



The Actuarial Profession

making financial sense of the future

Life conference and exhibition 2010
Martin Redmond, Aviva

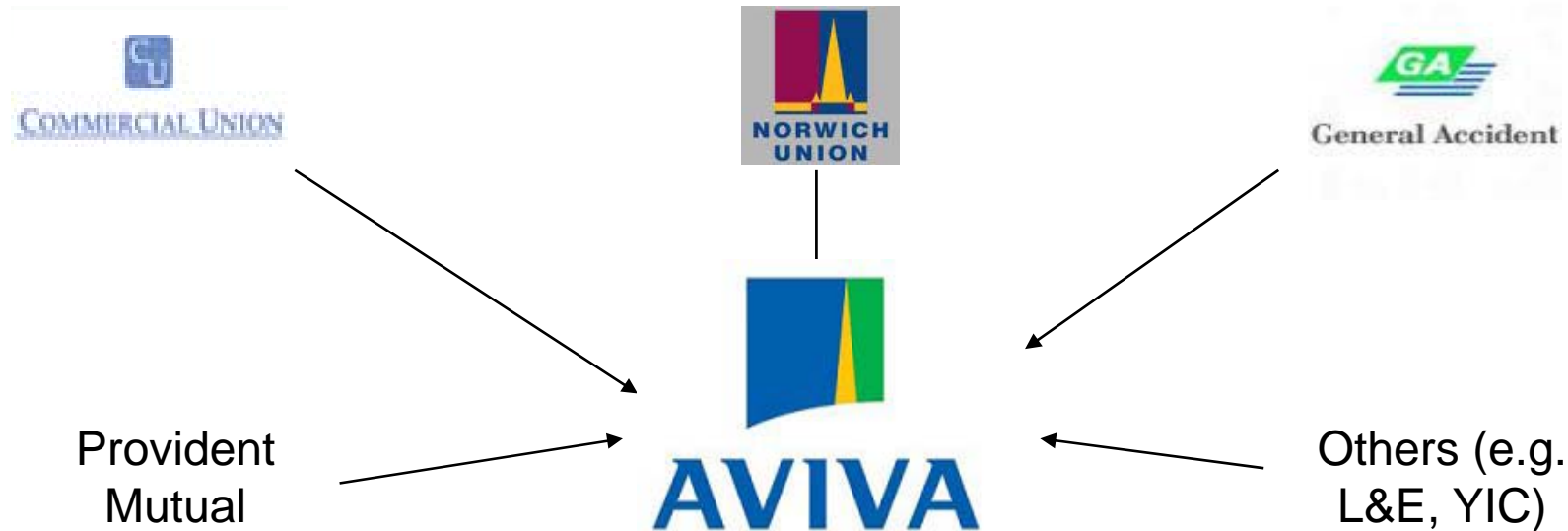
Andreas Bak-Jensen, Deloitte



New ways of working Finance Transformation

7-9 November 2010

Why Finance Transformation?



The challenge

"Probably the biggest and most complex Finance transformation ever undertaken in the UK Life industry"

