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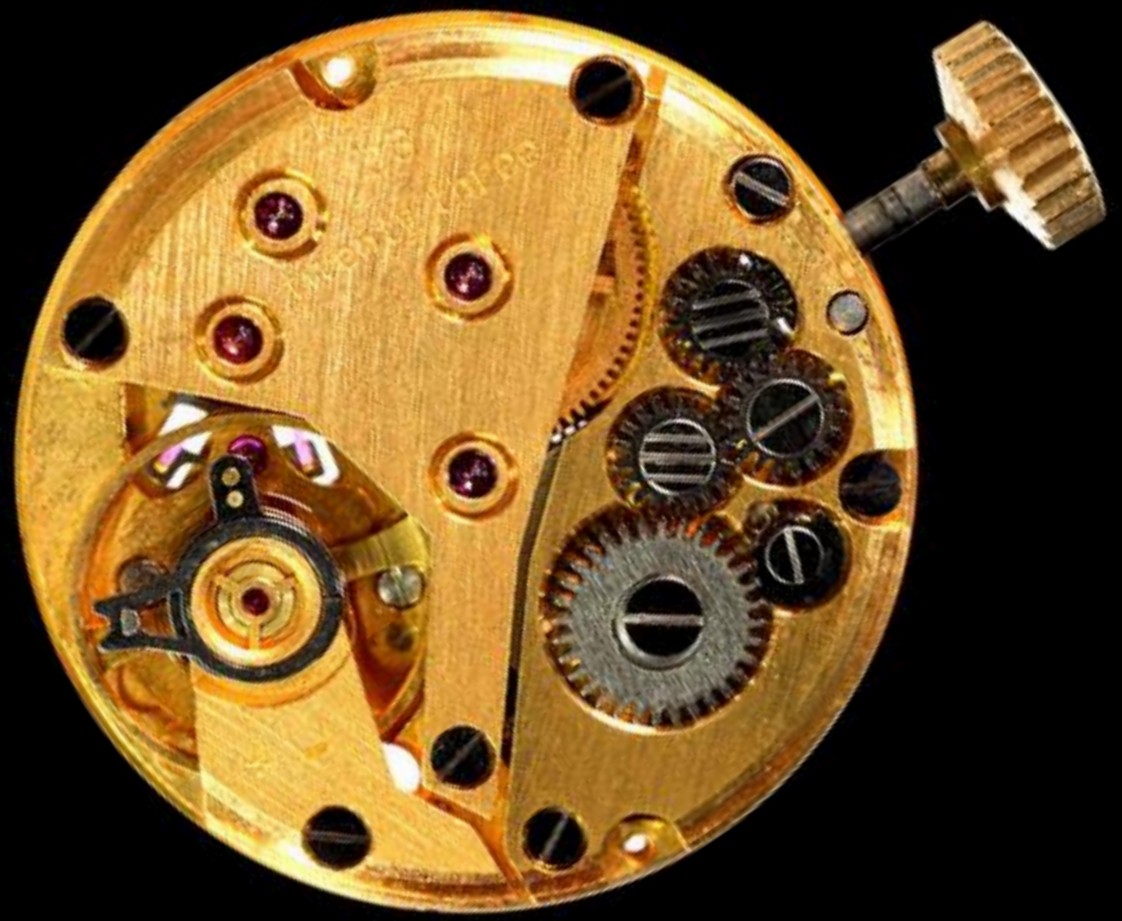

IFRS 17 Valuation Architecture and System Design

18 September 2018

Agenda

Agenda Items	Speaker
Introduction	Ciara Regan
Overview of actuarial system architecture	Brendan Guckian
System architecture impacts due to IFRS17	Joanne Lonergan
IFRS17 architecture challenges and pitfalls	Brendan Guckian
System implementation programs	Simon McCann
Actuarial Modelling Centre of Excellence	Marc Fakkel

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Valuation Systems Architecture Overview

