

Long Duration Targeted Improvements (LDTI) - The path to successful implementation

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May 13, 2019



Agenda

1. Key takeaways from the recent PwC LDTI survey
2. Multi-phased approach to implementation
3. Technical accounting decision making process
4. Systems and Data implications
5. Leverage tools and accelerators for Systems & Data work

Key Takeaways (1 of 5)



Virtually all companies favor a **delay of the implementation deadline** for Long Duration Targeted Improvements. The most common reasons are more time for testing and dry-runs, minimizing the use of temporary implementation solutions and concerns about the time it takes system vendors to develop their solutions

Key Takeaways (2 of 5)



Implementation is seen as challenging. 87% of those surveyed consider the timeline as challenging, 61% even as extremely challenging. Over 70% see actuarial processes as well as systems and communication of impacts to investors as challenging

Key Takeaways (3 of 5)

“

60% of the companies now **expect more work** than they did when the standard was issued in August 2018.

Key Takeaways (4 of 5)



About 60% of companies still have a **compliance focus** in general. This is a decrease from August 2018 where 75% responded with a compliance focus.

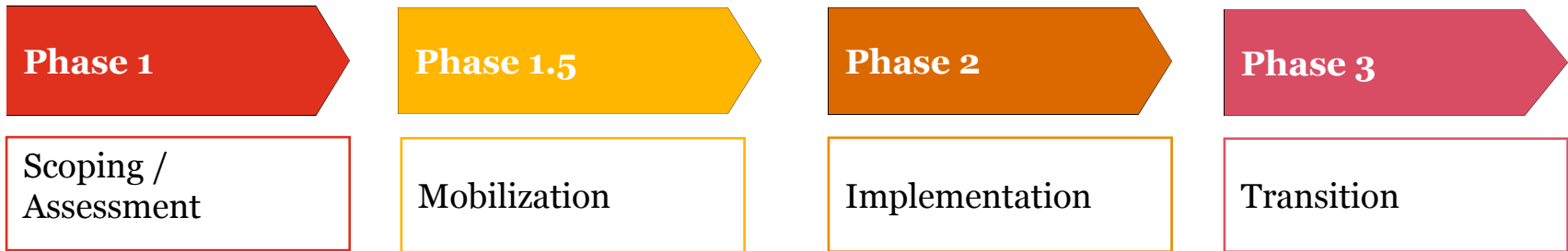
Key Takeaways (5 of 5)



The most interesting areas for **modernization** are **actuarial models** (50%) and **actuarial process** (55%). 30% of companies now see data as a strategic modernization opportunity compared to only 10% in the 2018 survey

Multi-phased approach to implementation (1 of 2)

A multi-phased approach to implementation is ideal to ensure a well-organized and structured path to implementation.

