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Evaluating the Risk & Rewards of Effective Integration of Systems & Technology within a Financial Institution

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What are the Risks?
Let's use Stress Tests as an example…

- Stress testing refers to the process of assessing the vulnerability of the [entire] financial institution to extreme, but plausible, market conditions.

Stress Testing Drivers – Modeling, Regulators,

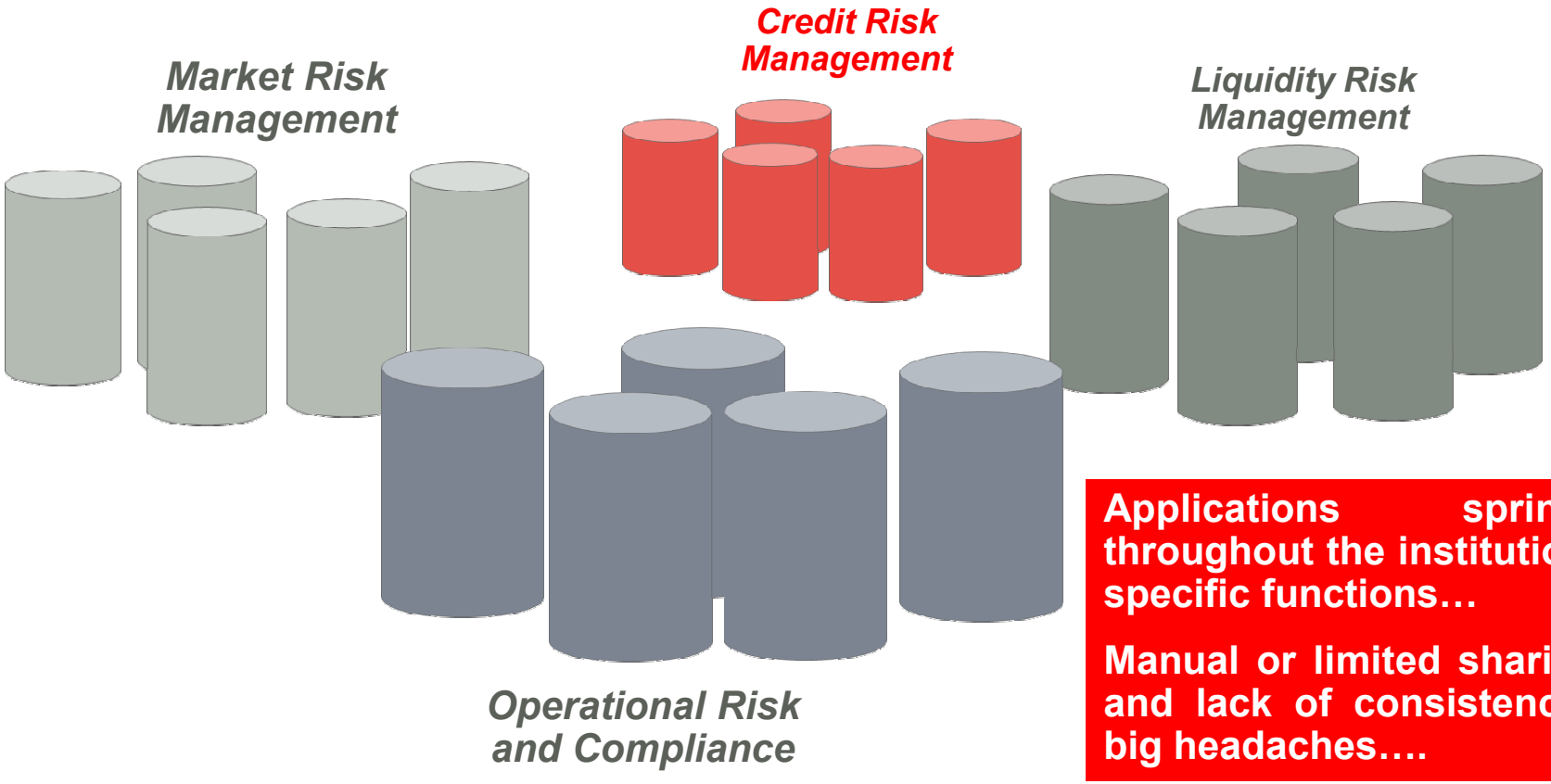
- A model is an abstract representation of reality. It is by definition a *simplification* of the reality it aims to replicate under *extreme conditions*.
- "Principles for sound stress testing practices and supervision":
  - providing forward-looking assessments of risk;
  - overcoming limitations of models and historical data;
  - supporting internal and external communication;
  - feeding into capital and liquidity planning procedures;
  - informing the setting of a banks' risk tolerance; and
  - facilitating the development of risk mitigation or contingency plans across a range of stressed conditions.

