



Productionizing your new financial reporting processes

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November 2, 2023

Introductions



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Agenda

1. Introductions
2. LDTI and IFRS 17 Requirements Spurred New Data and Calculation Processes
3. Short-term Production Considerations
4. Long-term Production Considerations
5. Real-world Examples and Open Discussion

Drivers to Productionize

Why productionize?

Insurers are eager to improve their processes using automation. Currently though, the reliance on multiple systems has often left insurers with an ecosystem that has poor interactions, with a lack of controls, quality and audit trails.

WTW 2021 Global Automation in Insurance Report

In an A.M. Best survey, **89%** of respondents cited system / process inefficiencies as one of the three most important challenges that insurers are looking for innovative solutions to overcome.

A.M. Best Insurers Agree Innovation Is Critical for Future Success

92% of employees reported higher levels of satisfaction as a result of automation.

Forbes Insights: Accelerating Business Insights with Intelligent Automation

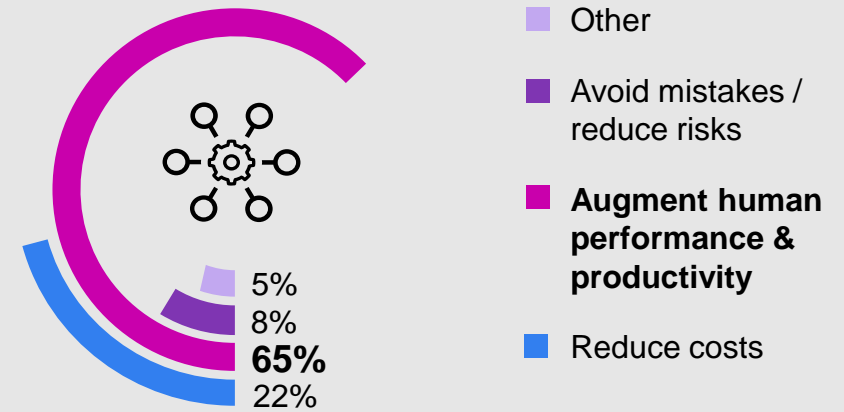
65% of insurance professionals say the key goal of automation is to augment human performance and productivity.

WTW Future of work Global Survey, Insurance

“Reengineering eliminates work, not jobs or people.”

Michael Hammer, Beyond Re-engineering

Insurance Industry



Industry trends relevant to financial reporting and actuarial transformation

- **Public companies have just gone live with US GAAP (LDTI) and International (IFRS 17) accounting regime changes**
 - Successful implementations, but just-in-time
 - Ample opportunities for process improvement
 - Results under the new regimes just released at Q1 2023
- **Opportunities for automating/enhancing additional analysis**
 - Automation of management reporting
 - Enhancing controls
 - Developing and populating dynamic dashboards

Industry trends relevant to financial reporting and actuarial transformation

LDTI complexity largely centers around new/enhanced data requirements

Ledger data
at cohort level

Additional output
to produce attribution

DAC balances
maybe carried/amortized
at a policy level

POLLING QUESTION

Where are you on your GAAP LDTI / IFRS17 journey?

- Went live in 2023
- Going live at a later date
- Company not performing U.S. GAAP or IFRS17 reporting

Industry trends relevant to financial reporting and actuarial transformation

IFRS 17 complexity driven by...

New paradigm in how income statements are developed, with a greater reliance on actuarial models for insurance revenue items

- Insurance contracts must be grouped by cohorts at initial recognition that cannot span more than one year and cannot be changed → more calculation time for additional granularity
- Discount rate methodologies present challenges
 - **Discount rate locked in at issue** - requires assignment for new business
 - **Bottom up** - requires risk free rates and a liquidity premium which may be product-specific; this might be disconnected from the actual assets held
 - **Top down** - requires a reference portfolio to be determined, and all items not related to policy liabilities removed
- Reinsurance is treated independent of the direct (underlying) contracts
- Standards are principles based



POLLING QUESTION

How productionized are your financial reporting processes?

- Fully automated and governed with streamlined and effective reporting of results
- Some automation exists for pieces of the process but no overall orchestration solution
- Partial automation is in development, but enhancements are not yet in production
- Limited to no automation; high degree of human intervention with many manual adjustments

Short-Term Production Considerations

Processes and results are both newly emerging

Ask lots of questions!

1

Where are the possible failure points?

2

How can I make a smaller piece better, without necessarily holistic, comprehensive change?

3

Can other pieces of the process be optimized (i.e., leveraging data/IT functions) before they get to the reporting piece?