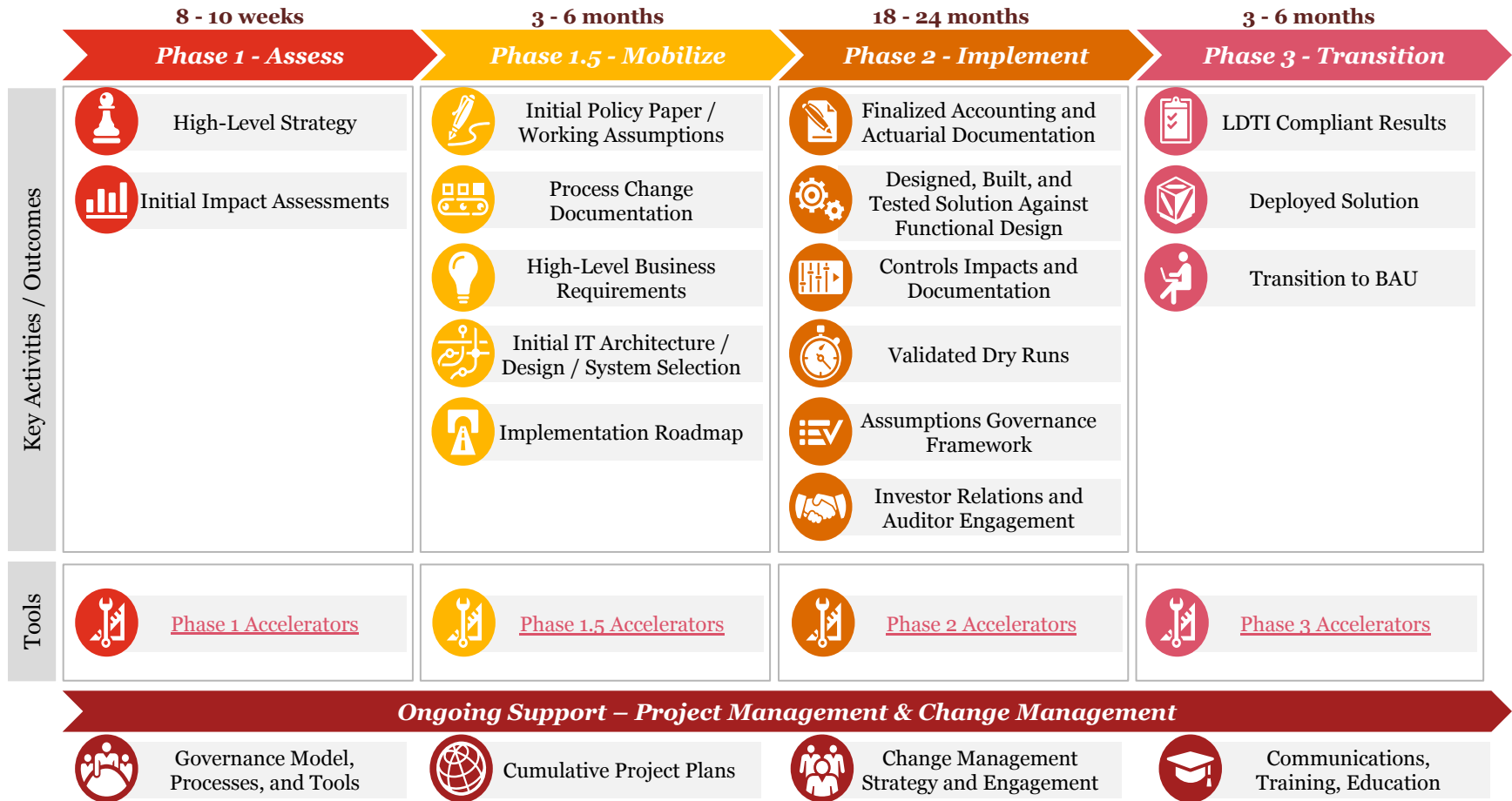


Project Management, Risk Management, Change Control, Audit Sign-Off

Ensuring Consistent Application of Implementation and Communication

Stakeholder Management, Communication, Team Building, Skills and Knowledge Transfer

Multi-phased approach to implementation (2 of 2)



What are firms doing now?

Example of immediate focus areas following the Phase 1 impact assessment work are highlighted below.

Governance:

Determine governance structure and agree upon overall priorities.
Develop a detailed plan and roadmap to support execution of LDTI project.

LDTI Financial

Statements: Mock-up financial statements to include new financial statement line items and required disclosures to develop business requirements for data, process and systems.

Education &

Awareness: Develop a plan to build expertise and educate others in the organization on the impact of the new standard in a way relevant to their role. Focus on Board education and initial investor communications.

Accounting policy decisions:

Review accounting decisions identified in the initial gap assessment and develop working assumptions to be tested through additional financial modelling.

Strategy considerations:

Consider impacts to Hedge strategy, Product strategy, Pricing strategy, Market and Competitiveness strategy.

Financial modeling:

Extend current financial to provide a high-level holistic financial impact assessment leveraging working assumptions on accounting elections and alternative scenarios.

