ERM for fintech and disruption

Risk management firms in the era of grand technological promises

The beginnings of risk management were simple ...

1000 years ago

Fire to chase away animals – survival!

1667 – introduction of fire insurance

1960s – fathers of risk management formalises risk management

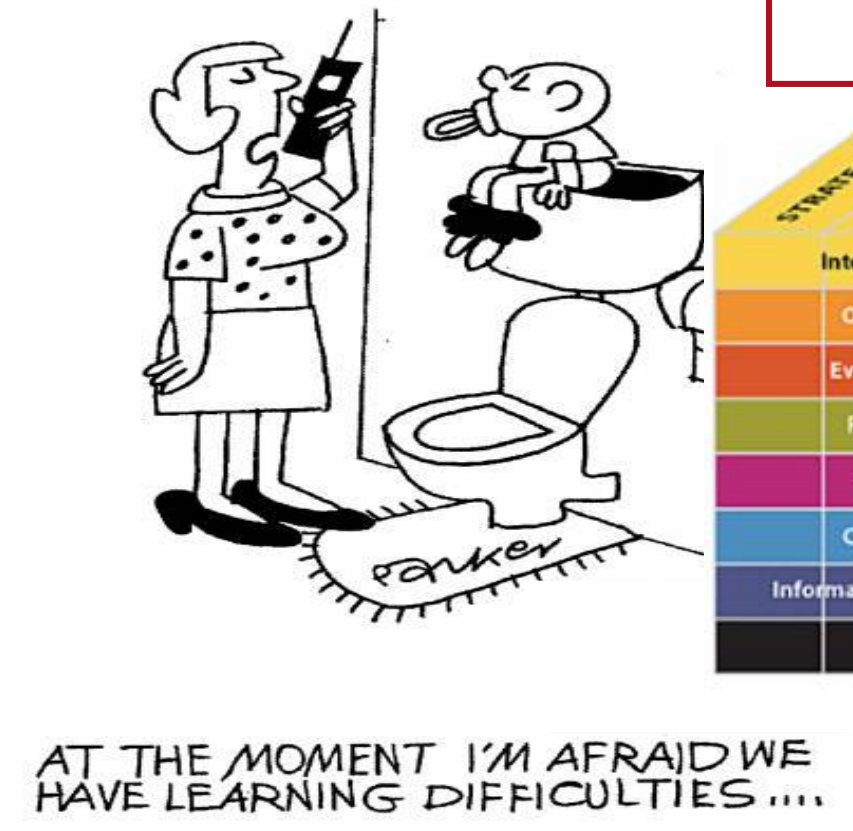
Robert Mehr and Bob Hedges, enumerated the following steps for the risk management process:

- **Identifying loss exposures**
- **Measuring loss exposures**
- **Manage or mitigate**
- **Monitoring results**

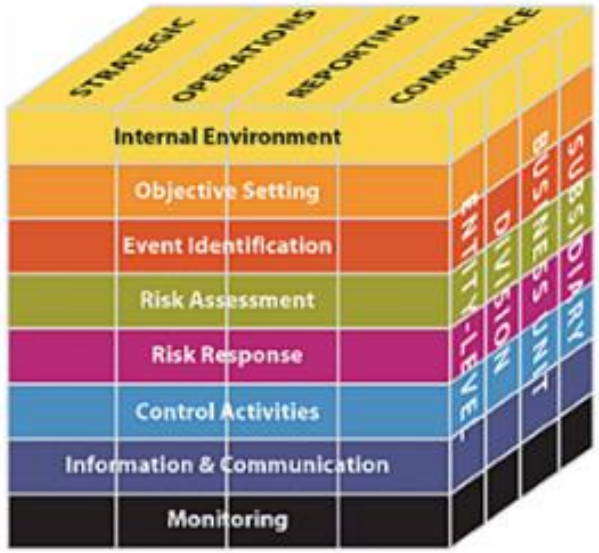
… however ERM has become increasingly complex …

Complex

Complicated



ERM



... and NEW risks are emerging !

Survey by AON:

Top risks to businesses

2007		2020
Damage to brand / reputation	→	Damage to brand / reputation
Business interruption		Economic slow down
Third party liability		Increasing competition
Distribution or supply chain failure		Failure to innovate
Market environment		Cybercrime
Regulatory change risk	→	Regulatory change risk
Failure to attract and retain talent	→	Failure to attract and retain talent
Market risk		Political risks
Physical damage		Commodity price risks
Failure of disaster recovery plan		Disruptive technologies

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Is it needed ?