John Lister

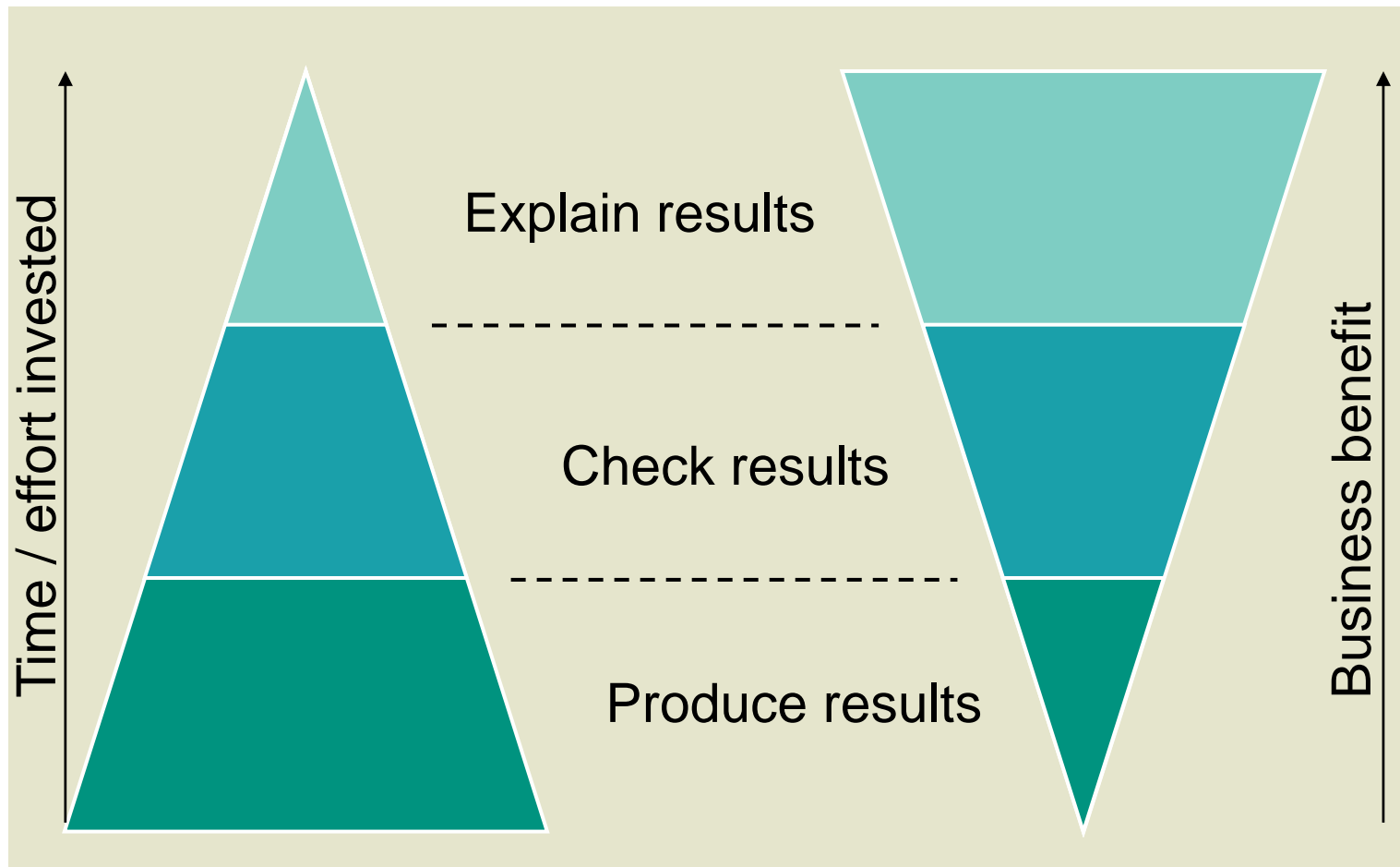
Finance Director – Aviva UK Life

"A landmark success. Only made possible through working together, with the scale integration of a full range of Deloitte services including consulting, actuarial, audit and offshore technology delivery"

Richard Houston

Partner – Deloitte MCS Limited

Why Finance Transformation?



Ambition at the outset

Key Issues from As-Is Process Analysis

- Complicated legacy
- Data issues impact on quality of analysis
- Manually intensive
- Inconsistent processes leading to duplication of effort

