

An aerial photograph of a desert landscape featuring sand dunes with distinct, wavy ridges. A series of footprints, likely from a camel caravan, winds across the dunes from the top left towards the bottom right. A bright yellow trapezoidal shape is overlaid on the left side of the image, containing text.

Impacts of IFRS 17 insurance contracts accounting standard

Considerations for data,
systems and processes



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Building a better
working world

Across the globe, an unprecedented wave of new reporting and regulatory requirements are driving changes that are significantly impacting the way insurers manage their business. The new financial reporting standard IFRS 17 will undoubtedly represent the most significant change to insurance accounting requirements in over 20 years.

IFRS 17 is scheduled to be applied for reporting periods starting on or after 1 January 2021. Its dynamics will not only have implications on the financial disclosures of insurers - it will also have profound operational impacts on all aspects of the organization.

EY is already supporting many insurers across the globe in implementing IFRS 17 and we can see that the industry faces tough challenges in understanding the operational impacts on data, systems and processes. IFRS 17 requirements trigger questions around:

- ▶ the fundamental data management strategy, including data quality, storage and archiving
- ▶ the end-to-end systems architecture design and
- ▶ the different actuarial, risk and accounting processes that will support the future reporting process and how they will interact

In the next years insurers will need to implement significant technical and practical changes in order to appropriately respond to these questions. We believe the most efficient way to approach this will be through an integrated operating model and technology platform for Finance and Actuarial, enabling them to work as one unified team with one seamless calculation and reporting system.

We see generally three solution approaches to meet the new data, system and process challenges:

1. Actuarial driven solution - Leverage existing data, system and processes for IFRS 17 and build on MCEV/Solvency II tools and models wherever sensible
2. Integrated IFRS 17 solution - Build IFRS 17 capabilities through the introduction of an integrated solution that connects the finance and actuarial systems
3. GL embedded solution - Provide an IFRS 17 platform through a central finance system

There are significant opportunities to use IFRS 17 as a catalyst for further changes needed in supporting functions such as Finance and Actuarial. It is clear that no single approach works for the entire industry. Whatever the approach, we believe that only with a truly integrated solution that closely connects the data, systems and process environment between Finance and Actuarial will insurers be able to meet the challenges of the future.

This paper makes the case for why insurers need to understand the new data, systems and process challenges before they start committing to a demanding implementation journey that is likely to be transformational. It also looks at the considerations and options for an IFRS 17 solution that will ultimately need to combine what is needed to comply with the IFRS 17 requirements and at the same time have to meet the insurers' finance strategy and business objectives. Lastly we provide practical actions to guide an implementation that's focused, sustainable, and able to deliver the expected results.

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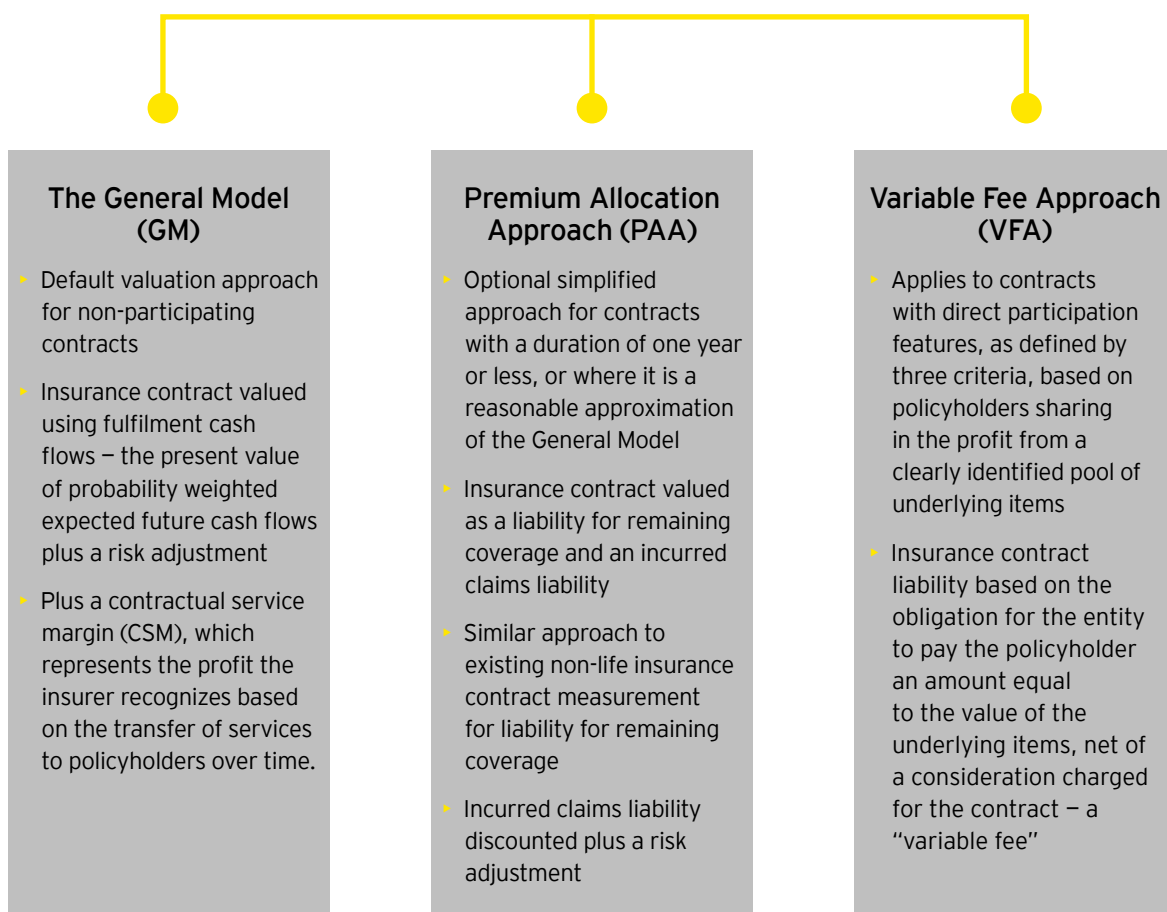
The most significant change to insurance accounting requirements in 20 years

On 18 May 2017 the International Accounting Standards Board (IASB or Board) issued IFRS 17 Insurance Contracts (The Standard). The Standard will be first applied for reporting periods starting on or after 1 January 2021.

IFRS 17 represents the most significant change to insurance accounting requirements in over 20 years - it demands a complete overhaul of insurers' financial statements. This major change program to implement IFRS 17 will extend beyond the finance and actuarial functions of insurers – with a large impact across Data, Systems and Processes (DSP).

Its business impacts need to be understood and communicated to a wide range of internal and external stakeholders. Given the scale of this change, investors and other stakeholders will want to understand the likely impact as early as possible.