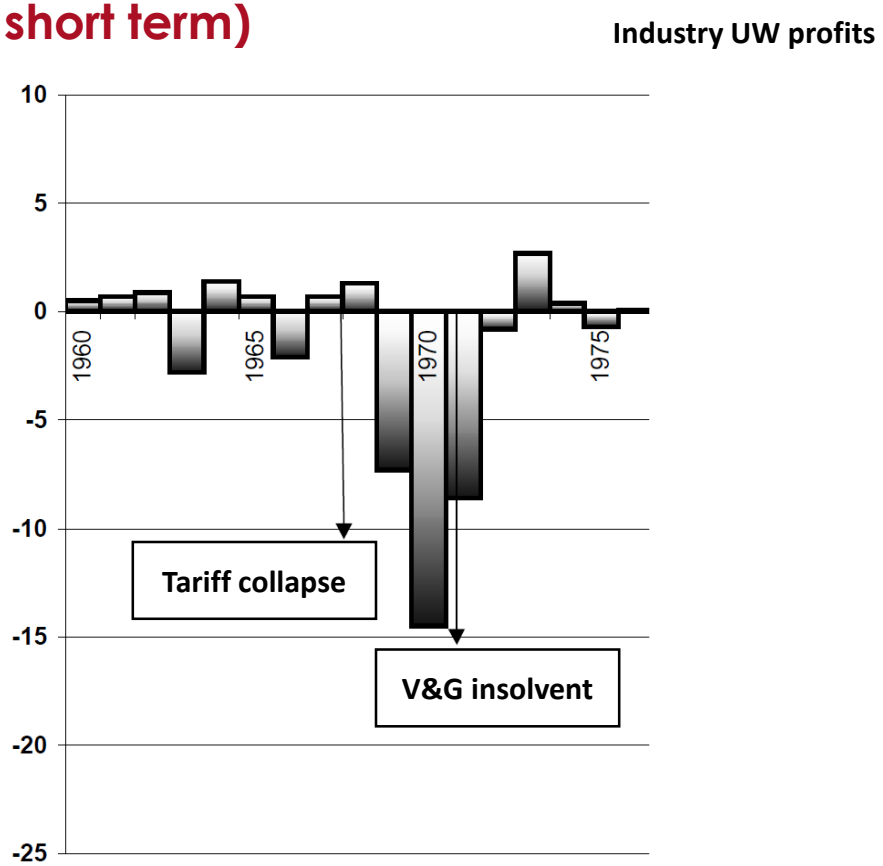
Is it new ?

What can the past teach us ?

So what can the past teach us ?

Innovation sometimes makes everyone worse-off (at least in the short term)

Example 1: Core risks



So what can the past teach us ?