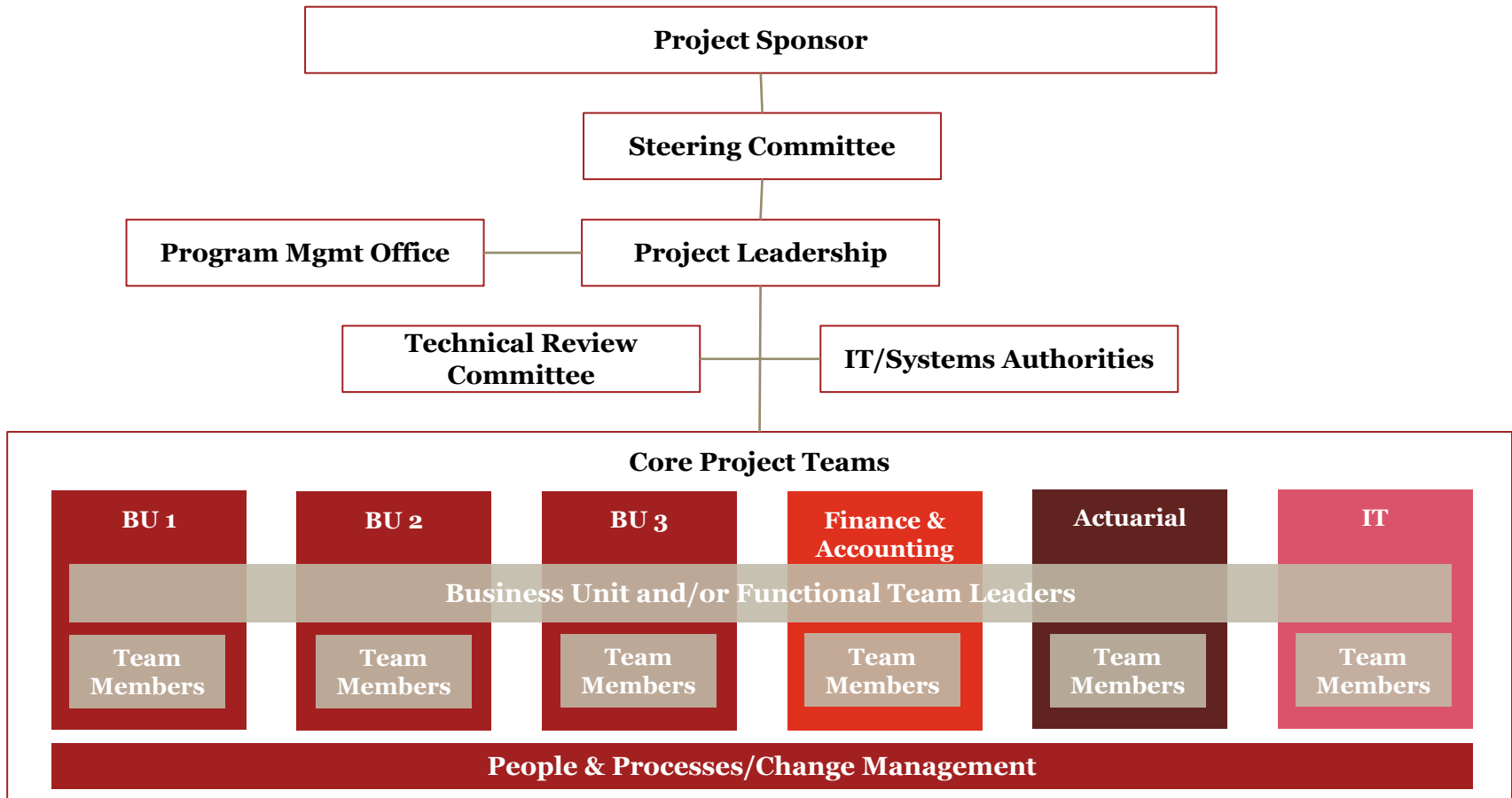
Actuarial platform strategy:

Develop a strategy to meet LDTI requirements across actuarial platforms and perform initial pilots

Systems & data design:

Perform a detailed system and data design that presents the target state solution that can meet LDTI requirements.

