7 days to 7 seconds

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31 October 2017

A decision to make

You are here

3 forces

Current processes

Resource intensive manipulation

Legacy systems

Limited bespoke applications

Some critical data in temporary stores

Initial foray into new technology

Significant manipulation in spreadsheets

Static reporting

Time critical process

Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9

The 3 key forces

COMPLEXITY		SPEED		TRANSPARENCY
The world is becoming more complex, and more complex in modelling requirements	≠	Deadlines for sharing information and for reporting information to external stakeholders are shortening	≠	Rigour and transparency requirements in the modelling are increasing dramatically

Force 1 : Complexity

Increasingly sophisticated regulation

Greater computation ability

The rise of the data scientist

Abundance of data

Search for value

Force 2 : Speed

Models at the front end

Desire for real-time computation

Regulation (again)

Competitive forces

Scenario planning

Force 3 : Transparency
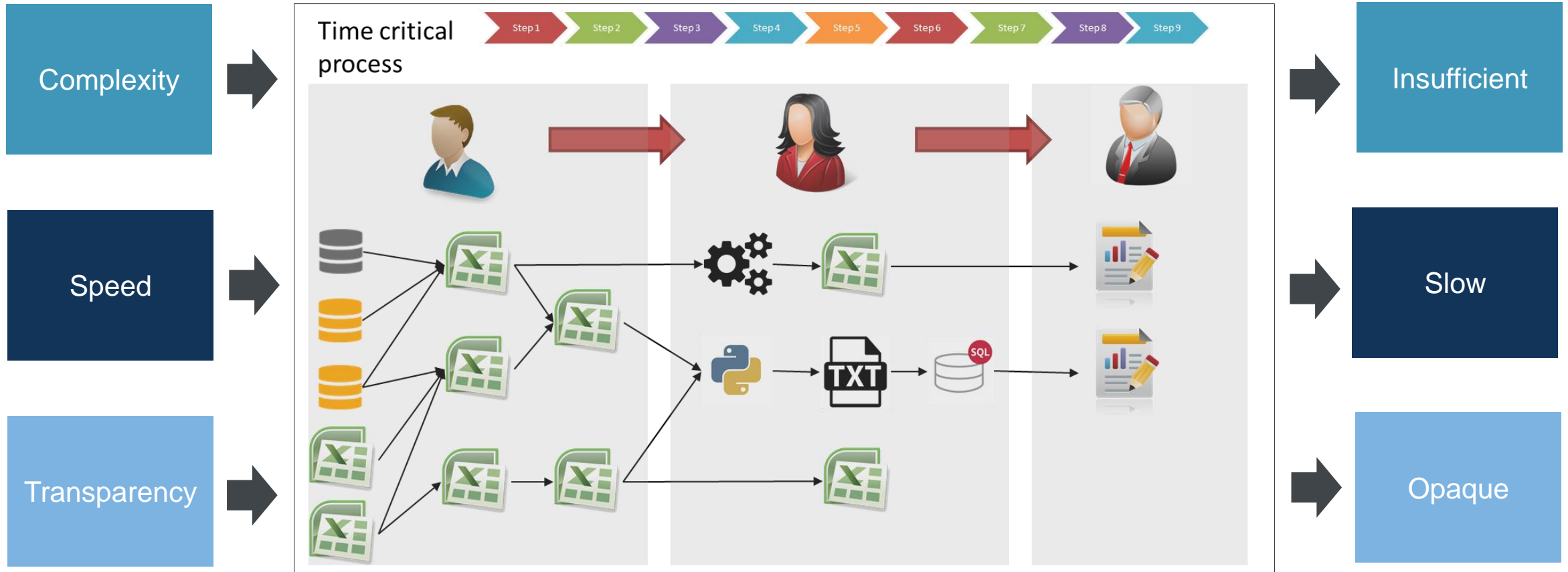
Consequences of getting it wrong