Rapid expansion can leave you vulnerable

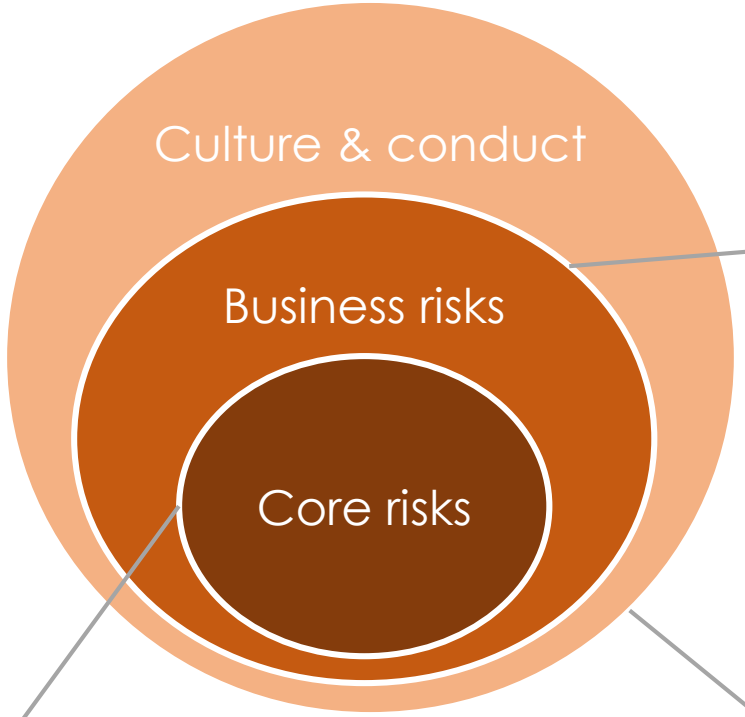
Example 2: Business risks

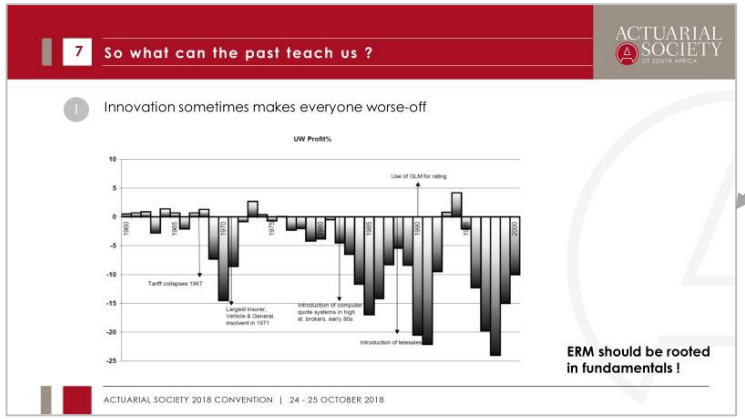
So what can the past teach us ?

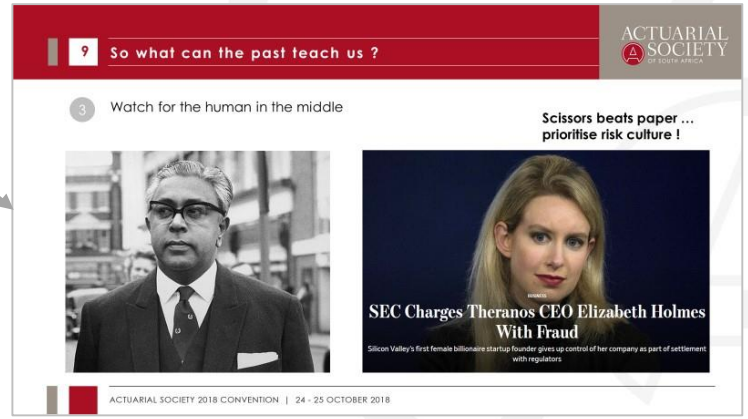
Watch for the human in the middle

Example 3: Risk culture

How can we apply those lessons to the present ?







Core risks ... Nothing to see here

Don't lose sight of the fundamentals

Innovation is the key ...

Some enablers of innovation relevant to insurers

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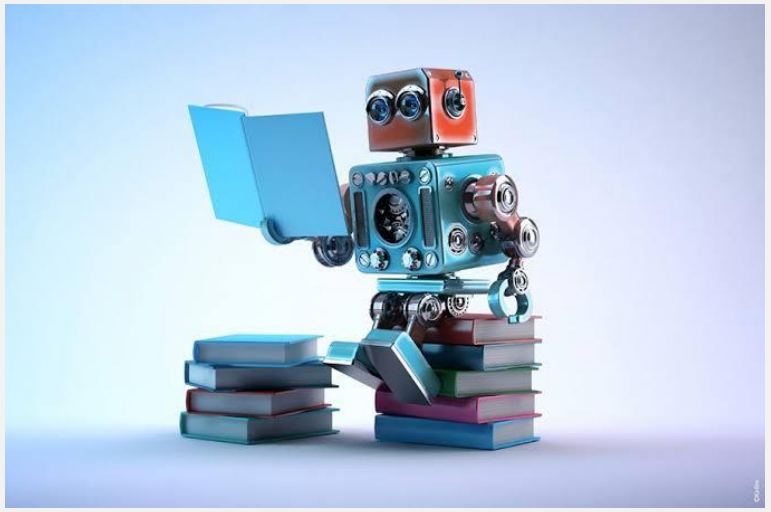
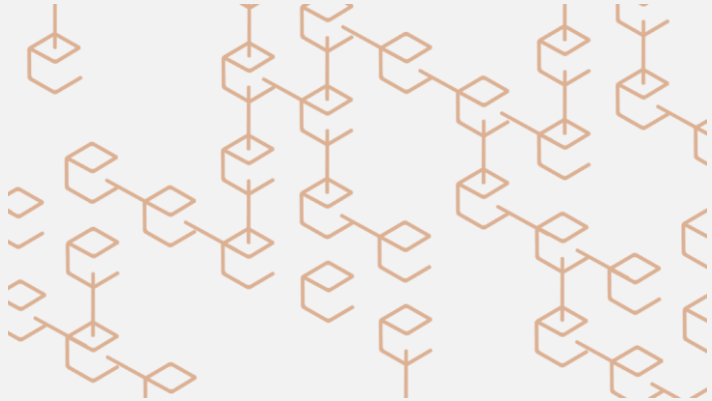
Machine learning / AI