The Standard uses three measurement approaches:



The principles underlying these measurement approaches result in a fundamental change to current practices. The detailed requirements are markedly different from existing models in a number of critical aspects that will:

- ▶ Change profit emergence patterns
- ▶ Speed up the recognition of losses on contracts that are expected to be onerous
- ▶ Add complexity to valuation processes, data requirements, assumption setting and analysing and communicating results

Greater granularity in contract groupings for valuation purposes will create additional complexity in the valuation models, data, system and process requirements.

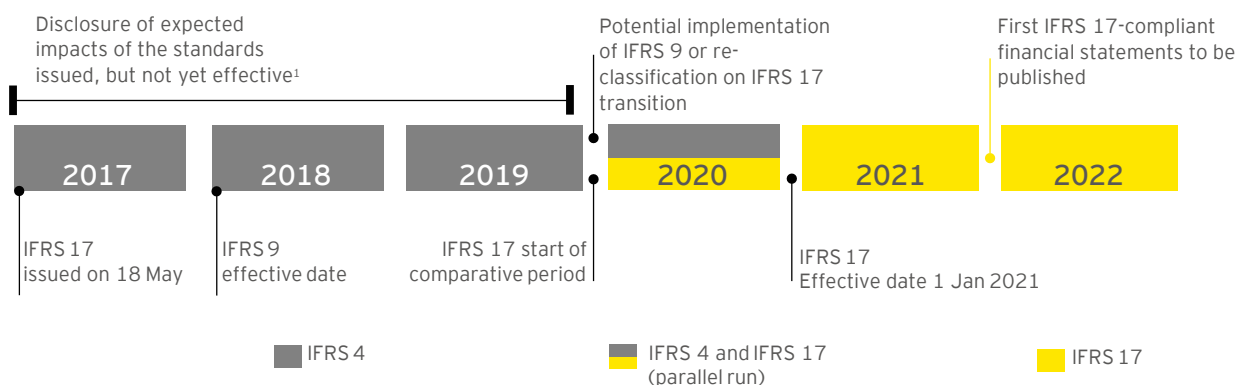
Countdown to 2021 has started



In the coming years, insurers will need to interpret, understand and apply the new Standard to their insurance contracts and reporting – a process involving significant time and effort. The major change program required will extend beyond finance and actuarial teams and its impacts will need to be communicated to a broad range of internal and external stakeholders.

The timeline below shows the countdown to IFRS 17. Given the scale of change required and the complexity of the implementation task, especially around DSP, insurers should start formally assessing impacts and mobilize their organizations now.

Exhibit 1: Countdown to IFRS 17 (for December year-end)



Note:

¹ The early adoption of IFRS 17 is permitted provided insurers have also adopted IFRS 9 and IFRS 15. Qualifying insurers can delay the implementation of IFRS 9 until the date of adoption of IFRS 17.

Why data, systems and processes are important to IFRS 17

The implementation of IFRS 17 will have profound impacts on all aspects of your organization, from front- to-back office.

We recommend a holistic approach to the implementation, covering the different dimensions of the Finance Target Operating Model (TOM). In discussions with insurers around the world, we found that most expect to face challenges understanding the operational impacts on DSP and it is therefore important to begin considering the changes now.

The diagram below shows some of the impacts of IFRS 17 on the Finance TOM

Processes

- ▶ Setting materiality concepts/guidelines
- ▶ Updating closing and reporting processes, actuarial processes, planning procedures, risk management
- ▶ Changes to internal and external reporting templates including group reporting packages
- ▶ Internal controls and audit trail
- ▶ Planning, budgeting and forecasting processes

Performance Management

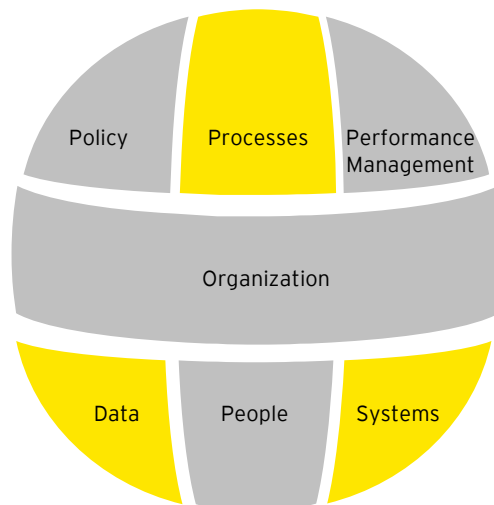
- ▶ Changes in Management Information reports and Key Performance Indicators
- ▶ Value-based management, scorecards and incentive scheme adjustments

Organization

- ▶ Roles and responsibility changes (especially between Actuarial and Finance)
- ▶ Technical provisions assumptions /expert judgment committee
- ▶ Impacts on outsourcing contracts
- ▶ Consolidated group vs entity level reporting

Policy

- ▶ New accounting policies/guidelines and control procedures
- ▶ IFRS 17 calculation methodology guidance and reporting instructions
- ▶ Actuarial models and assumptions setting and inputs
- ▶ General Ledger (GL) Chart of Accounts changes and local account mappings
- ▶ Investment policy changes (IFRS 9)



Data

- ▶ New financial reporting data requirements (input/output) at more detailed granularity
- ▶ Data reconciliations at different levels
- ▶ Data quality, storage and archiving
- ▶ Data security and controls
- ▶ Data governance and master data
- ▶ Demand for a single-source of truth for finance and risk data

People

- ▶ Technical and functional training
- ▶ Cross-functional collaboration (Business, Technology, Finance and Risk)
- ▶ Project resourcing and budget
- ▶ Managing change fatigue

Systems

- ▶ Impacts on core insurance systems, investment systems, actuarial systems, reporting systems
- ▶ New posting logic/engines for IFRS 17
- ▶ GL, consolidation tool and reporting system changes
- ▶ Changes to system interfaces
- ▶ Demand for flexibility in the actual system landscape
- ▶ New system functionalities/features