Brendan Guckian

Current end-to-end architecture

Multiple runs

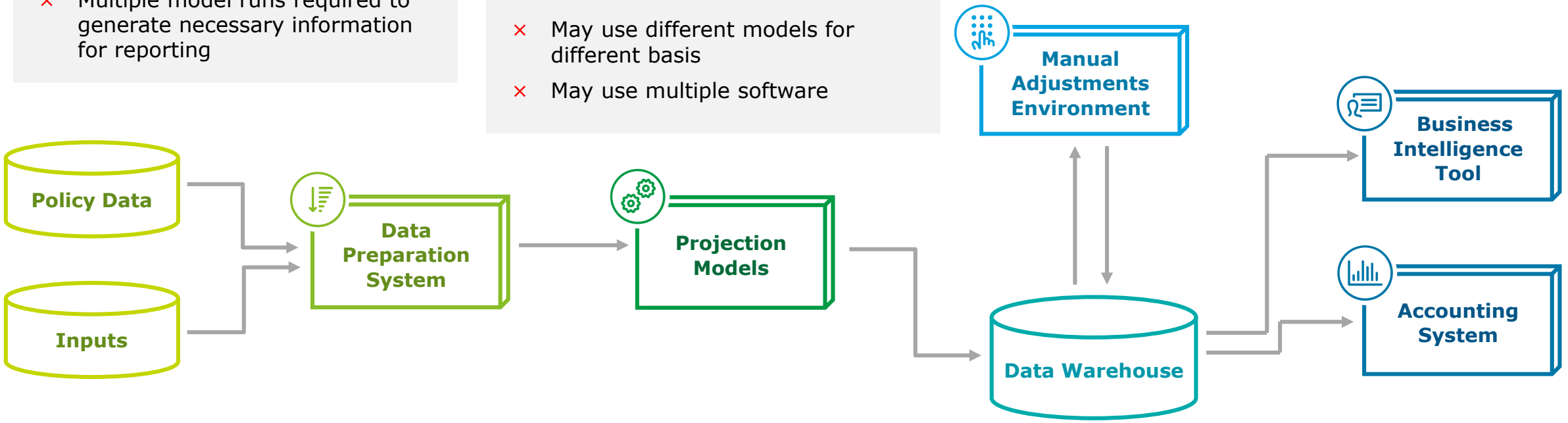
- × Multiple model runs required to generate necessary information for reporting

Multiple models & end reporting systems

- × May use different models for different basis
- × May use multiple software

Manual processes

- × Process can be manually intensive, particularly the data process



Tighter reporting deadlines

- × Solvency II reporting deadlines coming back 2 weeks this year

More reporting requirements

- × Requirement to report more information as a result of Solvency II

Multiple reporting basis

- × A requirement to calculate a number of different reporting basis – Solvency II, Statutory reporting, Group reporting, etc.
- × Different tools and processes may be used for each basis.

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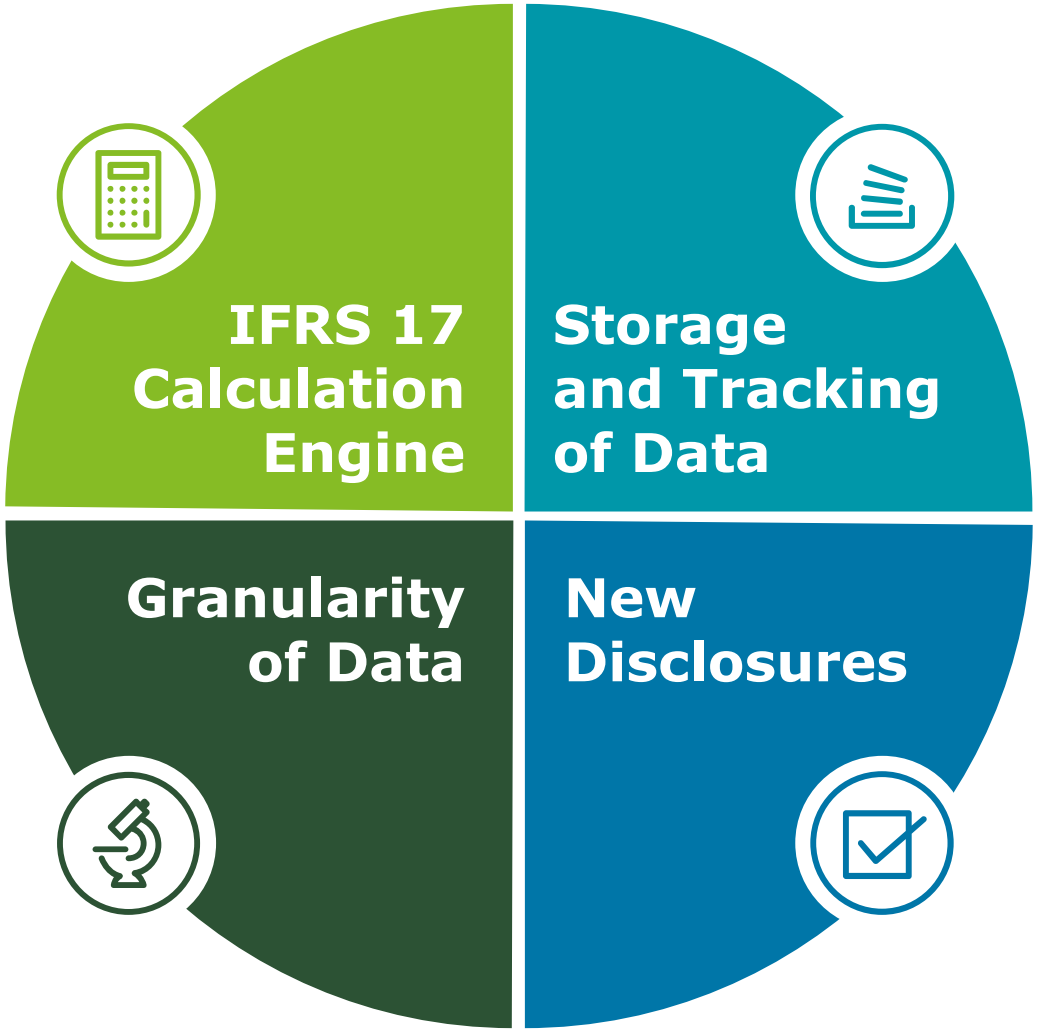
System Requirements of IFRS 17