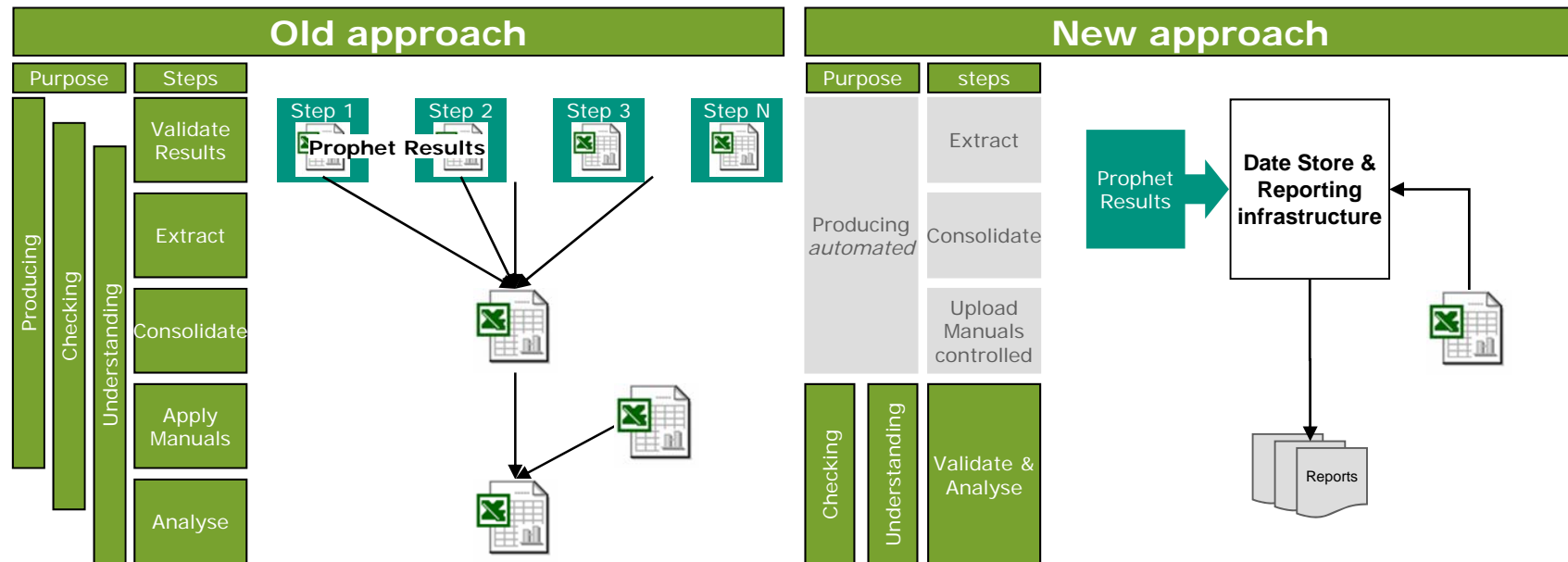
Vision

- Increased speed & flexibility of reporting
- Improved quality of controls & data
- Cost efficiency
- Increased Finance effectiveness and value added to the business
- A positive working climate

Objectives

- Radically reduced reporting times
- Develop deeper business insights driven by one tool
- Driving efficiency and effectiveness in processes, creating clearer accountability and reducing duplication
- Significantly simplify complex data feeds, reducing complexity in Prophet modelling and reduce reconciliation effort
- Create an inspirational Finance leadership team that engages with it's people, prioritising people development and customer service