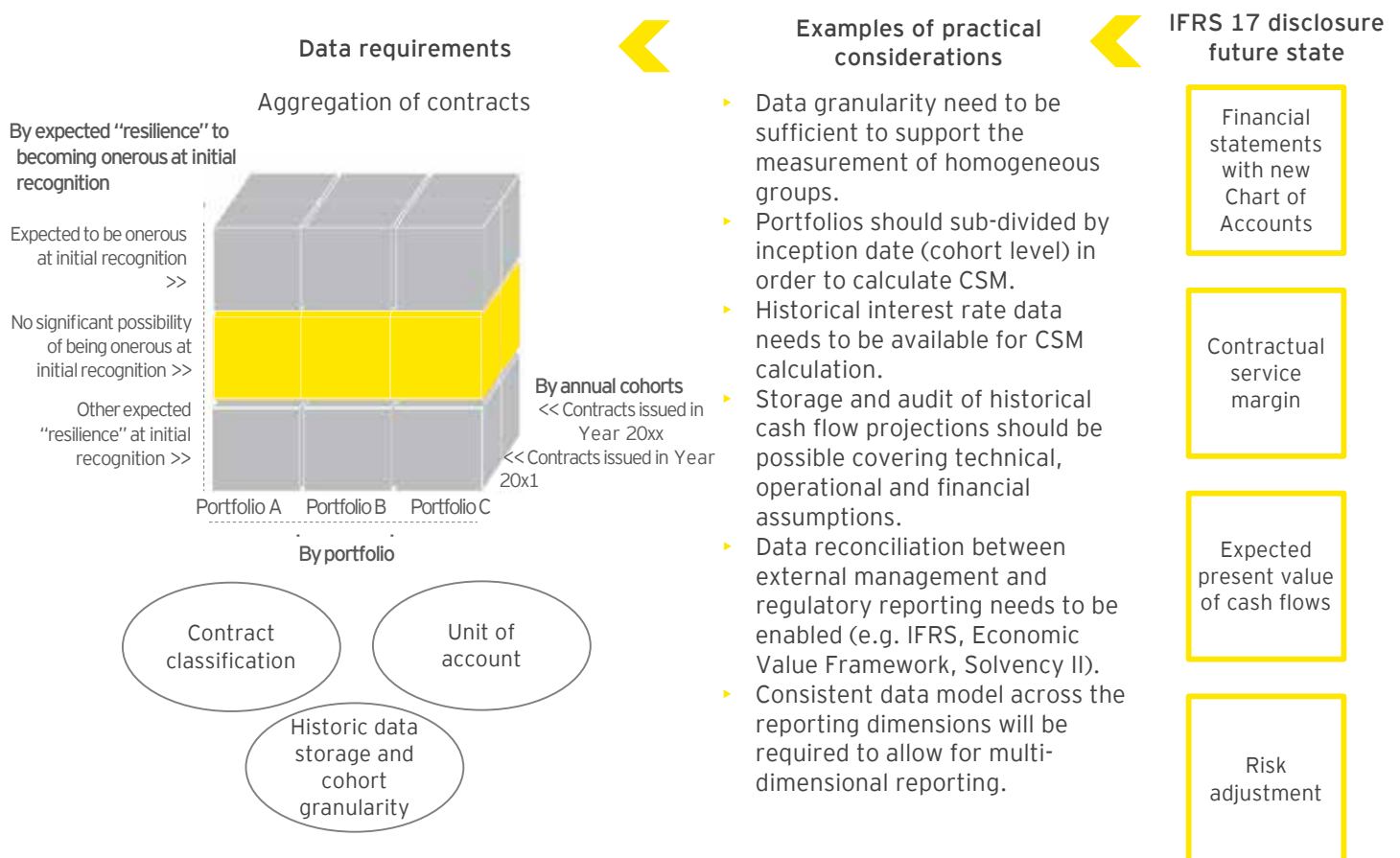
Work back from the future state to identify data requirements

While there are various solution options organizations should take a comprehensive data management approach to improve data and analytics capabilities strategically.

IFRS 17 will require organizations to ensure data governance, lineage and transparency across the entire reporting chain. This includes a wide spectrum of data that will be used, from historic or current data (e.g. policy and premium data or data to produce the risk adjustment) to forward-looking data (e.g. data used to produce cash flow projections).

To start, insurers should work with internal and external stakeholders to assess the current data flows and identify potential gaps. In doing so, it is critical to have the future state in mind to identify data requirements across the existing data and systems landscape.

In addition to data flow and system analysis, it is important to review your data management capabilities at the enterprise level. This includes the end-to-end data architecture and flow (e.g. source, master and reference data once for multiple uses), data governance process and policies (e.g. access controls and ownership), and the Target Operating Model (e.g. chief data office and interaction model) to “manage data as an asset”. This will help you to define target-state data architecture to meet IFRS 17 Standard and company’s strategic direction in data management.



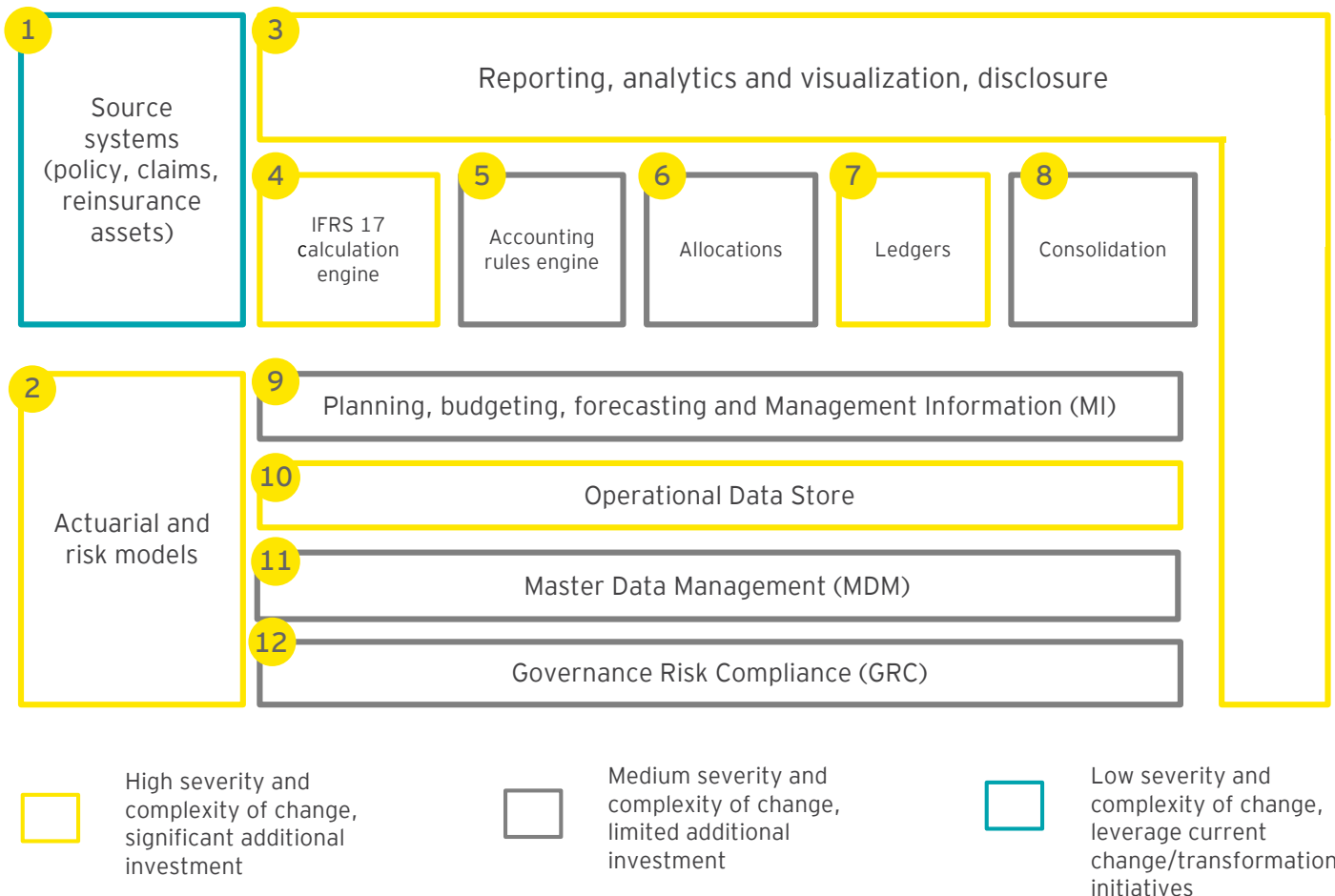
Impacts across the entire systems architecture need to be considered

