Beyond Control

Business Benefits from End User Computing Governance and Transformation

IIAG Conference 2014

Rocket Scientists?

Key Issues

1. Why do actuaries and risk managers rely so heavily on end-user computing solutions?
2. What are the true implications of the end-user computing ecosystem on an insurance company?
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4. How can we collectively reduce the actuaries' and risk managers' reliance on end-user computing solutions?

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EUC solutions can solve any problem

Literally any problem, if you're an actuary

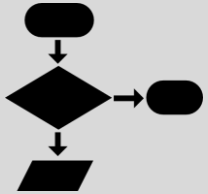
No Single Reason for Multitude of EUC Solutions

People

- Skilled and enterprising community
- Problem solvers
- Self-sufficient
- Culture / it's OK

- Impatient for change / delivery
- Struggle to explain needs
- "You wouldn't understand"
- Nobody says "stop!"
- Leaders were original developers

Processes



- Lack of historic investment
- Too much trust (pedestals)
- Collaboration with IT / others is poor or non-existent
- Just get the job done

- "Make-do-and-mend" culture
- What is development and what is production?
- Lack of or immature governance

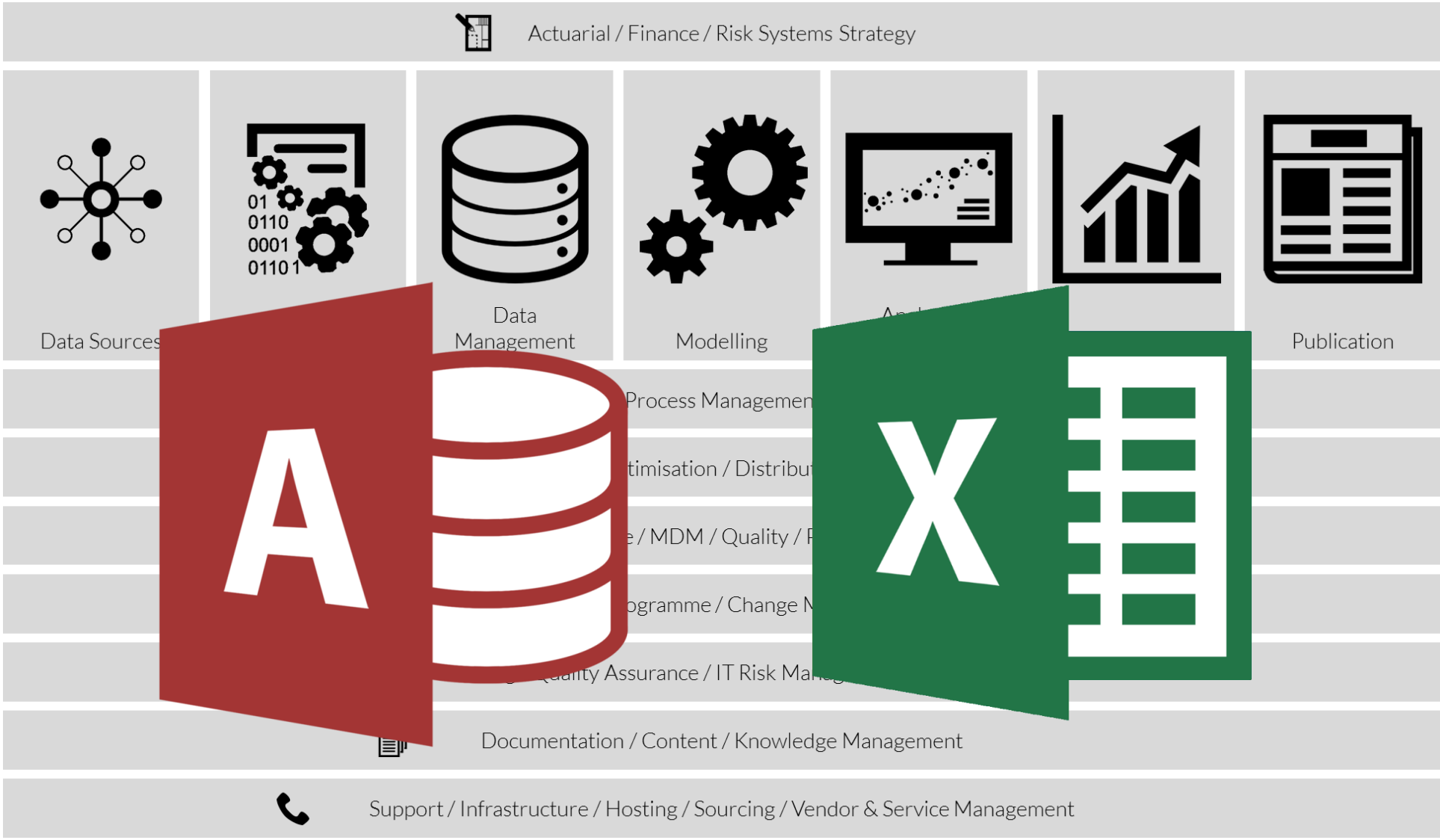
Technology

- Industrial systems not fit for purpose / poor integration
