Impacts of IFRS 17
insurance contracts
accounting standard

Considerations for data,
systems and processes
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.
Contents

1. The reporting challenge
2. Operational implications
3. Solution options
4. Next steps
5. Tools and accelerators
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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 General Model (GM)
► Default valuation approach for non-participating contracts
► Insurance contract valued using fulfilment cash flows — the present value of probability weighted expected future cash flows plus a risk adjustment
► Plus a contractual service margin (CSM), which represents the profit the insurer recognizes based on the transfer of services to policyholders over time.

Premium Allocation Approach (PAA)
► Optional simplified approach for contracts with a duration of one year or less, or where it is a reasonable approximation of the General Model
► Insurance contract valued as a liability for remaining coverage and an incurred claims liability
► Similar approach to existing non-life insurance contract measurement for liability for remaining coverage
► Incurred claims liability discounted plus a risk adjustment

Variable Fee Approach (VFA)
► Applies to contracts with direct participation features, as defined by three criteria, based on policyholders sharing in the profit from a clearly identified pool of underlying items
► Insurance contract liability based on the obligation for the entity to pay the policyholder an amount equal to the value of the underlying items, net of a consideration charged for the contract —a “variable free”

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.
How do you prepare for the impacts of IFRS 17?

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.

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.

### 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

### 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)

### 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

### 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/engineering for IFRS 17
- GL, consolidation tool and reporting system changes
- Changes to system interfaces
- Demand for of flexibility in the actual system landscape
- New system functionalities/features
Work back from the future state to identify data requirements

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.

Data requirements

- By expected “resilience” to becoming onerous at initial recognition
- Expected to be onerous at initial recognition
- No significant possibility of being onerous at initial recognition
- Other expected “resilience” at initial recognition

Aggregation of contracts

- By portfolio
- By annual cohorts
- Contracts issued in Year 20xx
- Contracts issued in Year 20x1

Examples of practical considerations

- Data granularity need to be sufficient to support the measurement of homogeneous groups.
- Portfolios should sub-divided by inception date (cohort level) in order to calculate CSM.
- Historical interest rate data needs to be available for CSM calculation.
- Storage and audit of historical cash flow projections should be possible covering technical, operational and financial assumptions.
- Data reconciliation between external management and regulatory reporting needs to be enabled (e.g. IFRS, Economic Value Framework, Solvency II).
- Consistent data model across the reporting dimensions will be required to allow for multi-dimensional reporting.

IFRS 17 disclosure future state

- Financial statements with new Chart of Accounts
- Contractual service margin
- Expected present value of cash flows
- Risk adjustment

Contract classification

Unit of account

Historic data storage and cohort granularity
Impacts across the entire systems architecture need to be considered

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.

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

Exhibit 3: Finance and actuarial data and systems impacts

- **Source systems (policy, claims, reinsurance assets)**
- **IFRS 17 calculation engine**
- **Accounting rules engine**
- **Allocations**
- **Ledgers**
- **Consolidation**
- **Planning, budgeting, forecasting and Management Information (MI)**
- **Operational Data Store**
- **Master Data Management (MDM)**
- **Governance Risk Compliance (GRC)**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>High severity and complexity of change, significant additional investment</td>
<td>Source systems (policy, claims, reinsurance assets)</td>
</tr>
<tr>
<td>Medium severity and complexity of change, limited additional investment</td>
<td>Reporting, analytics and visualization, disclosure</td>
</tr>
<tr>
<td>Low severity and complexity of change, leverage current change/transition initiatives</td>
<td>Operational Data Store</td>
</tr>
<tr>
<td>Source systems</td>
<td>Actuarial and risk models</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>1. Policy systems - extract additional information from source including policy inception date and policy duration</td>
<td>2. Embed CSM methodology in actuarial/risk/capital models based on revised cohort drivers</td>
</tr>
<tr>
<td></td>
<td>2. Implement assumptions management to allow reconciliation between local GAAP/MCEV/Solvency II to IFRS 17</td>
</tr>
<tr>
<td></td>
<td>2. Update modelled results output to reflect IFRS 17 grouping and CSM</td>
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<table>
<thead>
<tr>
<th>Reporting layer</th>
<th>IFRS 17 calculation engine</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Update reporting/disclosure tools based on IFRS taxonomy</td>
<td>4. Require calculation engine to calculate, amortize and adjust CSM, either as a part of actuarial, finance systems or a separate application</td>
</tr>
<tr>
<td></td>
<td>4. Build the integration to GL system</td>
</tr>
<tr>
<td>3. Add new analysis of movement/change steps to capture CSM amortization impacts</td>
<td></td>
</tr>
<tr>
<td>3. Capture notes to business rules used to build homogenous cohorts and CSM accretion</td>
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</table>