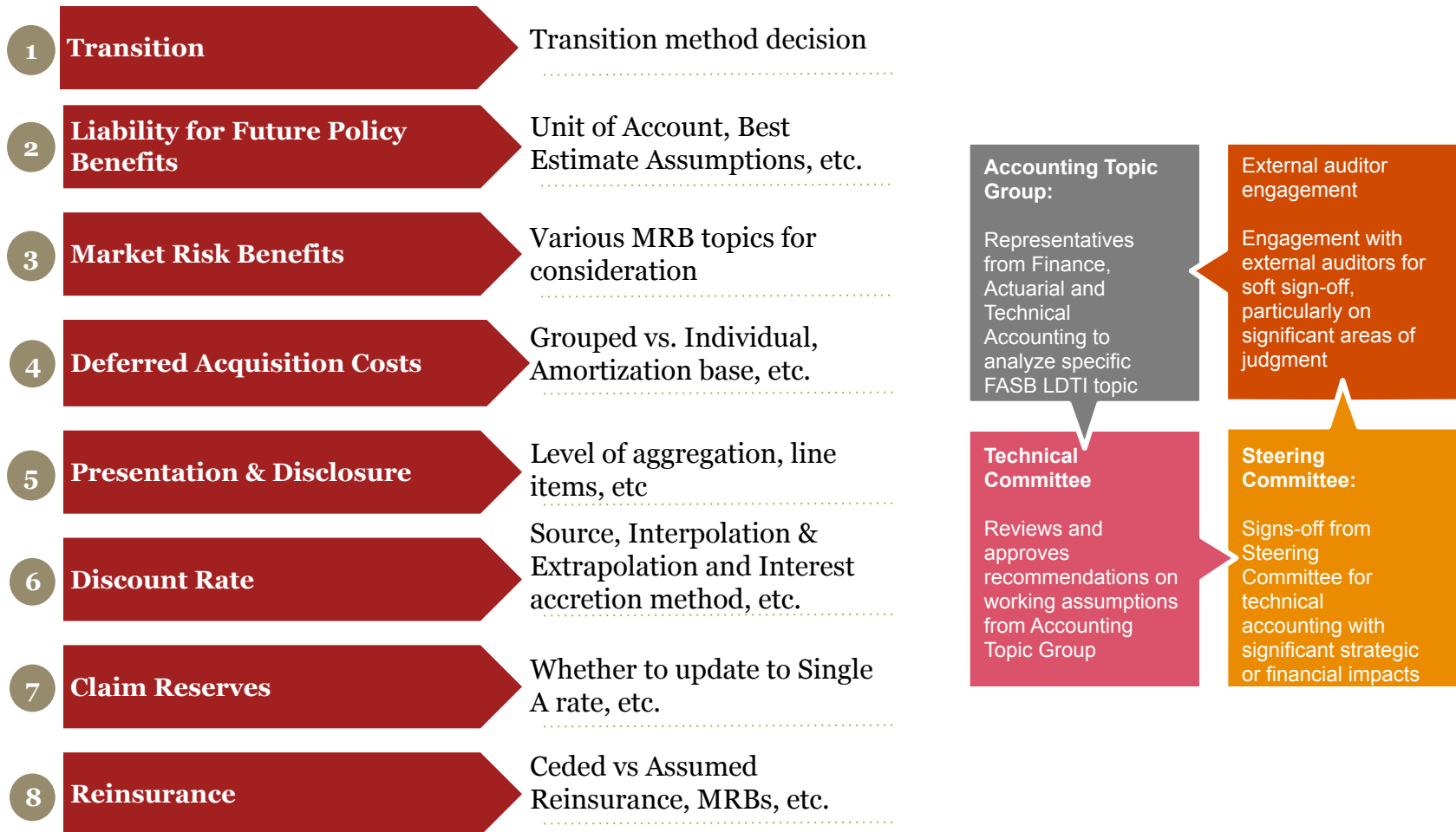
Technical accounting decision making process (1 of 2)



Note: This is intended to be illustrative and may be tailored to an organization based on an organization's special circumstances

