IFRS 17 & Solvency II Workshop

Data management and calculation engines

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Agenda

Monday, 15 July	Tuesday, 16 July	Wednesday 17 July
• Recap of IFRS 17 Background • General Measurement Model • Reinsurance Held and Contracts Acquired • Considerations for the Implementation of IFRS 17	• Measurement of direct participation contracts • Illustrative examples of the Premium Allocation Approach • Presentation of IFRS 17 Results • **Data management and calculation engines** • Background and Scope of Solvency II • Quantitative Aspects of Solvency II	• Quantitative Aspects of Solvency II (cont'd) • Governance under Solvency II • The Risk Management & Reporting Processes

Data management strategies

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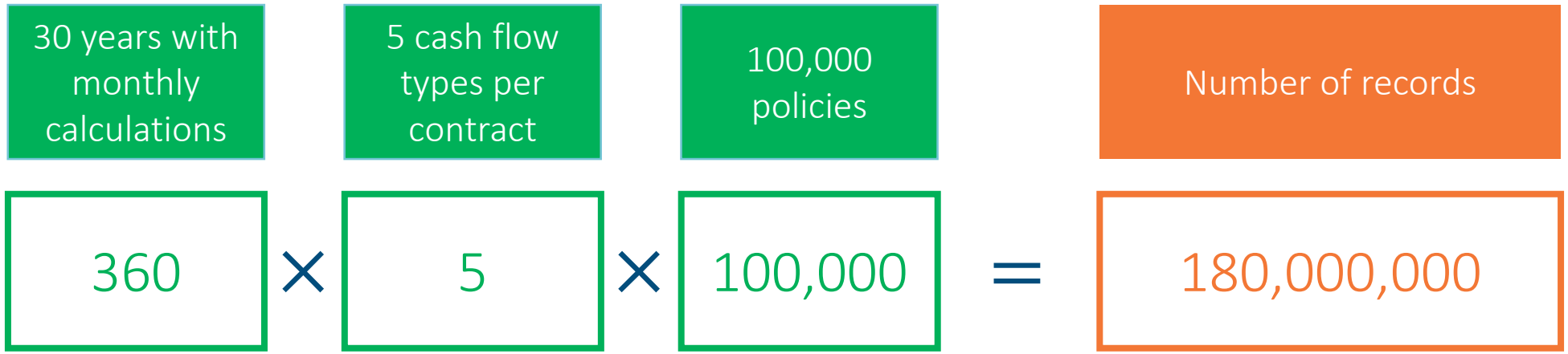
Data required to calculate cash flows—illustrative example

- IFRS 17 requires the calculation of the following cash flows
  - projections → actuarial applications
  - actual cash flows → policy administration systems
- Cash flows include premiums, claims, various policy expenses, etc
- The large number of records can become a challenge
  - Example: ordinary life insurance policy

