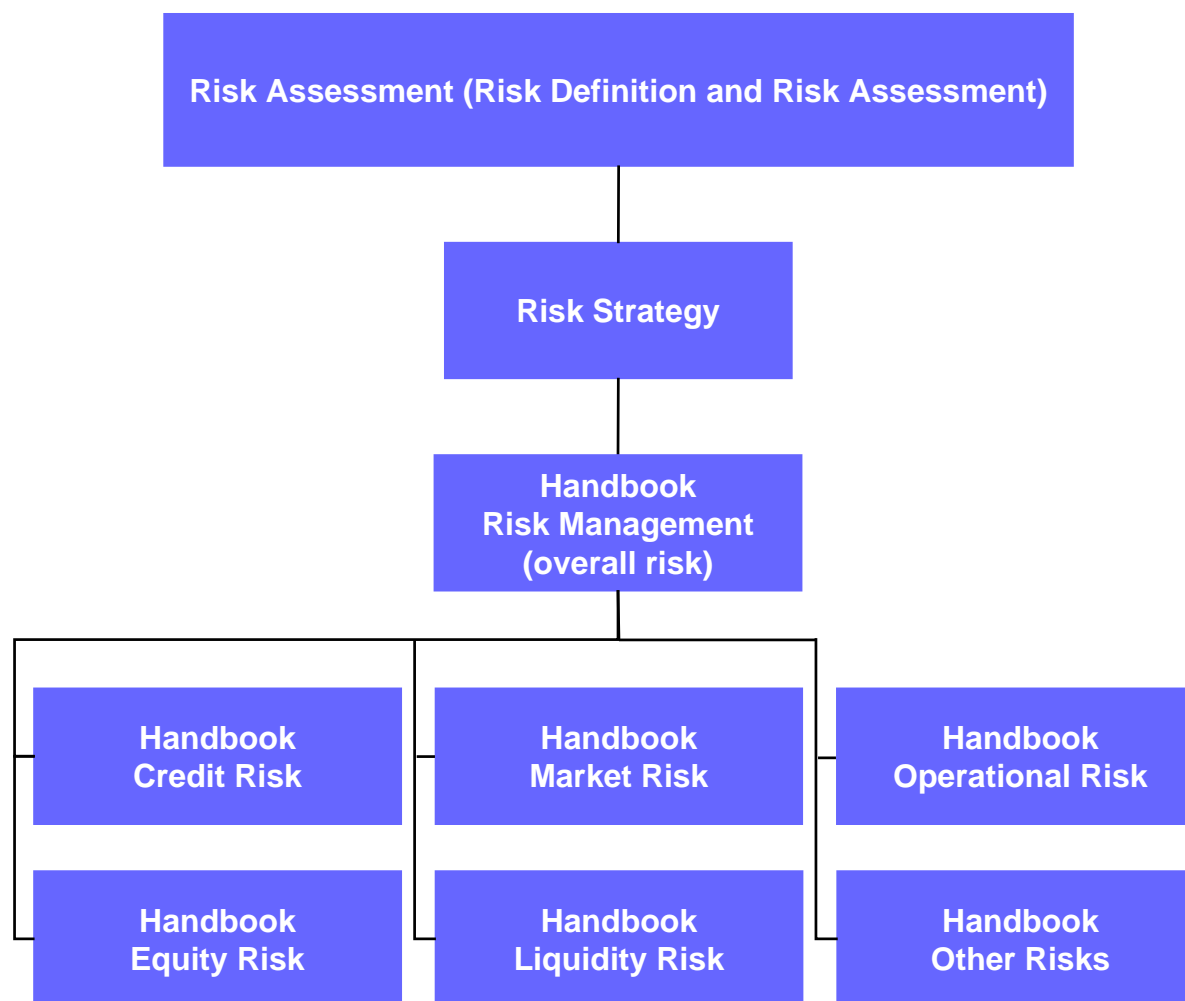


The requirements for the documentation have to be assigned due to their strategic relevance