Key person risk

"Unsophisticated" boards with "sophisticated" models

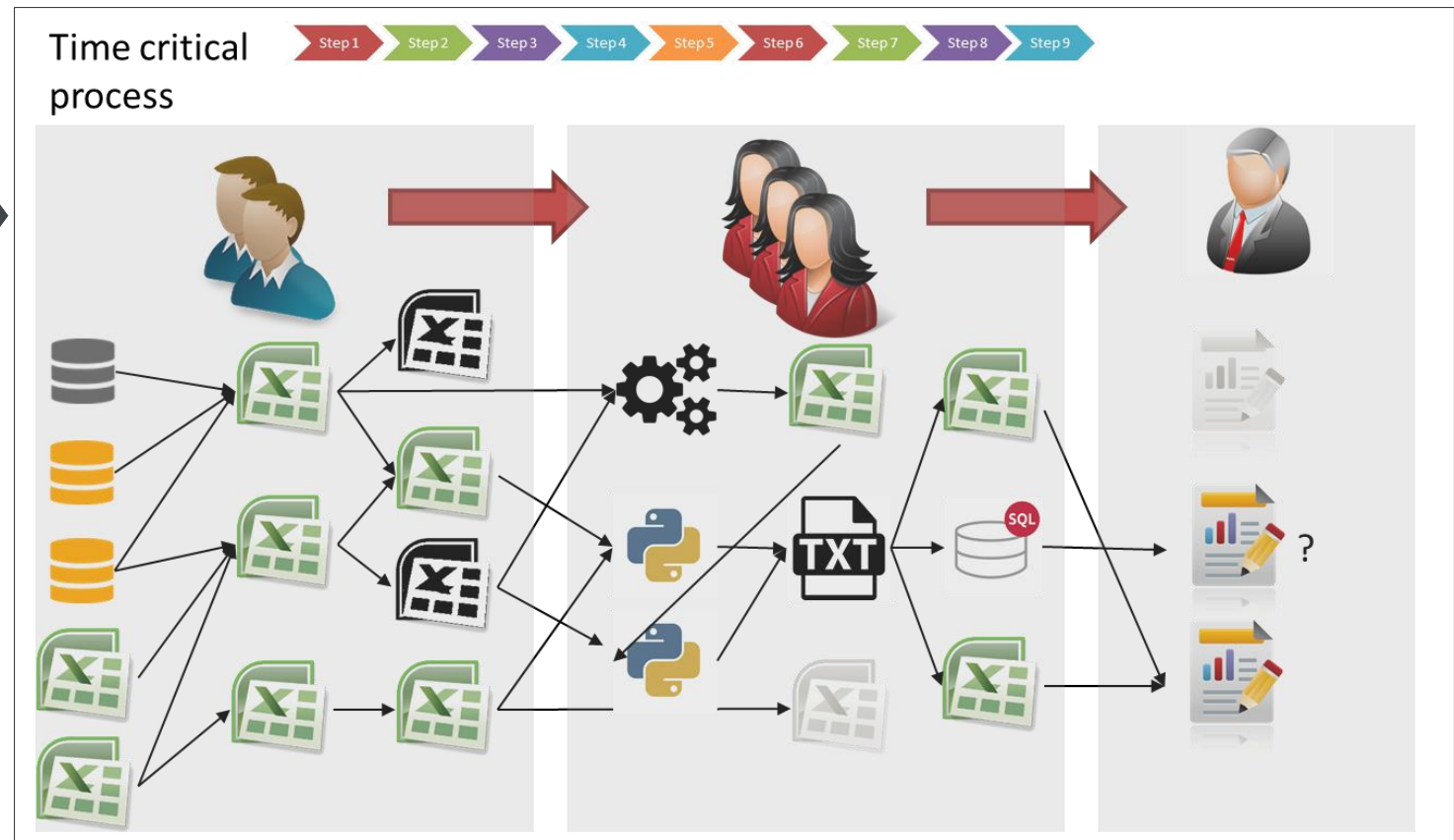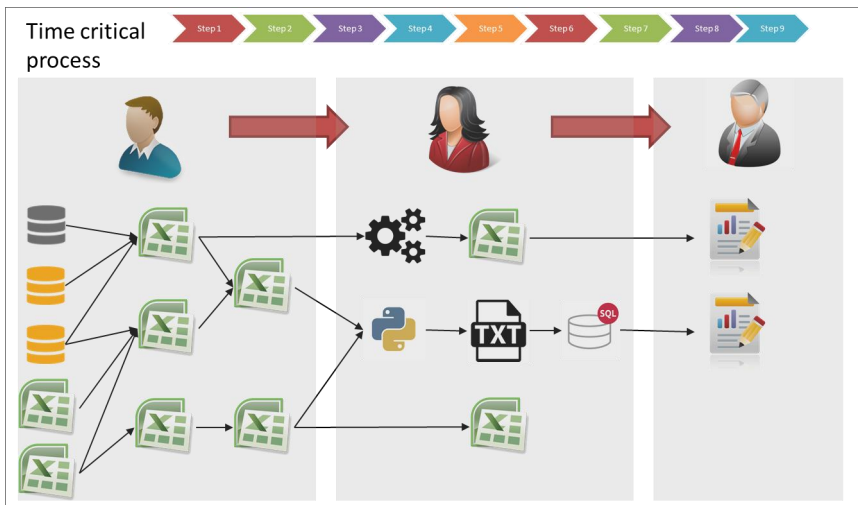Increasing collaboration across disciplines

Regulation (again) and governance
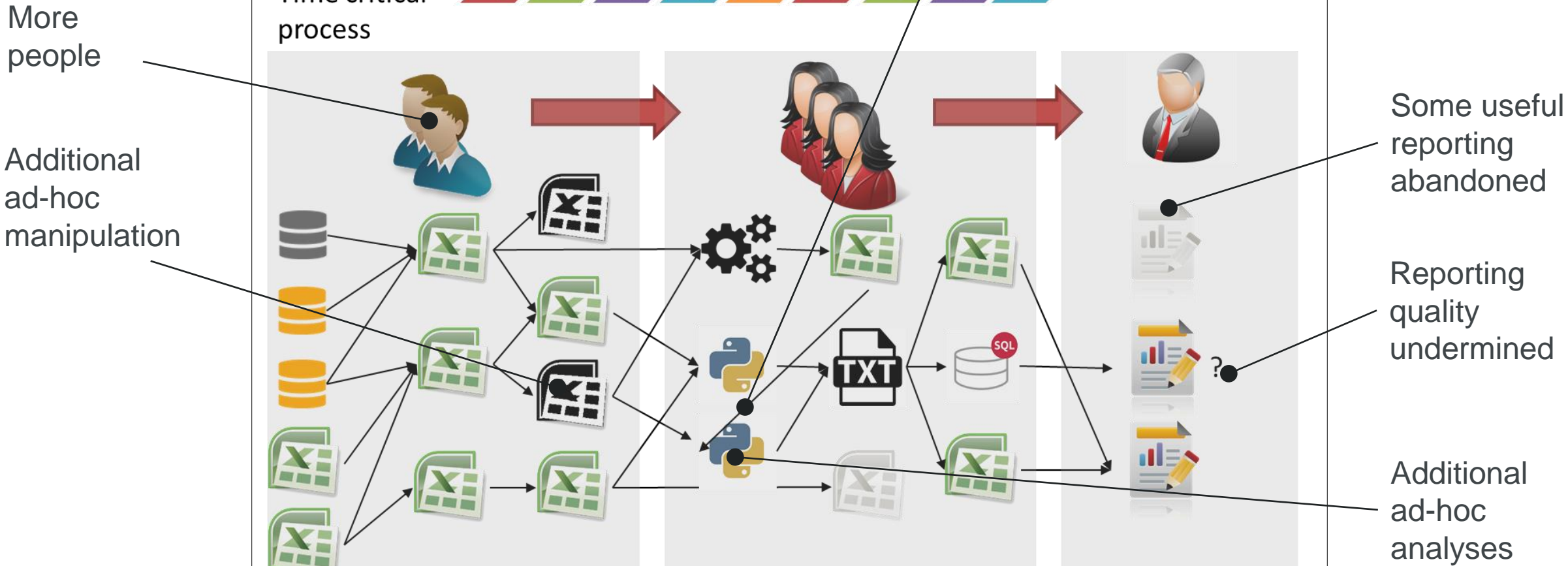
Forces acting on the current process

Our standard response

- Follows the "proof-of-concept" / contractor approach

Our standard response

Confused processes

More people

Additional ad-hoc manipulation

Time critical process

Step 1 | Step 2 | Step 3 | Step 4 | Step 5 | Step 6 | Step 7 | Step 8 | Step 9

Some useful reporting abandoned

Reporting quality undermined

Additional ad-hoc analyses

Our standard response

- Consequences

Time critical process — Step 1, Step 2, Step 3, Step 4, Step 5, Step 6, Step 7, Step 8, Step 9