Early Observations – Challenges with Data



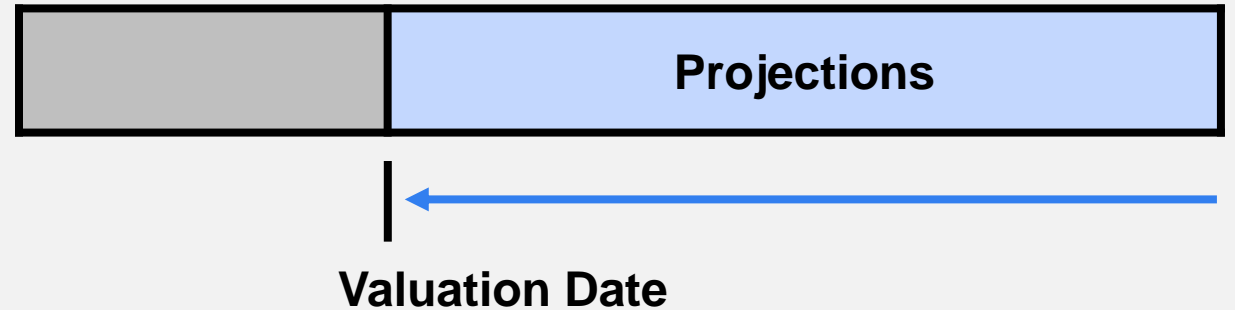
LDTI Reserve calculations require historical transaction data to be stored, maintained, and used in calculations each reporting period

For many companies, this means large amounts of additional data required to feed reporting processes

We will walk through one of the challenges we faced and how our processes evolved to overcome it

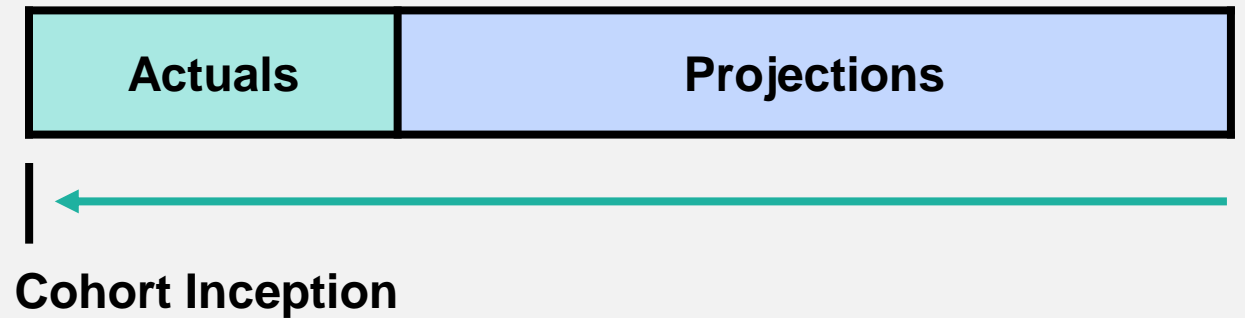
Background – Policy Benefit Liability Calculation

- Policy Benefit Liability is essentially a Net Premium Reserve calculation
- Calculated at the cohort-level each reporting period as PV Gross Benefit – PV Net Premium



Background – Policy Benefit Liability Calculation

- Net Premium is calculated using a k-factor that is updated at each reporting period
- The k-factor is a Net Premium Ratio, using PV's back to cohort inception
- Between cohort inception and the valuation date, actual premium and benefits are used