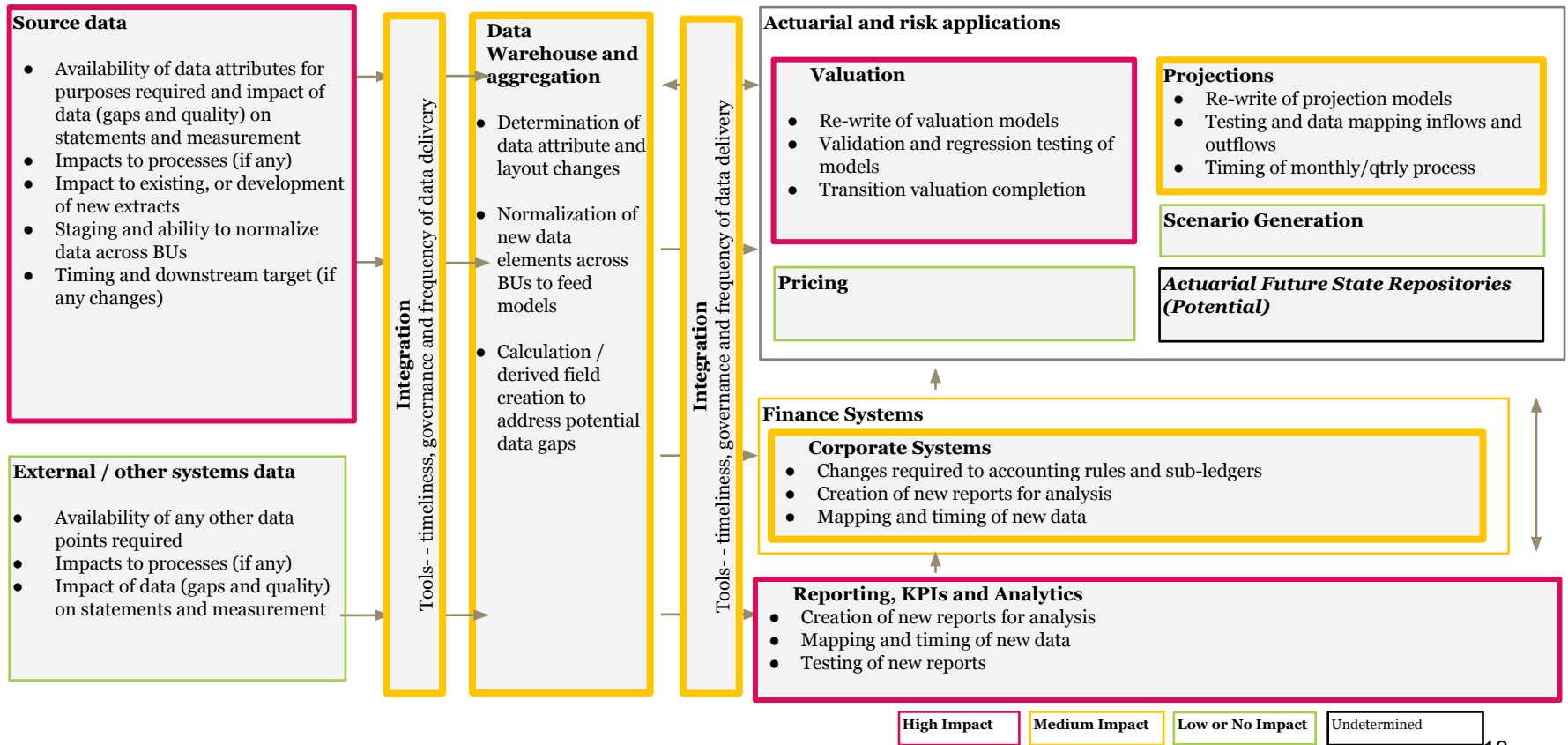
Technical accounting decision making process (2 of 2)

The following are identified key execution risks from impact assessment work performed to date:



System and Data implications

End to End Architecture with multiple systems interactions that needs to be considered while designing a “Right-Size” solution compliant with LDTI guidance



Financial Reporting Data Gap Analyzer

Financial Reporting Data Gap Analyzer

Allows users to understand and analyze the disclosure requirements related to LDTI. Data elements and mapping to disclosure tables can be customized for a client's specific architecture.