- Capability of EUC tools and ability to fill voids
- Problematic convenience

- Limited awareness of alternatives
- Flexibility / apparent transparency
- Legacy

Actuarial / Risk Ecosystem

Filling the Voids



And It's Not Just About Spreadsheets

- Most obvious & prevalent perhaps, but may not be the most risky
- So-called "industrial" actuarial models responsible for calculating the core metrics are still EUC solutions
- Unfortunately they are
  - Even less transparent than a spreadsheet
  - Even more reliant on specific, IT-like development skills (e.g. C++ or C#)
  - Even more complex
  - Even more prone to failure and change control issues
  - Even harder to document and even harder to integrate
- Just because the platform is more industrial, doesn't mean the models and solutions are
- Beware actuaries bearing models!

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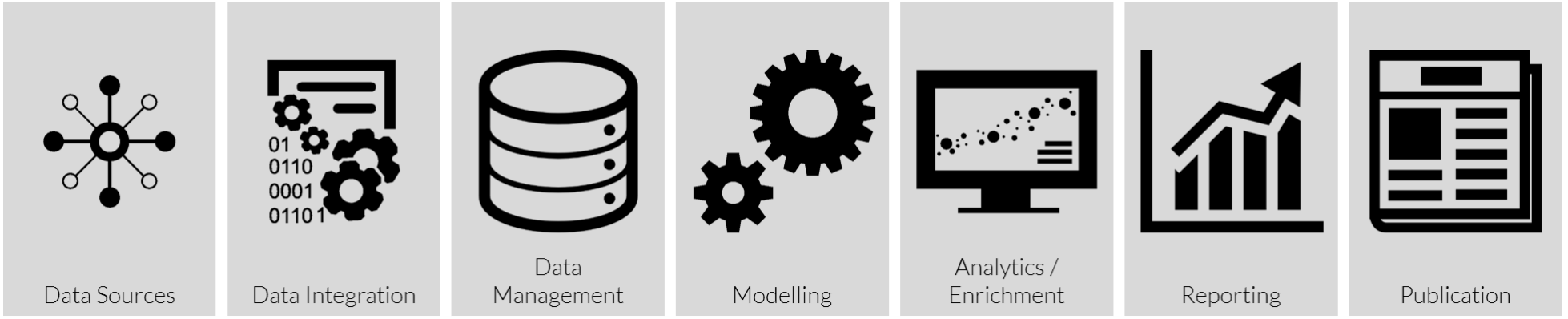
EUC Debt

Typical Actuarial Information Factory

- The Actuarial function is responsible for many critical business processes, including but not limited to
  - Statutory reserving / valuation
  - Bonus setting / with profits management
  - Product development and pricing
  - Servicing support – such as illustrations
  - Regulatory and audit dialogues
- Most processes use some combination of the following steps