Fragile

Very expensive

More opaque
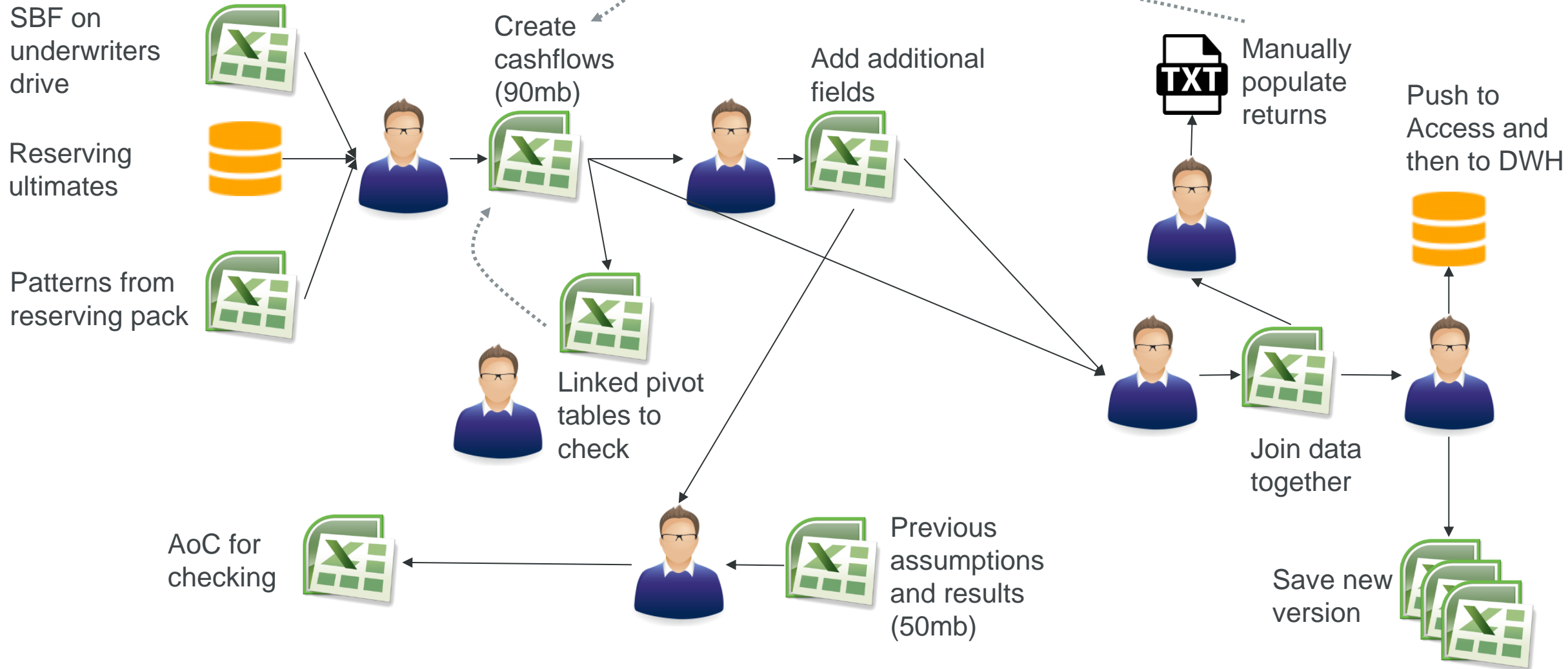
Even slower

Insular
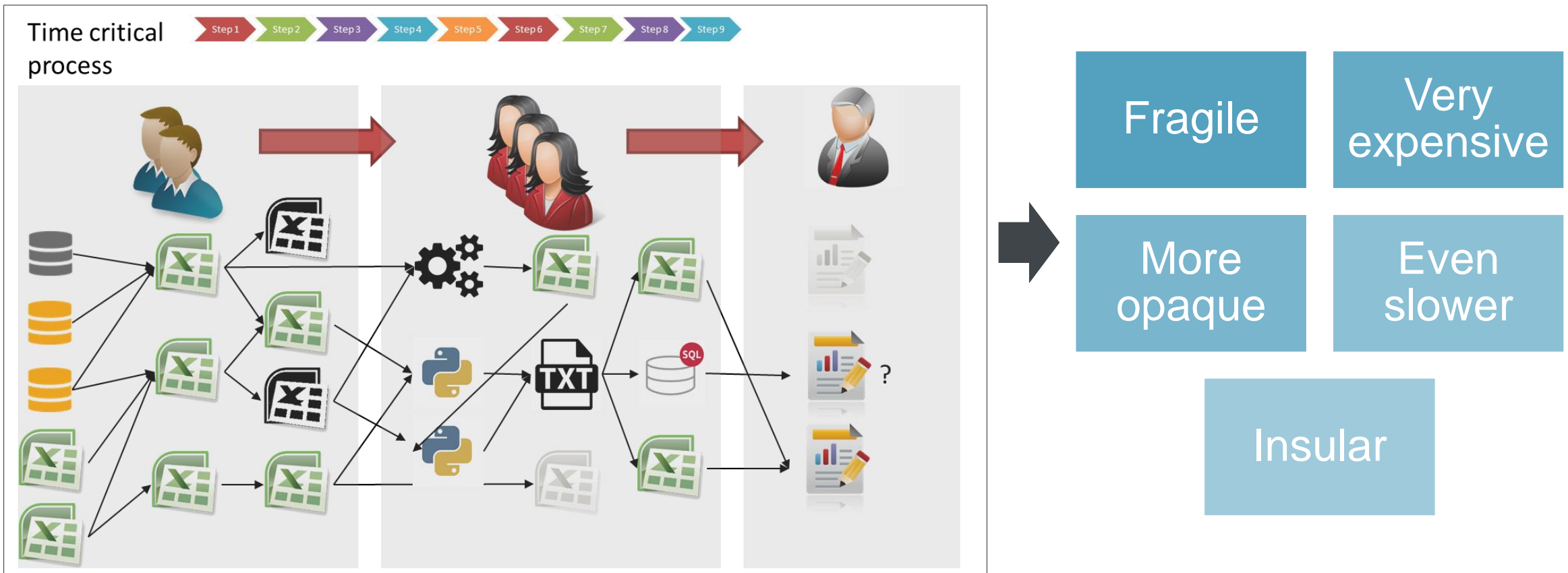
Consequences

1.Rocketing expense ratio

1.Being left behind

Having fragile systems

Continually explaining discrepancies

Never getting to the analysis

Market example 1

SBF on underwriters drive

Reserving ultimates

Patterns from reserving pack

Create cashflows (90mb)

Add additional fields

Linked pivot tables to check

AoC for checking

Previous assumptions and results (50mb)