Most components of the systems are impacted with high to medium complexity across DSP.

For insurers, the content and structure of data captured from products, portfolios and business units to support IFRS 17 reporting will change significantly. This will require changes to financial consolidation and reporting systems. In addition, changes to the primary financial statements and disclosures will impact GL and chart of accounts at both the group and business unit level.

Understanding the gaps in DSP will be critical for the success of IFRS 17. This will require careful analysis of the current state systems architecture, its functionality and capabilities, in order to design the best mix of systems for the target state that supports the companies' overall IFRS 17 agenda. Reviewing the technology landscape and architecture is an excellent opportunity to examine various options for the future, to ensure the technology/change benefits the company for the longer term.

Exhibit 3: Finance and actuarial data and systems impacts



1 Source systems

- ▶ Policy systems - extract additional information from source including policy inception date and policy duration
- ▶ Append/extract data to include CSM value ranges if existing at policy level

2 Actuarial and risk models

- ▶ Embed CSM methodology in actuarial/risk/capital models based on revised cohort drivers
- ▶ Implement assumptions management to allow reconciliation between local GAAP/MCEV/Solvency II to IFRS 17
- ▶ Update modelled results output to reflect IFRS 17 grouping and CSM

3 Reporting layer

- ▶ Update reporting/disclosure tools based on IFRS taxonomy
- ▶ Add new analysis of movement/change steps to capture CSM amortization impacts
- ▶ Capture notes to business rules used to build homogenous cohorts and CSM accretion

4 IFRS 17 calculation engine

- ▶ Require calculation engine to calculate, amortize and adjust CSM, either as a part of actuarial, finance systems or a separate application
- ▶ Build the integration to GL system

5 Accounting rules engine

- ▶ Update accounting rules to post to new accounts and cohorts

6 Allocations

- ▶ Change some allocations to be done at cohort level not policy
- ▶ Update allocation rules to exclude certain costs such as non-incremental acquisition costs

7 Ledgers

- ▶ Enhance GL Chart of Accounts to capture CSM on the balance sheet and CSM amortization on the profit and loss statement
- ▶ Potentially capture product cohorts

8 Consolidation

- ▶ Update consolidation and group reporting to include additional CSM reporting requirements

9 Planning, budgeting and forecasting and MI

- ▶ Bring business planning and forecasting models into line with the new external reporting basis
- ▶ Update internal and external KPIs to reflect CSM and the levers available to manage

10 Operational Data Stores

- ▶ Update to capture policy inception date, duration and CSM value ranges
- ▶ Capture historical amortization of CSM per cohort
- ▶ Create link between policies and cohorts
- ▶ Capture market and non-market data to update assumptions required for CSM

11 Master Data Management

- ▶ Update and enhance product hierarchies or product attributes to link to cohort

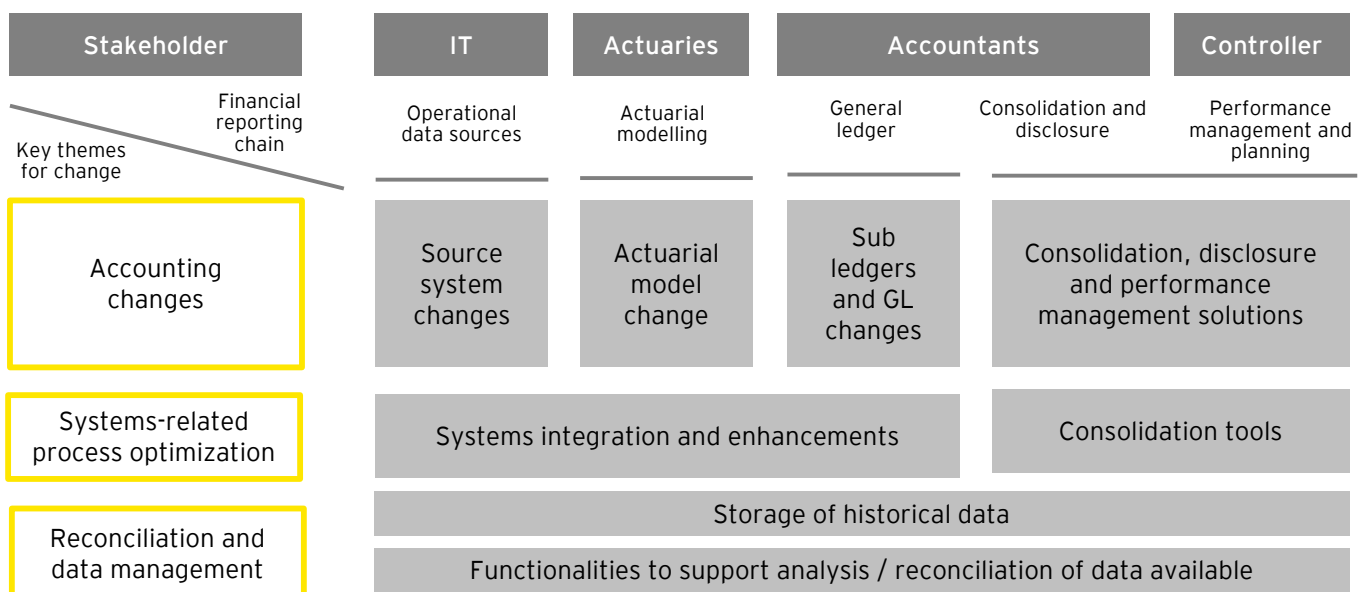
12 Governance Risk Compliance

- ▶ Capture business rules / policy used to build homogenous cohorts

End-to-end financial processes will be impacted and require a number of changes

Financial processes and underlying systems will need a major overhaul in order to keep up with the reporting requirements of IFRS 17 highlighted in Section 1.