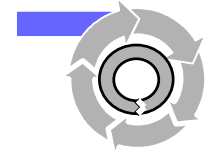


ICAAP implementation by a comprehensive documentation

- The Risk **Assessment** serves to identify the bank's relevant risk categories
- The **Risk Strategy** is deduced from the Risk Assessment findings
- The aggregation of risks and the comparison with the risk coverage capital must be documented in a central way
- For each relevant risk category a separate risk handbook has to be written. Those handbooks define the methodology of quantification and management for each risk category on a portfolio level
- The handbook on "other risks" covers all remaining and the irrelevant risks



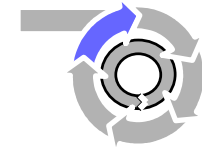
ICAAP requires an established risk strategy and awareness of risks



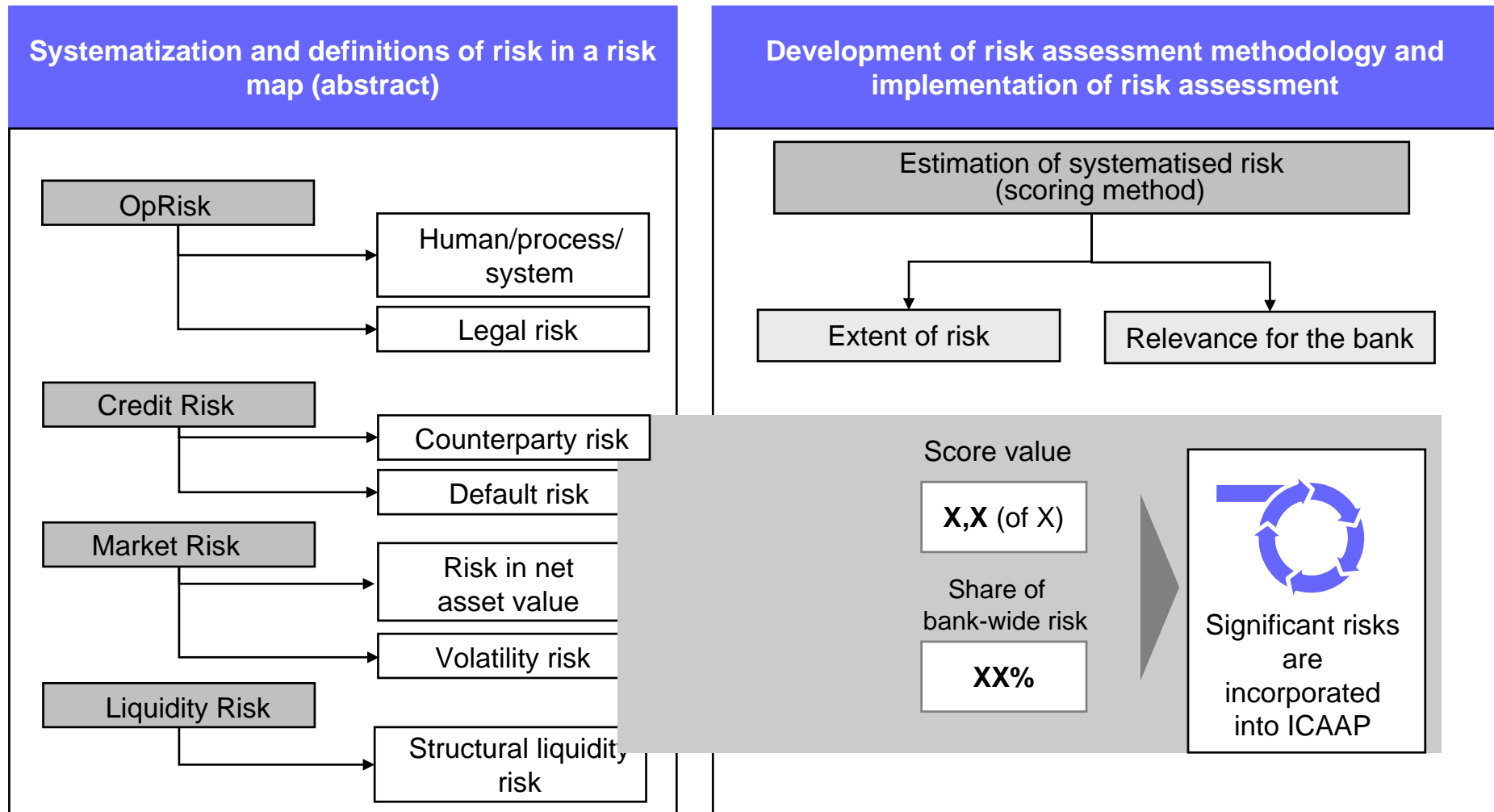
Strategy for ensuring capital adequacy



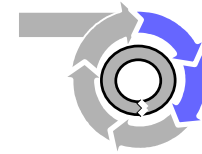
Initial point of ICAAP is the risk systematisation and the implementation of risk assessment measures



Risk analysis by scoring methods

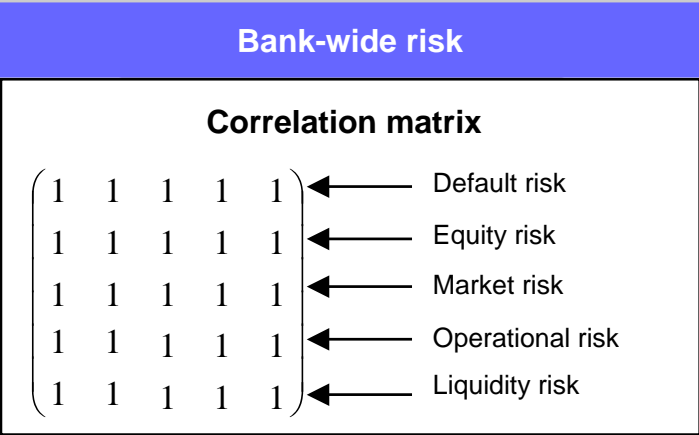
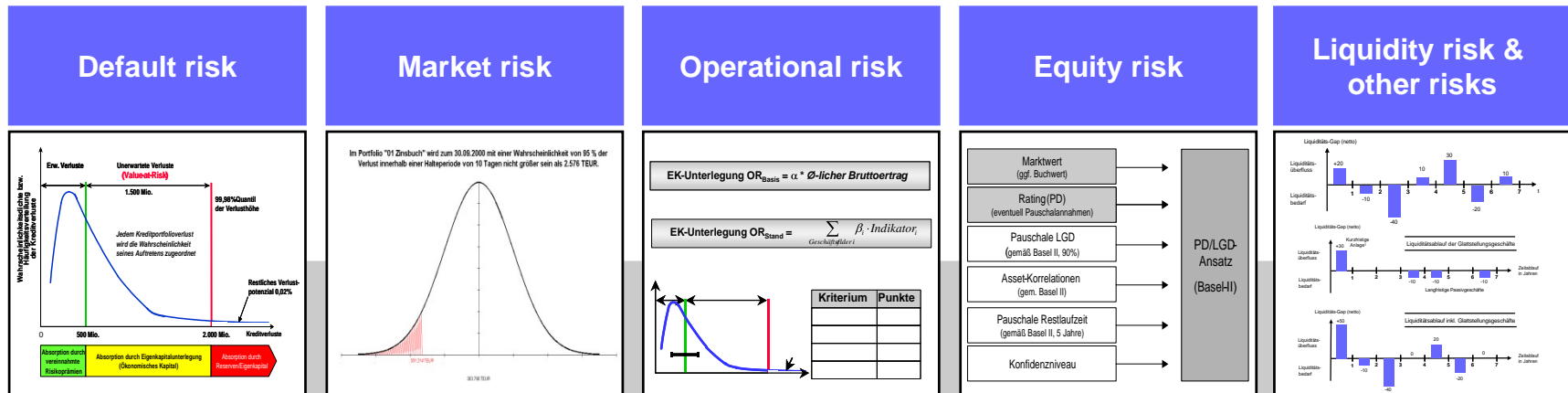


Individual risk positions are quantified and aggregated to a bank-wide risk position



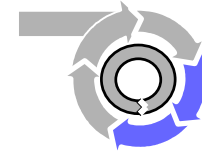
Assessment and aggregation of all material risks

Identification
Quantification
Aggregation



Pragmatic solution:
Risk consolidation under assumption of perfect correlation.