Assumed Actuarial Value Chain

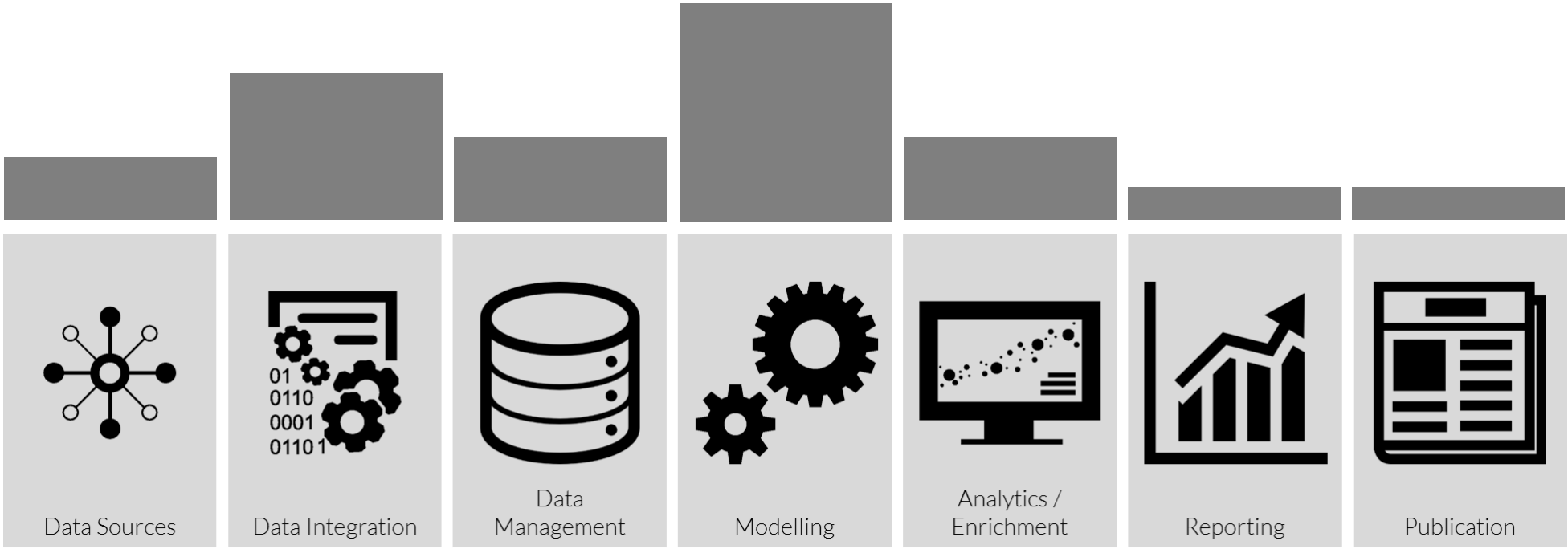
Where management think actuaries (should) spend their time

Typical Actuarial Value Chain

Where actuaries really spend their time

Percentage of Available Actuarial Function Time Spent Servicing EUC Solutions **65%**

Percentage of Total Cost of Actuarial Function Spent Servicing EUC Solutions **53%**



Analysis based on information derived from first hand experience with clients and the Quintant Partners Total Cost of Spreadsheet Ownership Toolkit