Joanne Lonergan

IFRS 17 Challenges for models and systems

Overview



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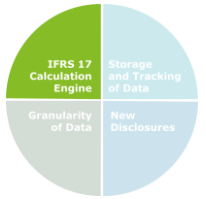
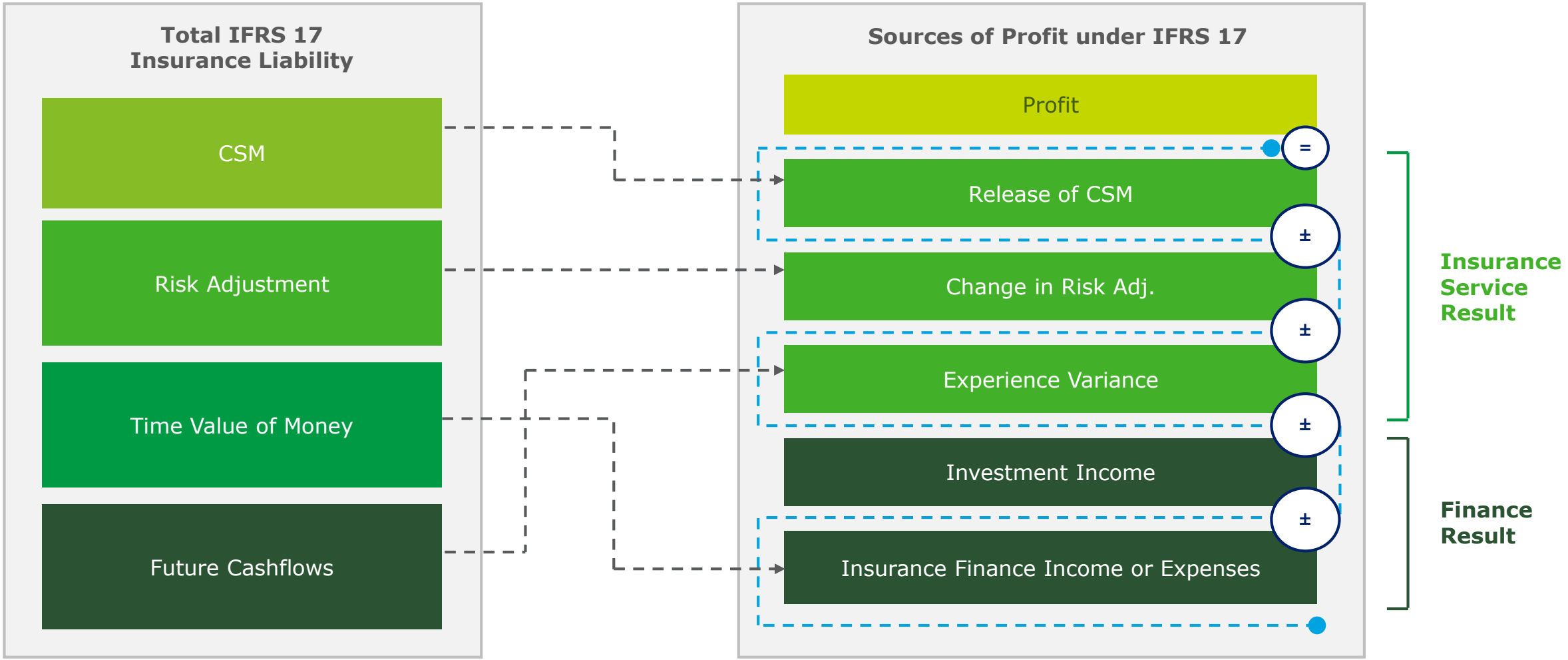
Additional IFRS17 modelling and system challenges

IFRS17 Calculation Engine





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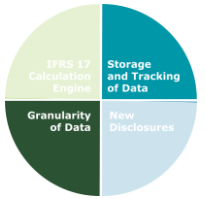
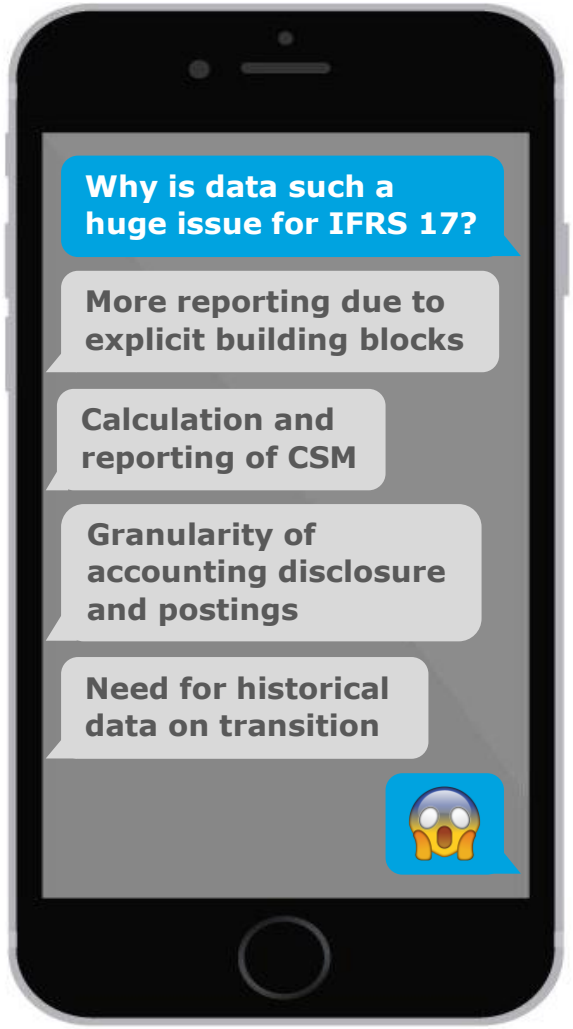
Additional IFRS17 modelling and system challenges