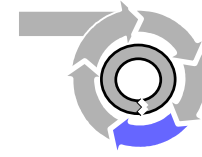
The risk coverage capital can be seen from a regulatory or an economic point of view



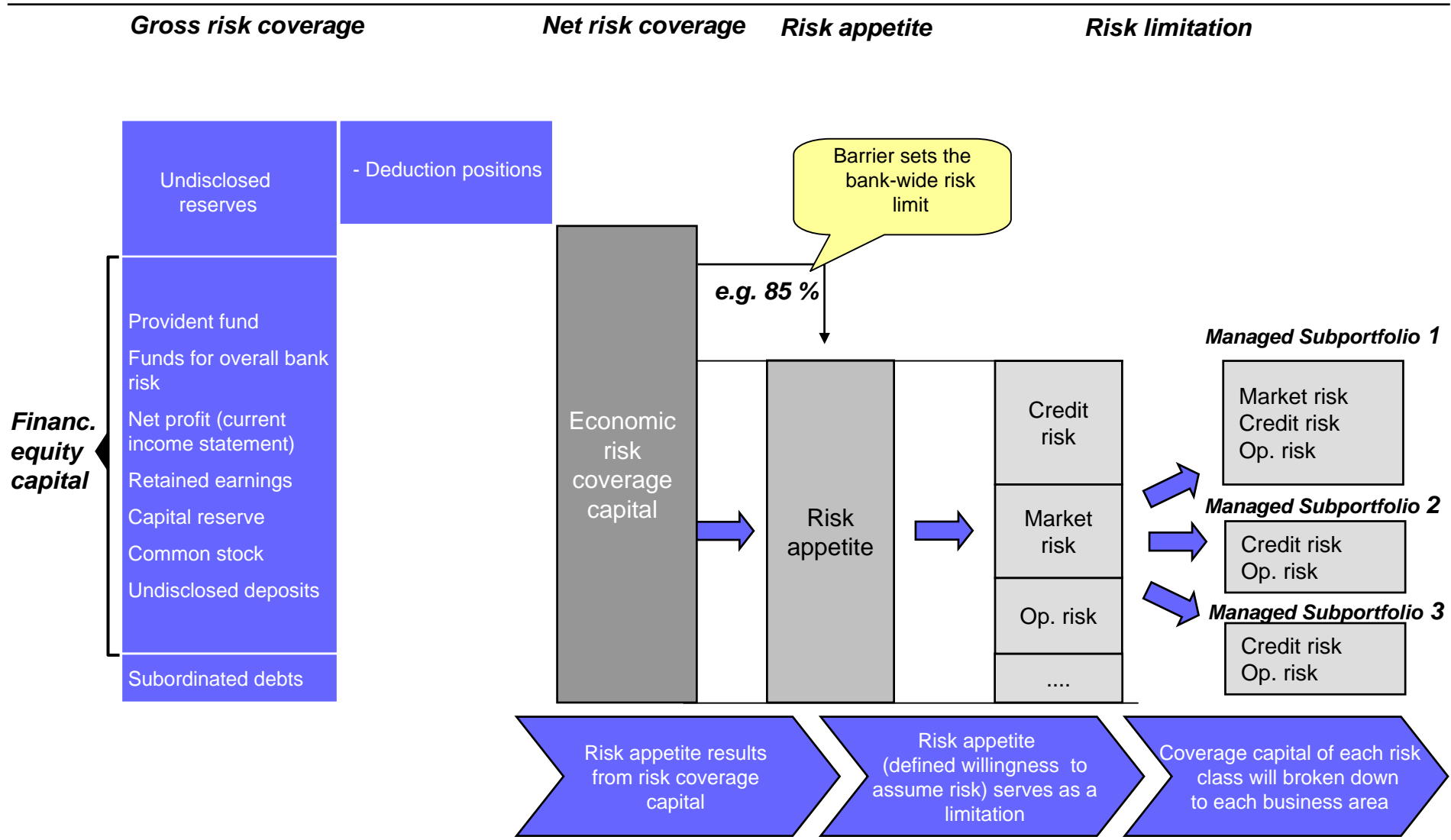
Intended scope of risk coverage capital

		Risk covering capital	
		Regulatory consideration	Economical consideration
Intended scope of risk coverage	Going concern principle:	No relevance	<ul style="list-style-type: none"> • Measurement of economical bank-wide risk according to risk appetite and an adequate confidence level of i.e. 95% (rolling 1-year horizon) • Determination of a steering border (i.e. solvent undisclosed reserves)
	Liquidity principle:	<ul style="list-style-type: none"> • Measurement of the utilization of regulatory equity 	<ul style="list-style-type: none"> • Measurement of economical bank-wide risk to an adequate confidence level of i.e. 99.9% (rolling 1-year horizon) • Determination of risk coverage capital, which is available in case of asset stripping

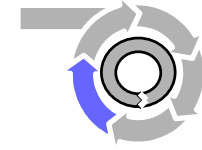
Risk limitation is a significant measure for ensuring risk bearing capacity