The key changes are summarized below.



Focus on fast close initiatives	Major change to reporting processes	Planning and performance management processes	Control and audit processes
<ul style="list-style-type: none"> ▶ Deadlines to publish results remain unchanged or shortened ▶ More complex calculations ▶ Potentially greater demand for manual activities on an interim basis ▶ Additional time required for analysis and understanding results 	<ul style="list-style-type: none"> ▶ New format of the balance sheet and the profit and loss statement ▶ New Chart of Account / accounting logic ▶ Additional disclosure requirements (e.g. methods, estimation approaches, risk information) will require process changes ▶ Content and structure of data captured from reporting systems 	<ul style="list-style-type: none"> ▶ Planning and forecasting processes adjusted to the new IFRS regime ▶ Consistency between financial results and management information and KPIs that make performance more transparent 	<ul style="list-style-type: none"> ▶ The design of specific controls to ensure quality, robustness and integration into existing control frameworks specifically in the new processes ▶ Auditability of reported figures across the entire value chain ▶ Historization of reported figures and input data

Upfront considerations for IFRS 17 implementation

It is important to first determine your ambition level and to establish high-level Design Principles for IFRS 17 based on your Business Guiding Principles before embarking on your implementation journey. This way, you can derive the expected benefits from the investments and resources.

One of the top priority activities at the start of an IFRS 17 implementation is to produce an integrated operational design which can direct all of the change efforts. To create something that is right for the company, it is important to have a way to make decisions quickly, consistently and in line with its ambitions.

IFRS 17 Design Principles can address those needs. These design principles guide the IFRS 17 solution in terms of DSP and should be based on broader Business Guiding Principles of the overall operating model.

We recommend establishing and communicating these Design Principles upfront, to help navigate your implementation journey.

Business Guiding Principles (examples)

Technical design

- ▶ Ensure commercial considerations are incorporated
- ▶ Leverage Solvency II environment to assist with operational alignment, where relevant
- ▶ Consider and evaluate industry good practice (smart follower)
- ▶ Design and build for minimum granularity to support disclosure and optimize commercial benefits while minimising operational complexity

Operational design

- ▶ Buy systems and leverage available functionalities before building new systems in-house
- ▶ Source data only once. Avoid multiple and any “off-line” sourcing of data and source external or market data only from approved sources wherever possible
- ▶ Automate system interfaces and feeds from data sources

Process design

- ▶ Optimize the speed of the accounting and actuarial production chain
- ▶ Produce the IFRS 17 results in a cost-optimized fashion
- ▶ Integration of reporting process and bases where possible
- ▶ Reporting, planning and forecasting should be derived from same process

IFRS 17 Design Principles (examples)

- ▶ Providing an appropriately succinct and well-defined data architecture delivering a “single version of the truth” in respect of finance reporting **(Data)**
- ▶ Providing a systems architecture that is flexible, scalable and reusable allowing Finance and Actuarial to undertake fast and robust modelling and approximate stress testing on a self-service basis where appropriate **(Systems)**
- ▶ Automated processes where there are clear and measurable tangible benefits, and automation is cost-effective to deliver **(Processes)**



Change the challenges to opportunities

IFRS 17 provides a significant opportunity for insurers to introduce efficiencies into DSP.

In the next four years, insurers will need to implement significant technical and practical changes. In this section we look at the considerations and options for solution approaches that EY has compiled from working with major insurers across the globe, in particular Europe, Americas, Asia and Australia.

Rather than simply adding solutions to meet immediate needs, IFRS 17 and the future reporting challenge will best be met by stepping back and building greater integration between finance, risk and actuarial through a common vision around operations. We believe the most efficient way to approach this will be through an integrated operating model and technology platform for finance and actuarial, enabling them to work essentially as one unified team with one seamless calculation and reporting system. Only with a truly integrated solution that connects the data, systems and process environment between Finance and Actuarial will insurers be able to meet the new regulatory and accounting reporting challenges of the future.

Consistency across the Finance organization



Standardized and centralized data



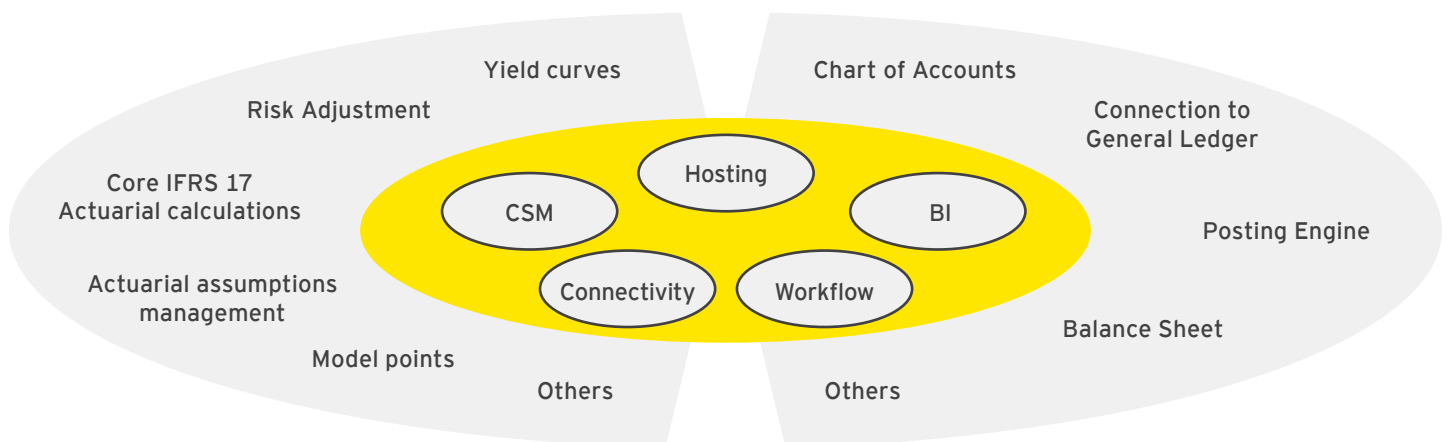
Reduced reporting cycle times



Actuarial System

Typical overlap

Finance System



Three approaches to achieve your long-term vision through IFRS 17 implementation

- 1** Actuarial-driven solution
- 2** Integrated IFRS 17 solution
- 3** GL embedded solution

Leverage existing DSP for IFRS 17, and build on MCEV/Solvency II tools and models wherever sensible

