



Alpbach European Forum 2002

“Zest for Enlightenment”

Valuing Intellectual Assets

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Agenda

- Intangible assets
- COD-VERB
- Valuation approaches
 - information theory
 - risk/reward options
 - critical sets
- Issues
- Synthesis





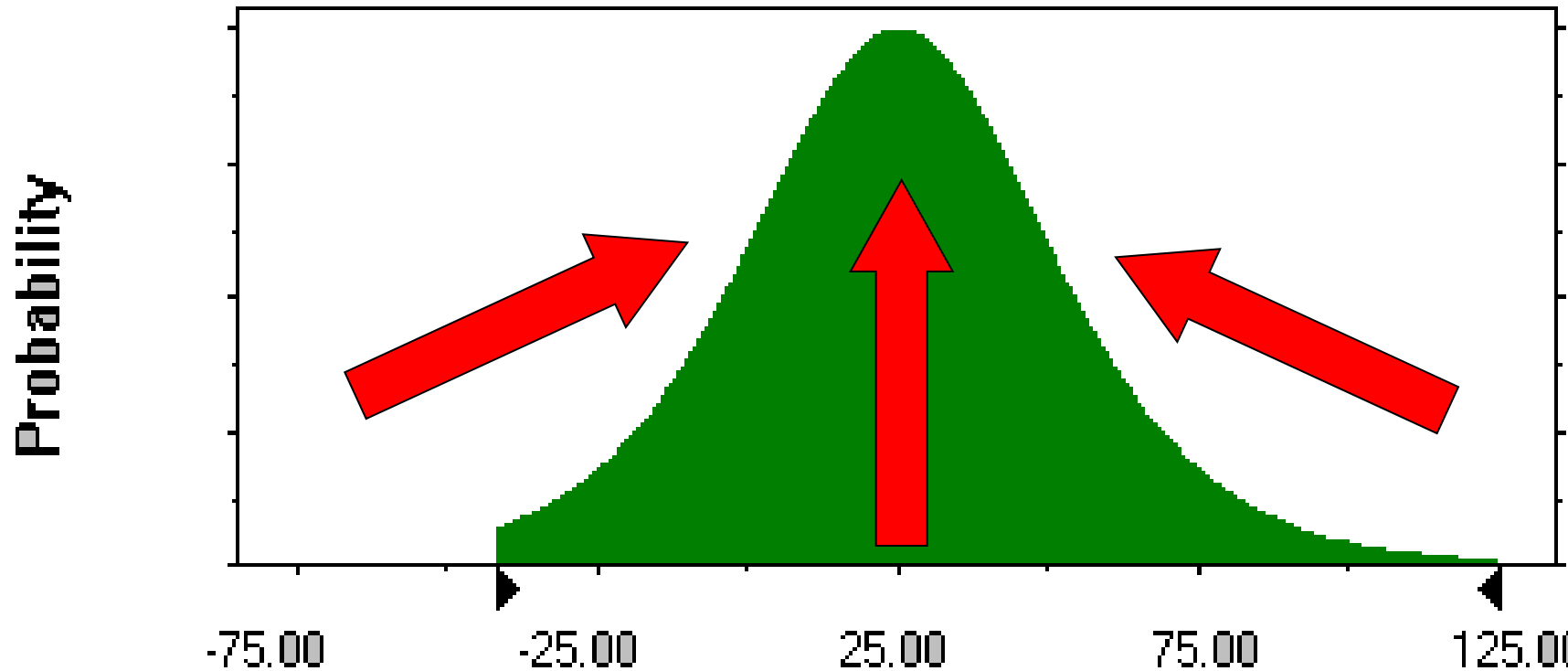
What is Z/Yen?

- Risk/Reward Managers
- Improve organisational performance through better choices
- Clients – finance, technology, not-for-profit, business services
- Work – strategy, systems, people intelligence, investment
- Results – Financial Laboratory, stochastic perception engines, NGO measures, ventures fund

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Risk/Reward Management?



*“Errors using inadequate data are much less than those using no data at all.”
Charles Babbage*

Intangible Assets

- “We are a knowledge company...”
- “Our brand is everything...”
- “People are our greatest asset...”
- “Our storehouse of intellectual property is unrivalled...”

Intangible asset value =
market valuation - tangible asset value





Red Rag to Accountants

- Cost – money spent acquiring and maintaining
- Ownership – clear title
- Disclosure – important to external world
- Value – ability to confirm and replicate valuation through structured methodology and/or benchmarking
- Existence – evidence of scale and activity
- Responsibility – people who know and maintain
- Benefit – ability to estimate measurable value from ownership