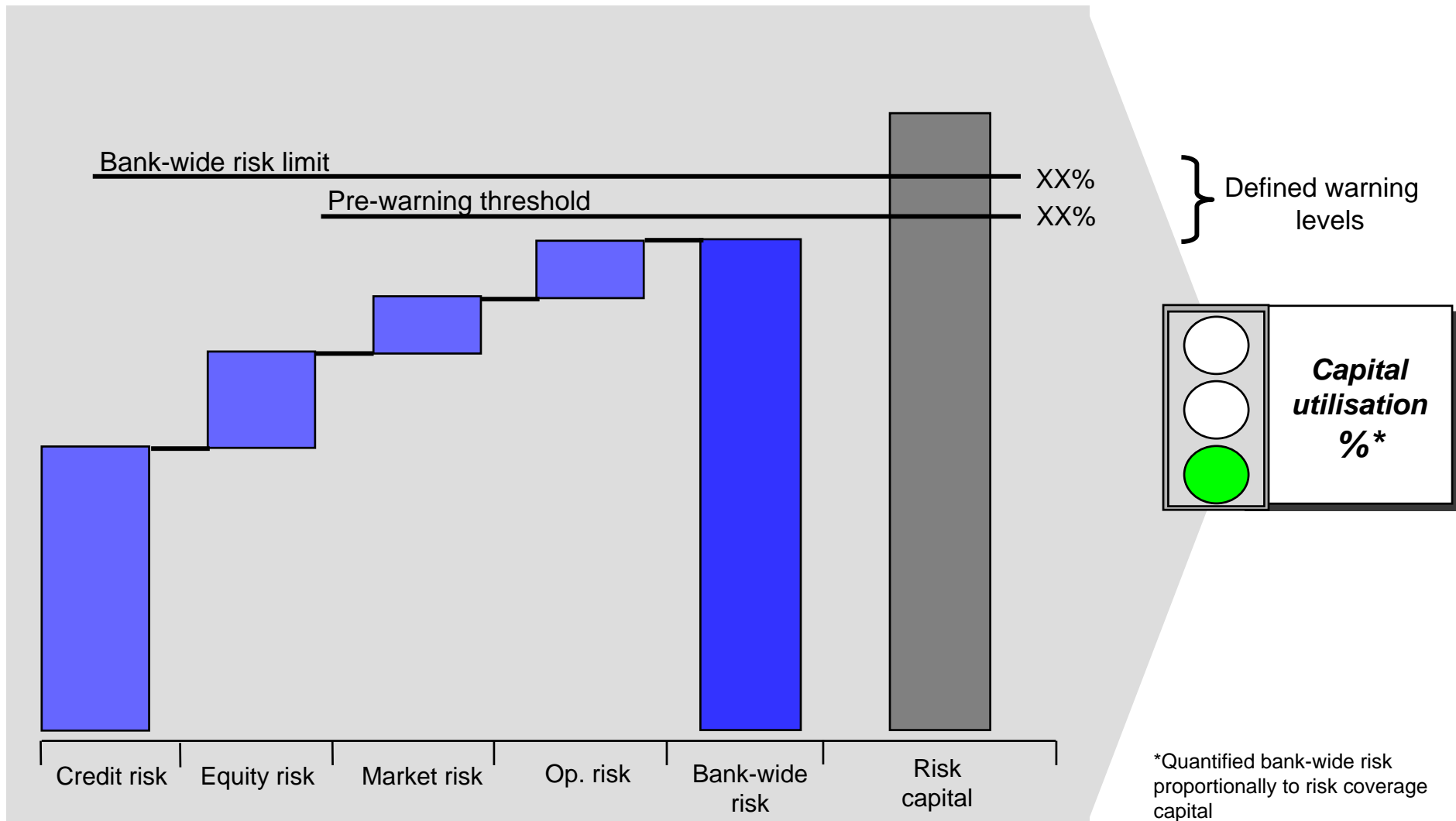
Overview of Risk Management Handbook



The bank-wide risk to risk coverage capital ratio requires continuous monitoring



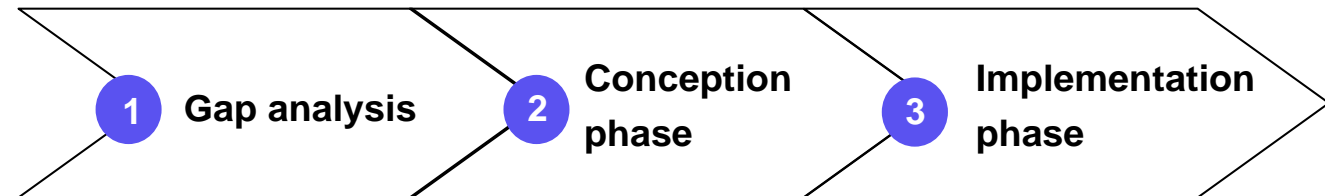
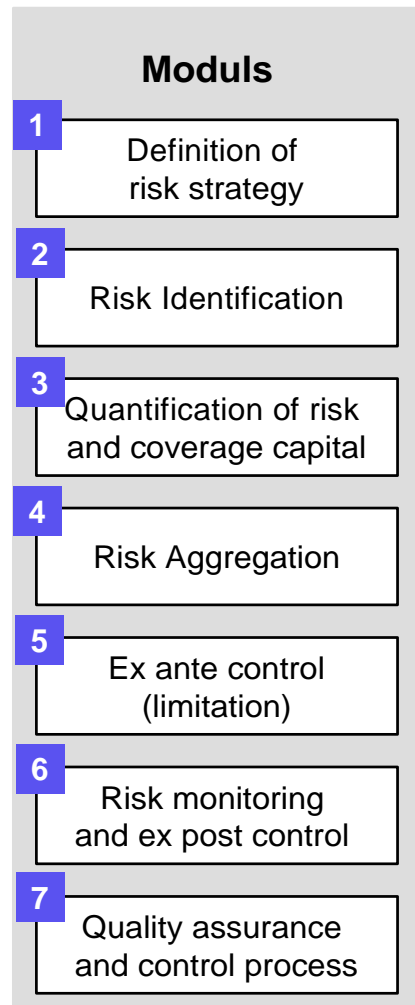
Example for the illustration of the capital utilization



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-

A proceeding in three steps is suggested by zeb/ to achieve a profound and efficient ICAAP implementation

Proceeding suggestion of ICAAP implementation



Scope and Objectives

results

- Identification of relevant documentation
- Definition of working packages and project plan
- Documentation analysis
- Interviews/ workshops
- Documentation of gaps and measures
- Analysis of existing IT-infrastructure

- List of gaps and measures
- Implementation plan defining working packages for phase 2 and 3

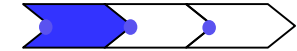
- Definition of risk and capital strategy
- Definition and documentation of methods and reports
- Choice of necessary IT-tools/ Data concepts
- Definition and documentation of necessary processes and responsibilities

- Methods, processes and responsibilities are defined
- Necessary IT-infrastructure is defined