Data requirements



New monthly benefit and premium transaction data at each reporting period



All data fields required to map and store data aggregated at the cohort level

Initial approach

1



2



3

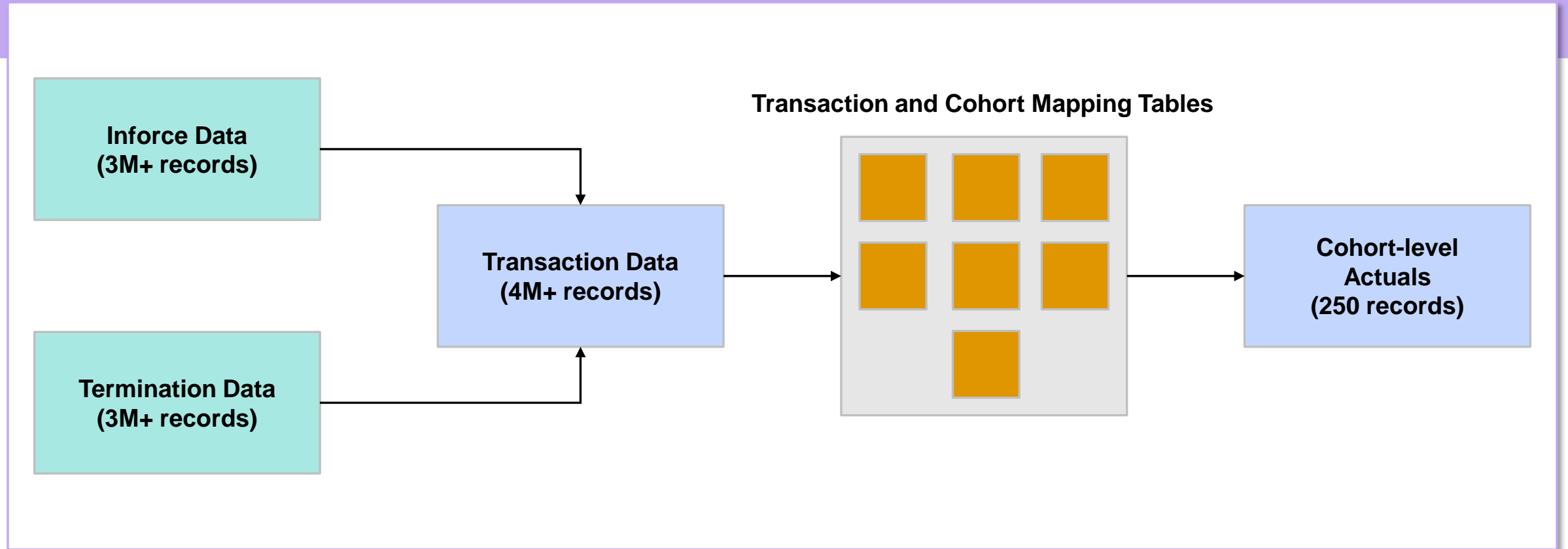
Received large CSV file for each calendar month containing all policy-level benefit and premium data along with the corresponding policy number and transaction details such as account, date, amount

No additional policy attributes were included with the data

Determined we had sufficient data from other sources to map all required fields onto the data

Initial approach

- Joined additional tables onto the transaction data
- Mapped together all fields required to aggregate at the cohort level



Result



The approach ultimately worked, but was not ideal



Concerns

- Significant processing time to join additional data tables
 - Inforce and Terminations data was not always sufficient to map all records
-



Required 5+ hours of processing time for each month of data

Updated approach

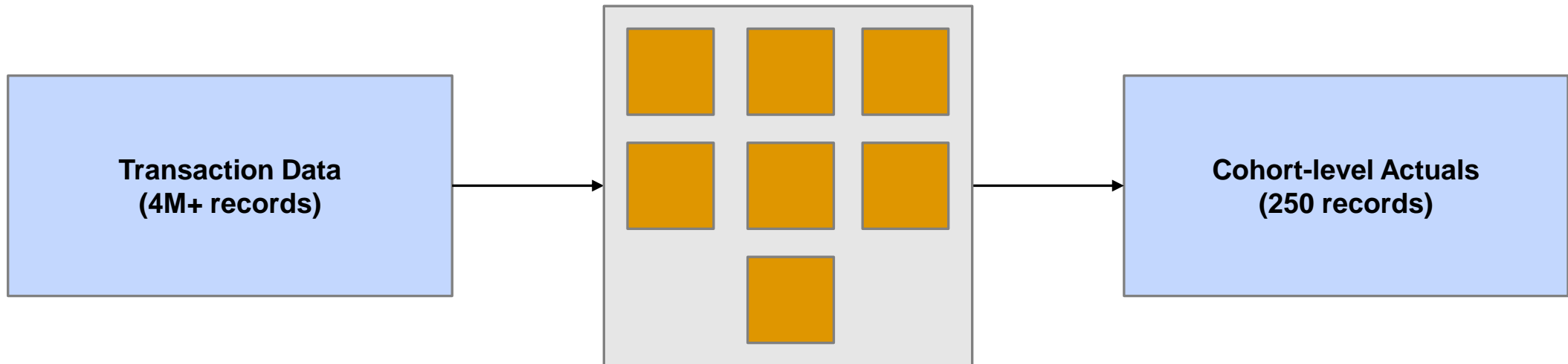
- ➔ Desire to receive transaction data with all required cohort mapping fields already included
- ➔ Revisited data requirements with data team
- ➔ Were able to receive updated version of transaction data with additional fields that removed the need to leverage inforce and termination data



Updated approach

- Removed need to join inforce and termination data
- Able to operate on transaction data directly