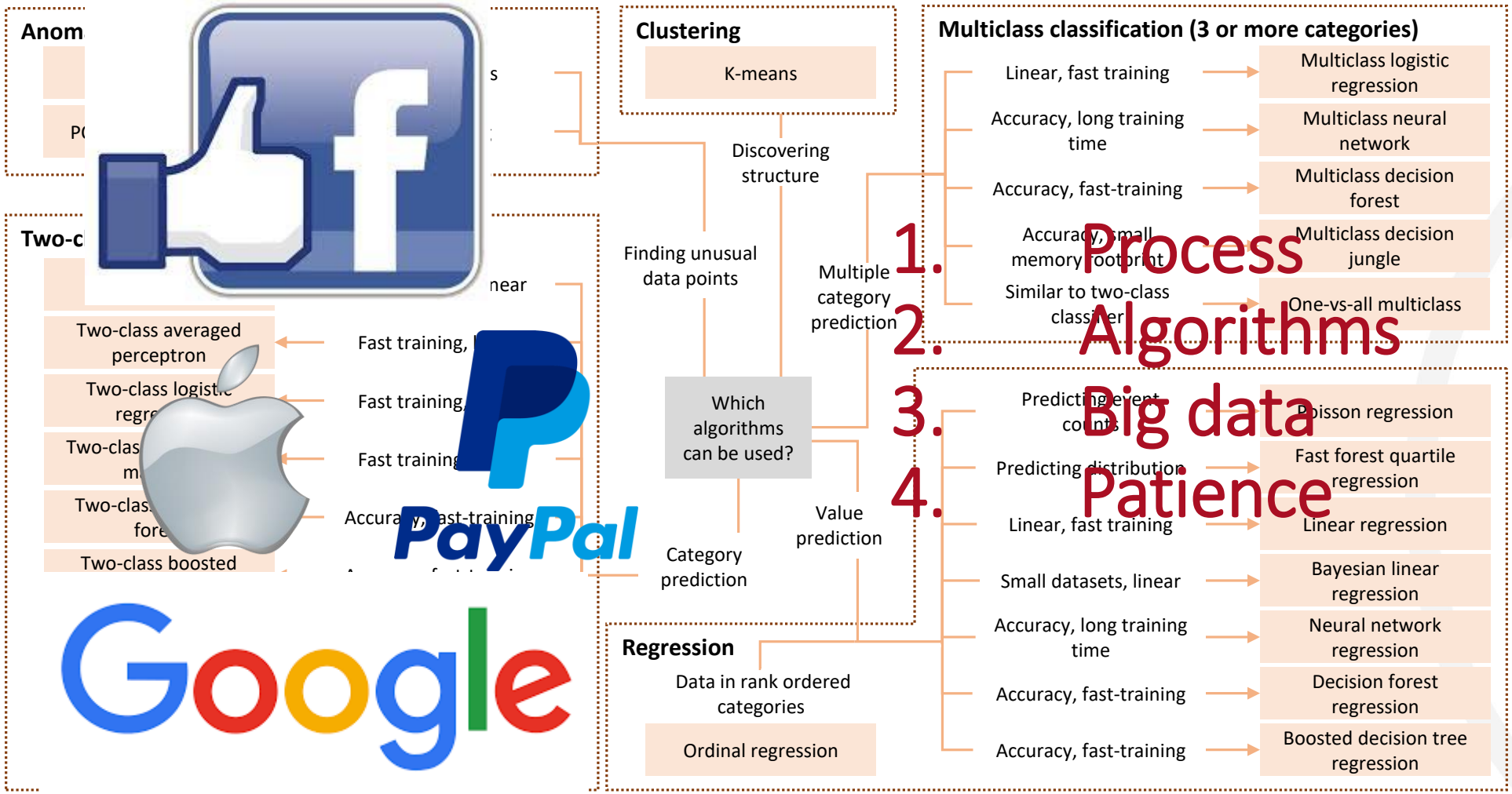


Big data

Blockchain (not cryptos)



Machine learning is great, but which algorithm to use?