Who is it for?

As this is primarily used for mapping data sources into illustrative disclosure tables, members of IT are intended target audience. Finance and Actuarial teams may also benefit from participating in the mapping.

What else does the Data Gap Analyzer do?

- Provides a listing of the data elements that are needed to fulfill financial statement disclosure requirements.
- Maps where the data typically comes from and which disclosure requirement(s) the data elements help to fulfill.
- The data element listing has been paired with data visualization technology to allow dynamic analysis and drill-down capabilities.

Data Element Inventory
Long Duration Targeted Improvements
Data Inventory

Each requirement team is responsible for reviewing each tab and will need to customize the information items to pertain to the client. Populated data is grey shaded.

Ref	944 reference	Unique ID	Category	Statement	CoA Reference	Data Element Description	Applicable?	Is the data element new, modifying elements already available or	Type	Source
1	944-02-013	Z111	IERE	Footnote	Bu.8.1.1	CV of IERE	Likely new data element	Balance	Val system	
2	944-02-013	Z112	IERE	Income statement	Bu.8.1	Change in PV of IERE, unrelated to instrument-specific credit risk	Likely new data element	Calculation	Val system	
3	944-02-013	Z113	IERE	OCI	Bu.8.2	Change in PV of IERE, related to instrument-specific credit risk	Likely new data element	Calculation	Val system	
4	944-02-020(B)	Z114	IERE	Footnote	Bu.8.3.1	Net amount at risk (NAR)	Likely to be directly leveraged	Balance	Val system	
5	944-02-020(B)	Z115	IERE	Footnote	N/A	Weighted avg. attached age	Likely new data element	Calculation	Val system	
6	944-02-020(C)	Z116	IERE	Footnote	Bu.8.4.3	Balance in asset vs liability position	Likely new data element	Period amount	Val system	
7	944-02-020(C)	Z117	IERE	Footnote	N/A	Inputs - specific data elements	Likely new data element	TBD	Various	
8	944-02-020(C)	Z118	IERE	Footnote	N/A	Assumptions - specific data elements	Likely new data element	TBD	Various	
9	944-02-020(C)	Z119	IERE	Footnote	N/A	Assumptions - Judgment	Likely new data element	TBD	Various	
10	944-02-020(C)	Z110	IERE	Footnote	N/A	Assumptions - methods	Likely new data element	TBD	Various	
11	944-02-020(C)	Z111	IERE	Footnote	N/A	Inputs - effect of changes related - specific data elements	Likely new data element	Calculation	Val system	
12	944-02-020(C)	Z110	IERE	Footnote	N/A	Assumptions - effect of changes related to specific data elements	Likely new data element	TBD	Various	
13	944-02-020(C)	Z111	IERE	Footnote	N/A	Assumptions - effect of changes related to assumptions - Judgment	Likely new data element	TBD	Various	
14	944-02-020(C)	Z110	IERE	Footnote	N/A	Assumptions - effect of changes related to assumptions - methods	Likely new data element	TBD	Various	
15	944-02-020(C)	Z111	IERE	Footnote	N/A	Reconciliation of market risk benefits by amounts in an asset position	Likely to be directly leveraged	Balance	General Ledger	
16	944-02-021(K)	Z121	IERE Rollforward	Footnote	Bu.8.2.2	Hedance	Likely to be directly leveraged	Period amount	Val system	
17	944-02-021(K)	Z122	IERE Rollforward	Footnote	Bu.8.2.3	Interest normal	Likely new data element	Period amount	Val system	
18	944-02-021(K)	Z123	IERE Rollforward	Footnote	Bu.8.2.4	Amortized fee collected	Likely new data element	Period amount	Val system	
19	944-02-021(K)	Z124	IERE Rollforward	Footnote	Bu.8.2.5	Benefit payments	Likely to be directly leveraged	Period amount	Admix system	
20	944-02-021(L)	Z125	IERE Rollforward	Footnote	Bu.8.2.6	Effects of changes in interest rates - contractual	Likely new data element	Period amount	Admix system	