Transaction and Cohort Mapping Tables



Result



The approach worked very well



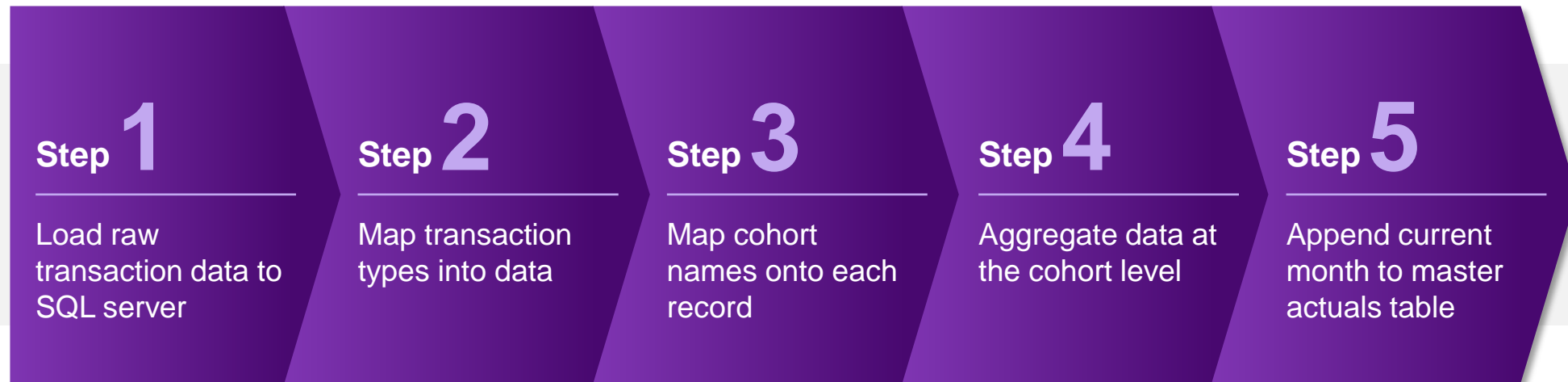
Removed concern around sufficiency of mapping data



Required under an hour of processing time

Further Enhancement - Automation

- Desire to have a repeatable, auditable, automated reporting process
- Used automation software to string together a series of SSIS packages and stored procedures to control the entire process



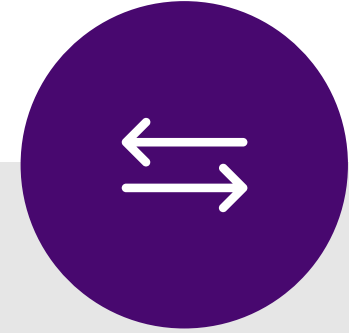
Further enhancement - Automation



Requires less than 5 minutes of processing time for each month of data

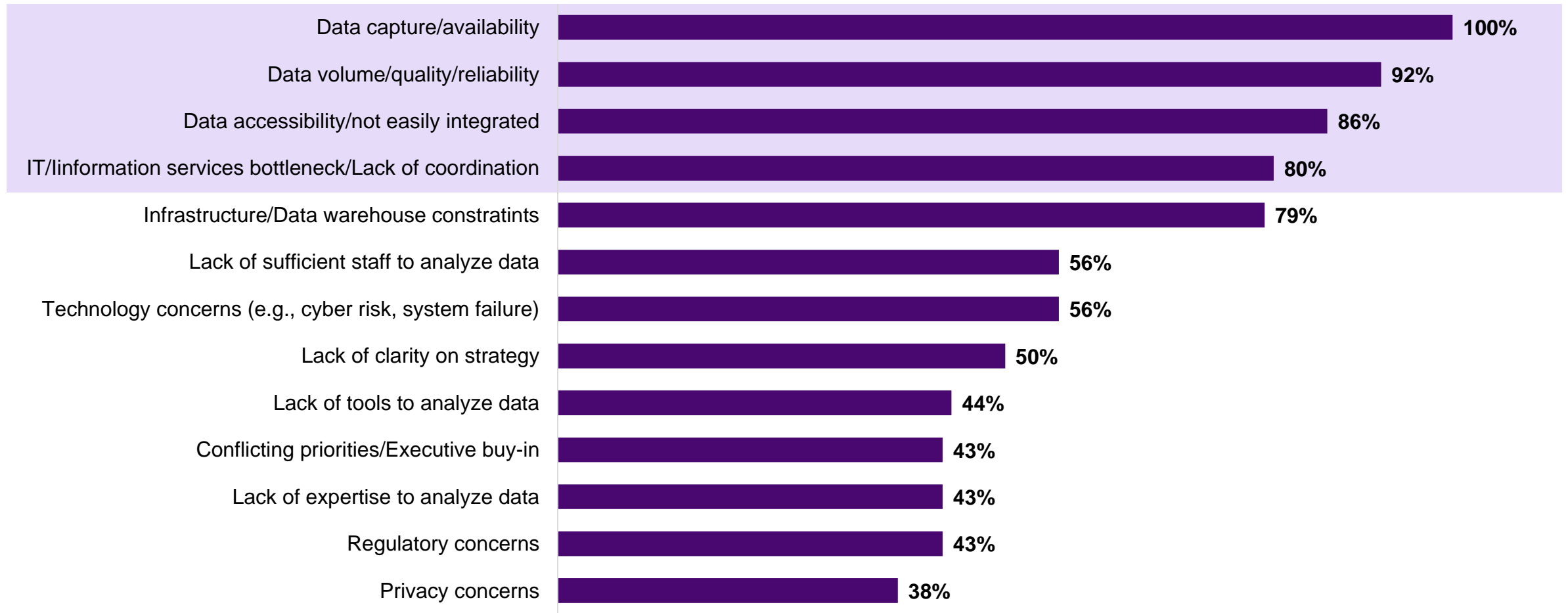


Data is controlled and has an audit trail of how each month of data was prepared and stored in the master SQL table