Machine learning is great, but how to be sure ?

amazon

Applied to ML/AI models, the validation method used consists of 2 parts –

conceptual validation and performance validation

Big data is not smart data when users are dumb

esma European Securities and Markets Authority

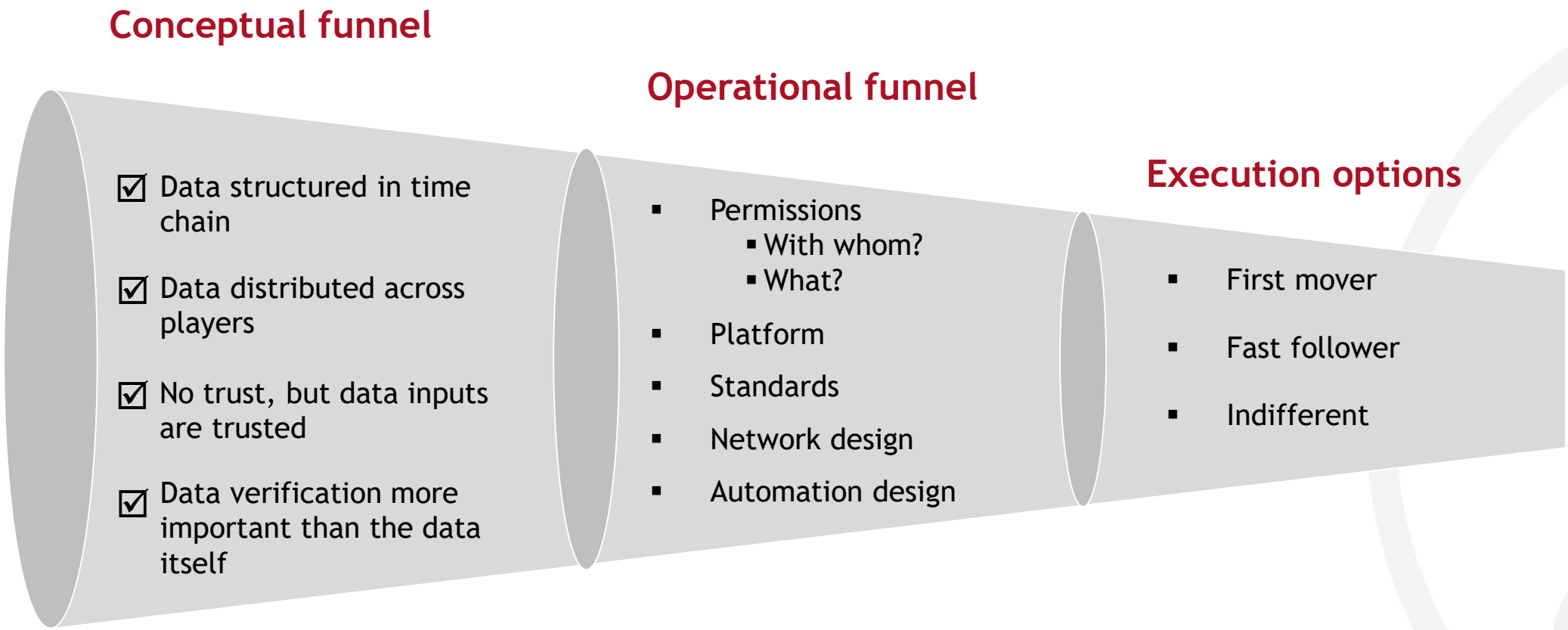
EBA EUROPEAN BANKING AUTHORITY

eiopa EUROPEAN INSURANCE AND OCCUPATIONAL PENSIONS AUTHORITY

3Vs

Volume - Velocity - Variety

When is blockchain really useful?