Build IFRS 17 capabilities through the introduction of an integrated solution that connects the finance and actuarial systems

Provide an IFRS 17 platform through a central finance system

How to do it	1 Actuarial-driven solution	2 Integrated IFRS 17 solution	3 GL embedded solution
How to do it	<ul style="list-style-type: none"> ▶ Build on existing MCEV/ Solvency II tools and leverage existing data, processes and systems wherever possible ▶ Enhance current actuarial system to produce CSM calculations and related data and results ▶ Enhance existing finance systems and IT solutions to cover IFRS 17 specific accounting and reporting requirements (e.g. unit of accounts, movement tables, disclosures) 	<ul style="list-style-type: none"> ▶ Build IFRS 17 capabilities through the introduction of an integrated “sub-ledger-type solution” that connects the finance and actuarial systems ▶ Build an integrated insurance data model for source data and results data onto one platform to eliminate redundancy ▶ Consider building a powerful enterprise data warehouse to provide flexible reporting and analysis tools 	<ul style="list-style-type: none"> ▶ Use existing actuarial system as base and enhance the central finance system with multi-dimensional IT capabilities to provide a new multi-ledger, multi-client, multi-product, multi-currency, multi-time IFRS 17 platform ▶ Take advantage of in-memory calculation features with integrated database to support historic data storage and cohort granularity with enhanced actuarial & risk modelling for cohort views
Pros	<ul style="list-style-type: none"> ▶ Probably easiest and fastest solution to implement ▶ Built primarily on existing reserving, MCEV and Solvency II tools and processes ▶ Lower investment required 	<ul style="list-style-type: none"> ▶ Opportunity to implement a new, more efficient system setup while leaving old systems intact ▶ Shorter time to benefits realization ▶ Ancillary benefits in areas outside IFRS ▶ Information at a more granular level 	<ul style="list-style-type: none"> ▶ Higher flexibility of the implemented solution ▶ Enables addition of other requirements (e.g. IFRS 9 and Solvency/RBC) ▶ Lower critical path risk ▶ Single-source of truth for Finance, Actuarial and Risk
Cons	<ul style="list-style-type: none"> ▶ Less efficient system setup (more add-ons) ▶ May not fit the future IFRS 17 reporting timelines and new requirements (e.g. controls) ▶ Considerable manual steps means higher operating costs 	<ul style="list-style-type: none"> ▶ Multiple data sources and complexity of the process means higher implementation risks ▶ Large upfront investment required for new solution with potentially limited lifespan ▶ Critical path risk (need a “plan B” or parallel runs) 	<ul style="list-style-type: none"> ▶ Takes longer to realize benefits from migration ▶ Likely to have some manual steps and solutions resulting in higher cost ▶ Could be expensive to implement and technology still unproven

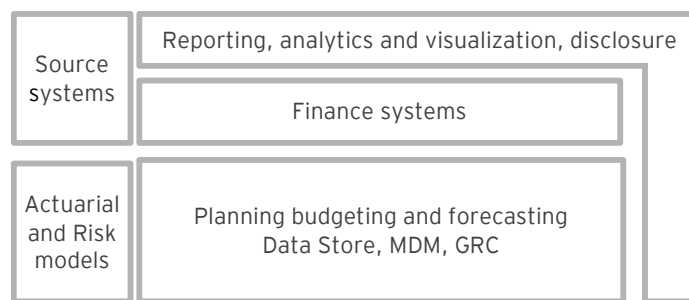
The ultimate solution choice will be the one that combines what is needed to comply with the IFRS 17 requirement and what is needed to meet your finance strategy and business objectives. This is driven by understanding your systems strategy and systems target state.

What is your business focus and priorities?
Business guiding principles

What is your systems target state?
Design dimensions

Efficient and transparent processes and systems	Fast-Close capabilities
Integrated data storage for finance, risk and actuarial systems	Reduced complexity for multi-GAAP analysis and reconciliation
Limited manual activities and error checking	Reduced late adjustments

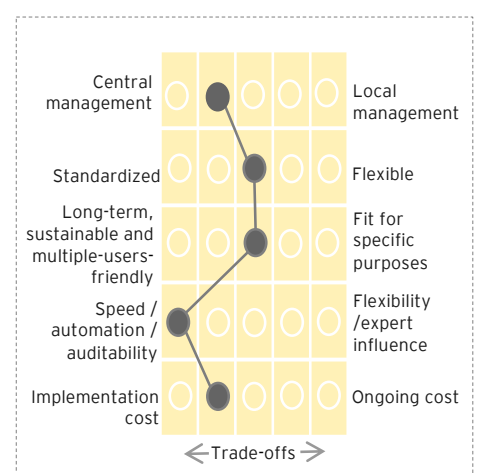
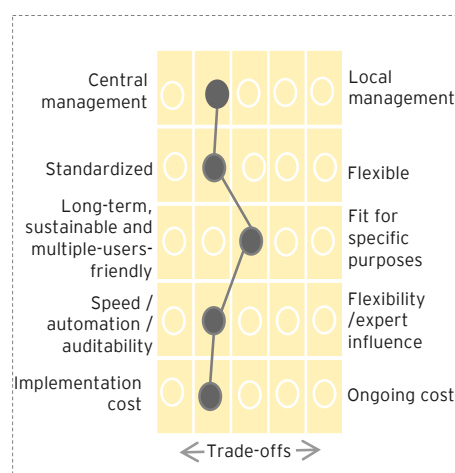
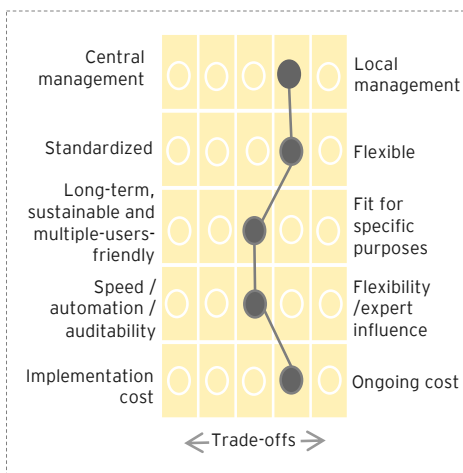
Central management vs Local management	Standardized vs Flexible	Long-term sustainable multiple users friendly vs Fit for specific purposes
Speed, automation audibility vs Flexibility, expert influence	Implementation cost vs Ongoing cost	



1 Actuarial-driven solution

2 Integrated IFRS 17 solution

3 GL embedded solution



- Enhanced data analytics and performance reporting**

Improved data quality

Reduced level of manual manipulation involved through automation

Ten key actions to kick-start your IFRS 17 implementation

<h2>Perform Impact Assessment</h2>	<ol style="list-style-type: none"> 1. Understand IFRS 17 requirements 2. Perform gap analysis (using pre-populated templates where possible) 3. Conduct impact assessments around architecture, data, systems and processes
<h2>Engage internal and external stakeholders</h2>	<ol style="list-style-type: none"> 4. Conduct business and technology briefing sessions 5. Report findings and implementation approach to Board, executive team and key stakeholders 6. Discuss findings with external auditor and regulators 7. Seek approval for next Design phase
<h2>Mobilize IFRS 17 implementation program</h2>	<ol style="list-style-type: none"> 8. Mobilize project resources and key internal and external stakeholders 9. Provide core team training 10. Develop implementation roadmap and budget



EY is working with major insurers globally as they assess the financial and operational impacts of IFRS 17, mobilize their implementation programs and communicate with their stakeholders.