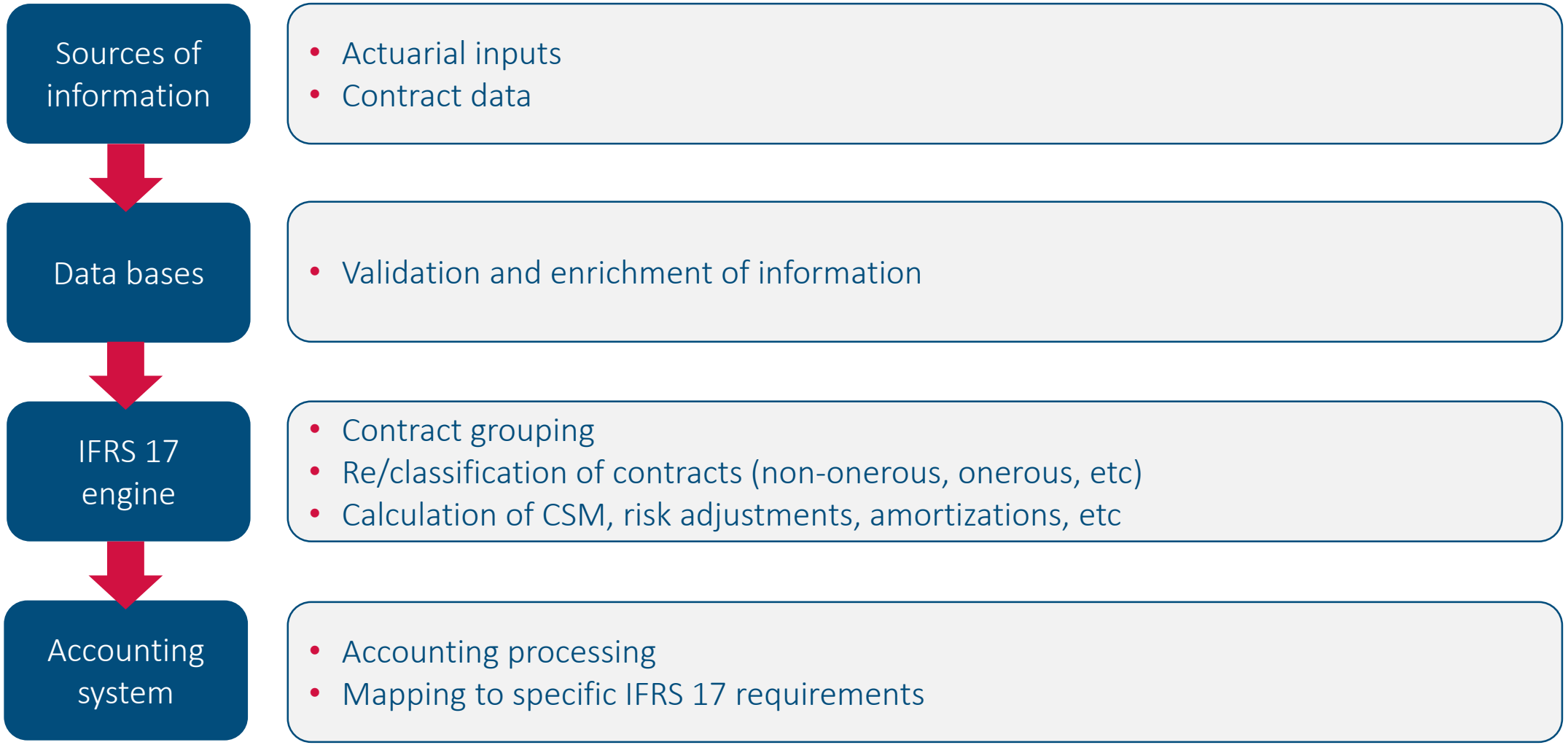


Adapting actuarial and accounting applications

- Insurance company admin systems have typically less granularity that that required by IFRS 17
- Illustrative challenges: actuarial vs. accounting systems

1	The general ledger is not designed to maintain granular information
2	Actuarial systems need to be fed continuously by the admin systems
3	Subledgers are not only used to calculate the CSM and risk adjustments, but they should also provide functionality to determine exchange rates, grouping elements, consolidation, etc
4	System and process audits become more complex and the implementation of new control protocols is required
5	Actuarial systems typically produce estimates at a given date, but subledgers need to maintain detailed historical information
6	Keeping track of the development of the CSM and risk adjustments, and the classification of contracts are not necessarily actuarial tasks

Process flow



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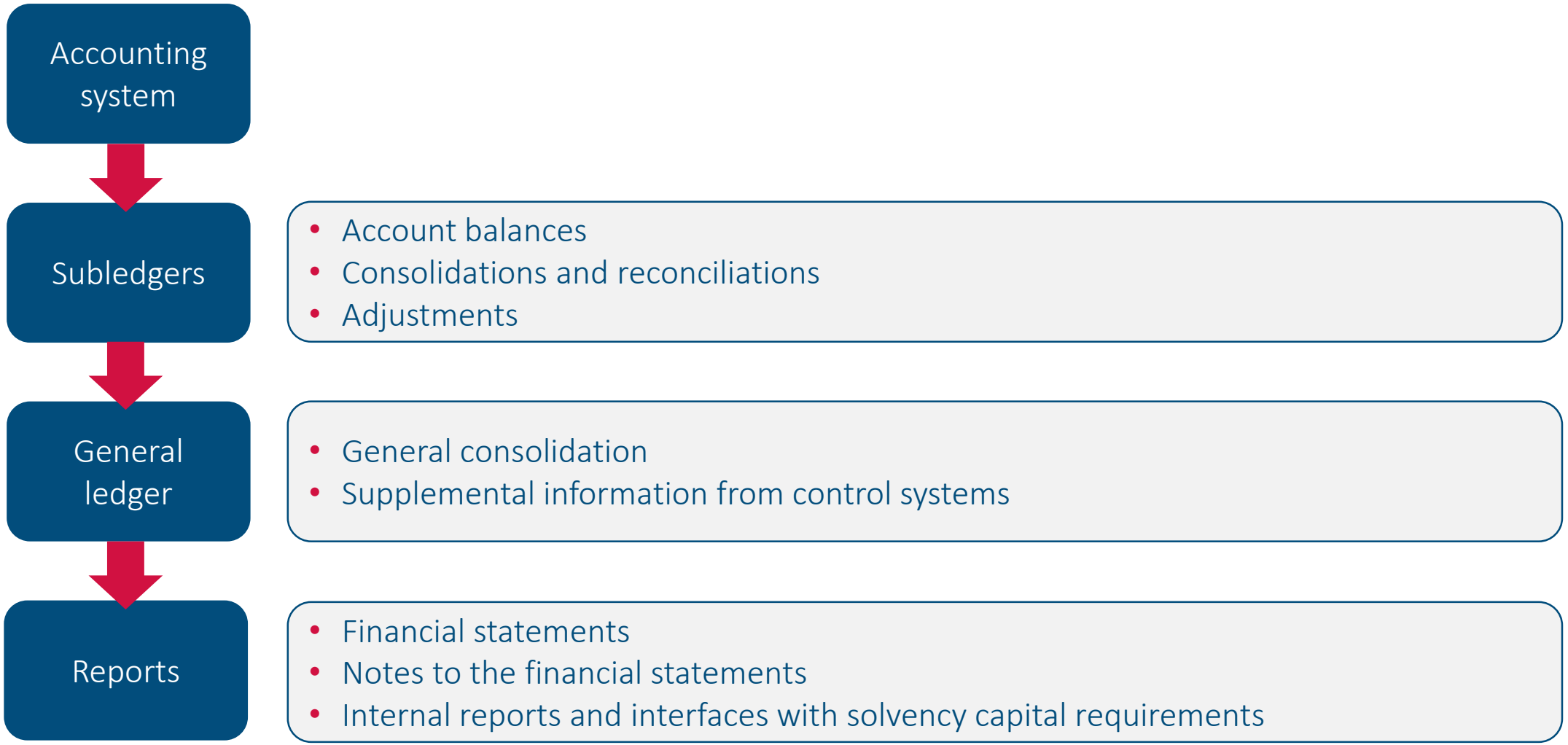
Process flow