Implementation Challenges –
"What could go wrong?!", "Why, do things go wrong?"

Velocity of change:

- Product Innovation
- (De)Regluation
- Competition
- Acquisition

Proliferation of “Silos”



Applications spring up throughout the institution, serving specific functions…

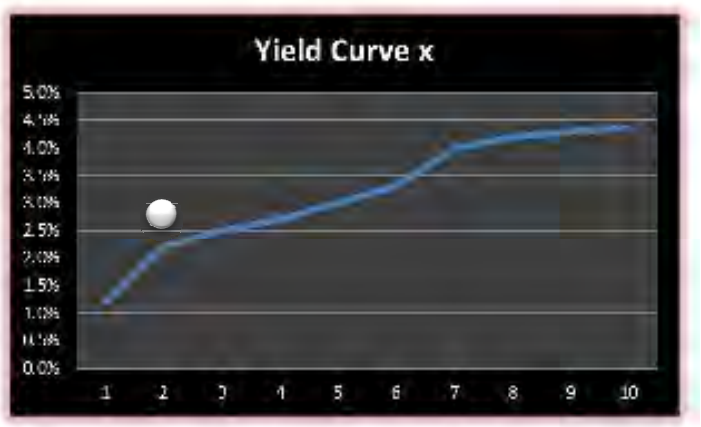
Manual or limited sharing of data and lack of consistency become big headaches….

Integration to the Rescue?

- Complexity is cemented.
- Inflexibility is assured.
- Cost overhead is irrevocable.
- Operational Risk becomes dangerous.

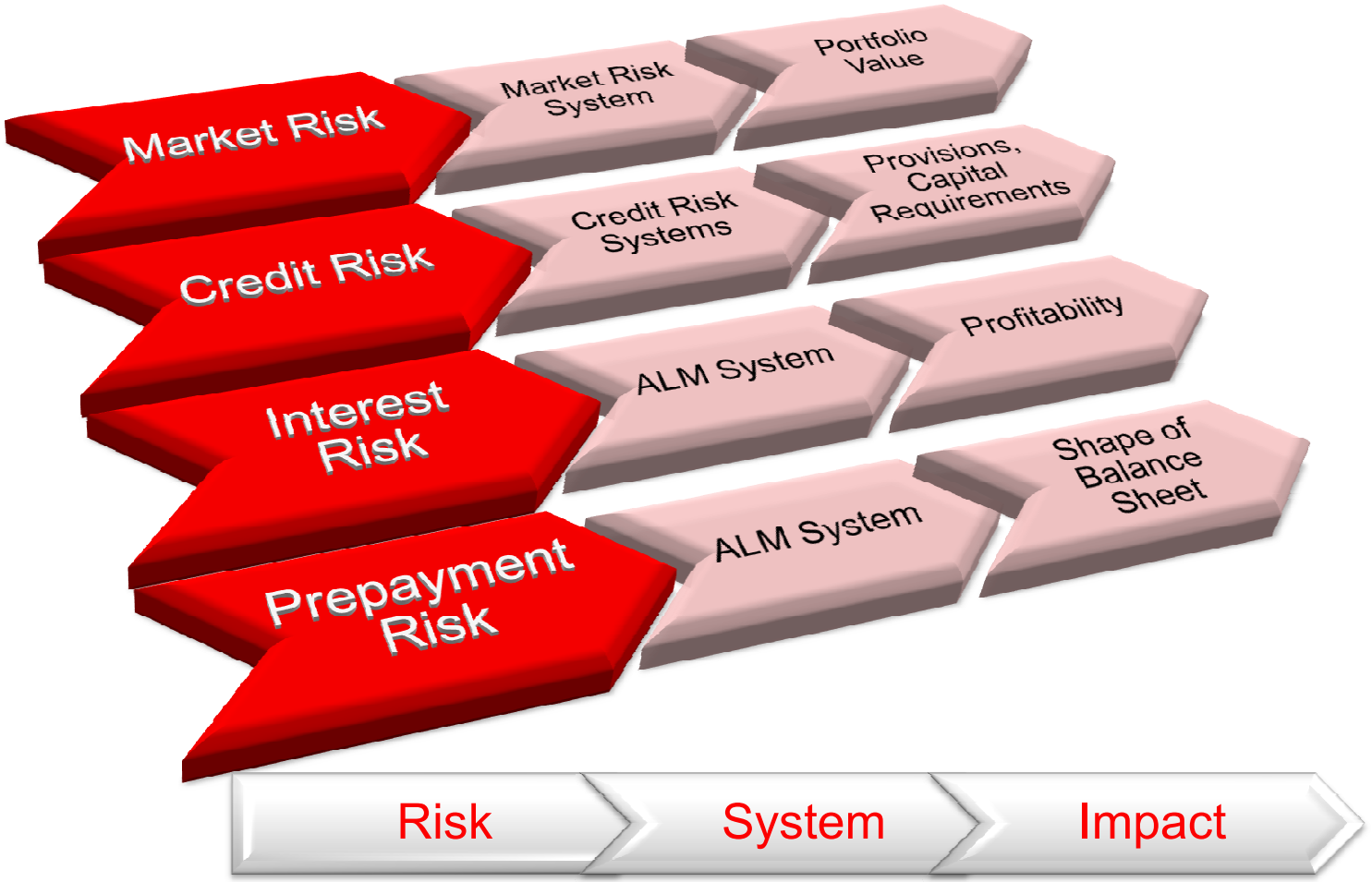
Implementation Challenges - Illustration