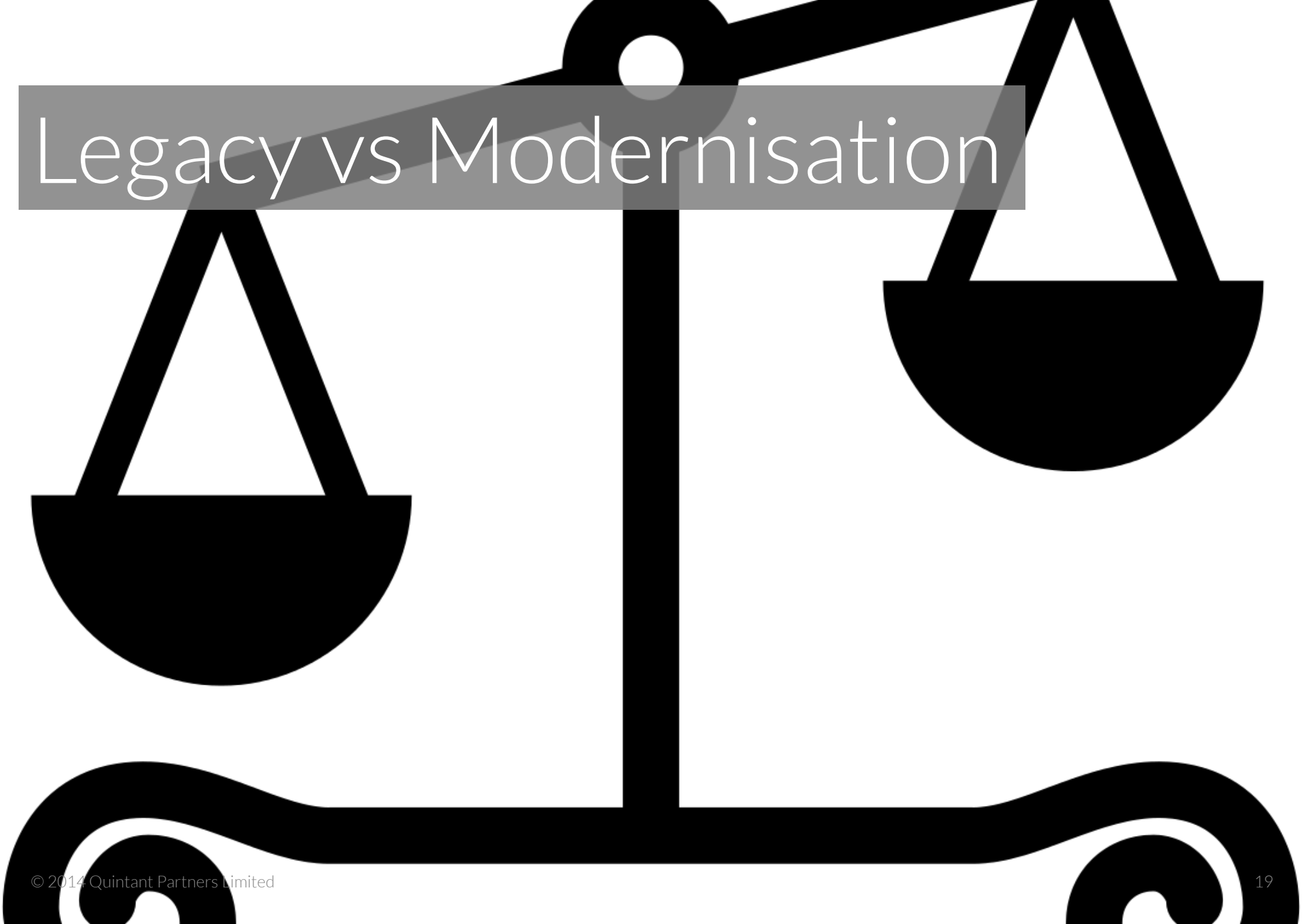
Implications

- Too much time spent
  - Churning data
  - Identifying / finding right version of data / system
  - Updating for new assumptions, bases, products, approach, reporting measures
  - Validating logic / results
  - Handing off to downstream systems / processes
  - Updating manual control procedures
  - Rework
- Data, understanding, knowledge and value is in silos
- Quality and lineage of information is uncertain
- Heavily reliant on discipline of users
- Key man risks and inefficiency
- Expensive and skilled resources aren't adding as much value as they could or should

A Vision for Many Actuarial Functions

- Move actuaries and risk managers down the value chain
- More time doing analysis, less time churning data
- More time consuming information, less time creating it
- Less time reinventing the wheel – usually in EUC solutions
- Adoption of reusable components
- Automation
- Sustainable processes
- Deskilling the actuarial department / refocus of skills

Legacy vs Modernisation



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New World Order

Driving Tomorrow's Insurance Agenda

- Regulatory environment / flux
- Efficiency and cost saving
- Availability of scarce resource
- M & A activity
- Disruptive technologies – the megatrends of big data, social, mobile and cloud
- New channels and new products
- Increased competition from untraditional sources
- Speed to market and automation
- Transparency
- Outsourcing and everything as a service (yes, even actuarial)
- Sustainable, repeatable, evidenceable processes

Is the current (or future) EUC environment compatible or conducive to tomorrow's world?