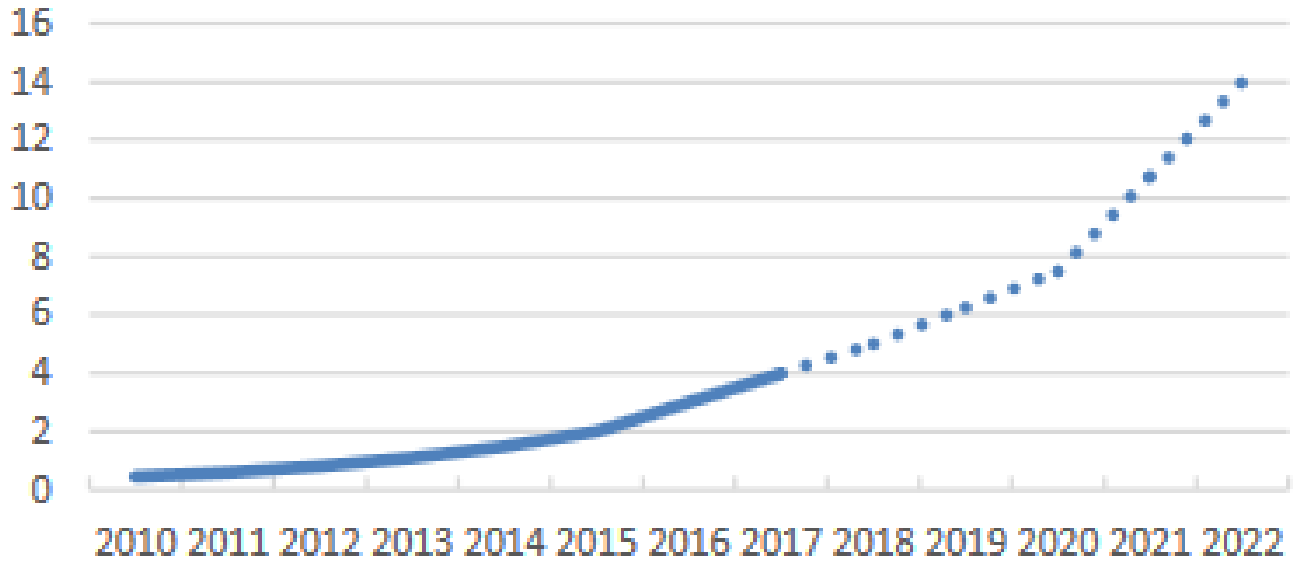


http://banknxt.com/59140/blockchain-right-solution/

Cyber risks are here...

Risk = opportunity for insurers

Underwriting cyber risk is becoming a big business!



Cyber risk gross written premiums (USD)

Underwriting cyber risk comes with its own challenges

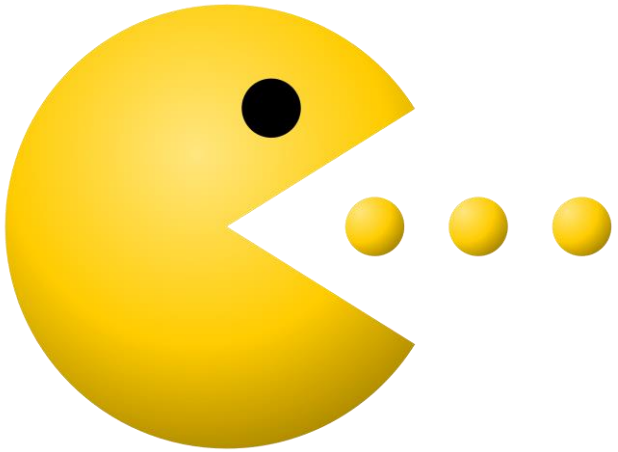
1. Patchy historical data makes pricing tricky
2. And, the policy terms for cover are at their infancy

Source: Allianz SE, Allied Market Research, IIF

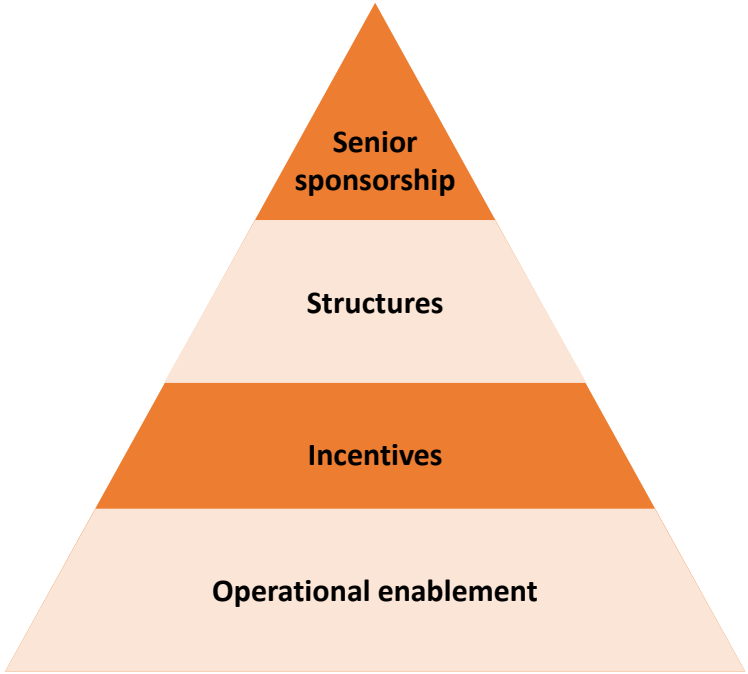
‘Changing culture’ is a great phrase

“Culture eats strategy for breakfast” ….