Manually populate returns

Push to Access and then to DWH

Join data together

Save new version

Market example 2

Manipulation level 1   Manipulation level 2   Manipulation level 3

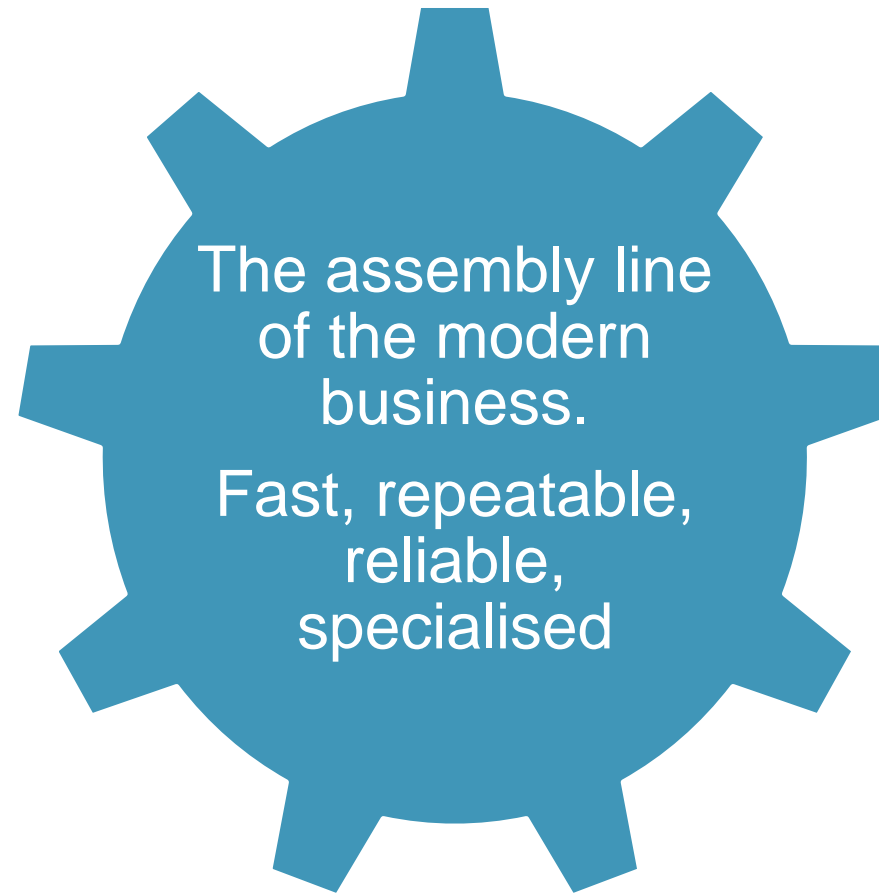Partial information in variety of spreadsheets

Partial information in DB

TXT Manually populate returns

Multi-week process

Process Industrialisation

The assembly line of the modern business.

Fast, repeatable, reliable, specialised
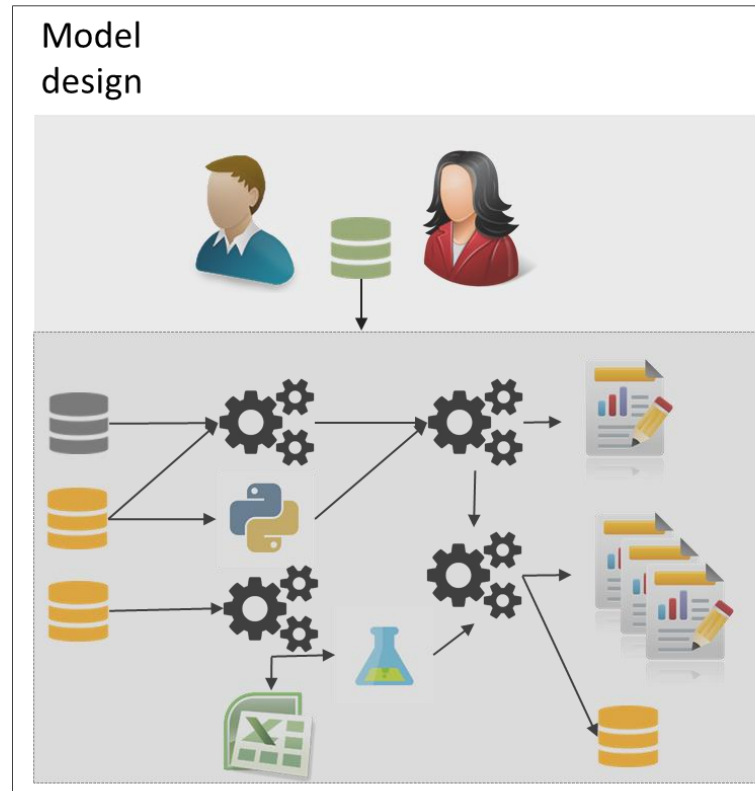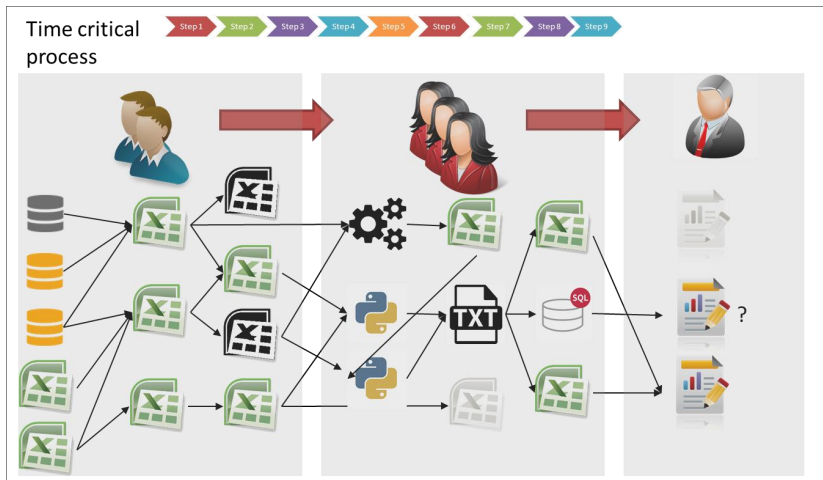
New response