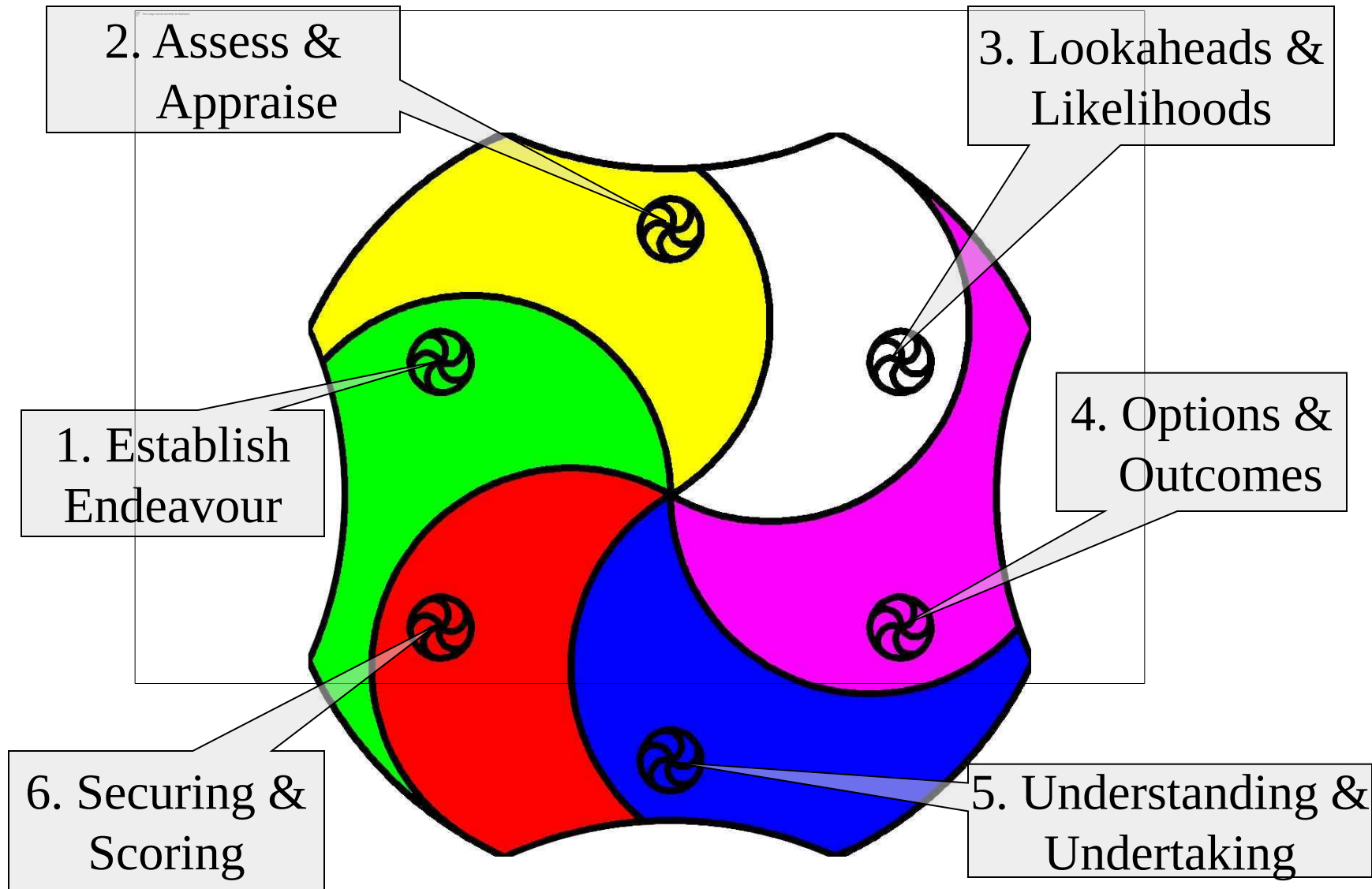
COD-VERB

- Measurement of intangible assets is crucial to managing them
- Structured methods of measurement in their infancy
- Benchmarking difficult
- Ways forward:
 - information theory
 - risk/reward options
 - critical sets