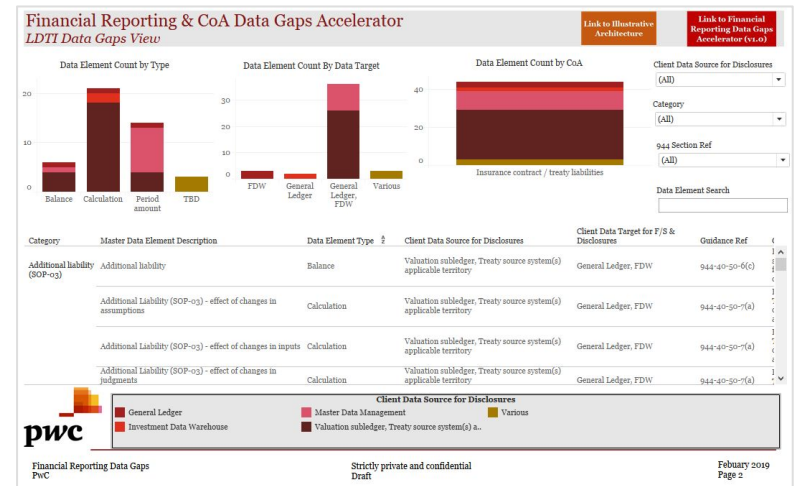


Chart of Accounts Accelerator

Chart of Accounts (CoA) Accelerator

Allows users to understand and analyze an illustrative set of required accounts for each disclosure requirement set out in LDTI. Accounts can then be customized to meet an insurer's specific account structure.

Who is it for?

Primary users of this accelerator will likely be in the Accounting function. IT may also find this useful for mapping out updates to account structures.

What else can the CoA Accelerator do?

- Provides a listing of all potential accounts needed to account for LDTI.
- Accounts can be linked to an insurer's product using the optional product template embedded within the workbook.
- Tables within the CoA accelerator have been paired with data visualization technology to allow dynamic analysis and drill-down capabilities.

Control #	Account number	Account	LDTI	LDTI IFRS	LDTI DAC
324 B		Total Liabilities	Y	Y	Y
391	Ba 5	Insurance contract / treaty liabilities	Y	Y	Y
392	Ba 5.1	Insurance - Liability for Future Policy Benefits for Contracts / Treaties Assumed	Y	Y	Y
393	Ba 5.2	Liability for Future Policy Benefits for Contracts / Treaties Assumed	Y	Y	Y
394	Ba 5.3	Future net premiums	Y	Y	Y
395	Ba 5.4	Future benefits	Y	Y	Y
396	Ba 5.4.1	Discounted future gross prem	Y	Y	Y
397	Ba 5.4.2	Undiscounted future gross prem	Y	Y	Y
398	Ba 5.4.3	Change attributed to revenue and interest recognized in Statement of ops	Y	Y	Y
399	Ba 5.4.4	Change attributed to reinsurance recoverables	Y	Y	Y
400	Ba 5.4.5	Change attributed to weighted average duration of liabilities	Y	Y	Y
401	Ba 5.4.6	Change attributed to weighted average interest rate	Y	Y	Y
402	Ba 5.4.7	LFPB Rollforward - net premiums	Y	Y	Y
403	Ba 5.4.8	Brought forward	Y	Y	Y
404	Ba 5.4.9	Insurance	Y	Y	Y
405	Ba 5.4.10	Change attributed to interest accrual	Y	Y	Y
406	Ba 5.4.11	net premiums or assessments	Y	Y	Y
407	Ba 5.4.12	benefit payments	Y	Y	Y
408	Ba 5.4.13	experience variances - expected prior	Y	Y	Y
409	Ba 5.4.14	experience variances - actual	Y	Y	Y
410	Ba 5.4.15	cash flow assumption changes - prior	Y	Y	Y
411	Ba 5.4.16	cash flow assumption changes - current	Y	Y	Y
412	Ba 5.4.17	discount rate changes - prior	Y	Y	Y
413	Ba 5.4.18	discount rate changes - current	Y	Y	Y
414	Ba 5.4.19	FX revaluation	Y	Y	Y
415	Ba 5.4.20	Carried forward	Y	Y	Y
416	Ba 5.5	LFPB Rollforward - expected future benefits	Y	Y	Y
417	Ba 5.5.1	Brought forward	Y	Y	Y