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

New response

Time spent upfront designing

Core assumption set in advance

Reliable report suites and self service MI

Parameters changed only by exception

Tightly defined data interfaces, heavy validation

Mapped, designed, coded processes

Include modern algorithms

Use ad-hoc sparingly

Model design

Model run

Technology does the heavy lifting

Automated push / pull
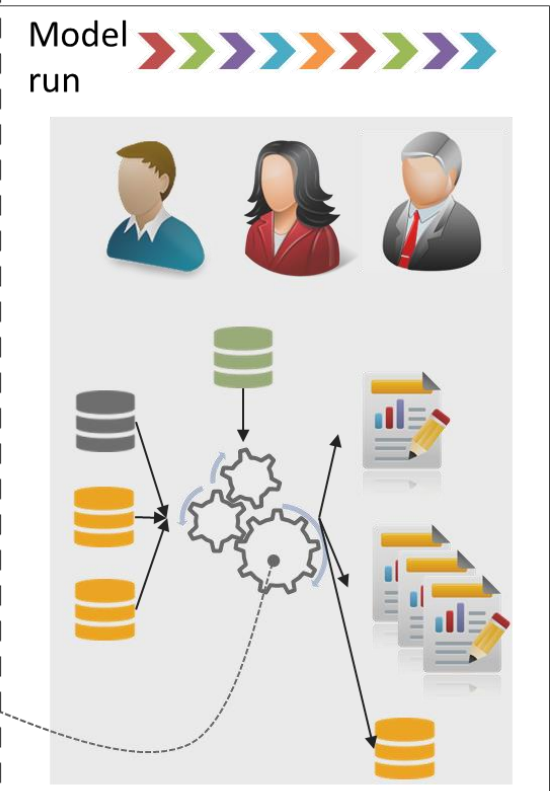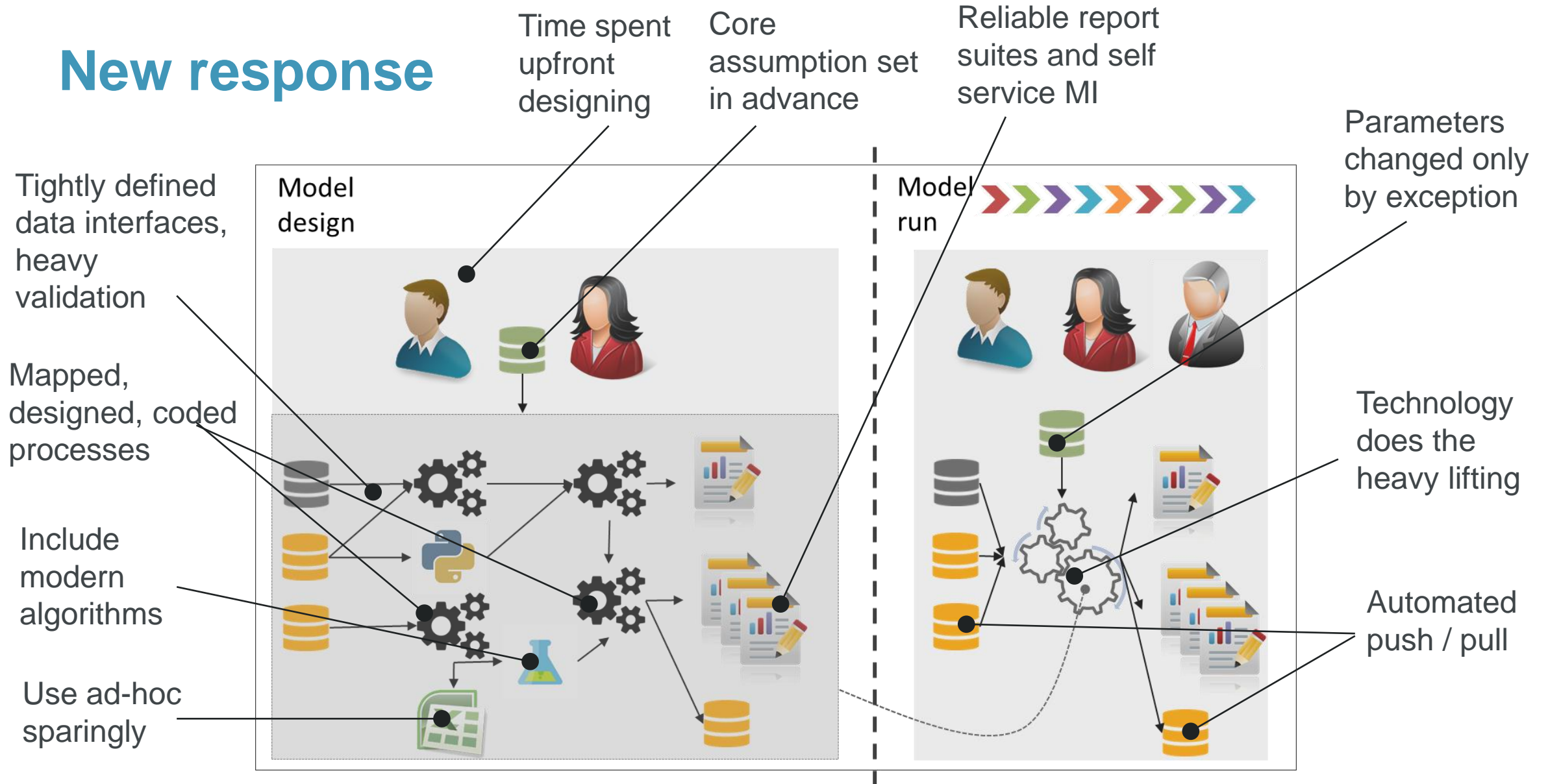
Discretion

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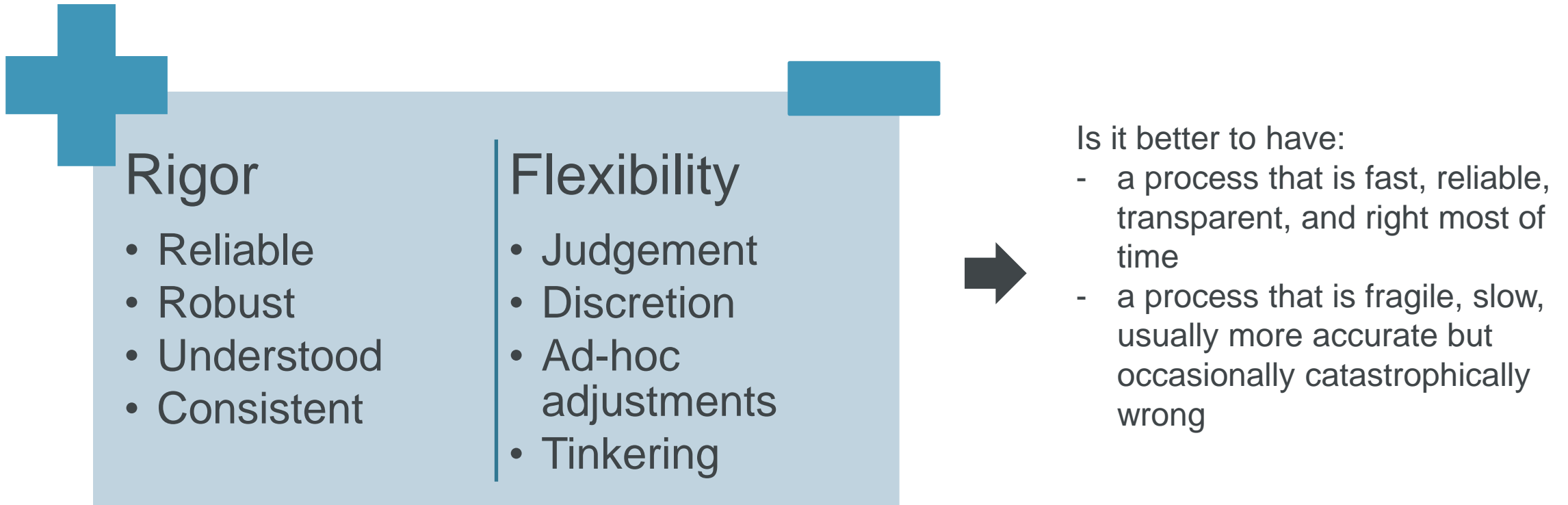
Rigor
- Reliable
- Robust
- Understood
- Consistent