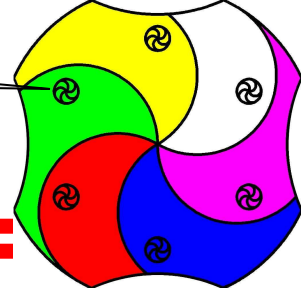


Z/EALOUS Risk/Reward Methodology

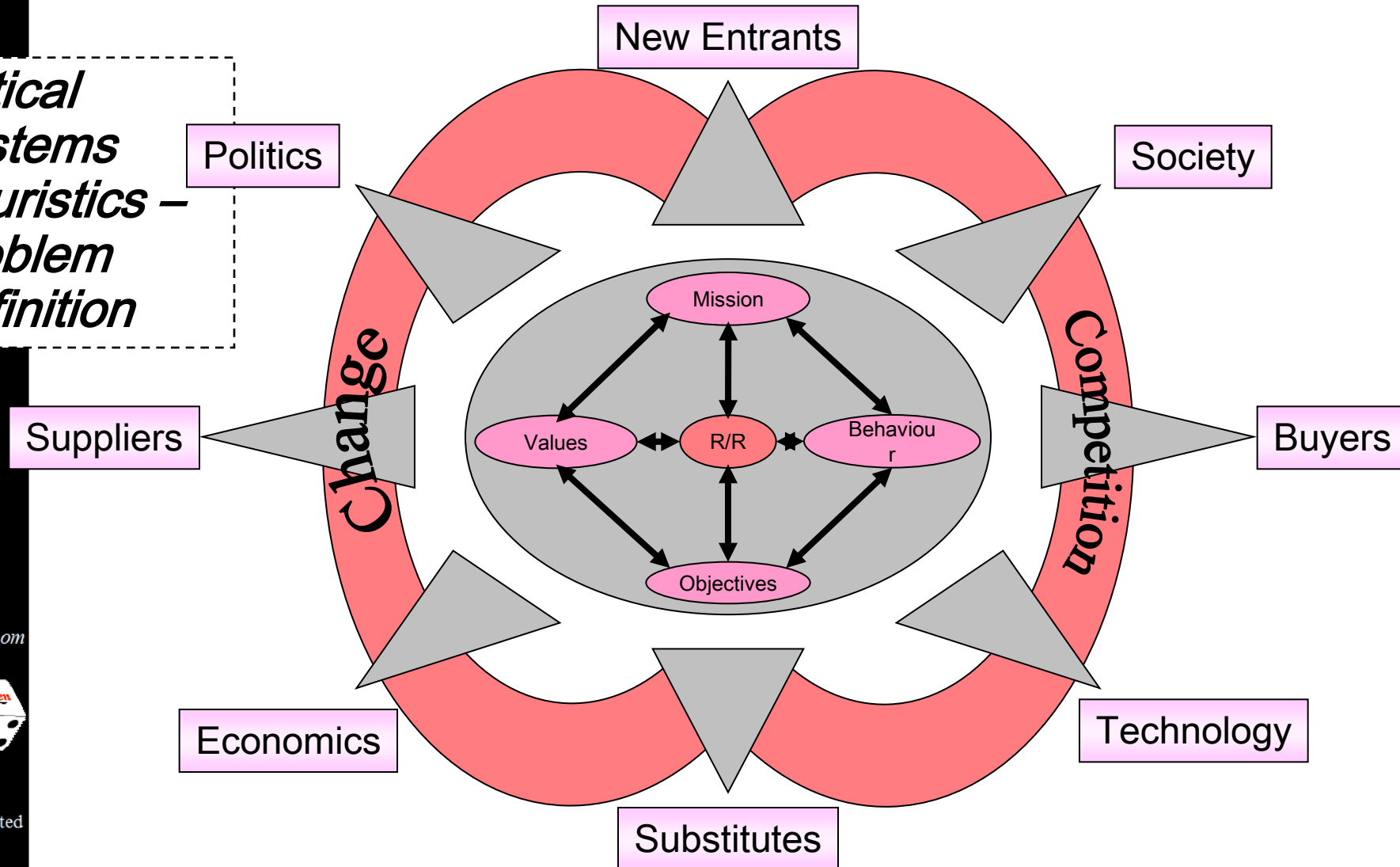




1. Establish Endeavour



*Critical
Systems
Heuristics –
Problem
Definition*





Information Theory

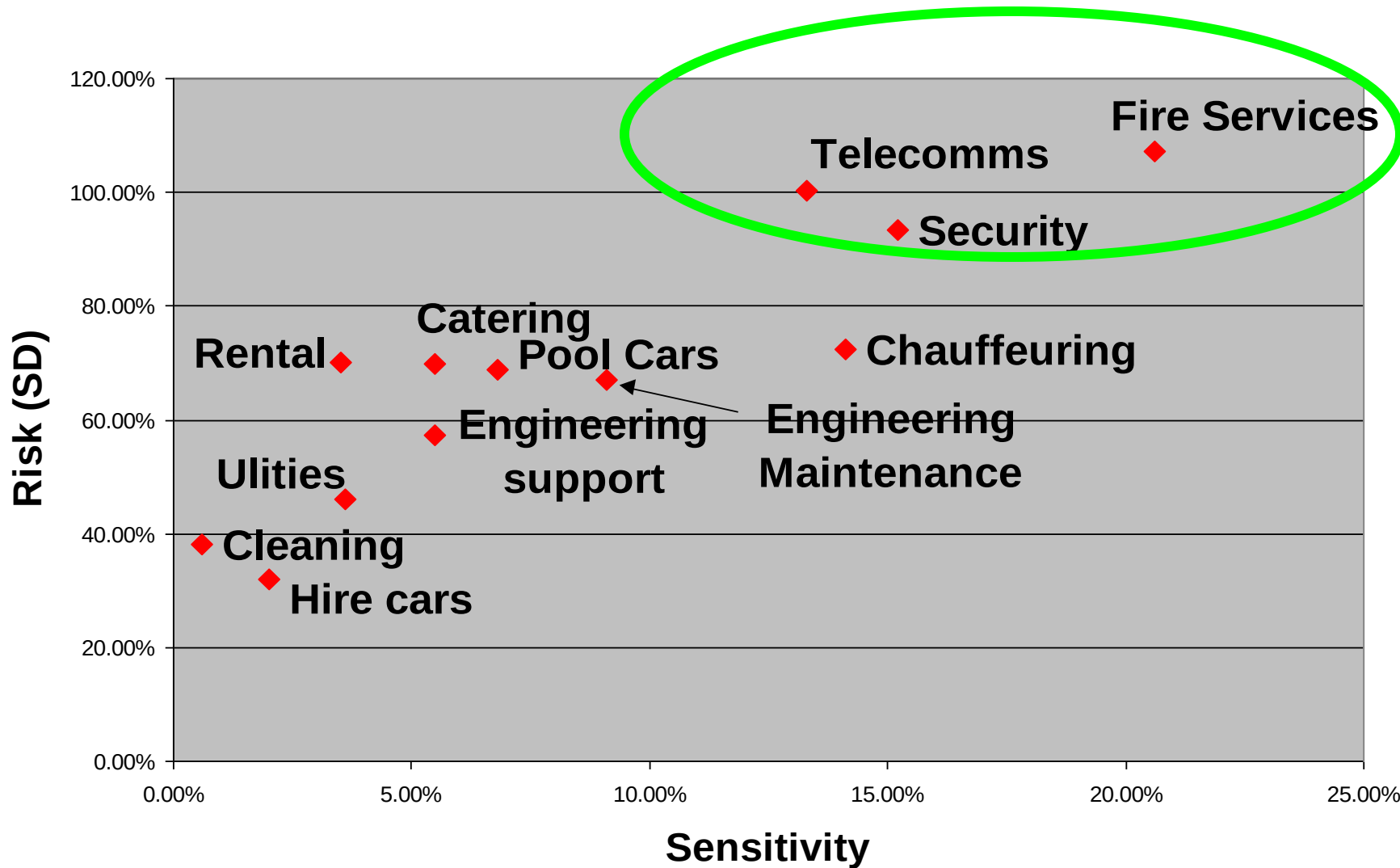
- Quantity increases with volatility
- Quantity does not equal value

“Quantity has a quality all of its own”



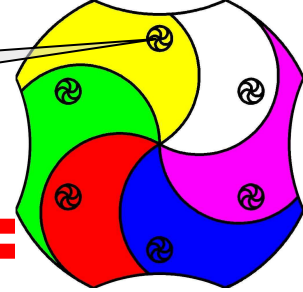