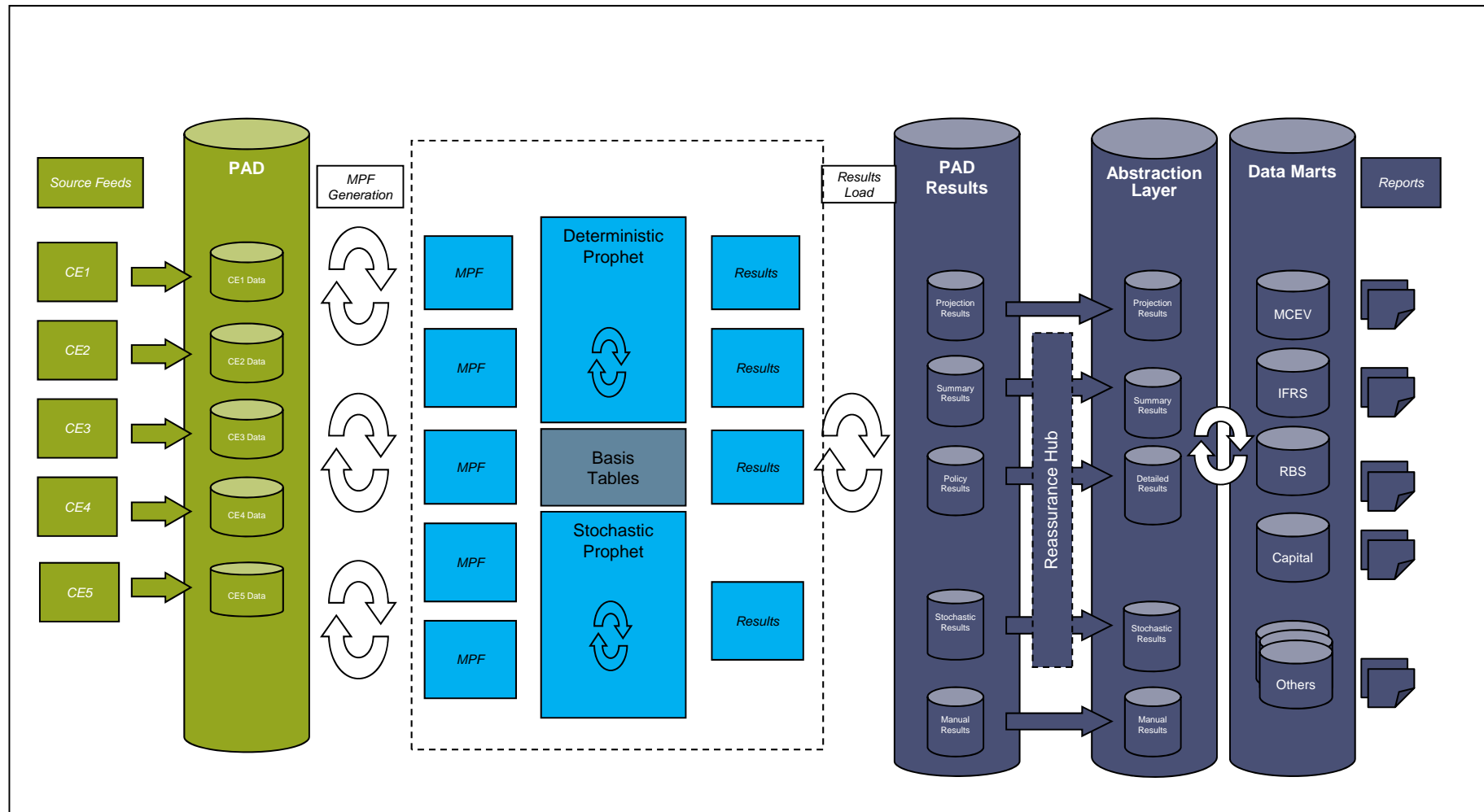
Changing the way we work



- Results constructed bottom up
- Manually intensive process
- Results are hard to control
- Infrastructure not flexible to changing requirements

- Automated production of results
- Reduced reporting times
- Consistency across reporting measure and business area
- Enables top down focus on big ticket item

Solution outline



Persistent Actuarial Database (PAD)

Data Sources & Operational Data Store (ODS)

- Source feeds contain data from multiple contract systems
 - 13 contract engines
 - ~10million policies
 - 1 solution
- Data extracted and transformed into consistent/agreed formats and loaded into the PAD. The PAD is essentially the Operational Data Store (ODS)
- PAD data used to generate Model Point Files (MPFs)

Why?

- Provides a robust audit trail
- Supports efficient use of data assets
- Enhanced controls and improved exception handling
- Improved business agility
- Improved service to stakeholders

What does it mean?

- Provides a “single version of the truth”
- Less time spent unravelling complex tools
- Provides a trusted source of information to build new and adhoc reporting
- Less time spent reconciling multiple complex paths of data
- Easier support of future process improvements

Prophet Modelling

Modelling

- MPFs and Basis tables are the two key inputs into Prophet
- Basis tables hold assumptions on future experience, used in actuarial calculations
- Prophet imports MPF and basis data and generates result sets containing actual and projected results
- Results stored in a normalised database – PAD results