<table>
<thead>
<tr>
<th>Accounting rules engine</th>
<th>Allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Update accounting rules to post to new accounts and cohorts</td>
<td>6. Change some allocations to be done at cohort level not policy</td>
</tr>
<tr>
<td></td>
<td>6. Update allocation rules to exclude certain costs such as non-incremental acquisition costs</td>
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<table>
<thead>
<tr>
<th>Ledgers</th>
<th>Consolidation</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Enhance GL Chart of Accounts to capture CSM on the balance sheet and CSM amortization on the profit and loss statement</td>
<td>8. Update consolidation and group reporting to include additional CSM reporting requirements</td>
</tr>
<tr>
<td>7. Potentially capture product cohorts</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Planning, budgeting and forecasting and MI</th>
<th>Operational Data Stores</th>
</tr>
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<tbody>
<tr>
<td>9. Bring business planning and forecasting models into line with the new external reporting basis</td>
<td>10. Update to capture policy inception date, duration and CSM value ranges</td>
</tr>
<tr>
<td>9. Update internal and external KPIs to reflect CSM and the levers available to manage</td>
<td>10. Capture historical amortization of CSM per cohort</td>
</tr>
<tr>
<td></td>
<td>10. Create link between policies and cohorts</td>
</tr>
<tr>
<td></td>
<td>10. Capture market and non-market data to update assumptions required for CSM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Master Data Management</th>
<th>Governance Risk Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Update and enhance product hierarchies or product attributes to link to cohort</td>
<td>12. Capture business rules / policy used to build homogenous cohorts</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>IT</th>
<th>Actuaries</th>
<th>Accountants</th>
<th>Controller</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Operational data sources</td>
<td>Actuarial modelling</td>
<td>General ledger</td>
<td>Consolidation and disclosure</td>
</tr>
<tr>
<td></td>
<td>Source system changes</td>
<td>Actuarial model change</td>
<td>Sub ledgers and GL changes</td>
<td>Consolidation tools</td>
</tr>
<tr>
<td></td>
<td>Systems integration and enhancements</td>
<td></td>
<td></td>
<td>Storage of historical data</td>
</tr>
<tr>
<td></td>
<td>Reconciliation and data management</td>
<td></td>
<td></td>
<td>Functionalities to support analysis / reconciliation of data available</td>
</tr>
</tbody>
</table>

**Key themes for change**

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

<table>
<thead>
<tr>
<th>Business Guiding Principles (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical design</strong></td>
</tr>
<tr>
<td>► Ensure commercial considerations are incorporated</td>
</tr>
<tr>
<td>► Leverage Solvency II environment to assist with operational alignment, where relevant</td>
</tr>
<tr>
<td>► Consider and evaluate industry good practice (smart follower)</td>
</tr>
<tr>
<td>► Design and build for minimum granularity to support disclosure and optimize commercial benefits while minimising operational complexity</td>
</tr>
<tr>
<td><strong>Operational design</strong></td>
</tr>
<tr>
<td>► Buy systems and leverage available functionalities before building new systems in-house</td>
</tr>
<tr>
<td>► 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</td>
</tr>
<tr>
<td>► Automate system interfaces and feeds from data sources</td>
</tr>
<tr>
<td><strong>Process design</strong></td>
</tr>
<tr>
<td>► Optimize the speed of the accounting and actuarial production chain</td>
</tr>
<tr>
<td>► Produce the IFRS 17 results in a cost-optimized fashion</td>
</tr>
<tr>
<td>► Integration of reporting process and bases where possible</td>
</tr>
<tr>
<td>► Reporting, planning and forecasting should be derived from same process</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IFRS 17 Design Principles (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>► Providing an appropriately succinct and well-defined data architecture delivering a “single version of the truth” in respect of finance reporting (Data)</td>
</tr>
<tr>
<td>► 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)</td>
</tr>
<tr>
<td>► Automated processes where there are clear and measurable tangible benefits, and automation is cost-effective to deliver (Processes)</td>
</tr>
</tbody>
</table>
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.
### Three approaches to achieve your long-term vision through IFRS 17 implementation