Risk and Sensitivity





2. Assess & Appraise



Risk/Reward Analysis

(enhance, keep,
sell, forego)

REWARD

High

Low

Information



Disinformation

Exploit	Strategic Decisions
Key Assumptions	Defend, Destabilise, Exit

Low

High

RISK

“First, get the facts,
then you can distort
them at your leisure.”

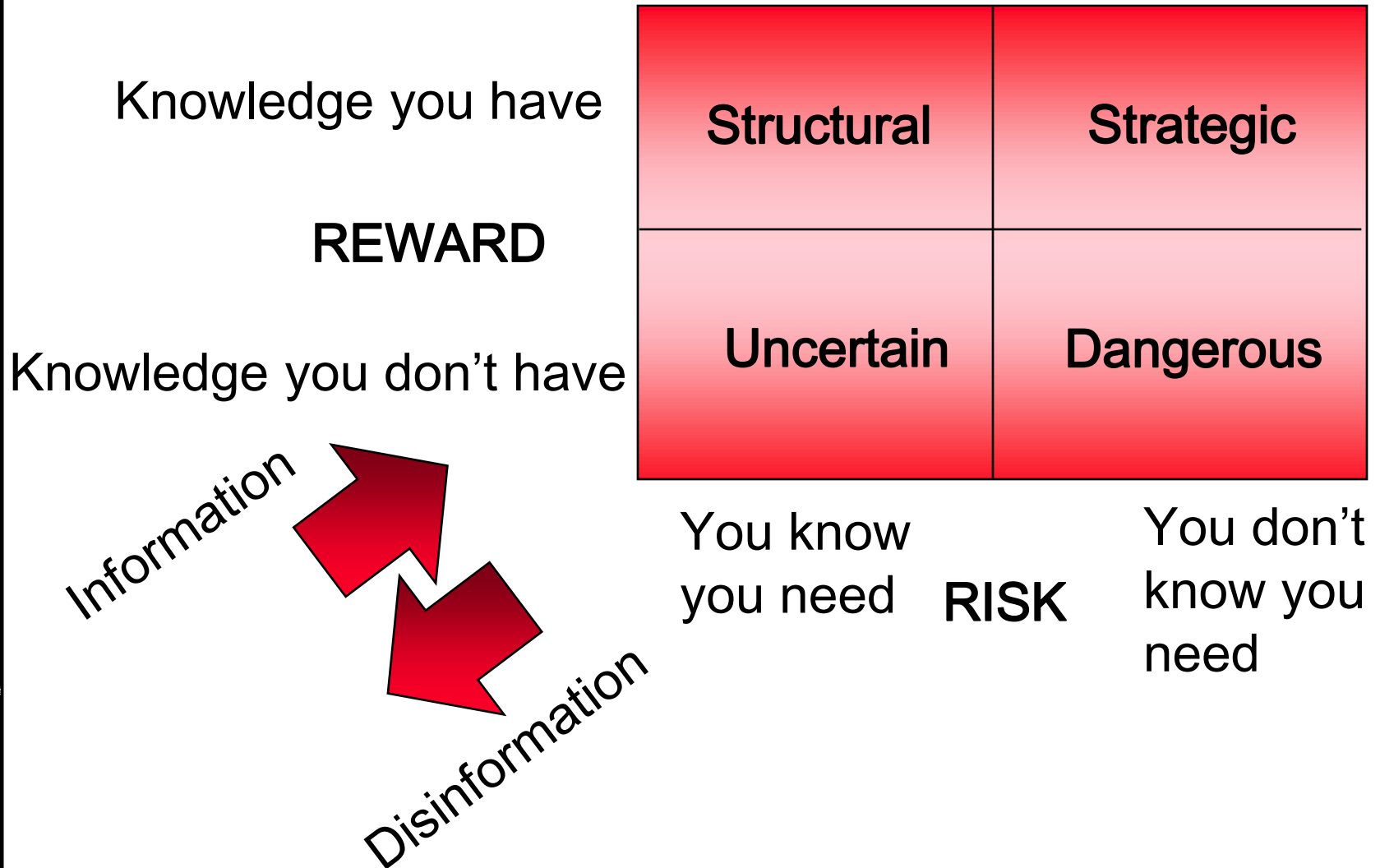
Mark Twain

(avoid/eliminate,
pool/share/transfer,
mitigate/reduce, accept)