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

Is it better to have:
- a process that is fast, reliable, transparent, and right most of 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.
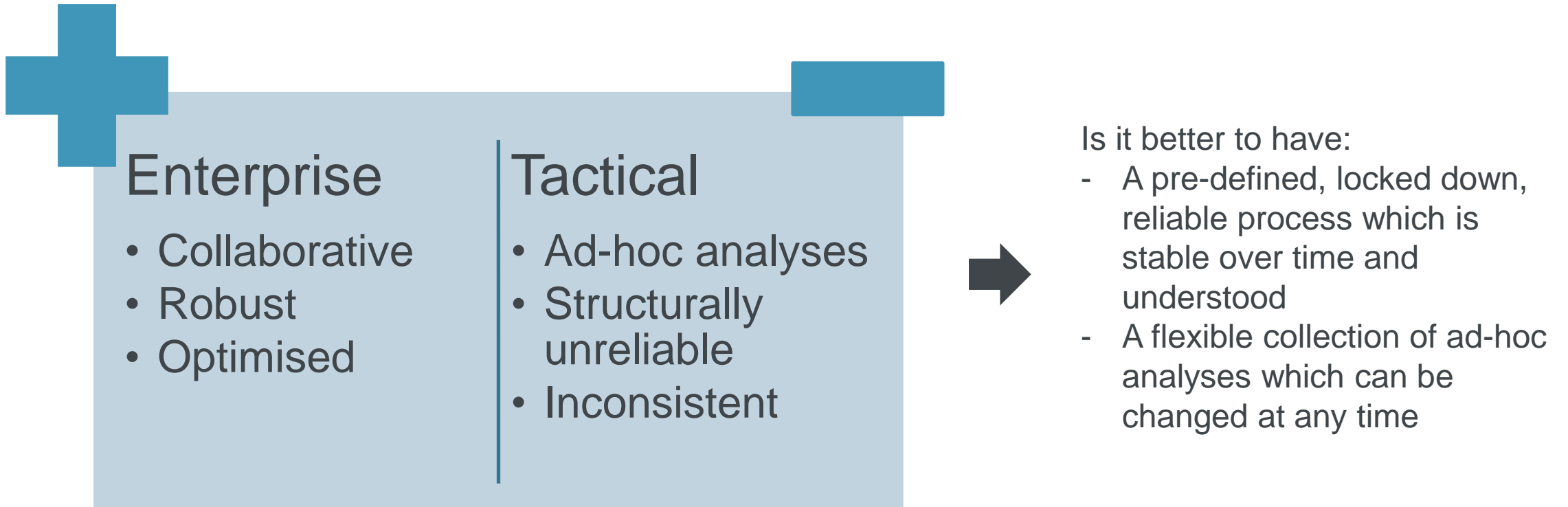
Upfront

- 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
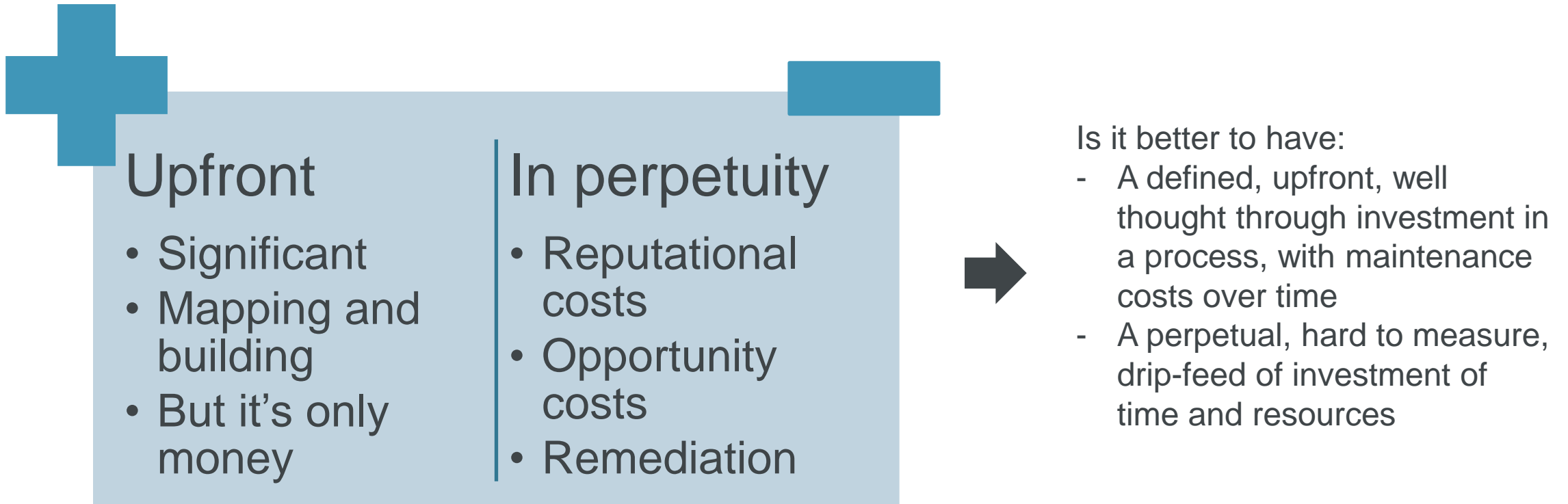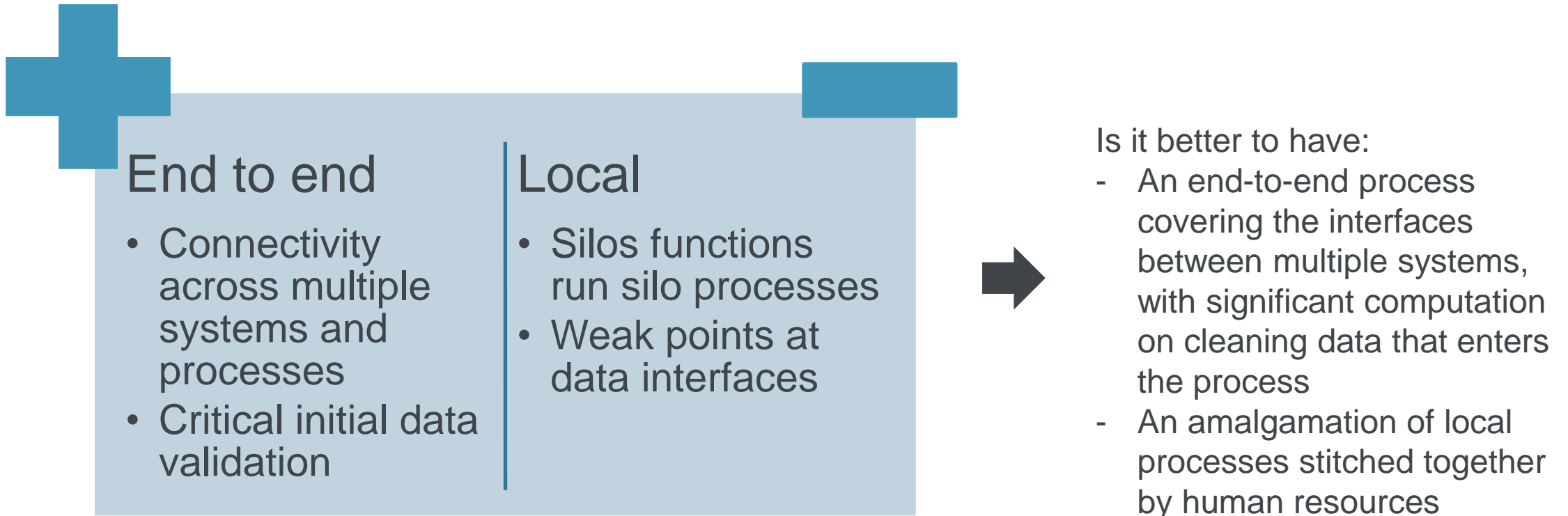
Technology