Process is easily repeatable and entire master actuals table can be replicated with low effort

Data is often cited as a key challenge to capitalize on enhanced reporting and analytics



Source: Willis Towers Watson Predictive Analytics Survey 2021

Long-Term Production considerations

Benefits of Orchestration

The key over-arching benefits which we achieve when deploying automated solutions



Automated workflows
to orchestrate 3rd party and in-house software allow for end-to-end automation of complex, multi-system and multi-actor processes.



Improved process governance
within the business, allowing data flows and results to reach their intended targets in a consistent and controlled fashion.



Automated KPI generation,
progress-tracking and reporting processes.



Focus your human resource
on critical and value-add tasks rather than manual 'handle-turning.'

Outcomes

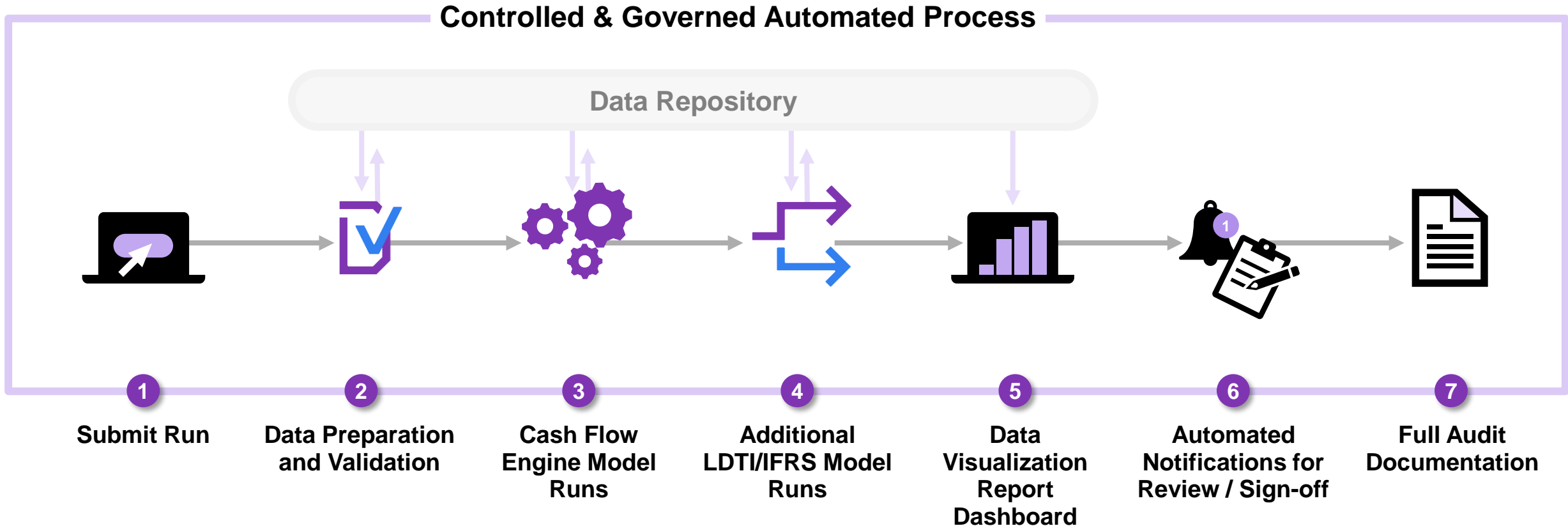
- Faster processes
- Low manual effort
- Less cost