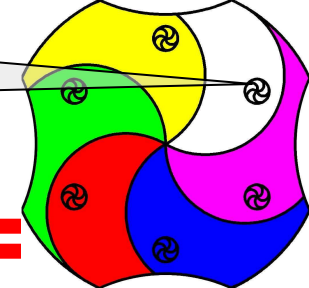


Knowledge Framework





3. Lookaheads & Likelihoods



Microsoft Excel - B-Occ and sup (£ per m2)

File Edit View Insert Format Tools Data Window Cell Run Help



H6 = 7857235.2

	A	B	C	D	E	F	G	H
1	TOTAL BUILDING OCCUPANCY COSTS							
2		COMPANY B						
3		1	2	3	4	5	6	Total
4	Cleaning	357,590	200,000	148,000	310,337	147,557	51,659	1,124,034
5	Utilities	2,515,502	1,393,668	1,026,824				
6	Engineering Maintenance	2,248,968	2,418,464	1,203,016				
7	Security	2,220,000	1,752,192	2,008,000				
8	Fire Services	545,600	771,400	544,000				
9	Total Building Occupancy £	7,887,659	6,535,724	4,929,840				

Cell H6: Lognormal Distribution

Assumption Name: B - Engineering Maint



Cell H6: Lognormal Distribution

Assumption Name: B - Engineering Maintenance £'s



6,122,303 7,095,768 8,069,233 9,042,698 10,016,163

7,000,000

10,000,000

Mean 7,857,235

Std Dev 645,722

OK

Cancel

Enter

Gallery

Correlate...

Help

Stochastic Approaches

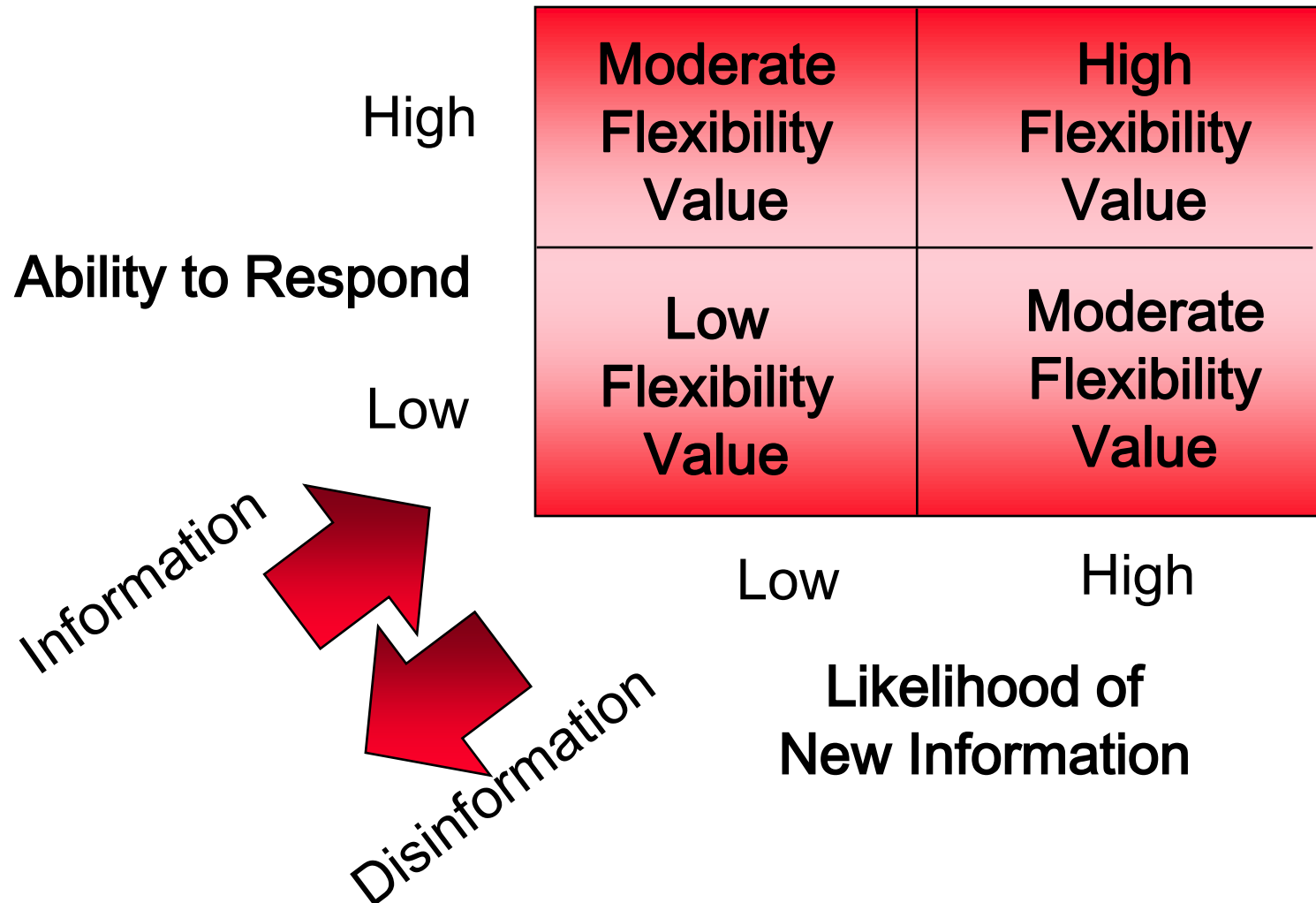
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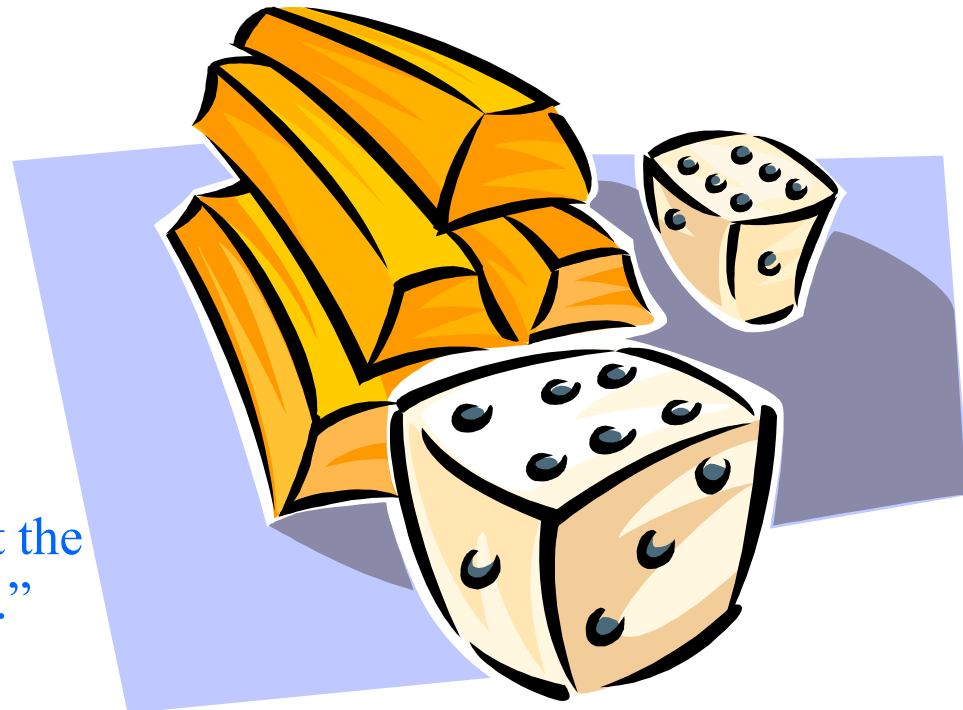
“96.37% of all statistics are made up.”
Kevin D. Quitt