Storage, tracking and granularity of data





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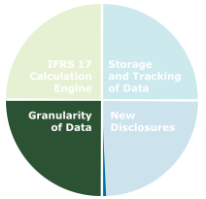
Additional IFRS17 modelling and system challenges
New disclosures



Ledgers
- Update to allow for RA & CSM on Balance sheet and amortization on P&L

Group Systems
- Consolidation now needs to allow for CSM & RA

Planning & Forecasting
- Needs to project the CSM & RA
- New KPIs

Management Information
- New Reports/KPIs
- Allowance for CSM

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IFRS 17 Challenges for models and systems

What then?

Can your system be easily adapted for these changes?

What about the changes needed for IFRS18 and Solvency III?

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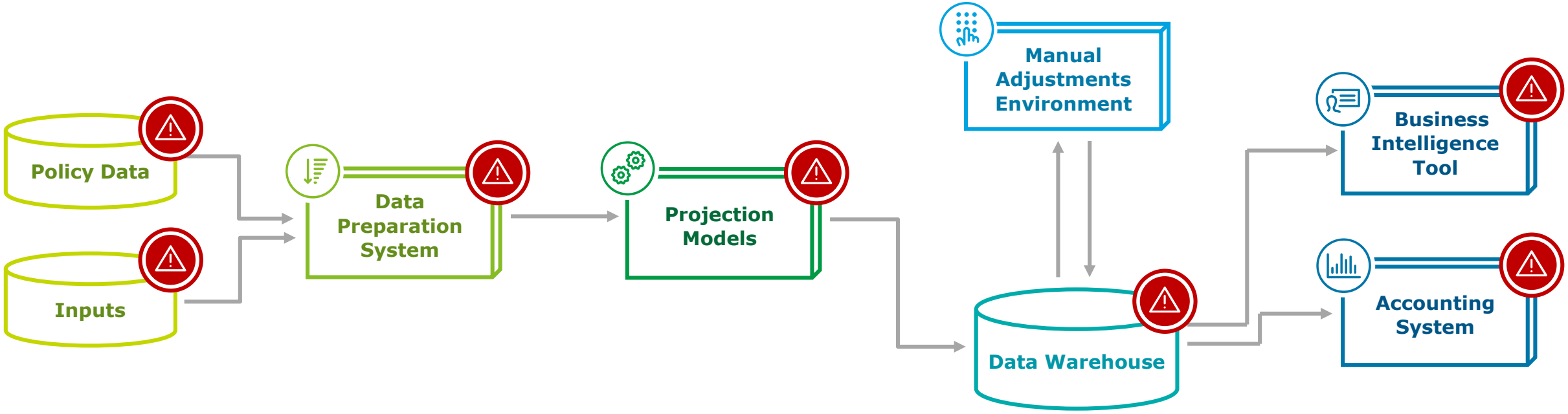
Reporting Systems

Brendan Guckian

What changes are expected due to IFRS 17?

Where will you feel the heat?



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What changes are expected due to IFRS 17?

Where will you feel the heat?

Policy Data

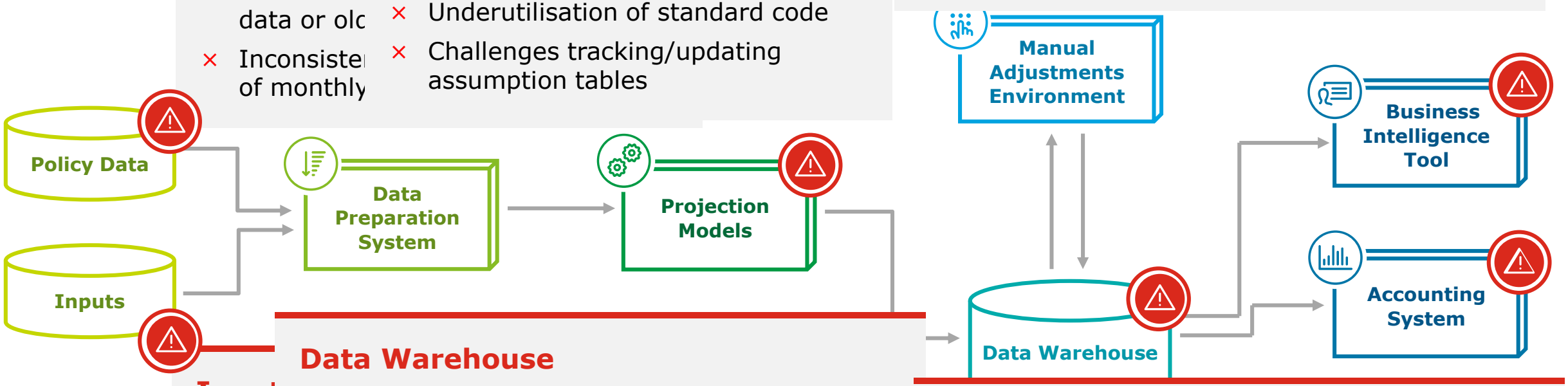
- × Data Defic
  data or olc
- × Inconsiste
  of monthly