<table>
<thead>
<tr>
<th>Solution options</th>
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<tbody>
<tr>
<td>1</td>
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<td>2</td>
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<td>3</td>
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</table>

#### How to do it

- **Actuarial-driven solution**
  - Leverage existing DSP for IFRS 17, and build on MCEV/Solvency II tools and models wherever sensible
  - 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)

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

- **GL embedded solution**
  - Provide an IFRS 17 platform through a central finance system
  - 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

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

- Probably easiest and fastest solution to implement
- Opportunity to implement a new, more efficient system setup while leaving old systems intact
- Higher flexibility of the implemented solution

- Built primarily on existing reserving, MCEV and Solvency II tools and processes
- Shorter time to benefits realization
- Enables addition of other requirements (e.g. IFRS 9 and Solvency/RBC)
- Lower critical path risk

- Lower investment required
- Ancillary benefits in areas outside IFRS
- Single-source of truth for Finance, Actuarial and Risk

#### Cons

- Less efficient system setup (more add-ons)
- Multiple data sources and complexity of the process means higher implementation risks
- Takes longer to realize benefits from migration

- May not fit the future IFRS 17 reporting timelines and new requirements (e.g. controls)
- Large upfront investment required for new solution with potentially limited lifespan
- Likely to have some manual steps and solutions resulting in higher cost

- Considerable manual steps means higher operating costs
- Critical path risk (need a “plan B” or parallel runs)
- Could be expensive to implement and technology still unproven

- Information at a more granular level

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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**

- Efficient and transparent processes and systems
- Integrated data storage for finance, risk and actuarial systems
- Limited manual activities and error checking

**What is your systems target state?**
**Design dimensions**

<table>
<thead>
<tr>
<th>Central management</th>
<th>Standardized</th>
<th>Long-term sustainable multiple users friendly</th>
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<tbody>
<tr>
<td>Local management</td>
<td>Flexible</td>
<td>Fit for specific purposes</td>
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</table>

- Speed, automation, auditibility
- Flexibility, expert influence

**Trade-offs**

Central management vs. Local management

- Standardized
- Flexible
- Fit for specific purposes

**Implementation cost vs.**

- Ongoing cost

**Source systems**

- Reporting, analytics and visualization, disclosure
- Finance systems
- Planning budgeting and forecasting
- Data Store, MDM, GRC

**Actuarial and Risk models**

**Actuarial-driven solution**

1. Central management
2. Standardized
3. Long-term, sustainable and multiple-users friendly
4. Speed / automation / auditability
5. Implementation cost

**Integrated IFRS 17 solution**

1. Central management
2. Standardized
3. Long-term, sustainable and multiple-users friendly
4. Speed / automation / auditability
5. Implementation cost

**GL embedded solution**

1. Central management
2. Standardized
3. Long-term, sustainable and multiple-users friendly
4. Speed / automation / auditability
5. Implementation cost

**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

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
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
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.
How EY can help with EY tools and accelerators

<table>
<thead>
<tr>
<th>EY service offerings</th>
<th>EY tools and accelerators</th>
</tr>
</thead>
</table>
| **Mobilize, analyze and evaluate** | • IFRS 17 Operational Impact Analyzer  
• IFRS 17 / IFRS 9 training materials  
• Gap assessment approach  
• Roadmap and costing template |
| **Design smart-tailored implementation program** | • IFRS 17 Actuarial Modelling tool  
• Financial impact analysis tool  
• Data and system impact analysis tool  
• System architecture examples |
| **Program implementation** | • Model accounts, data model and Chart of Accounts  
• IFRS 17 / IFRS 9 training materials |
| **Dry run** | • Model accounts, data model and Chart of Accounts  
• IFRS 17 / IFRS 9 training materials |
| **Live reporting** | • 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.

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 selection 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.

**EY’s high-level Architecture Approach design:**

**Source** Extract Transform Load | **Integrated sub-ledger system** | **System Landscape**

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.

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.

All information from this layer will be stored and used in the next layer.

**Key features of the sub-ledger system architecture:**

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.
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