Value of Flexibility



Risk/Reward Options

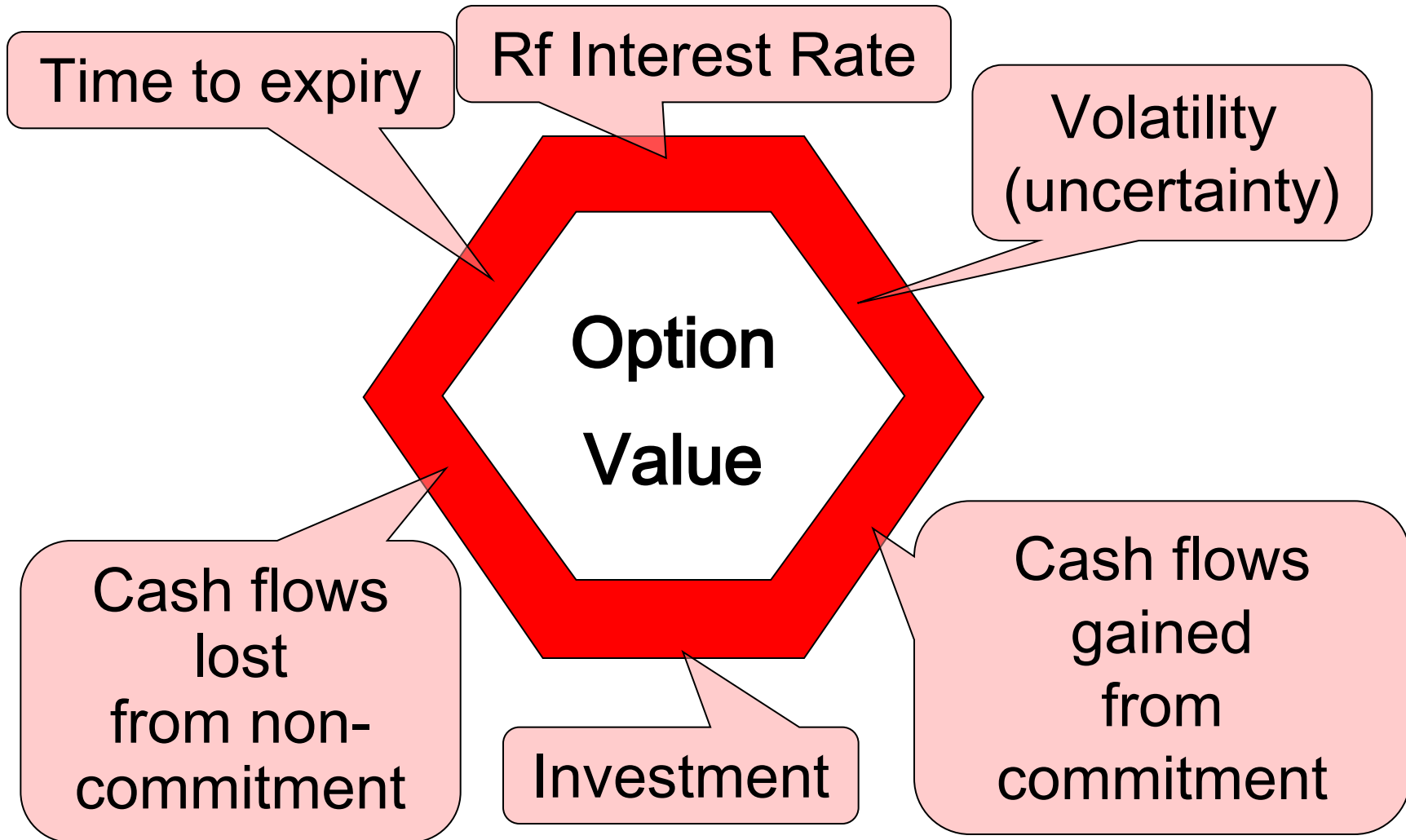
- Rigorous financial approach
- Start with basic Black-Scholes equation
- Integrates with capital financing measures



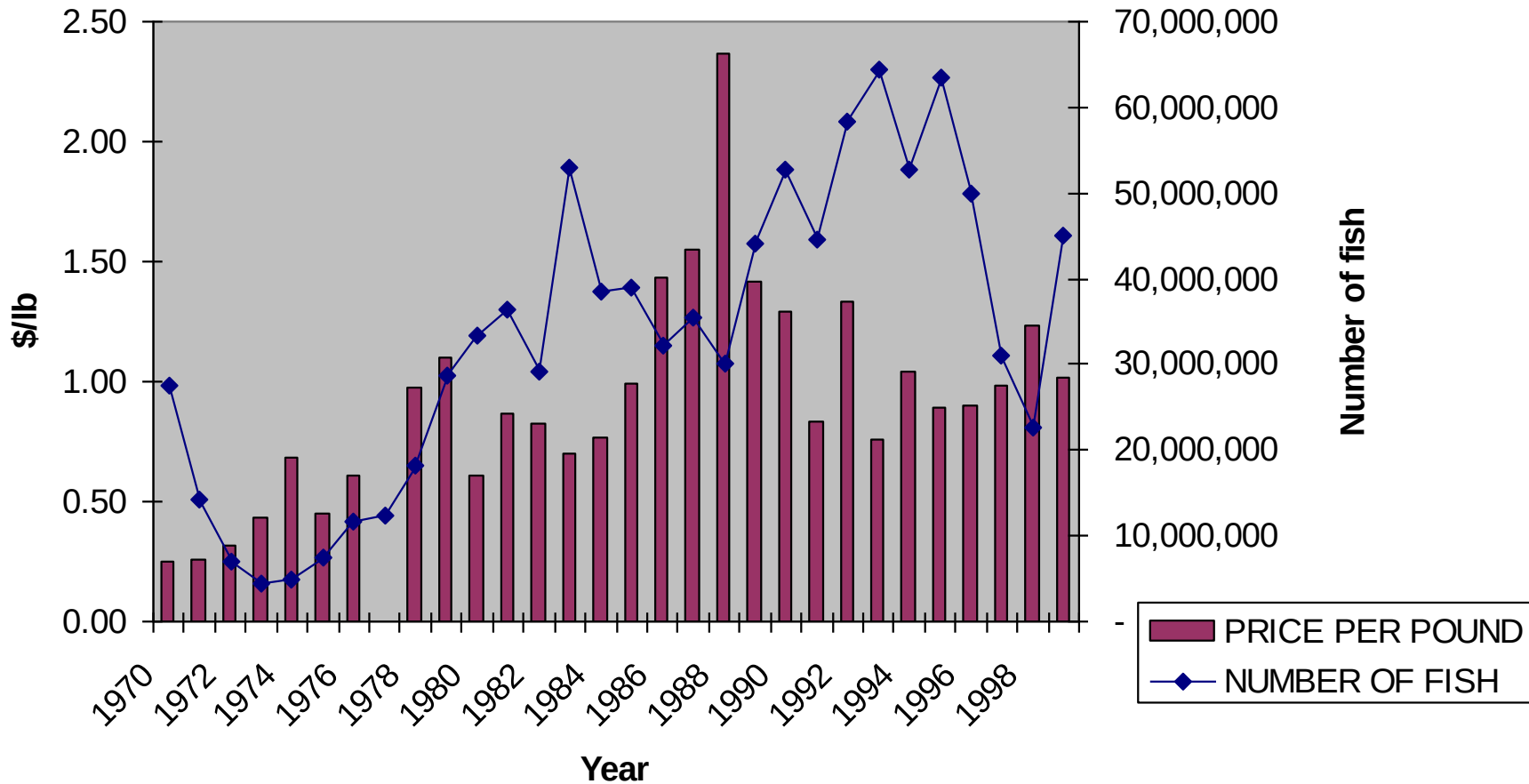
“The purpose of models is not to fit the data but to sharpen the questions.”