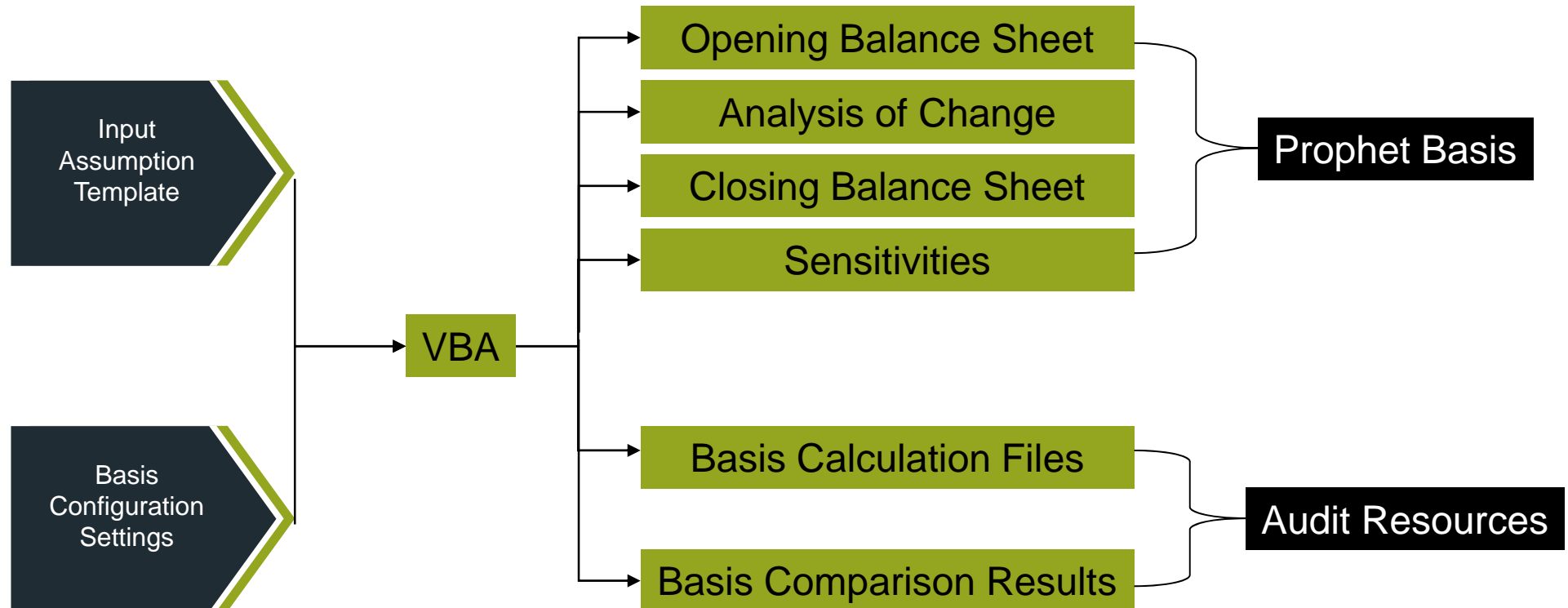
Improvements - Basis tool

- Standardised input templates
- Configurable basis mappings and basis production requirements
- Automated production of complete NEO basis for MCEV/IFRS/Asset Share/RBS
- Automated production of audit resources

Improvements - Prophet

- Rationalised and simplified deterministic Prophet models
- 70% reduction in code
- 50% reduction in variables
- Much improved run times
- Stochastic model aligned to new data feed
- Building blocks for Solvency II

Automated Basis Tool



Prophet Enhancement

Desired outcomes

- A well governed environment for Prophet, with fewer models and less code
 - Previously 247 master products, including 25 variations for term assurance alone!
 - Targeted reduction to 99 master products, built by “product family”
 - Previously 750k variable definitions in total, target reduction to 120k

Existing problems

- Separate models for legacy companies
- Variables inconsistent across models
- Models excessively complex and inefficient
- Documentation of models by change only
- Some areas of code poorly understood
- Complications for future change requirements

Impact

- Reporting processes slow, difficult and prone to error
- Changes costly to develop and test – rework common
- Reliance on key individuals

Prophet Enhancement

Principles for future

- Consistent modelling across UKL
- Single body to approve methodology and code changes
- Automation of all material results and analysis
- Monthly AoC to reduce year end/quarterly peaks
- Eliminate duplicate and redundant code
- Simplified parameters and improved controls
- Interaction with PAD for MPFs, assumptions and outputs
- A sound base for future developments e.g. Solvency II

Reporting and Analysis

What improvements?

- A Business Objects (BO) platform allowing improved reporting and analysis within Finance
 - Provides formal and controlled reporting environment
 - Common hierarchies
 - Drag and drop functionality – e.g. by entity, fund, channel etc.
 - Drill down functionality
 - Consistent data source
 - Standard suite of reports and ability to generate bespoke reports
 - One mechanism to automatically distribute required reports to the appropriate area of the business
- A streamlined user interface for interrogating the data storage
- Common business rules across all Data Marts such as reinsurance logic are applied in the Abstraction layer
- A tool designed to provide flexible business insight