Chart of Accounts (CoA) Accelerator
LDTI and IFRS 17

Underlying Product: (All)

Accounting Model: (All), Null, DAC, General Model, LFPB

The CoA Accelerator tool allows for companies to see the impact that LDTI and IFRS 17 will have on its chart of accounts. The chart of accounts listing includes all accounts needed to comply with both standards. Users can filter the CoA based on the various data elem...

Categories within Financial Statements

Category	Number of Acc.
Assets	~250
Liabilities	~300
Equity	~100
Insurance income/expense	~50
Remeasurement G/L	~20

Suggested location for Data Storage

Location	Number of Acc.
Financial Statement	~250
GL	~100
GL/Conso	~50
Sub ledger	~20
ltdated No	~10
acc	~5

Master Account Nu. | Master Account Ref | Suggested location f. | Suggested Mapping to GL for RGA

A1.1	Cash / Securities	GL/Consolidated Node	[RGA_ALL_ACCOUNTS] CASH GRP - CASH GRP
A1.1.1	Cash at Bank	GL	suspense accounts that will be within other assets
A1.1.2	Financial assets	GL	<sub account>
A2	Reinsurance / retrocession contract assets	Financial Statement	Combination of new and potentially leveraged accounts
A2.1	Reinsurance / retrocession held_Aset for remaining coverage_Future Service	GL/Consolidated Node	Likely new accounts as this is specifically related to IFRS 17 new co.
A2.1.0	Reinsurance / retrocession held_Aset for remaining coverage_PAA_Future Service	GL	See comment directly above for this group of accounts.
A2.1.0.1	Brought forward	Sub ledger acc	See comment directly above for this

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CoA Accelerator
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Strictly private and confidential
Draft

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Data Dictionary & Lineage Analyzer

Data Dictionary & Lineage Analyzer

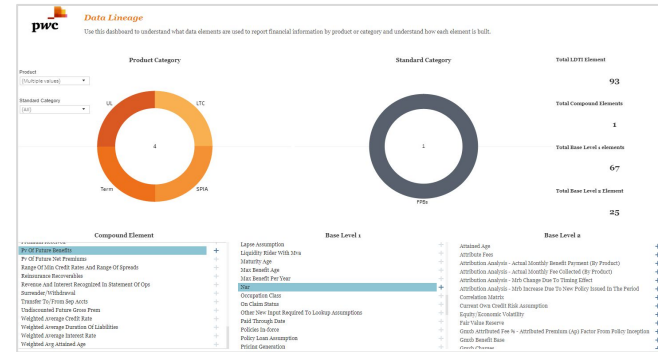
Allows users to understand and analyze data elements related to LDTI. Users can drill into all inputs for a given data element as well as explore relevant information about the element, including output system of record, input source, and LDTI definition of each element.

Who is it for?

This tool is primarily used to understand characteristics of key data elements and is intended to be used by members of Finance, IT, and/or Actuarial.

What else can the Data Dictionary & Lineage Analyzer do?

- Filter data into meaningful groupings to understand the volume and complexity of data elements necessary for a desired disclosure requirement or product type.
- Trace new required E2E through the technology architecture, identifying data elements relating to specific guidance.
- Read simple element definitions to help facilitate stronger communication throughout cross functional teams.



The screenshot shows the 'Detail View' dashboard. It says 'The Data Lineage dashboard is used to understand the specifics of a chosen data element, including the element's current and future state definitions as well as where the element exists in the pipeline.' Below this is a table with the following columns: Element Name, Product (Element), Current Data Definition, Future Data Definition, Standard Category, Element Origin, Element Type, and Last Refresh. The table contains several rows of data elements, including 'PV of Future Net Premiums', 'Range of Net Credit Rates And Range of Spreads', 'Reserve Recoverable', and 'Revenue And Interest Recognized In Statement Of Ops'.

Thank you

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