If the 2 Years Swap Rate on the Yield curve is stressed by 50bp
The impact would be on the following risk types:



- *Market Risk*: The value of future discounted Cash-flows after 2 years will fall, affecting the value of Fixed Income holdings negatively
- *Default Risk*: Some customers who had taken mortgages might no longer be able to afford their monthly payment and might default.
- *Interest Rate Risk*: The bank will need to fund itself at a higher rate, rates it might not be able to fully charge its customers affecting its Net Interest Income.
- *Prepayment Risk*: Some customers with available cash might decide to prepay their mortgage changing the bank's balance sheet.

Implementation Challenges - Illustration



The Risk of Ineffective Systems and Technology

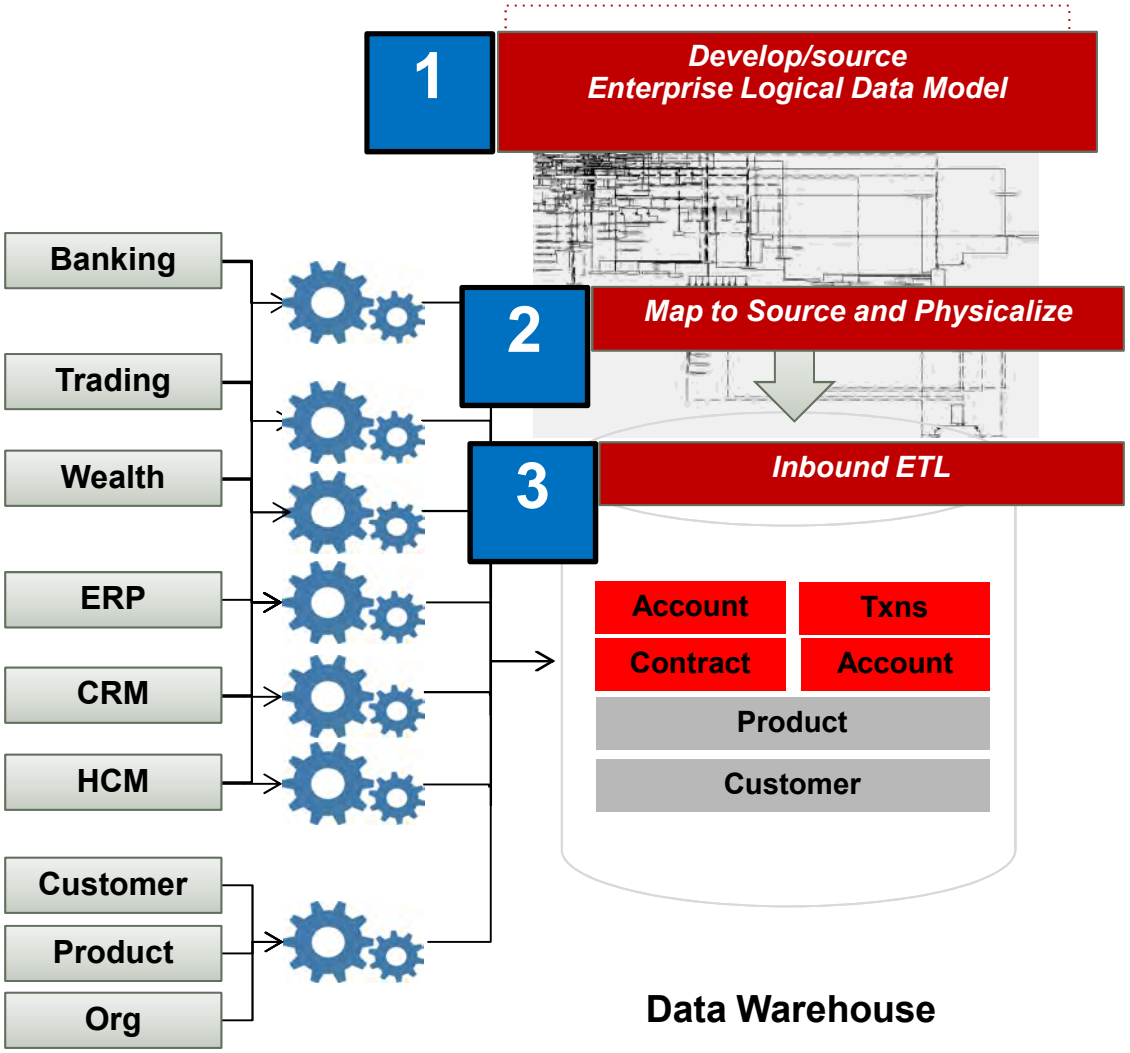
- You won’t see it coming
- You won’t know you’re hit until after everyone else does
- You won’t know how hard you’ve been hit