Peter Drucker

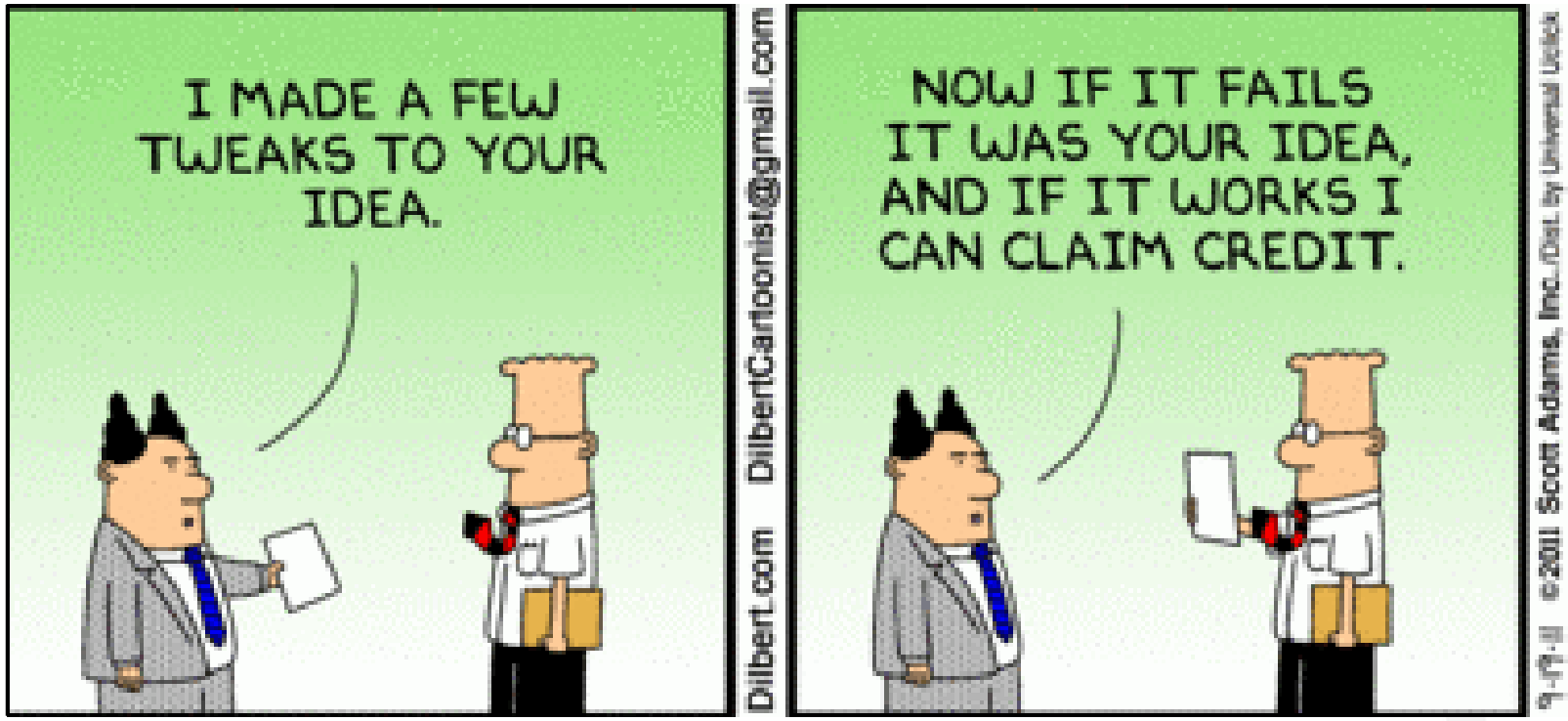


… But how do you manage it? …



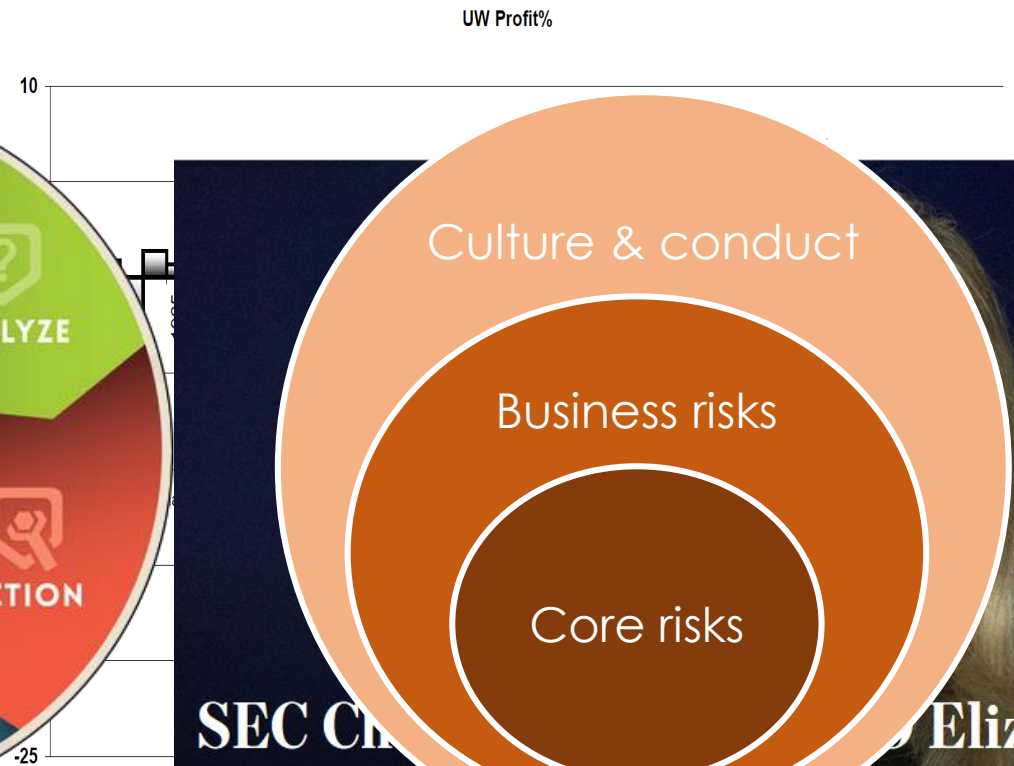
… and what is a good culture

Even more so for incumbents...



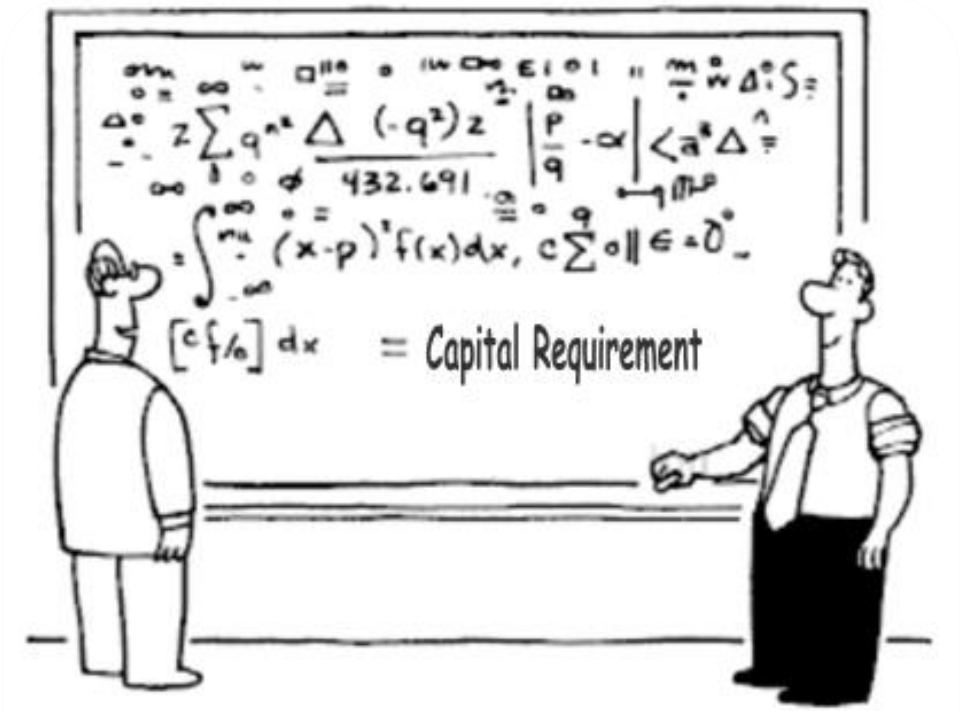
The right culture is harder to buy than ideas and technology

Fundamentally our ERM approach doesn't change



So fear not... back to ERM as usual

Any questions?



"Now that's what I call an improved Capital Framework!"