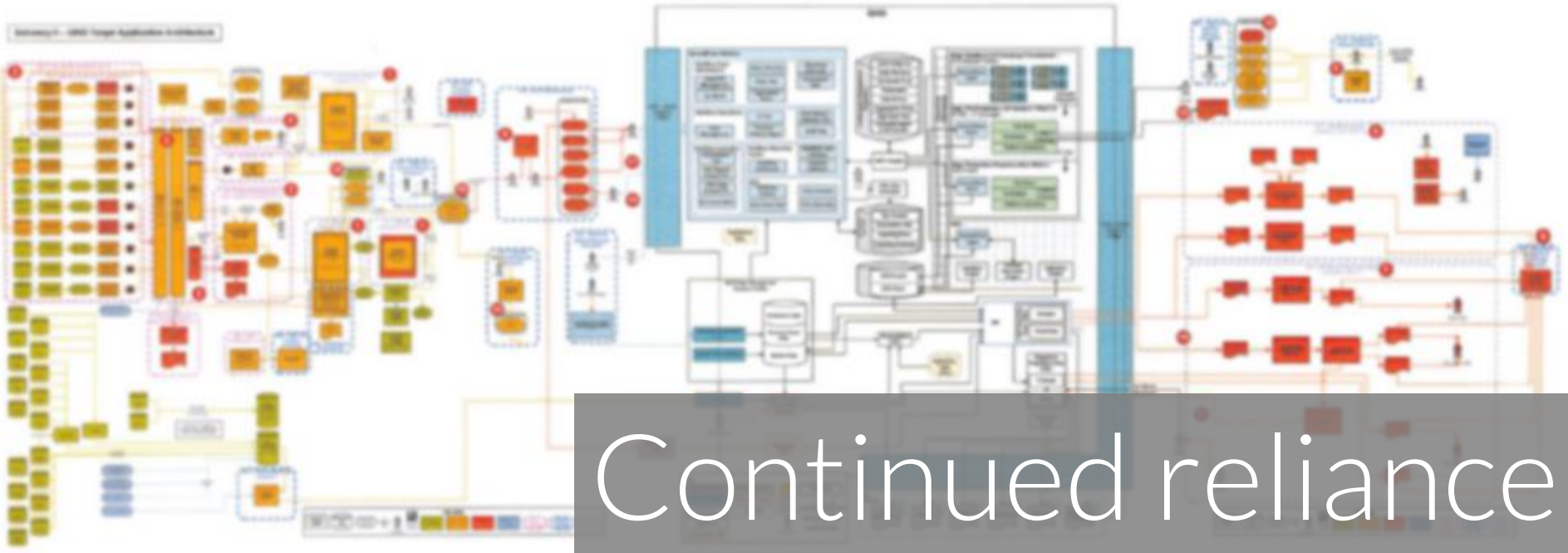
Solvency II

"Many firms will need to rely on manual processes to provide the 2015 transitional reports. 83% have reported that they will not have automated systems in place and will rely on manual reporting and calculations for key risk management metrics"