Samuel Karlin

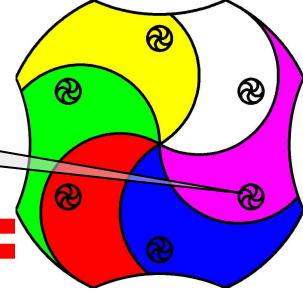
Value of Volatility



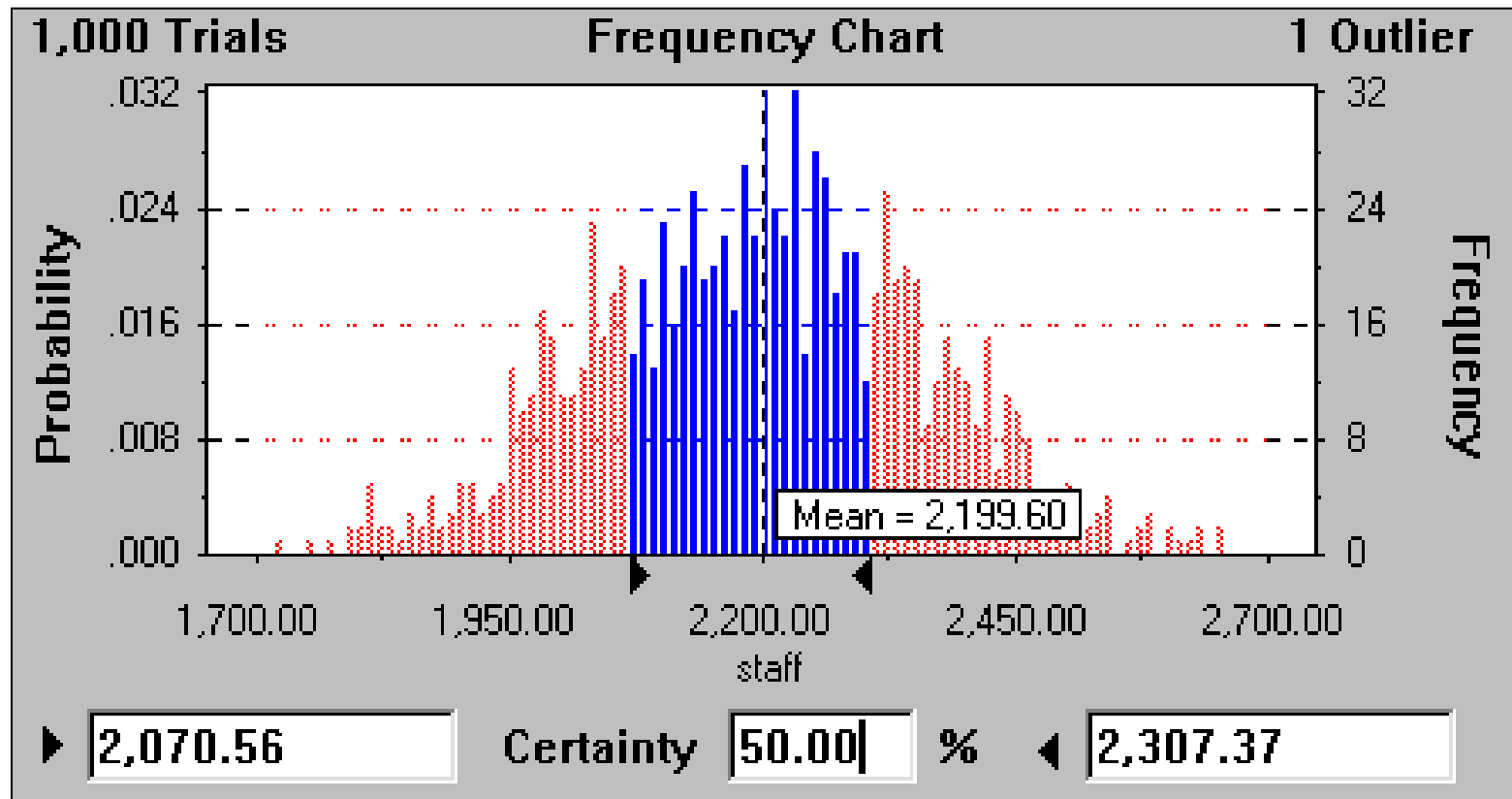
e.g., Sockeye Salmon



4. Options & Outcomes



*Qualitative – Prospect Theory;
Quantitative – Risk/Reward Options*

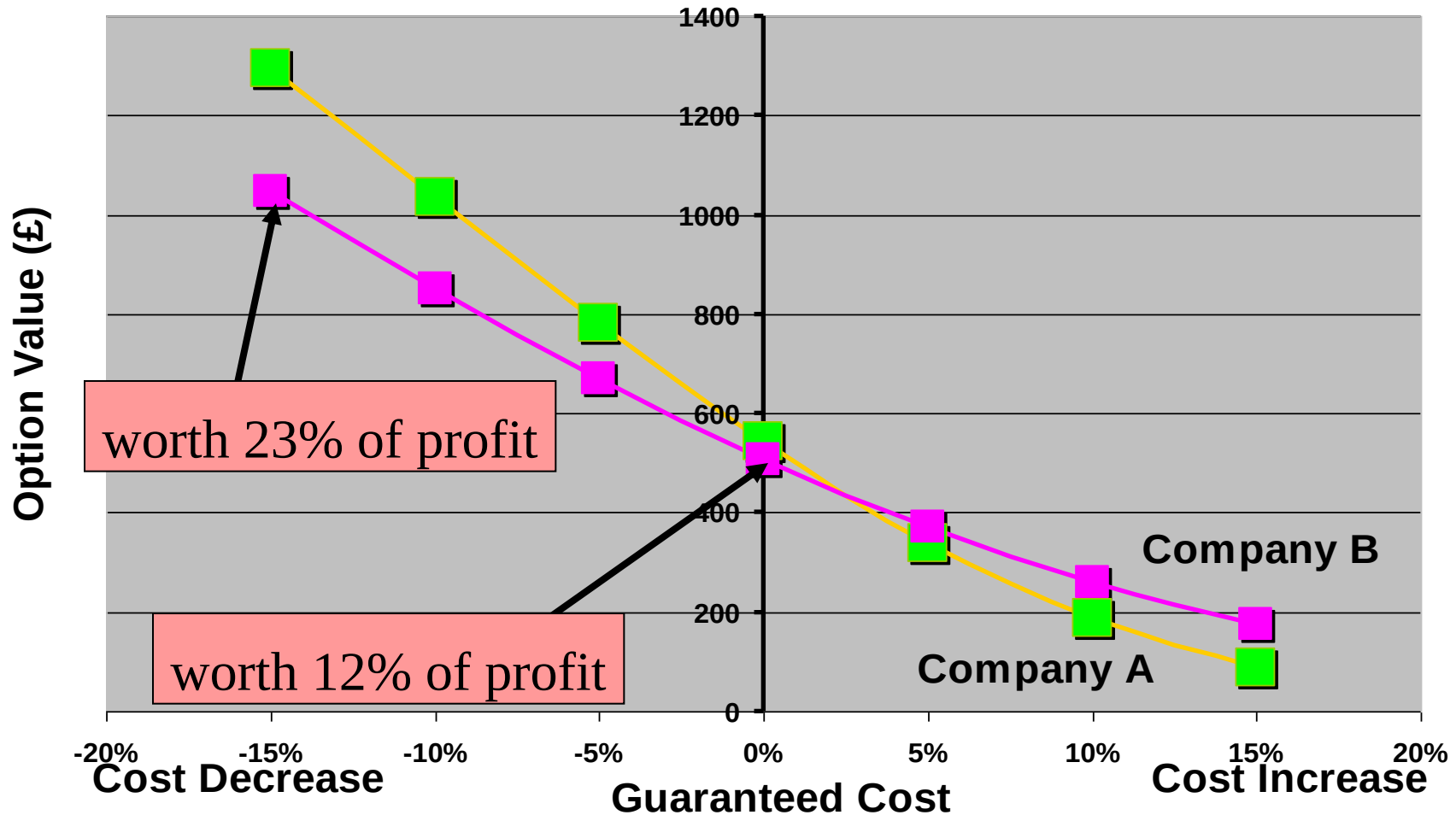


“Perfect numbers like perfect men are very rare.”