Projection Models

- × Lack of coding standards
- × Underutilisation of standard code
- × Challenges tracking/updating assumption tables

Management Information

- × User Friendly – IT should not be required for ad hoc analysis
- × Choose the right tool for your needs
- × How are reports distributed?



Inpu

- × Poo
- × No
- × Imp

Data Warehouse

- × Indexing (Load Speed vs query performance)
- × Wrong levels of granularity
- × The importance of tagging
- × Structure of Data Marts

Accounting systems

- × What new information is needed?
- × Can the feed be automated?

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Key System Design Points

Things to consider

When Building a System

- ✓ Be clear on your requirements
- ✓ Ensure you have the correct level of granularity
- ✓ Ensure you have the correct data tags
- ✓ Build a framework as well as a system

When Maintaining a System

- ✓ Looks at how changes are implemented not just the financial impact
- ✓ Too many sticky plasters results in a mummy

Impacts of Poor Design

- × Unnecessary volume of:
  - Input Tables
  - Model Instances
  - Master Products
  - Lack of consistency across reporting bases
  - Model Point Files
  - Code Duplication
- × Increased volumes of outputs
- × Longer reporting cycles
- × Higher maintenance costs
- × More maintenance
- × Complexity
- × Really talking about poor requirements and design

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The Ideal Solution

What should you aim for?

Key Principles

- Clearly defined framework
- Standardised data formats
- Easy to use, ideally fully automated
- Harnesses synergies e.g. uses Solvency II functionality/models
- Flexible enough to allow for future changes
- Full data lineage and audit trail
- Meets your reporting requirements

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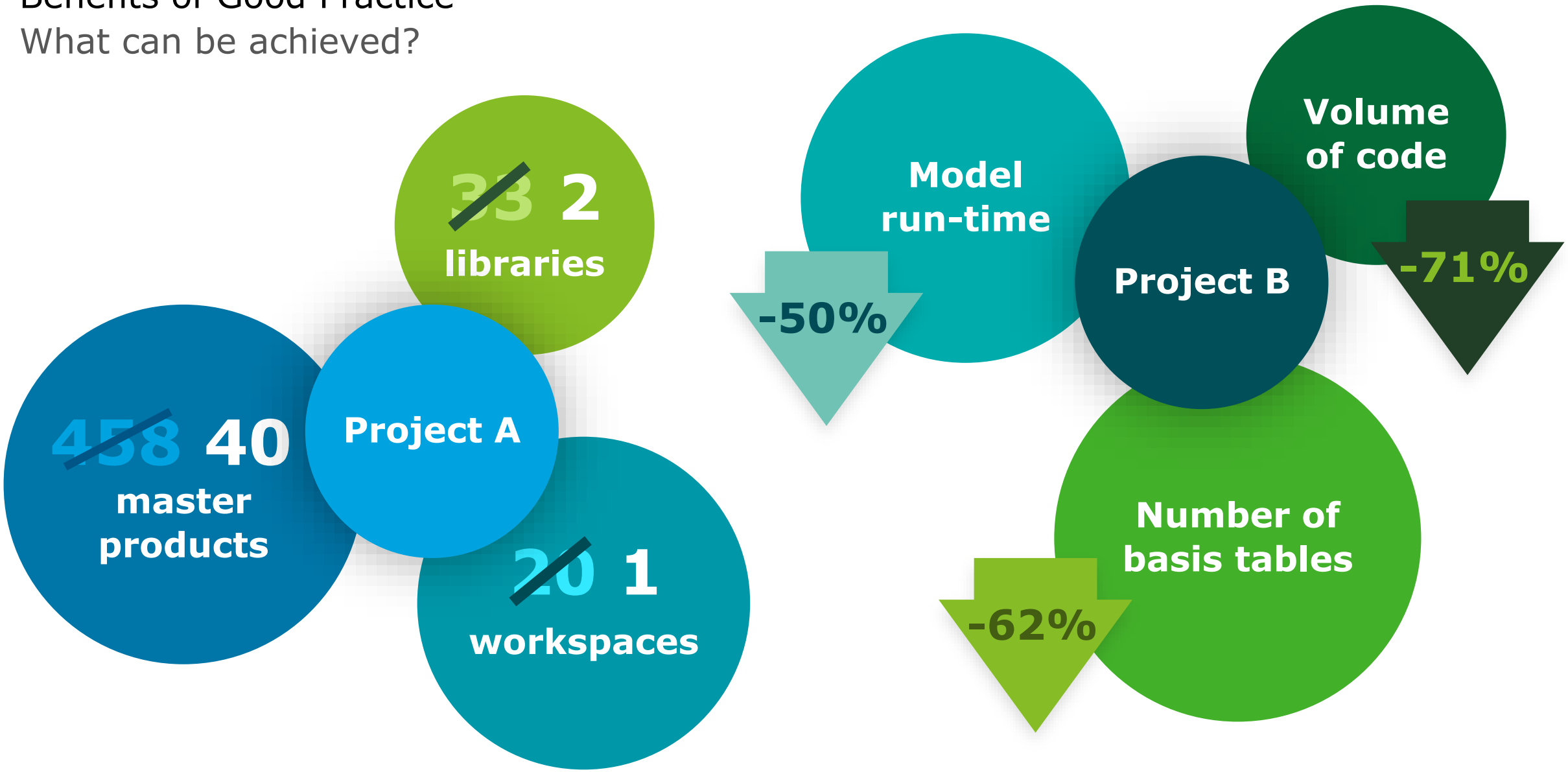
Benefits of Good Practice