Reporting and Analysis

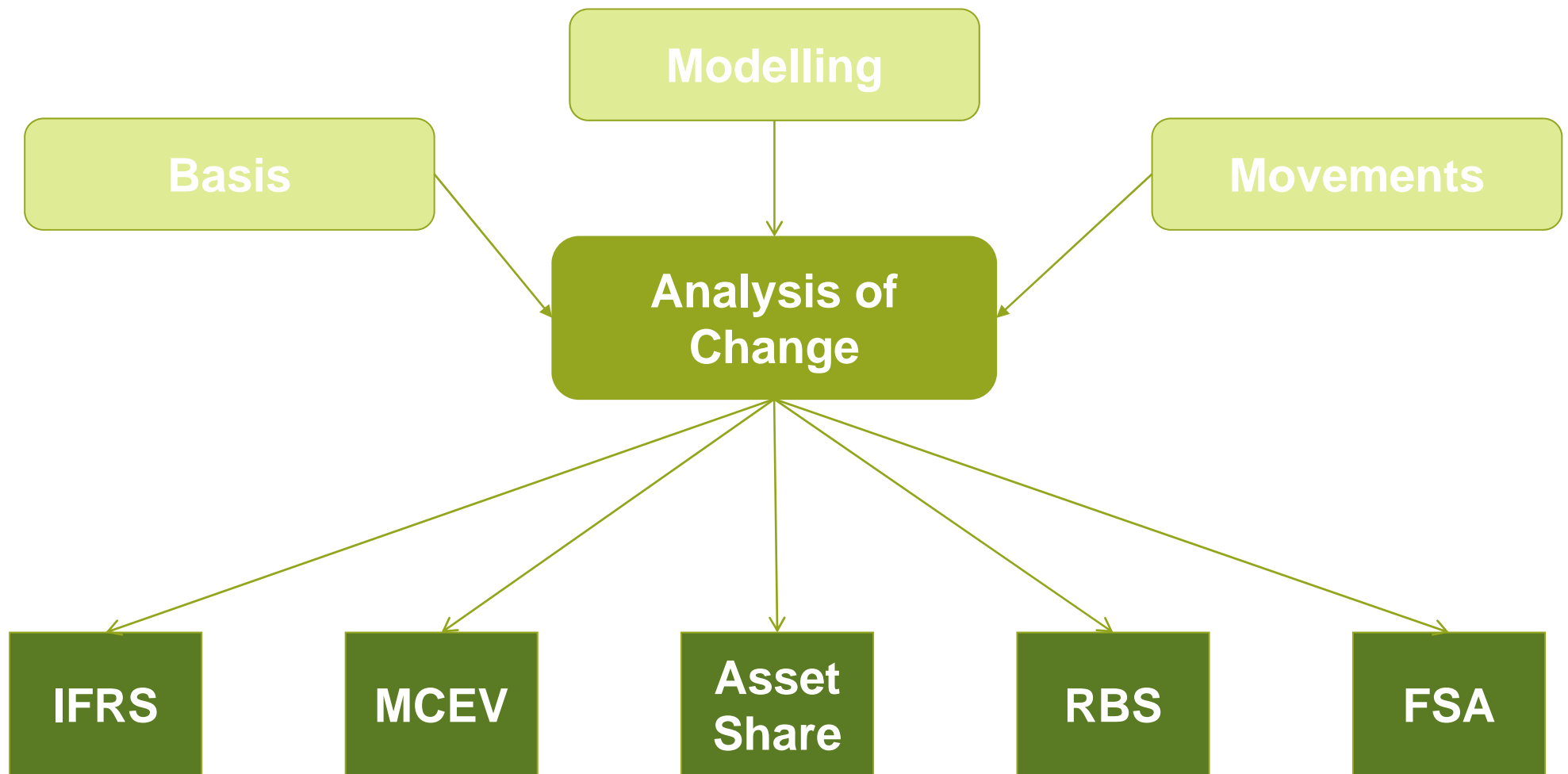
Why?

- Enables faster production of financial reports
- Outputs aligned to core processes – MCEV, IFRS etc
- Easier maintenance
- Create a solution ready for future Prophet upgrades
- Reduced storage space
- More rigorous control over modelling environments
- Improved audit trail