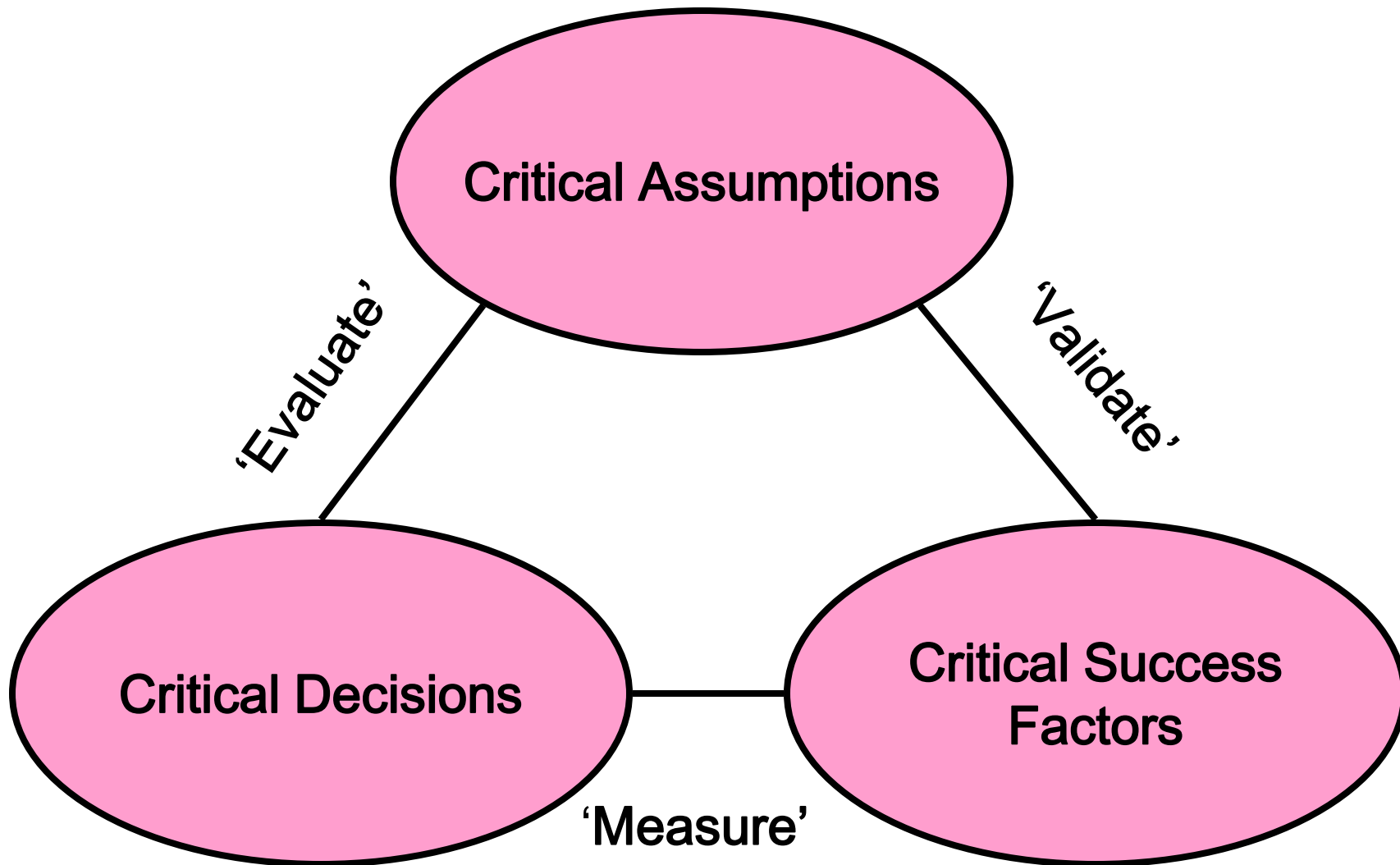
René Descartes



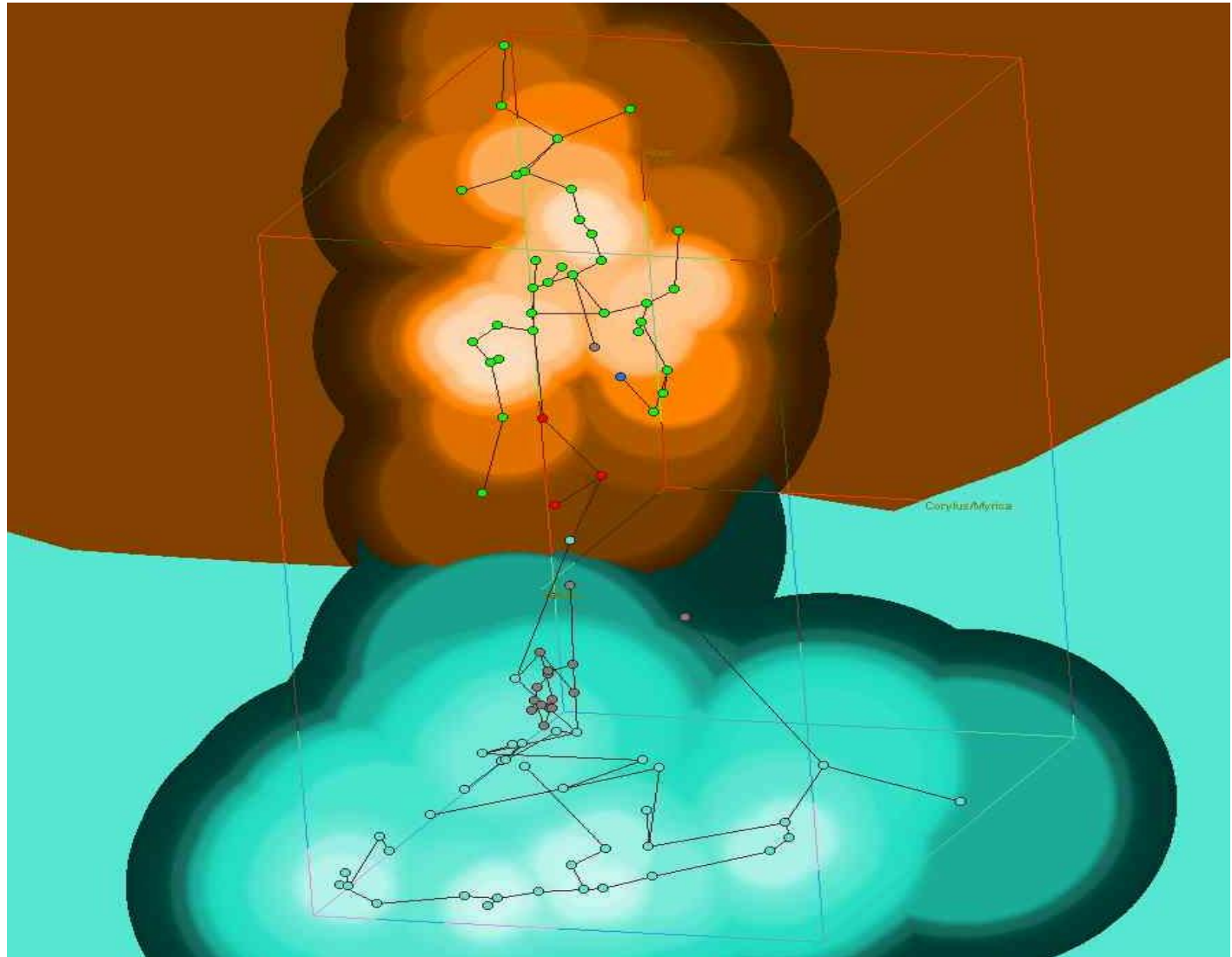
Valuing Volatility



Critical Sets



New Patterns & Anomalies



Not So Simple...For Another Day

- Reconciling non-quantifiable risks and information
- Volatility with decisions, but stability with assumptions
- Setting knowledge value-added management measures which combine:



complexity
AND
simplicity

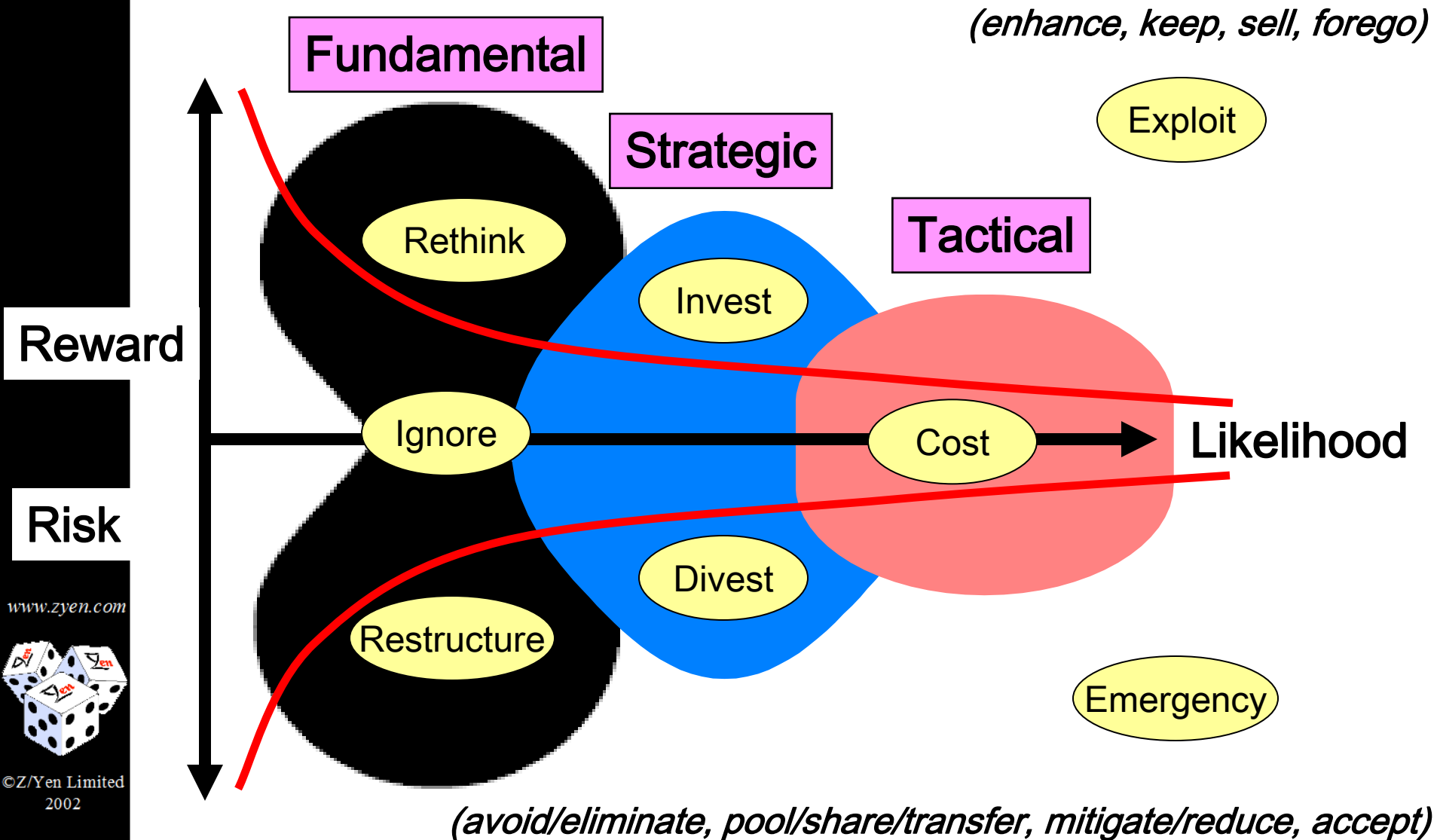


“The future will be better tomorrow.”

Dan Quayle



Synthesis





Enhance your organisation through a richer appreciation of risk and reward!



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