- Implementation of IT-tools (interfaces, dataflow, test)
- Implementation of processes
- Conduction of trainings for staff
- Support for ICAAP approval

ICAAP is implemented

Based on the defined modules the result of the gap analysis is a detailed list of gaps and measures as well as an implementation plan



The gap analysis is built on a detailed questionnaire developed by zeb/

Scope and objective

- ICAAP question-catalogue based on zeb/-standard process model Basel II
- Conduct functional workshops
 - Documentation analysis
- A deduction of packages of measures and allocation to ICAAP stage 1 and ICAAP stage 2
- Cost estimation, temporary scheduling
- Preparation Decision Memo for Budget approval

Results

List of gaps and measures

1	Risikoprüfung Kredit- und Leihverträge	0
<ul style="list-style-type: none"> Die Risiko- und Länderrisiken sind in der Gesamtrisikoprüfung die Hypo-OO integriert Die Adressrisikoprüfung erfolgt unter Berücksichtigung von: Gesamtrisikoprüfung Strukturrisiken in Hypo-OO-Portfolios werden ebenfalls berücksichtigt 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	
2	Steuerspezifische Adressrisiken	0
<ul style="list-style-type: none"> Die Topfiktion in der Hypo-OO nennt eine Risikodifferenzierung für die Adressrisiken vor Der Begriff des überproportionalen Risikolags für Adressrisiken liegt derzeit nicht vor Der Risikoprüfungsergebnis und -ergebnisse reflektiert sich in der Hypo-OO erst im Anhang Eine Nachklausur der Adressrisiken liegt nicht vor 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	
3	Liquiditätsrisikoprüfung	0
<ul style="list-style-type: none"> Die Festlegung der Kreditkennzahlen ist an Topfzuerkunft und Gesamtdat Wesentliche Liquiditätsdimensionen für das Adressrisiko fehlen Konzernrisikoprüfung wird nicht mit Strukturrisiko begründet 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	
4	Daten der Adressrisikoprüfung	0
<ul style="list-style-type: none"> Daten für die Prüfung von Kreditrisikoprüfung keine aktuellen Auswertungen vor Das Sicherheitenmanagement ist für die Anforderungen eines modernen Adressrisikoprüfung Die Stützbarkeit wird nicht berücksichtigt, in der Praxis nicht unabhängig unterlegt 	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	

Note: example used for German financial institutions

Implementation Plan

General Questions	Explanation	Specific Risk Information	ICAAP Part	Covered by local documentation
1. Does the ICAAP contain a risk strategy which contains descriptions of its risk policy objectives?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
2. Are there, within a risk strategy, explicit descriptions of its risk policy objectives?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
3. Are there, in strategies which are necessary for the internal risks, which are relevant to cover all types of risks?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
4. Are there, in strategies which are necessary for the internal risks, which are relevant to cover all types of risks?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
5. Does the ICAAP contain a risk management strategy of ICAAP?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
6. Does the ICAAP contain a risk management strategy of ICAAP?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
7. Does the ICAAP contain a risk management strategy of ICAAP?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered
8. Does the ICAAP contain a risk management strategy of ICAAP?	In general, financial institutions with regard to internal risks as well as changes in business strategies should be taken into account.	X	10	Not covered

ICAAP implementation is divided into two stages to enable the banks to calculate risk bearing capacity quickly



Along the ICAAP cycle prioritized specifications of ICAAP will be developed (stage 1)

Scope and Objective

- Implementation of regulatory ICAAP minimum requirements of a prioritized fundament of the ICAAP implementation concept for ICAAP stage 1
- Formulation and coordination risk strategy
- Formulation/ procedure risk assessment
- Evaluation of the risk sustainability on base of available figures

Results

- ICAAP stage 1 is implemented:
 - Risk strategy is defined
 - Risk assessment is designed und conducted
 - Calculation tool of risk bearing capacity is implemented
 - Risk bearing capacity is calculated

By a detailed functional and process design of ICAAP topics the final ICAAP implementation will be reached



A complete implementation is a condition for ICAAP acceptance within the organisation (stage 2)