So what does Effective and Reward look like?

- We need to achieve 2 objectives:
  - Unification of all risk inputs, metrics, models, into a single repository with persistence, granularity and completeness.
  - A common Reference and Meta-data nomenclature and rules set to enforce a common language

Sounds like an EDW then… yes?

Warehouse as a Central Store of all Business Data

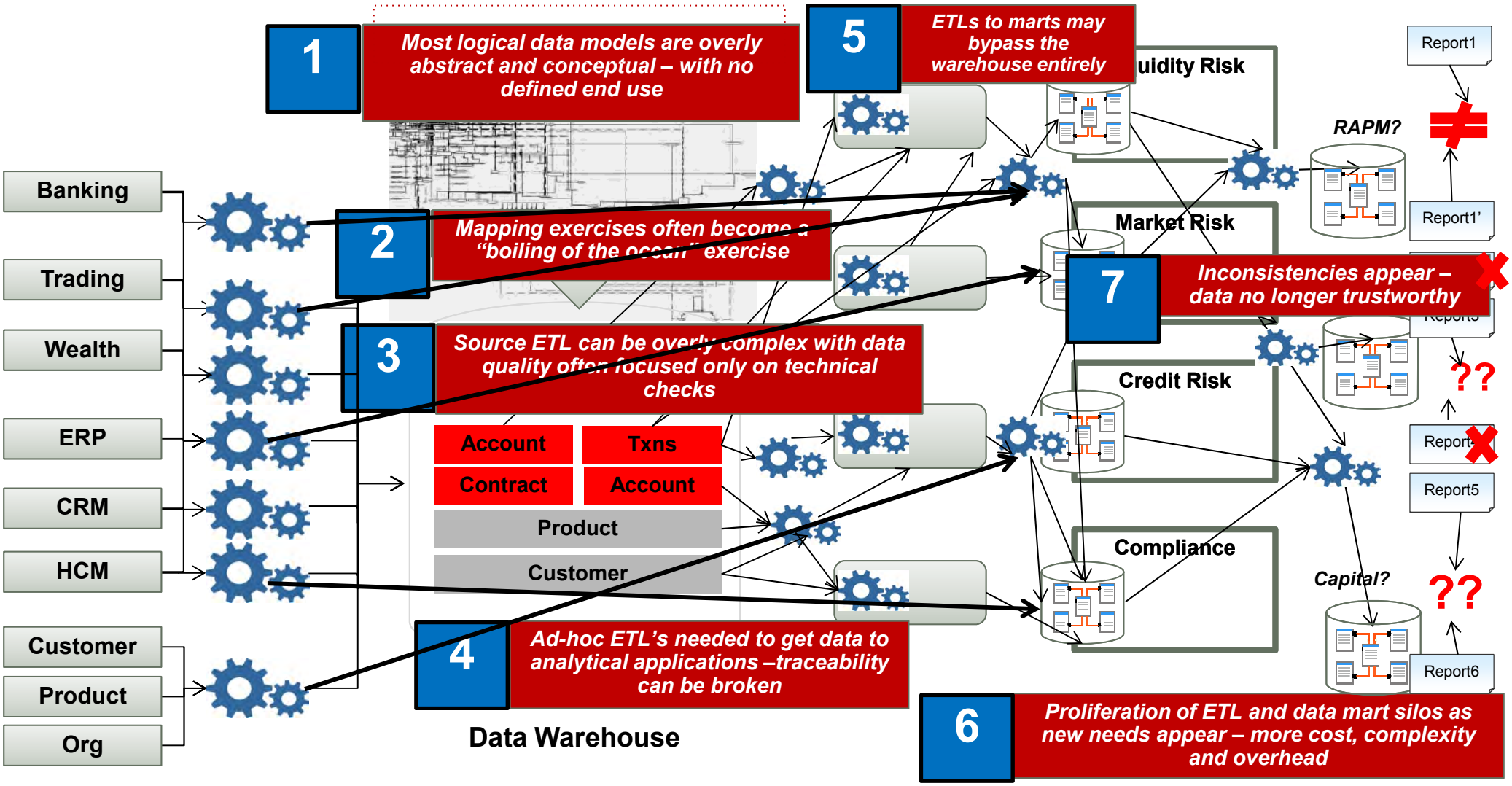


Repeat these steps for each data source or new requirement….

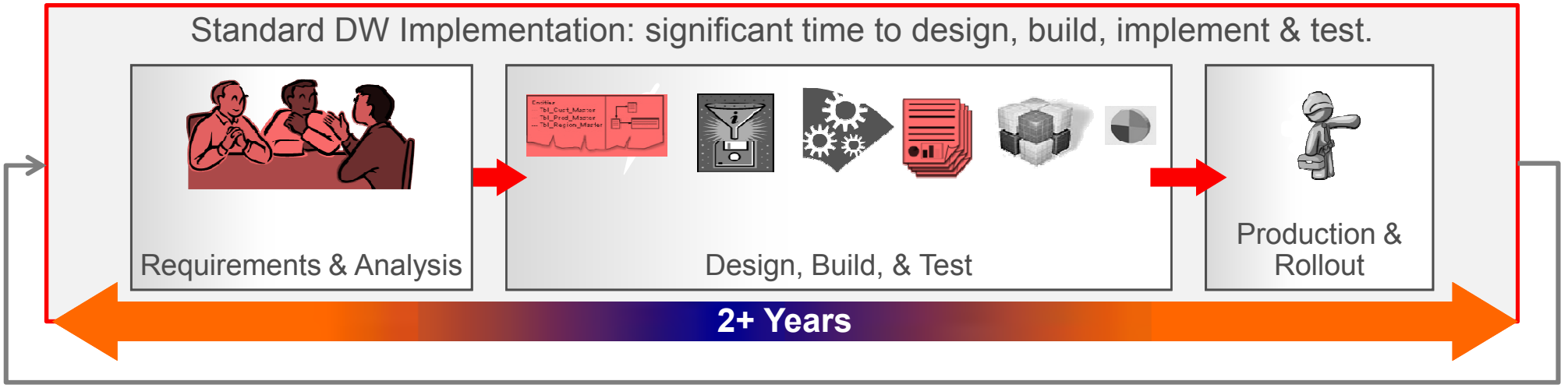
Hardware, middleware, database software, management and administration tools, and supporting software will also need to be acquired and integrated along the way…