- More controls
- Better audit

- Better information

- More efficient resourcing

Productionized Financial Reporting Long-term Vision

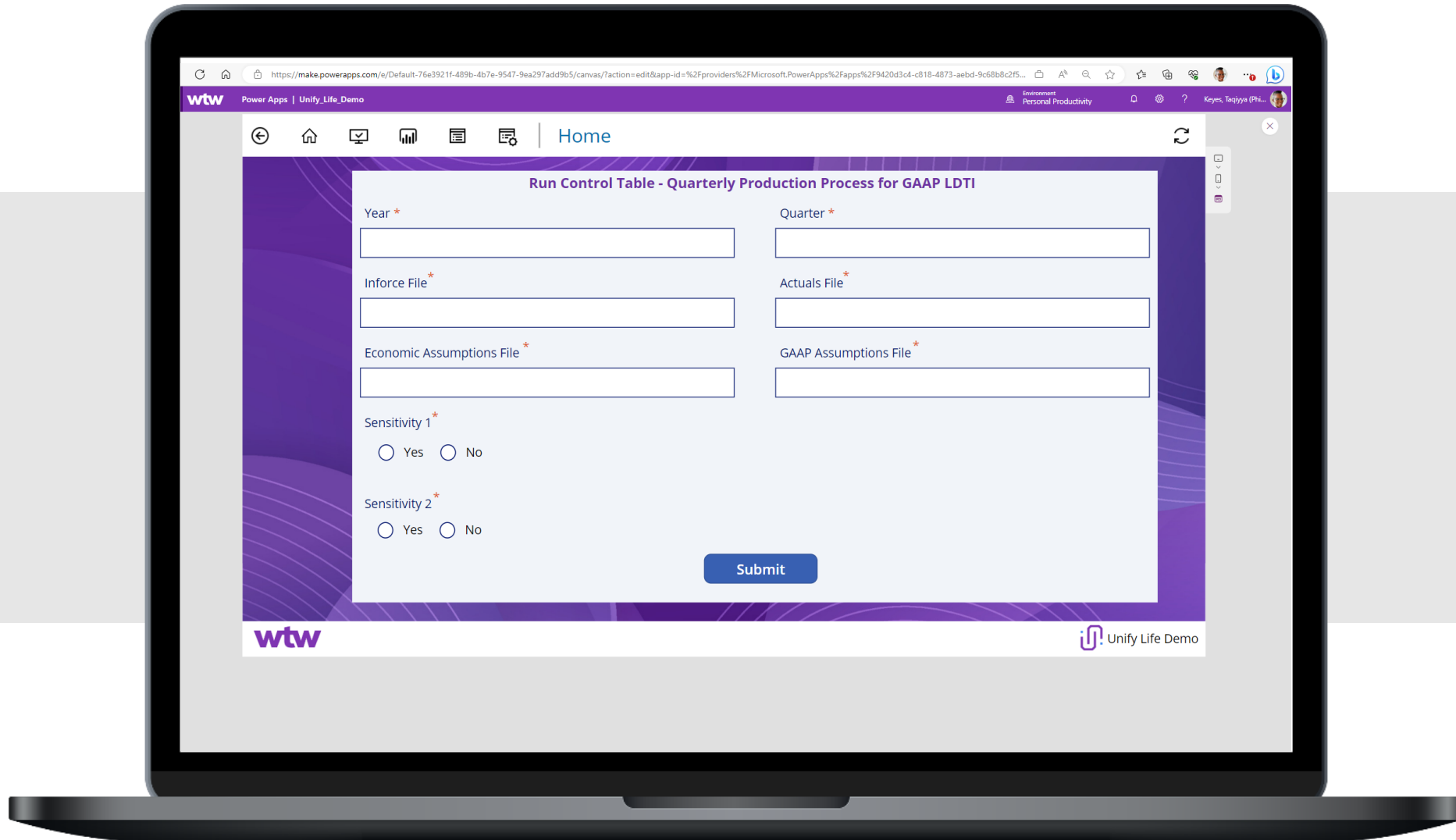


POLLING QUESTION

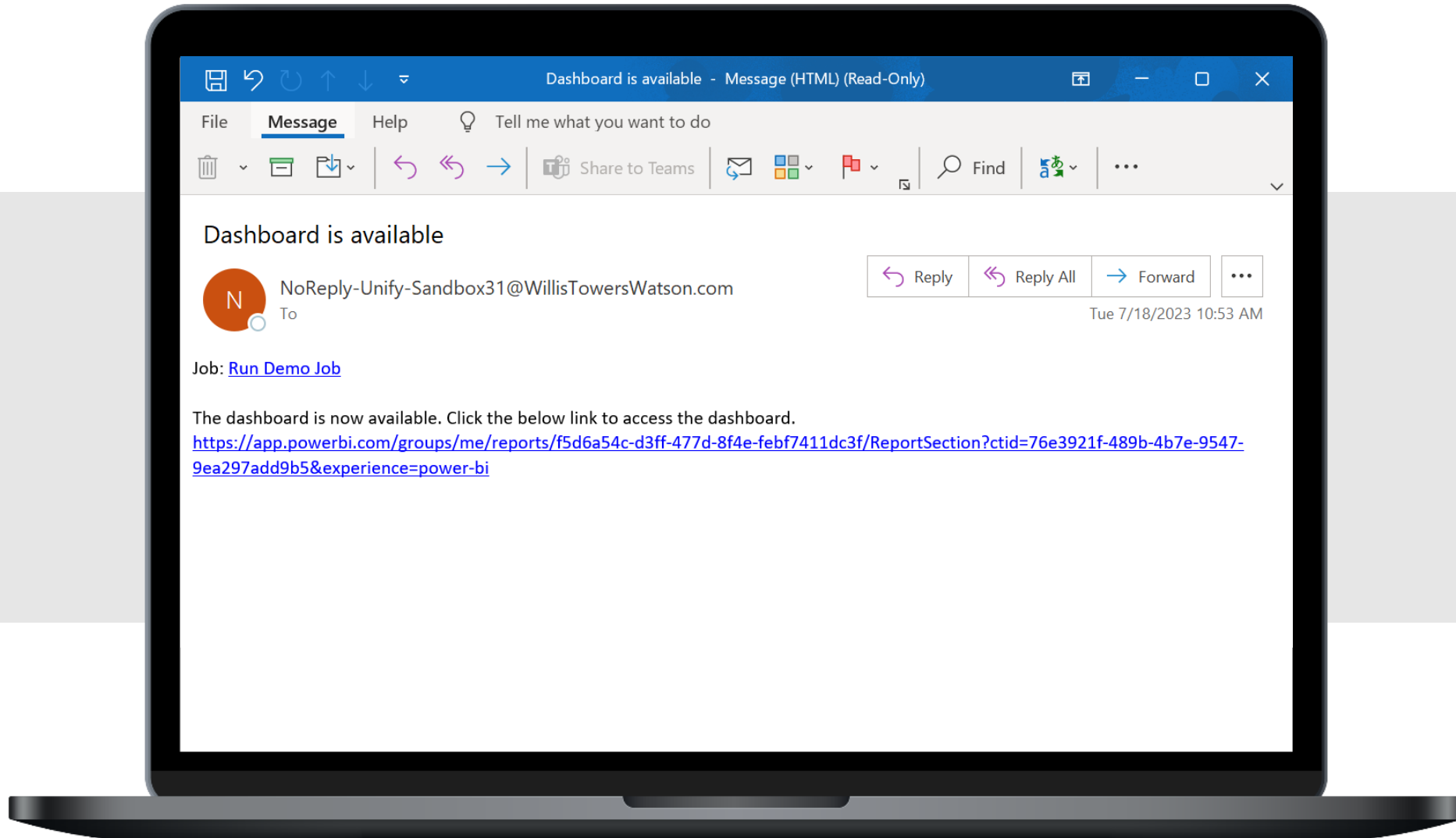