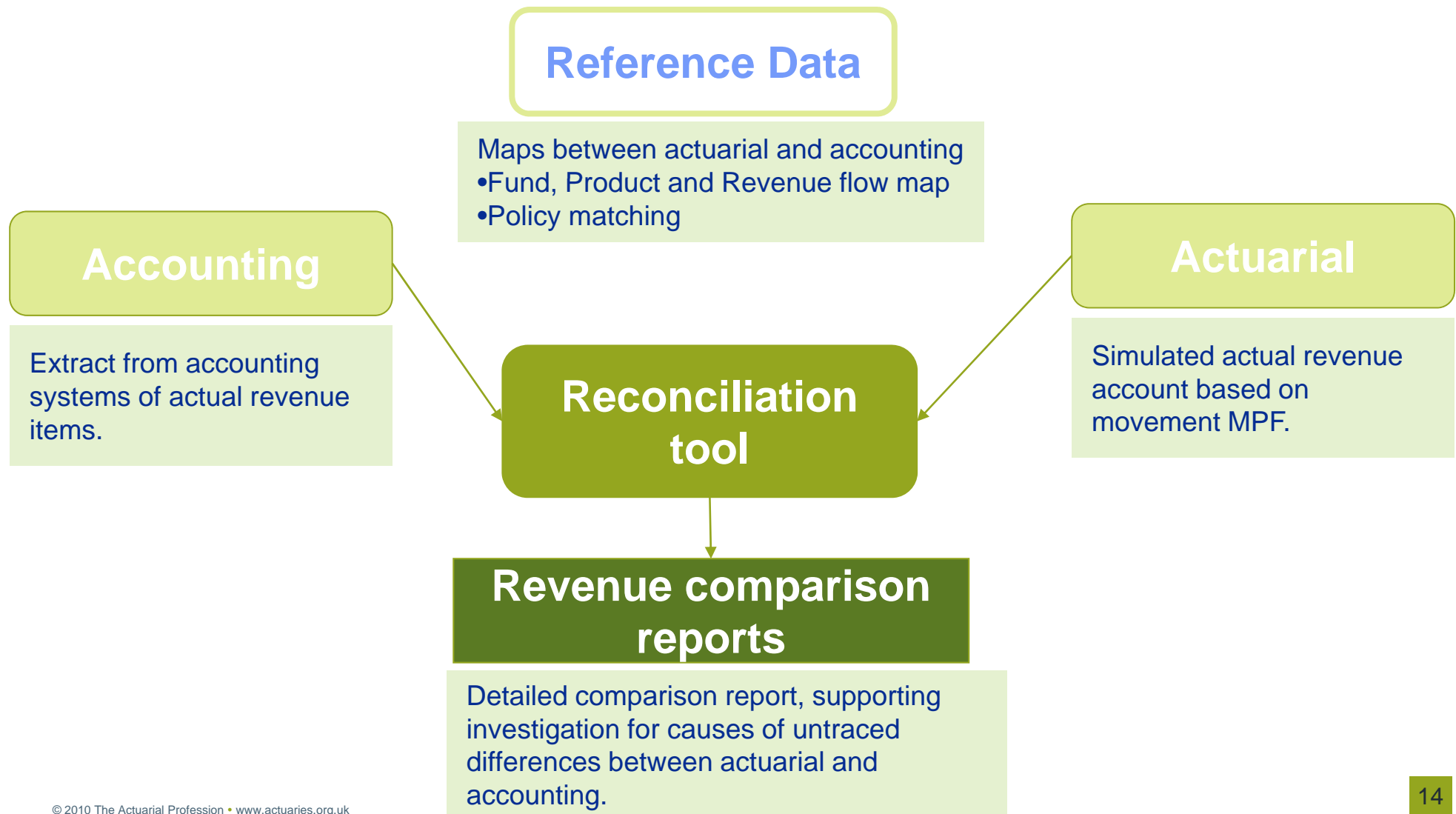
What does it mean?

- All key reporting information available in the same place
- Easier to access different levels of information
- Less time spent reconciling multiple versions of reports
- Enhanced reporting capability through access to additional information
- Less time spent producing reports, more time spent analysing the outputs
- Ability to present data in multiple interactive ways e.g. tabular, graphical and dashboard