- 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
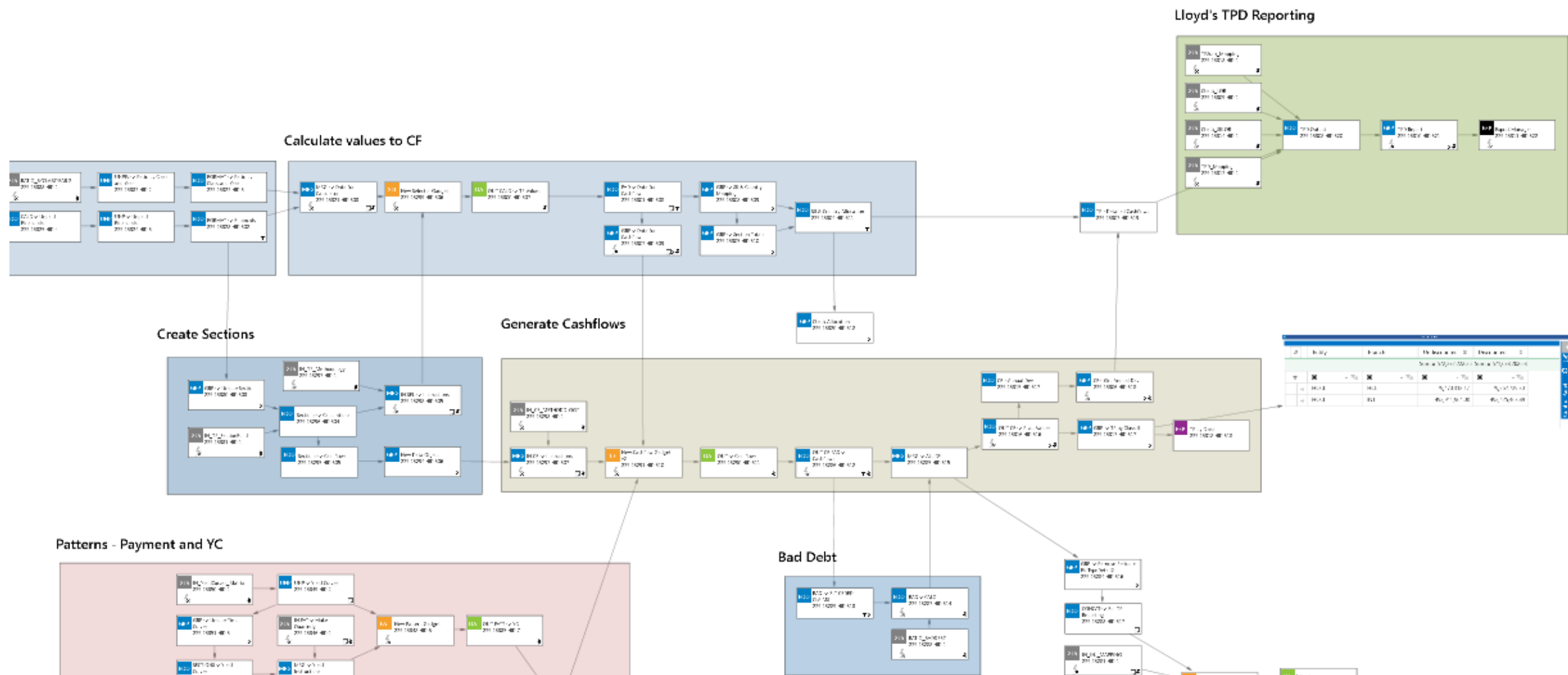
Think big