Which aspect of the financial reporting process is the most challenging?

- Data cleansing / checks
- Modeling updates and runs
- Reporting presentation / visualization
- Management review / signoff
- Audit process

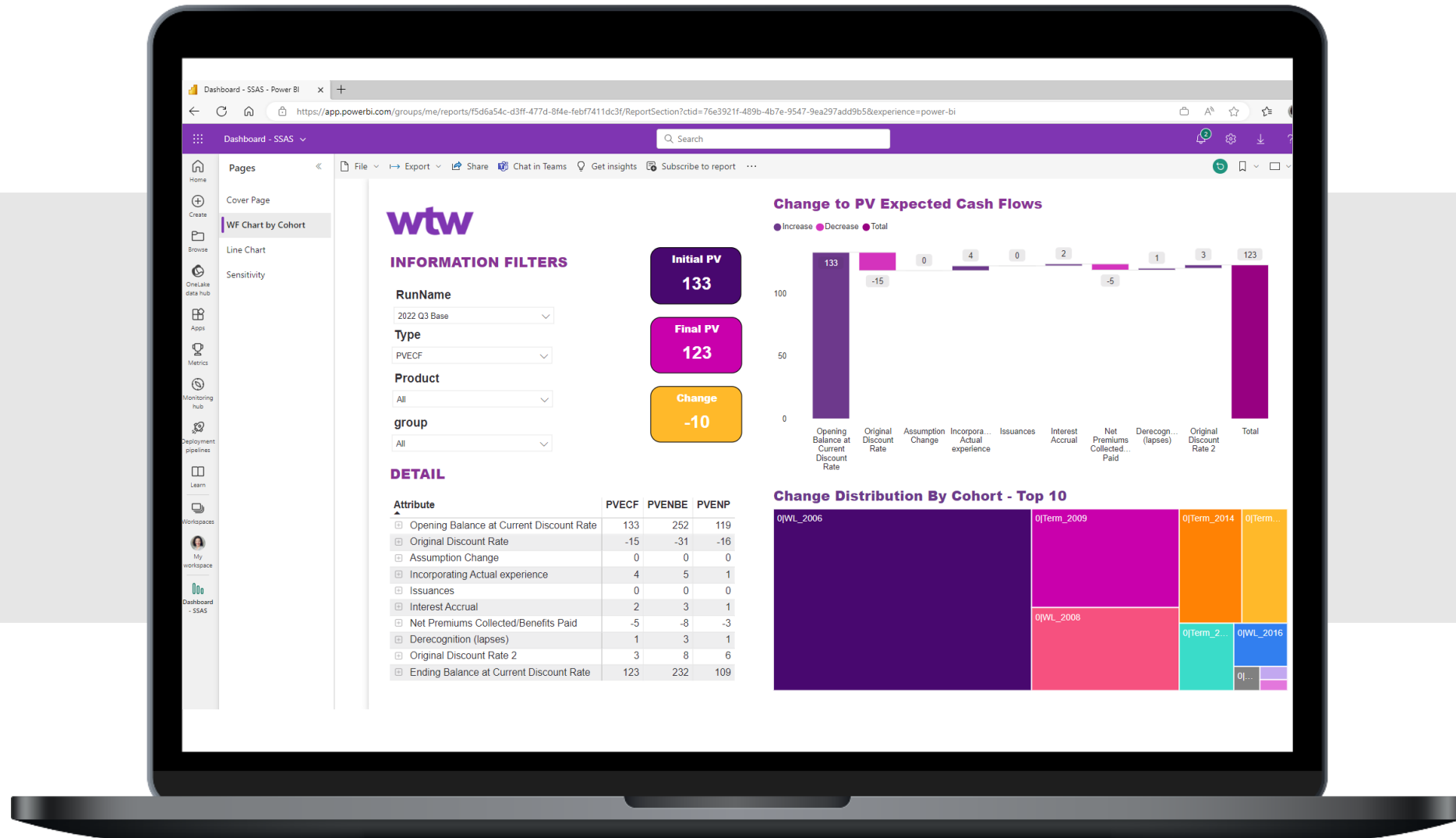
Run Control Table is web-based and user friendly