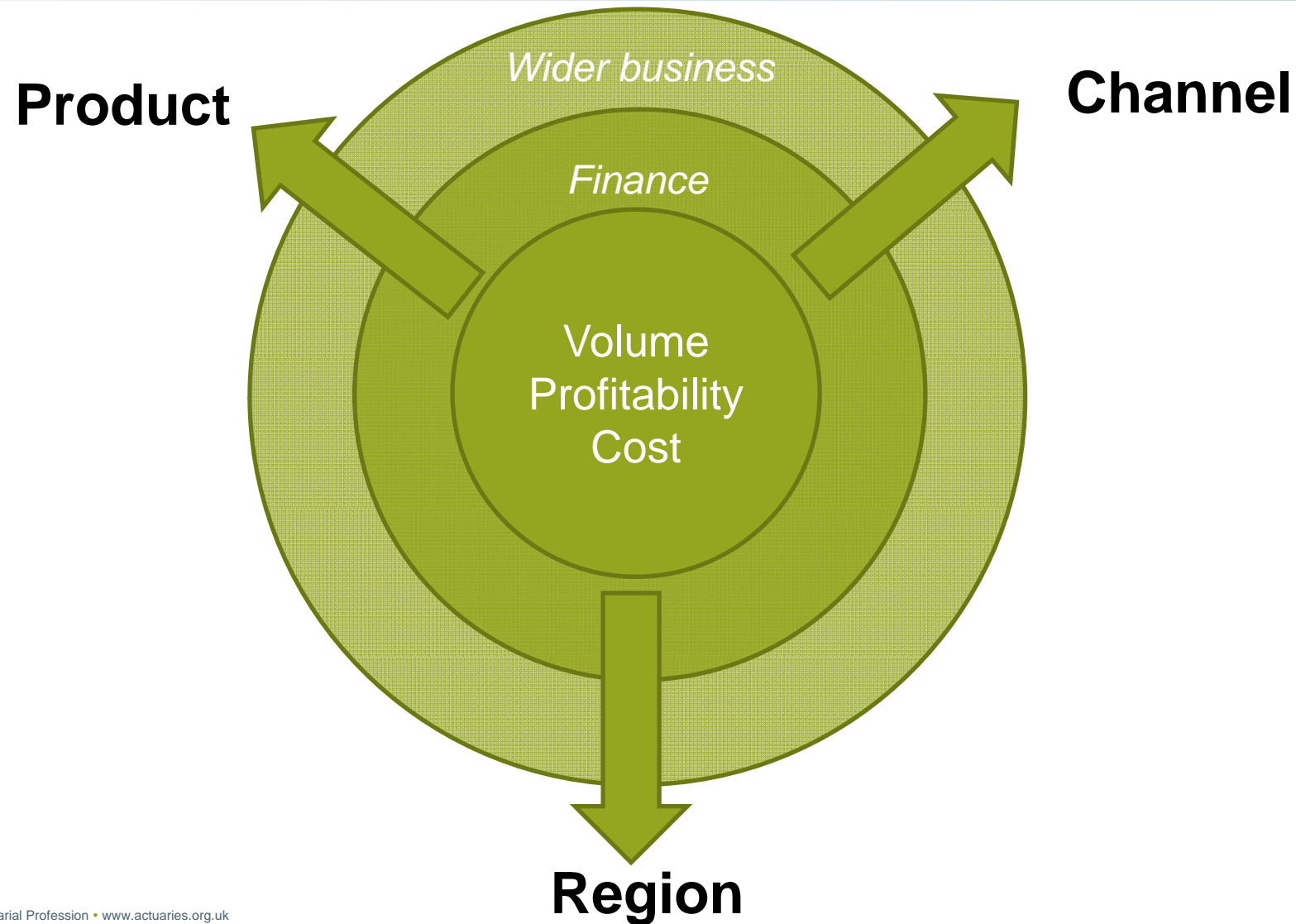
Analysis of Change - Consistency



Reconciliation



Granular strategic business insight



Summary of benefits

Original vision

- Increased speed & flexibility of reporting
- Improved quality of controls & data
- Cost efficiency
- Increased Finance effectiveness and value added to the business
- A positive working climate

What have we achieved

- Tools in place for accelerated reporting for YE2010
- Consistency in production and use of data across processes
- Enhanced controls, e.g. Results mapped back to inputs at policy level, automated basis tool, clear audit trails
- More efficient Prophet modelling – sound building blocks for Solvency II
- Automated production of reports
- More efficient approach to analysing results – top-down vs bottom-up
- Actuarial teams less focussed on process and more on understanding variances, issues and future developments
- Equipping Finance for the future - at the heart of business strategy

Questions or comments?

Expressions of individual views by members of The Actuarial Profession and its staff are encouraged.

The views expressed in this presentation are those of the presenters.