What can be achieved?



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What changes are expected due to IFRS 17?

Summary

Common Issues & IFRS17 Tips

- ✓ Model Inputs
- ✓ Projection Models
- ✓ Data Warehouse
- ✓ Business Intelligence tools

Key Design Topics

1) Requirements
2) Granularity
3) Tagging
4) Framework

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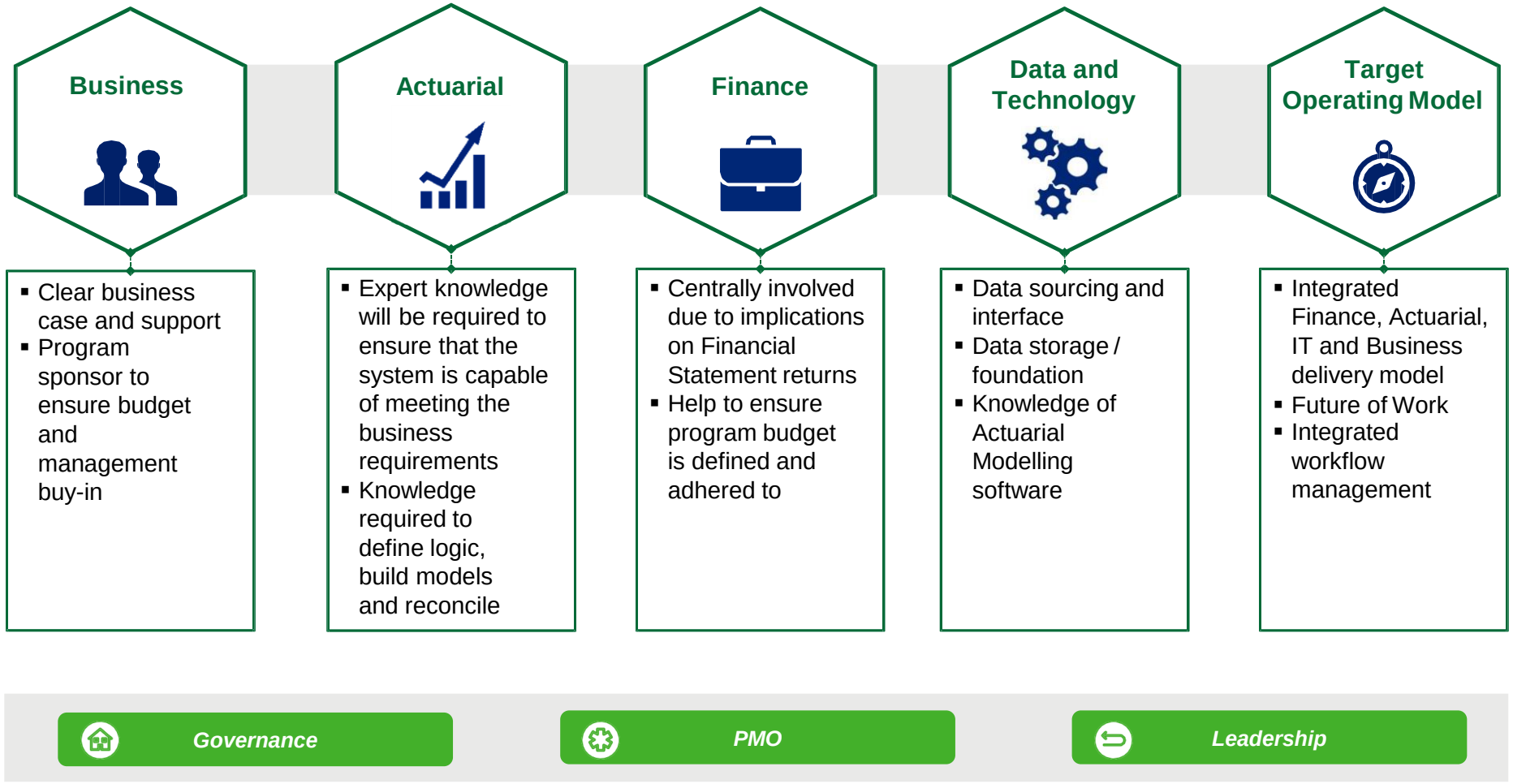
System Implementation Programmes