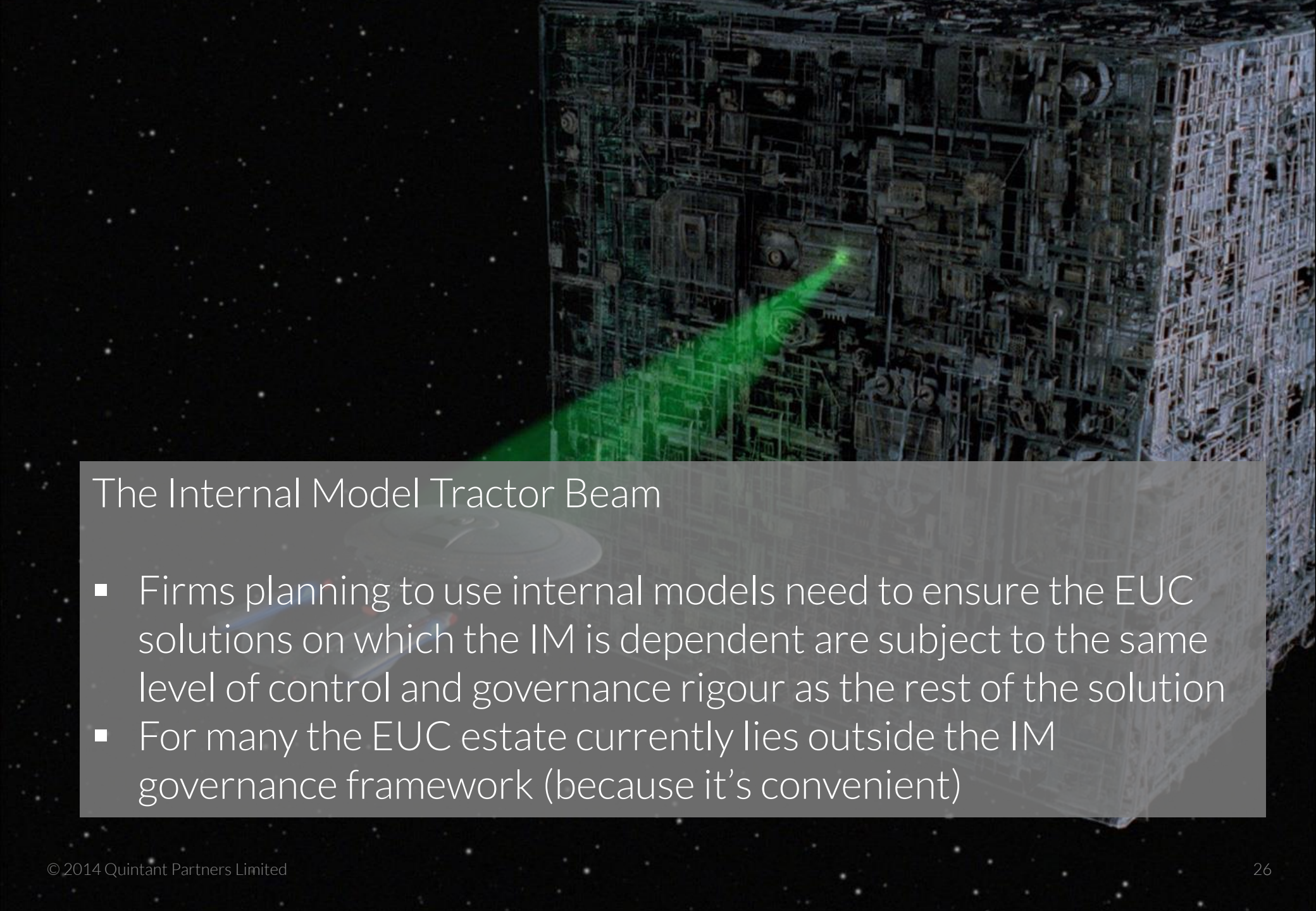
http://www.ey.com/GL/en/Industries/Financial-Services/Insurance/EYeuropean-solvency-ii-survey-2014

- Data directory
- Data quality
- Change management
- Approvals
- Security / access
- Version control
- Documentation

Solvency II Solutions



Continued reliance on EUC solutions?



The Internal Model Tractor Beam

- Firms planning to use internal models need to ensure the EUC solutions on which the IM is dependent are subject to the same level of control and governance rigour as the rest of the solution
- For many the EUC estate currently lies outside the IM governance framework (because it's convenient)

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Encouraging Transformation

Control Alone Isn't Enough

Changing the Culture

- Unfortunately the actuarial and risk management community need help
- They don't take kindly to being told what to do and how to do it
- The control / governance benefits are perceived as small (to them)
- Even organisations who have embraced the risk management / control benefits of EUC solutions often find that penetrating the actuarial / risk management communities is a challenge
- They are unlikely to ask for help / support themselves
- Any moves to limit EUC usage or adopt alternative solutions need to be supported with tangible, real and specific benefits
- EUC tools are here to stay – enterprise technology and governance strategies need to embrace them, not exclude them

Helping to Reduce the EUC Debt and Risk

Solution Vendors

- Integration
- Built-in controls / roles / change management / approval
- Limit functionality based on role / use

Internal IT

- Get to know your actuaries
- Educate them about alternatives / art of the possible
- Highlight potential benefits to them

Internal Audit

- Help actuarial & risk management evolve
- They are not (always) villains
- Facilitate the discussion between actuarial and IT (and vendor if appropriate)

Actuarial

- Recognise there are people who want to help
- Change not a threat
- Understand there could be another way
- Move along the value change; show how smart you are