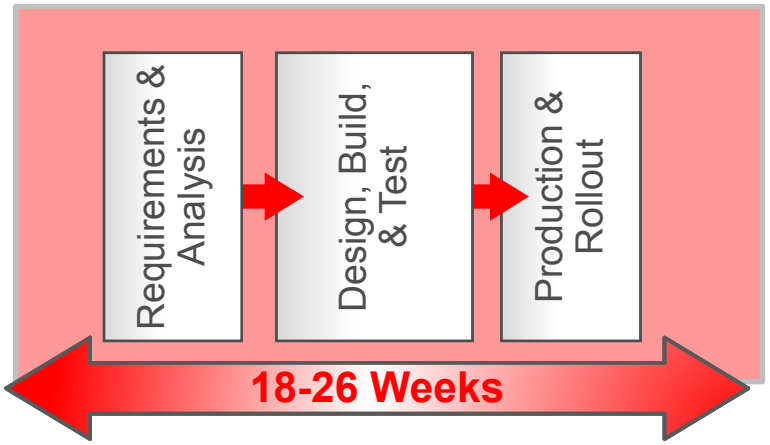
… actually no… sorry about that…

…..that whole 'velocity' thing waits for no one…



EDW – Time & Risk but little reward, efficiency or effectiveness…

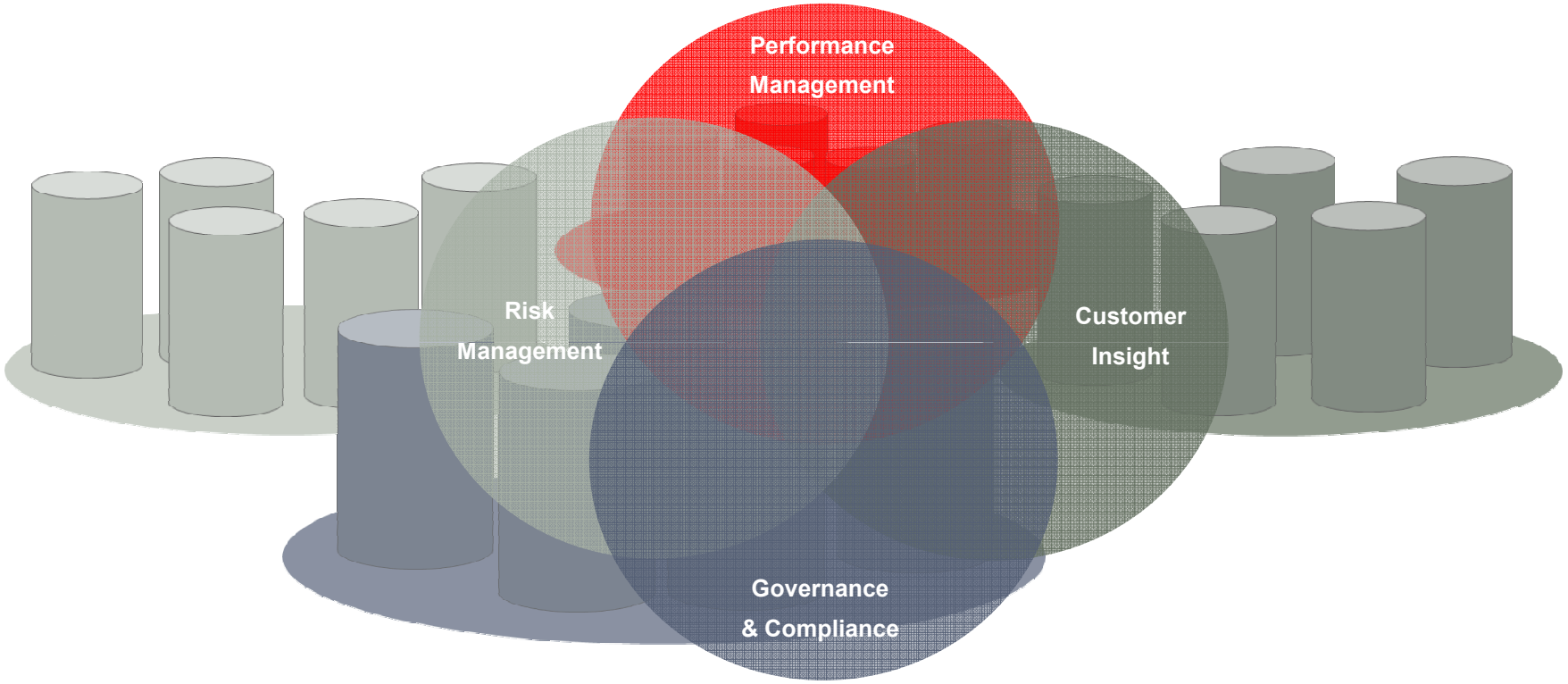




A Unified FSDW:

- **Fully physicalized data layer for Risk, Finance, Compliance & Customer**
- **Fully pre-built, defined and extensive Data Quality Rules and Checks for E-L-T**
- **End-Use Orientated Architecture**