- 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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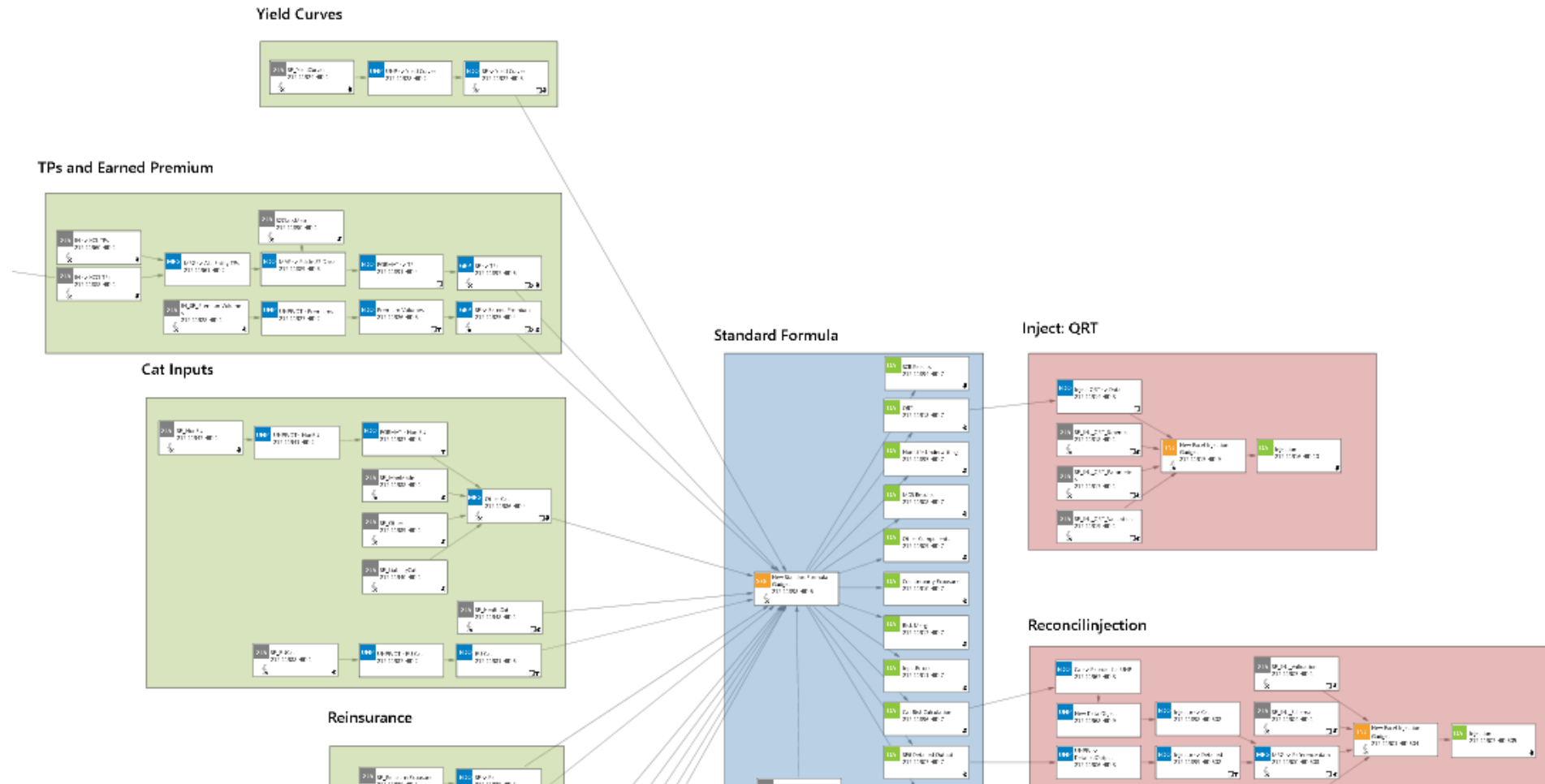
Client example 2 : Business plan to QRT
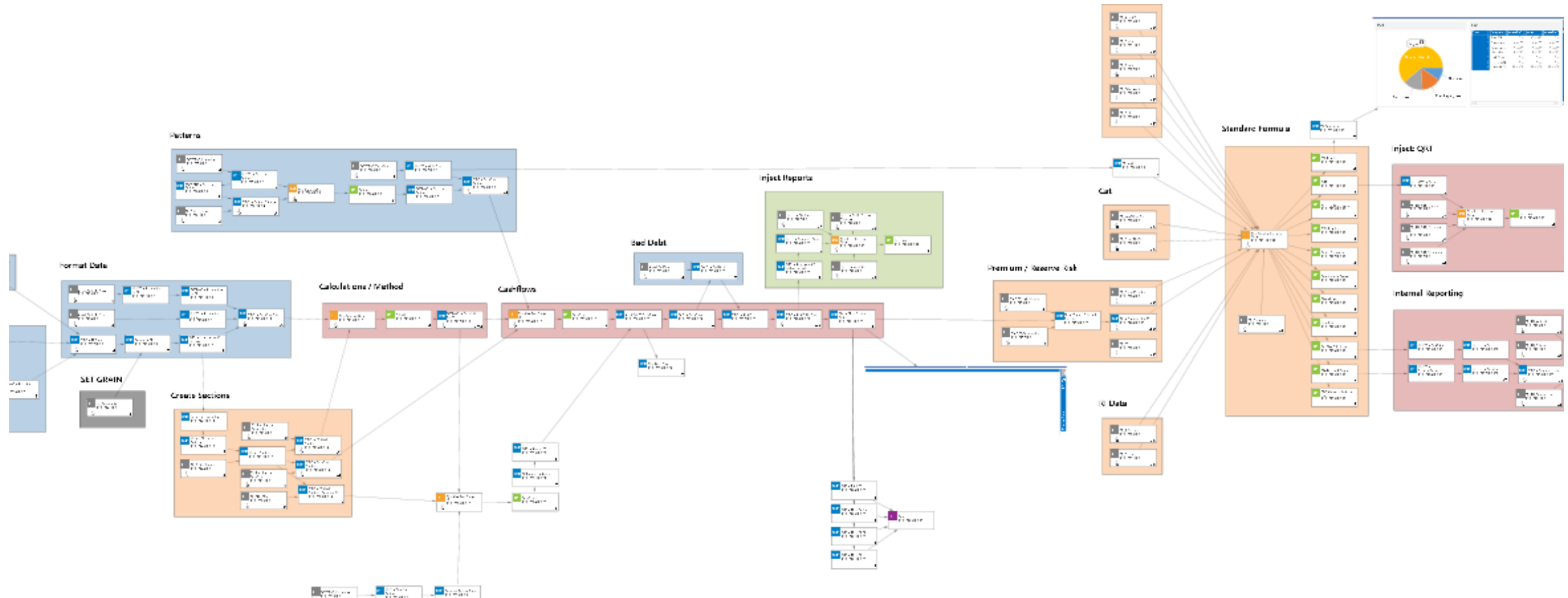
3 key take-aways

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

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

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

Questions

Comments

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