In embarking the journey of IFRS 17 implementation program, EY can assist you to kick-start with number of tools to structure the project in a complete and efficient way allowing you to focus on the important issues. This includes our IFRS Operational Impact Analyzer tool, IFRS 17 Data Model and IFRS 17 Actuarial Modelling tool.

Exhibit 4: IFRS 17 high-level implementation roadmap



How EY can help with EY tools and accelerators

	EY service offerings	EY tools and accelerators
Mobilize, analyze and evaluate	<ul style="list-style-type: none"> Trainings, webcasts and workshops Assistance on key technical questions Operational impact assessment Financial impact analysis Resources and costs estimation Roadmap of activities for implementation 	<ul style="list-style-type: none"> IFRS 17 Operational Impact Analyzer IFRS 17 / IFRS 9 training materials Gap assessment approach Roadmap and costing template
Design smart-tailored implementation program	<ul style="list-style-type: none"> Target Operating Model and KPIs design System impact assessment Data analysis preparation for transition 	<ul style="list-style-type: none"> IFRS 17 Actuarial Modelling tool Financial impact analysis tool Data and system impact analysis tool System architecture examples
Program implementation	<ul style="list-style-type: none"> Investor and stakeholders education Project management and Project M Office support 	<ul style="list-style-type: none"> Model accounts, data model and Chart of Accounts IFRS 17 / IFRS 9 training materials
Dry run	<ul style="list-style-type: none"> Transition data preparation Re-design of control frameworks and processes TOM implementation Pilot testing Board awareness sessions 	<ul style="list-style-type: none"> Model accounts, data model and Chart of Accounts IFRS 17 / IFRS 9 training materials
Live reporting	<ul style="list-style-type: none"> Investor and stakeholders education Technical support Quality assurance 	<ul style="list-style-type: none"> IFRS 17 Chart of Accounts IFRS 17 / IFRS 9 training materials

IFRS 17 Operational Impact Analyzer

A web-based tool to identify operational gaps from a micro and macro perspective in the insurer's existing processes, systems, data, models and policies, compared to the new requirements of IFRS 17

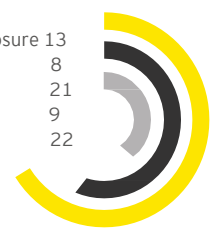
Gaps by dimension

Systems	20
Processes	11
Policies	16
Models	22
Data	4



Gaps by topic

Presentation and disclosure	13
Variable fee approach	8
Level of aggregation	21
Discounting	9
CSM	22

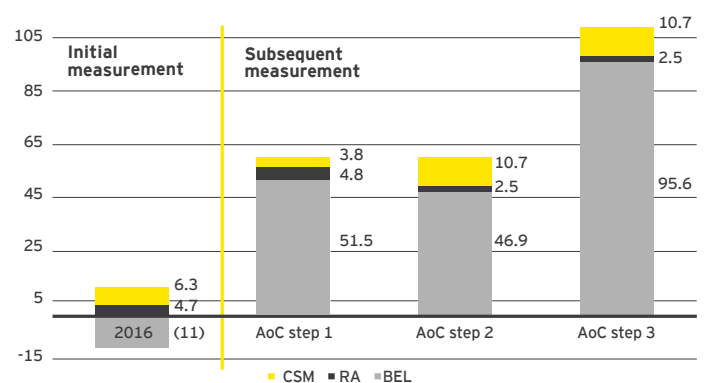


IFRS 17 Actuarial Modelling tool

An actuarial model to identify the inputs needed to support IFRS 17 reporting

The tool demonstrates the impacts of changing assumptions and cash flows on reported results. It can also perform multiple model runs to produce Analysis of Surplus and separate the impact of different assumption and experience changes.

The tool is capable of calculating IFRS 17 insurance liabilities for a contract or a portfolio at inception and subsequent measurement dates.



How EY can help with selecting the most appropriate IFRS 17 solution

EY has a broad understanding of the different IFRS 17 solutions in the market and extensive experience with vendor selection. Combined with our collaboration approach with key alliance partners, we are able to facilitate the decision-making for a suitable solution.

The IFRS 17 calculation engine will be a critical new component in the overall finance/actuarial landscape. The calculation of the new CSM component as part of the BBA/VFA measurement models are only one part of the new calculation capabilities needed in the new IFRS 17 world.

Vendors are at various stages of development for supporting the new IFRS 17 requirements. European providers are re-purposing their Solvency 2 assets whereas North American providers are rapidly advancing bespoke solutions.

EY has extensive experience with vendor selection¹ and sourcing, as well as global insights into development paths with key alliance partners to facilitate the decision-making for a suitable solution.



Note:

¹ This is a sample list of vendors based on recent market research and is not meant to be exhaustive

Case study 1

IFRS 17 System Architecture

EY supported a multi-national European Insurance Group on its IFRS 17 design. Key elements of its IFRS 17 end-to-end systems architecture landscape were defined, as well as identifying and facilitating the IFRS 17 system provider selection process.