Emergence of the Unified Platform
for Financial Services Institutions



More than integrated… a UNIFIED platform, should be built on common infrastructure, data models, technologies and components… engineered and designed to work together now and into the future…

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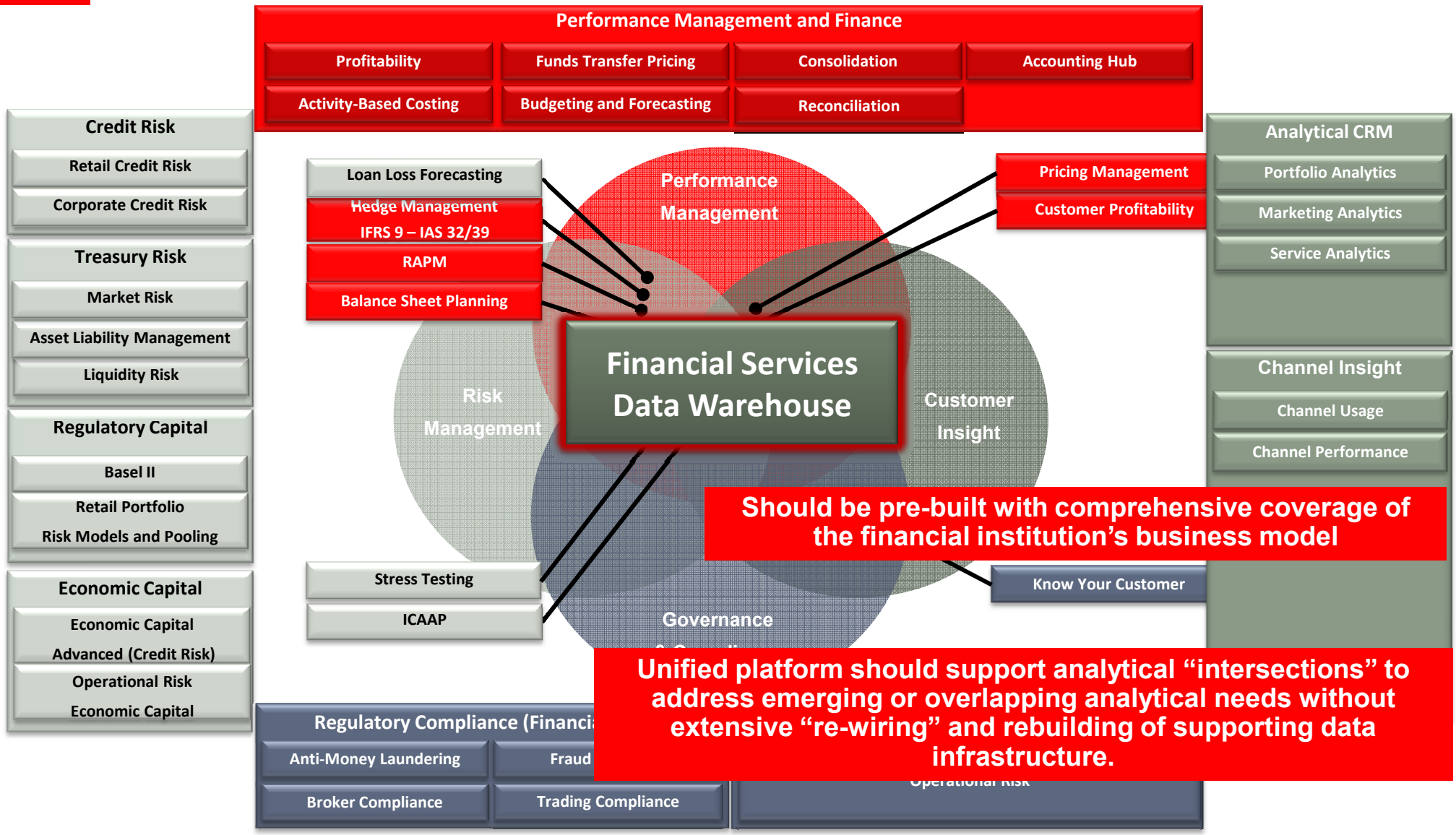
The Warehouse should drive the analytics, the analytics, should run in-warehouse



Should be pre-built with comprehensive coverage of the financial institution's business model

Unified platform should support analytical "intersections" to address emerging or overlapping analytical needs without extensive "re-wiring" and rebuilding of supporting data infrastructure.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