Key considerations

Objective setting

Teamwork

Focus on the numbers

Nature and scope of IFRS 17

Minimum compliance or transformation of the company?

Key considerations

Objective setting

- Designing a system without knowing the objectives leads to inefficiencies
  - Minimum compliance vs. transformation of the company
- Given the complexity of IFRS 17, most insurers rely on external consulting
  - However, objective setting is an internal process that should not be outsourced

Key considerations

Teamwork

- An IFRS 17 implementation project involves several areas:
  - Finance and administration
  - IT and operations
  - Actuarial
  - Risk management
  - Internal control
  - Internal audit
- A multidisciplinary team is a necessary but not sufficent condition for a successful implementation
- It may be advisable to have a top executive as project leaer

Key considerations

Focus on the numbers

- App functionality is an important element, but it is far more important to have a solid computation system
  - The goal is not to design a fancy app for a samrt phone or tablet
- Having a solid understanding of financial aspects is a requirement for the development of systems and applications

Key considerations

Nature and scope of IFRS 17

- This is not a one-time project
- Solution components may be developed internally or externally
  - Development and maintenance of actuarial models
  - Development of an IFRS 17 engine
  - Accounting policies, construction of subledgers
  - Information integration
  - Construction of internal and external reports
- Decisions between buying and developing with own resources may be difficult to make
- Currently, there seems to be no standard solution in the market

IT architecture design

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Information scheme

Data sources	Integration	Storage	Business Analytics
• Policy administration system • Underwriting system • Investment management system • Market data • Transactional systems	• Extraction, validation and data transformation • Data cleansing and enrichment	• Policies • Claims • Output of actuarial systems • Accounting and financial outputs	• Financial projections • Preparation of reports • Development of KPIs • Operational efficiency • Statistical analysis

Actuarial and finance systems, including the IFRS 17 engine

Information control systems and information process management

Data security and integrity

= complex and time-consuming

Selection of software solutions

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Increasing capacity through outsourcing

Strategic alliances

- Additional capacity
- Risk reduction
- Alignment of objectives

Resource augmentation

- Process architecture
- Cost reduction
- Flexibility

Software providers

- SAP (German multinational)
- Oracle (integral solutions)
- FIS (financial technology)
- Many new players

Special teams

- Data integration
- Testing
- Analysis and development
- Actuarial models

What you should be looking in an IFRS engine

Generation of actuarial and accounting information
Ability to convert all actuarial and policy data into accounting entries

Modeling capabilities
Ability to use all IFRS 17 measurement models

Experience adjustment
Ability to adapt to subsequent measurement and to changes in actuarial methodologies and techniques

Transition support
Ability to use any transition approaches

Application of discount rates
Ability to store and apply discount rates (locked and current)

Amortizations
Ability to calculate amortization amounts for the CSM and the risk adjustment for non-financial risk

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What you should be looking in an IFRS engine

Groupings
Ability to build and manage portfolios and generations of contracts to be assigned to contract groups

Onerous contracts
Generation and management of loss components and reversal of losses

Adquisitions and transfers
Ability to deal with calculations of business acquired and transfers to other entities

Reinsurance
Support of reinsurance contracts including interfaces with the underlying business reinsured

Final reflection

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The purpose of financial reporting is to evaluate the degree to which a firm's accounting captures its underlying business reality.

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