The challenge

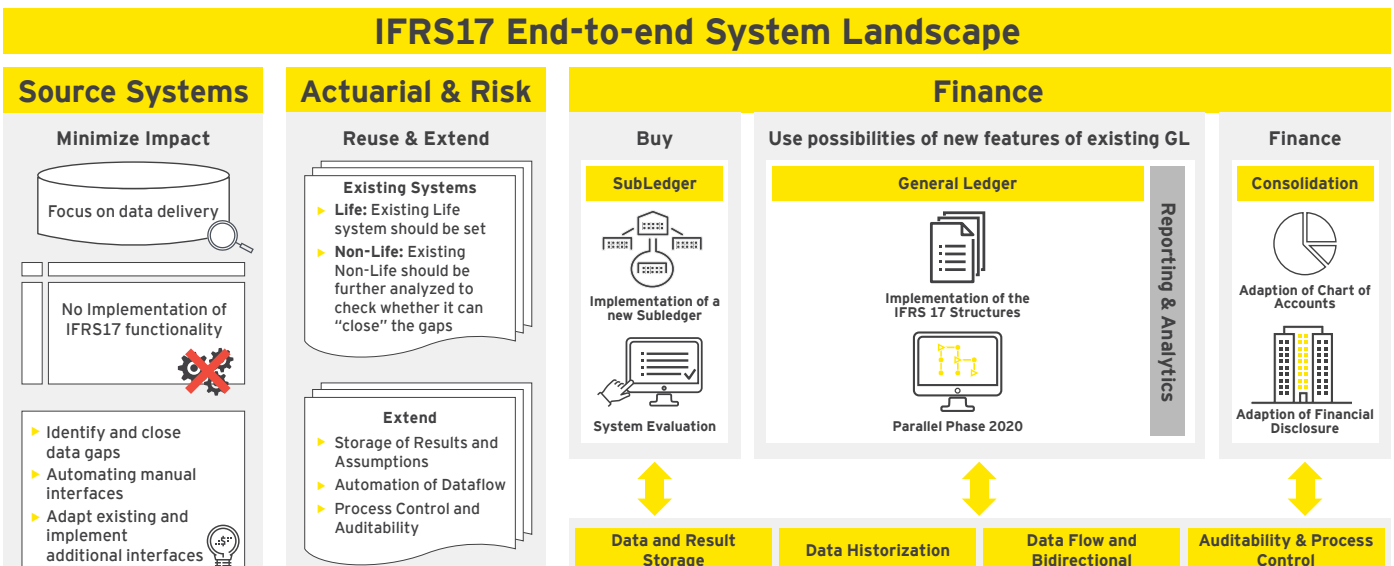
The ambition of the company was to optimize the benefits of IFRS 17 changes and achieve its long-term strategic vision by redefining and transforming the end-to-end systems architecture.

EY's approach

As an initial step to design the systems and process landscape, the company defined the guiding principles for orientation and quality checks.

1. Do not restrict to the regulatory process only. Provide a finance database and as much detailed data as (economically) feasible for management insight.
2. Central Processes and guidelines - Central systems for actuarial and accounting (with local responsibilities).
3. Reuse before Buy before Make
4. Consistent to current environment, separate (actuarial) systems for Life and Non-life. There is no need to consolidate into one system.
5. Do not expand the existing GL to cover the IFRS 17 accounting functionalities (thick GL). Stay with a thin GL by using a (new) technical sub-ledger.
6. Stay with the Parallel-GAAP approach implemented (full posting)
7. The current Fast-Close Deadlines have to be met.

In a next step EY assisted the company to design the target systems architecture, underpinned by the guiding principles defined earlier.



Case study 2

Integrated Finance and Risk Solution

In order to meet various regulatory demands including IFRS requirements, the company decided to improve its Finance and Risk functions through an integration of sub-ledger system. This design allowed the company to use templates and keep a single source of truth that extracts / calculates / delivers all the regulatory reporting requirements.

The challenge

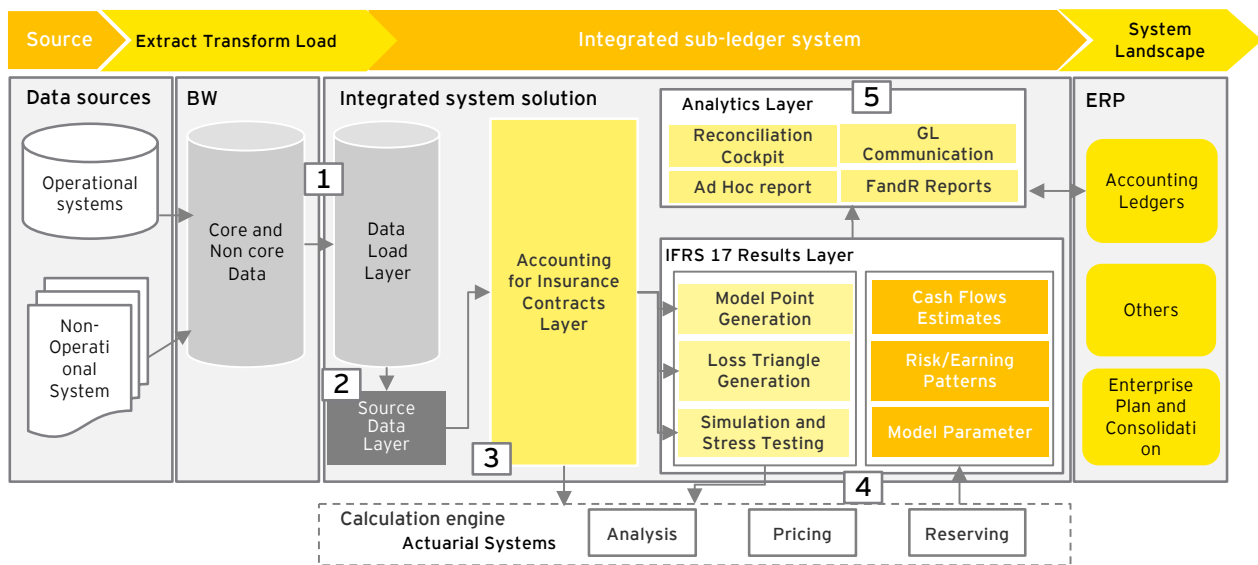
The company was facing a number of complex challenges and multiple in-flight projects that would be impacted by IFRS 17. A review of the end-to-end systems architecture was required to provide flexible, scalable and sustainable solutions to meet increasing internal and external demands, as well as reducing complexity and total cost of ownership in the medium to long term.

EY's approach

EY developed a high-level architecture approach design that introduced a powerful regulatory reporting layer between the operational systems, GL, actuarial systems and analytics/reporting engines.

Data granularity, data volume and frequency of data loads were considered, along with gaps between current architecture and the new IFRS 17 requirements.

EY's high-level Architecture Approach design:



EY's high-level Architecture Approach design:

1. Data Load Layer: Integrated sub-ledger system solution receives the business operational information from transactions systems and external data sources such as currency rates and yield curves.
2. Source Data Reconciliation Layer: This layer is the source of truth, storing key information to build IFRS 17 outputs such as financial statements, financial instruments, business transactions, accounts, physical assets and market data.
3. Accounting for Insurance Contracts Layer: the calculations and functionalities necessary to meet the Standard are processed in this part of the data flow. All information from this layer will be stored and used in the next layer.
4. Actuarial Calculation Engine: Using actuarial models and other data sources, the engine will calculate future estimated cash flows, earning patterns, estimates for premiums and claims, then pass the results to the ISS solution. In this layer, all the information is stored within a single transaction level which better enables reconciliation and audit.
5. Analytics Layer: Aggregates information within various documents and reports, that are sent periodically to GL.

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