Scope and Objective

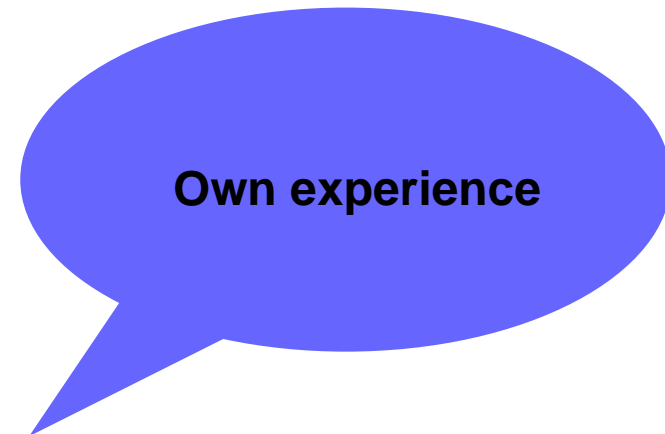
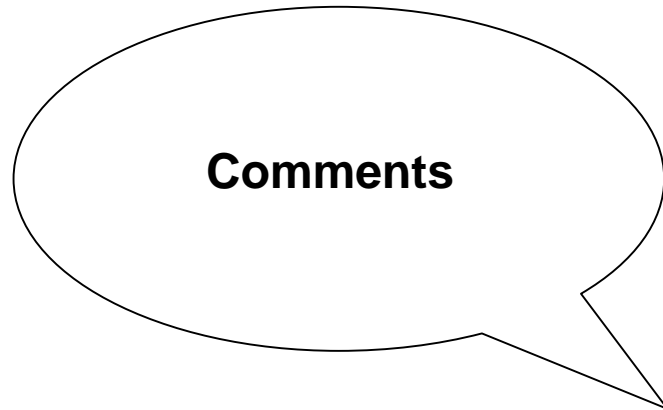
- Implementation of ICAAP stage 2 on base of ICAAP implementation plan
- Adjustment risk strategy for ICAAP stage 2
- Formulation and coordination of risk handbooks
- Formulation of capital allocation and limitation
- Conception and implementation of required processes

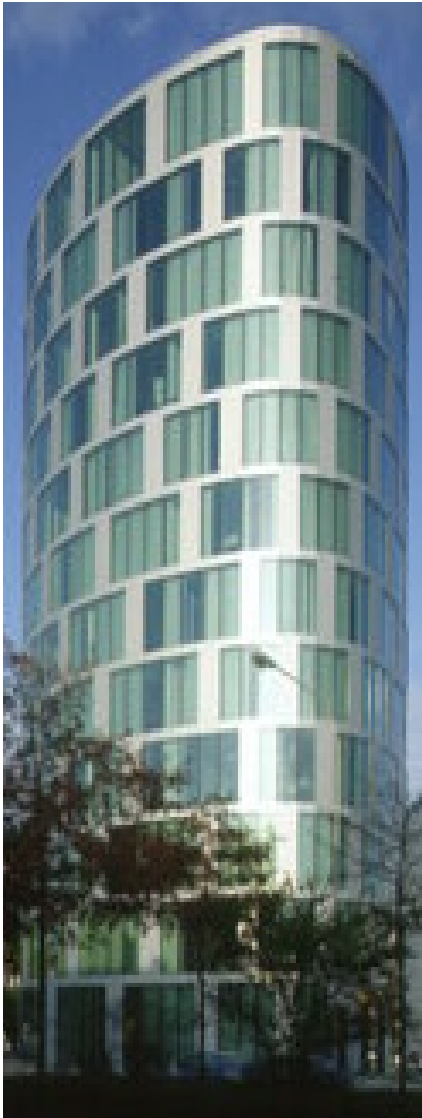
Results

- ICAAP stage 2 is implemented
 - Handbook for each risk type is available
 - Handbook for capital allocation and limitation is available
 - Guidance for the calculation of risk bearing capacity is available

ICAAP is fully implemented, an integral part of the banks controlling and reporting and approved by the regulator

Discussion





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