7 days to 7 seconds
Adrian Ericsson
Current processes

Legacy systems

Some critical data in temporary stores

Significant manipulation in spreadsheets

Time critical process

Resource intensive manipulation

Limited bespoke applications

Initial foray into new technology

Static reporting

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The 3 key forces

**COMPLEXITY**
The world is becoming more complex, and more complex in modelling requirements

**SPEED**
Deadlines for sharing information and for reporting information to external stakeholders are shortening

**TRANSPARENCY**
Rigour and transparency requirements in the modelling are increasing dramatically

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Force 1: Complexity

Increasingly sophisticated regulation

Greater computation ability

The rise of the data scientist

Abundance of data

Search for value

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Force 2 : Speed

- Models at the front end
- Desire for real-time computation
- Regulation (again)
- Competitive forces
- Scenario planning
Force 3: Transparency

Consequences of getting it wrong

Key person risk

“Unsophisticated” boards with “sophisticated” models

Increasing collaboration across disciplines

Regulation (again) and governance

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Forces acting on the current process

- Complexity
- Speed
- Transparency

Insufficient
Slow
Opaque
Our standard response

- Follows the “proof-of-concept” / contractor approach
Our standard response

More people

Additional ad-hoc manipulation

Confused processes

Some useful reporting abandoned

Reporting quality undermined

Additional ad-hoc analyses

Time critical process

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Our standard response

• Consequences

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Consequences

1. Rocketing expense ratio
2. Being left behind
3. Having fragile systems

- Continually explaining discrepancies
- Never getting to the analysis

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Market example 2

Partial information in variety of spreadsheets

Partial information in DB

Manipulation level 1

Manipulation level 2

Manipulation level 3

Multi-week process

Manually populate returns

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Process Industrialisation

The assembly line of the modern business.
Fast, repeatable, reliable, specialised
### Colour palette for PowerPoint presentations

**Dark blue**
- R17G52B88

**Gold**
- R217G171B22

**Mid blue**
- R64G150B184

**Secondary colour palette**

**Light grey**
- R220G221B217

**Pea green**
- R121G163B42

**Forest green**
- R0G132B82

**Bottle green**
- R17G179B162

**Cyan**
- R0G156B200

**Light blue**
- R124G179B225

**Violet**
- R128G118B207

**Purple**
- R143G70B147

**Fuscia**
- R233G69B140

**Red**
- R200G30B69

**Orange**
- R238G116B29

**Dark grey**
- R63G69B72

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**New response**

- Needs a fundamental rethink of our processes, and those in this room are probably not going to like some of it.
New response

Tightly defined data interfaces, heavy validation

Mapped, designed, coded processes

Include modern algorithms

Use ad-hoc sparingly

Time spent upfront designing

Core assumption set in advance

Reliable report suites and self service MI

Parameters changed only by exception

Technology does the heavy lifting

Automated push / pull

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Discretion

- We need to remove the experts from the critical path as much as possible. People slow processes down and mess them up.

**Rigor**
- Reliable
- Robust
- Understood
- Consistent

**Flexibility**
- Judgement
- Discretion
- Ad-hoc adjustments
- Tinkering

Is it better to have:
- a process that is fast, reliable, transparent, and right most of the time
- a process that is fragile, slow, usually more accurate but occasionally catastrophically wrong
**Investment**

- We need to accept that significant upfront investment is needed, rather than an infinite drip feed.

### Upfront
- Significant
- Mapping and building
- But it’s only money

### In perpetuity
- Reputational costs
- Opportunity costs
- Remediation

Is it better to have:
- A defined, upfront, well thought through investment in a process, with maintenance costs over time
- A perpetual, hard to measure, drip-feed of investment of time and resources

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Technology

- We need to embrace wider enterprise-level technology stacks, and not only the collection of tactical tools in which we are black-belt masters.

Enterprise
- Collaborative
- Robust
- Optimised

Tactical
- Ad-hoc analyses
- Structurally unreliable
- Inconsistent

Is it better to have:
- A pre-defined, locked down, reliable process which is stable over time and understood
- A flexible collection of ad-hoc analyses which can be changed at any time
Think big

- Industrialisation is not automating only a small part of a business-critical process. It is protecting the “chain-of-custody” of data through the process.

End to end
- Connectivity across multiple systems and processes
- Critical initial data validation

Local
- Silos functions run silo processes
- Weak points at data interfaces

Is it better to have:
- An end-to-end process covering the interfaces between multiple systems, with significant computation on cleaning data that enters the process
- An amalgamation of local processes stitched together by human resources
Client example 1: TP / SF owned by separate teams

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- Orange: R238 G116 B29
Client example 1: TP / SF owned by separate teams

Yield Curves

TPs and Earned Premium

Cat Inputs

Standard Formula

Inject QRT

Reconciliation

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Client example 2: Business plan to QRT

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3 key take-aways

1. Increasing computational ability and volume of data means organisations are **not building** their business-critical financial, analytical and statistical processes in modelling environments that are fit-for-purpose.

2. It is crucial that organisations begin to **integrate** their ad-hoc analytical models into a modern, enterprise modelling framework to create reliable, transparent, collaborative and streamlined modelling processes.

3. This means that the analytics processes will become faster, less resource **intensive**, less **fragile** and far more likely to be trusted and relied on by Boards for their strategic decision making.
Questions

Comments

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