Run completed without user intervention; notification via email



Results are web-based with filtering and drill-in capabilities



Real-World Examples

Automating a quarterly LDTI reporting framework

Challenge

WTW, a third-party partner and our client have a co-sourcing arrangement where a large portion of the actuarial work is performed by WTW and the third-party partner, with governance provided by client. One activity performed on the client's behalf was the US GAAP reporting, which was being transitioned to quarterly LDTI reporting.

Objectives and proven approach

The objectives were to build an automated LDTI reporting framework that:

1. Successfully met or exceeded client governance and documentation standards
2. Successfully met or exceeded regulatory standards
3. Mitigated risks such as process errors and allowed the opportunity to focus on value-add activities such as performing deeper analyses on the drivers of results, enhancing existing process / management information, building automated data validation rules and expanding automation to other BAU processes.

Our team used their **deep understanding of LDTI and the existing processes** to design appropriate workflows and interactions for the new process

Outcomes

- ✓ Unify orchestrates activities performed in RAFM and SharePoint
- ✓ Human effort reduced by 90%
- ✓ Controls and governance enhanced dramatically to meets all standards
- ✓ Reduces key person risk and dependency on deep knowledge of underlying systems
- ✓ Q1 LDTI “go live” executed seamlessly with nominal investment made to design/deliver a streamlined Unify workflow
- ✓ The automated process is the foundation for future enhancements and added-value

Automating quarterly IFRS 17 reporting

Capitalizing on the transition from IFRS 4 to IFRS 17 to streamline and enhance quarterly processes

Challenge

WTW is the appointed actuary for an insurer in the Caribbean. WTW performs the year-end valuation and the client calculates their own reserves for Q1 – Q3. The client's quarterly process involves a number of manual practices and inconsistent methods.

Objectives and proven approach

The objectives were to:

1. Assist the client in their transition from IFRS 4 to IFRS 17
2. Create an automated quarterly process for the client and WTW to use. The client should be able to easily and accurately calculate their own reserves with little to no actuarial system knowledge.
3. Reduces client's reliance on WTW outside of year-end activities

We modified the AXIS model to run under IFRS 17 vs. IFRS 4 and implemented Unify and RAFM to enable automation. Our team then used their **deep understanding of existing processes** and worked together to design appropriate workflows and interactions for the new process.

Outcomes

- ✓ Unify orchestrates activities performed in Excel, AXIS, RAFM, SQL, SSIS package, for both client and WTW
- ✓ Manual process replaced with completely automated process. **Human effort reduced to a click of a button** with increased time available for review of assumptions and results
- ✓ **Governance** enhanced dramatically
- ✓ **Reduces key person risk** and dependency on deep knowledge of underlying systems
- ✓ Nominal investment made to design and deliver a Unify workflow resulting in **powerful savings of effort**
- ✓ Now includes **value-added exhibits and management information** beyond reserve numbers
- ✓ The automated process is the **foundation for future enhancements** and added-value

Open Discussion

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