Simon McCann

Actuarial Systems Implementations



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Critical Success Factors

Practical execution

Execution Levers	Critical Success Factors			
Scope and Approach	Explore value add scope	Develop granular deliverables	Leverage proven methodologies	
Plan and Monitoring	Produce integrated plan incl. CPA and dependencies	Ensure process-driven workstreams (apps)	Deliver transparent status reporting	
Governance and Resourcing	Empower single owner (sponsor and director)	Adopt program structure not BAU	Dictate deliverable based resourcing model	Optimize partnering and resourcing
Design, Build, Test and Change Management	Prioritize upfront design and data discovery	Follow robust sign-off and change processes		
Operational Readiness	Document complete and granular OR plan	Transition to BAU		

Outcomes

On time delivery

Sustainable solution

Business acceptance

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Key Takeaways

Learnings from other projects, that will help the set up, planning and approach and will help to avoid common pitfalls.

Data Creates Challenges

- Differing levels of granularity
- Data housed in various systems
- Multiple languages, currencies, contracting parties

Stay Focused

- Budget, resourcing or scope will need to be sacrificed if you allow deadlines to slip

Policies & Processes

- The impacts on these are not to be underestimated
- New processes & policies will have to be designed and rolled out for Day 2
- Implementation of internal controls required

One Team

- Integrated approach: IT, Systems & Data, Finance, Actuarial, Change

Systems architecture must be considered

- Enhancements likely required to comprehend new storage, calculation and reporting requirements
- Excel increases operational risk

Every project is unique

- Each project will present unique challenges
- Do what's best for your business

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Actuarial Modelling Centre of Excellence