Under Surveillance

Leveraging the Output from EUC Control Solutions

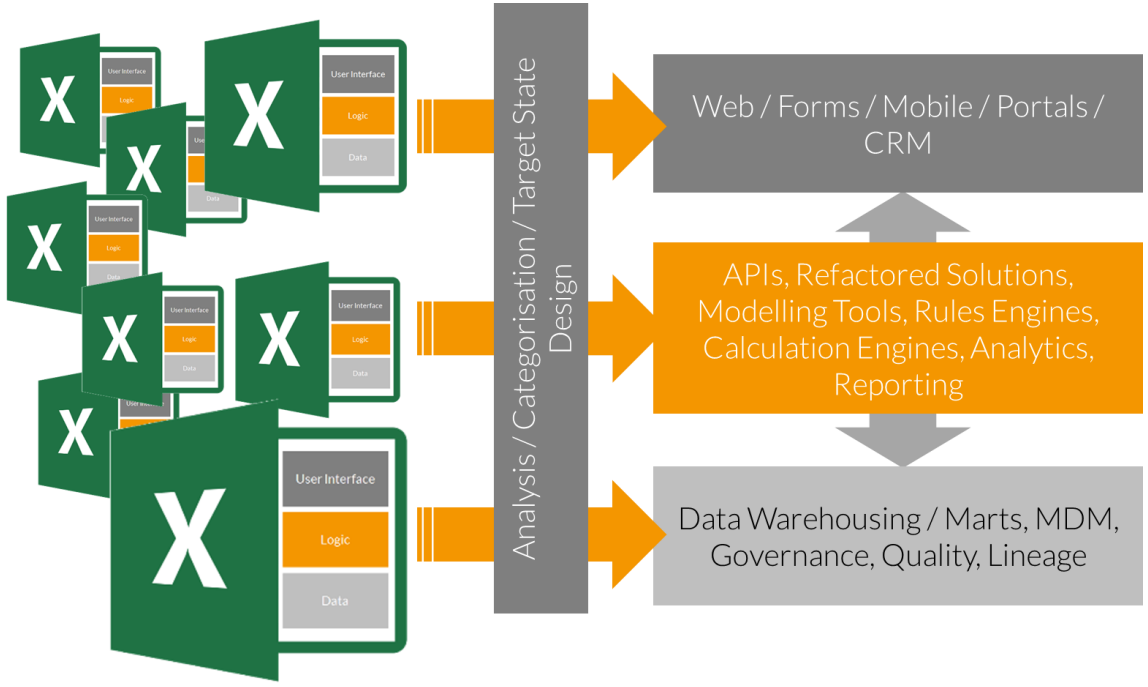
- The vast majority (all?) EUC solutions are some combination of data / input, logic / calculations, and output / analysis
- EUC Control Solutions, such as ClusterSeven, can help provide an insight into the EUC estate
- This can help inform / prioritise those solutions which might present biggest benefit / bang for buck as part of any transformation
- Work with internal IT / vendors to understand alternatives and their tangible benefits

For Example

Leverage functionality of ESM solutions to digest and analyse metadata relating to:

- Spreadsheet use / ownership (function, process, role, team, person)
- Structure (UI, logic, data, output)
- Design and usage patterns
- Periodicity / cyclicity
- Data / logic changes
- Access points
- Linkage / hierarchies
- Change / update frequency

And determine appropriateness / benefit case for transformation



Quintant Partners is a consulting firm working with insurance clients on the use and strategy of modelling tools and technology to support key business processes such as statutory economic capital calculations, external financial reporting and other capital, risk and financial metrics used to support management decisions.

Who Is Guy Shepherd?

- 20 years working in the insurance / technology space
- 10 years as Head of Actuarial Systems & Modelling and 4 years as Head of Business Intelligence & Actuarial Systems at Prudential
- Global Head of Solvency II IT Solution Design at Prudential GHO
- Last 3 years as a consultant, initially with PwC as Head of Actuarial Modelling Practice and since November 2013 as Director at Quintant Partners

More specifically

- Architect of EUC Controls Framework for Actuarial Function in 2003
- Implemented EUC Controls Solution across UK business in 2007

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Thank you