Marc Fakkel

Introducing the Actuarial Modelling Centre

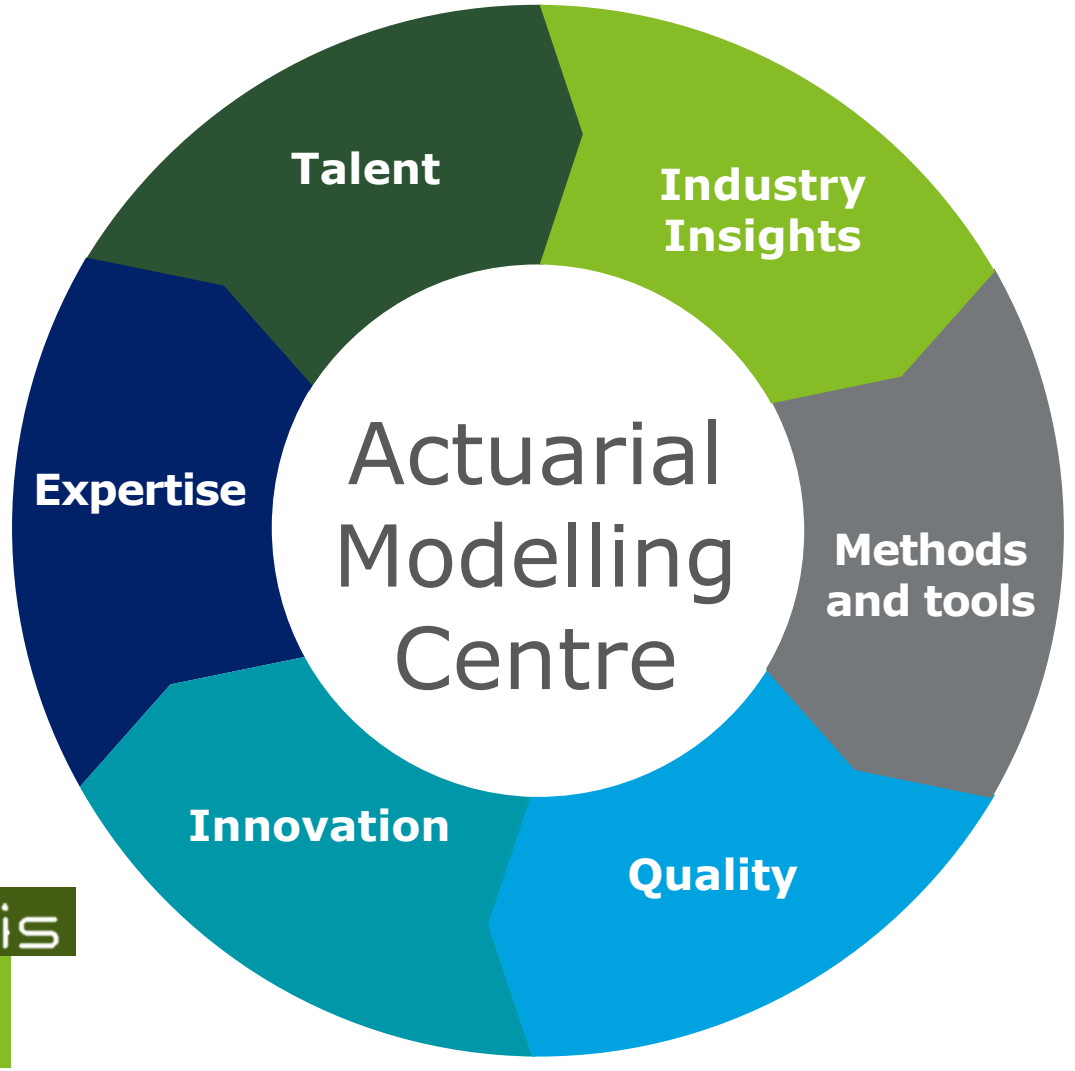
AMC Ireland

The Deloitte Actuarial Modelling Centre (AMC), part of the Actuarial, Reward and Analytics (ARA) practice, is our centre of excellence for actuarial modelling. The AMC formalises the Deloitte approach to actuarial modelling where we are recognised as a market leader.

The AMC uses our standard management and project frameworks to deliver modelling engagements. Our expertise in this area is underpinned by our market leading approaches, frameworks, tools and training to support the delivery of actuarial modelling to our clients.

Global Alliance with FIS

Deloitte have formed a global strategic alliance with FIS, the developers of Prophet, to help insurers through the operational challenges of implementing IFRS 17.



In-depth expertise

Skilled talent

Industry insights

State-of-the-art methods and tools

Robust quality controls

Culture of innovation

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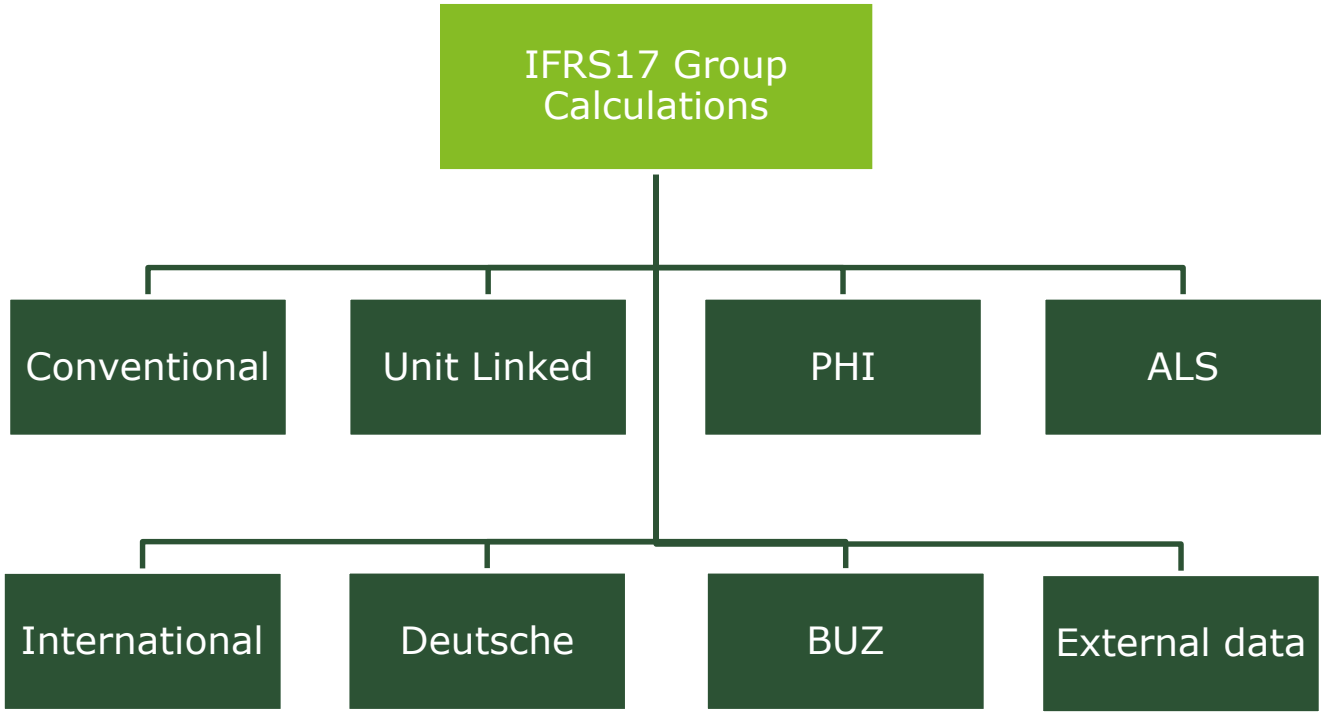
Thank You

Any Questions?

Appendix
Prophet IFRS 17 Library

- It is a new Prophet library which performs group calculation
- It is model point driven where each model point represents a cohort of policies
- It is reading results from products in other Prophet libraries or external data source through tables
- The other Prophet libraries are also enhanced for the cashflow discounting and aggregation required for IFRS



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