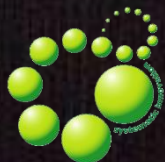
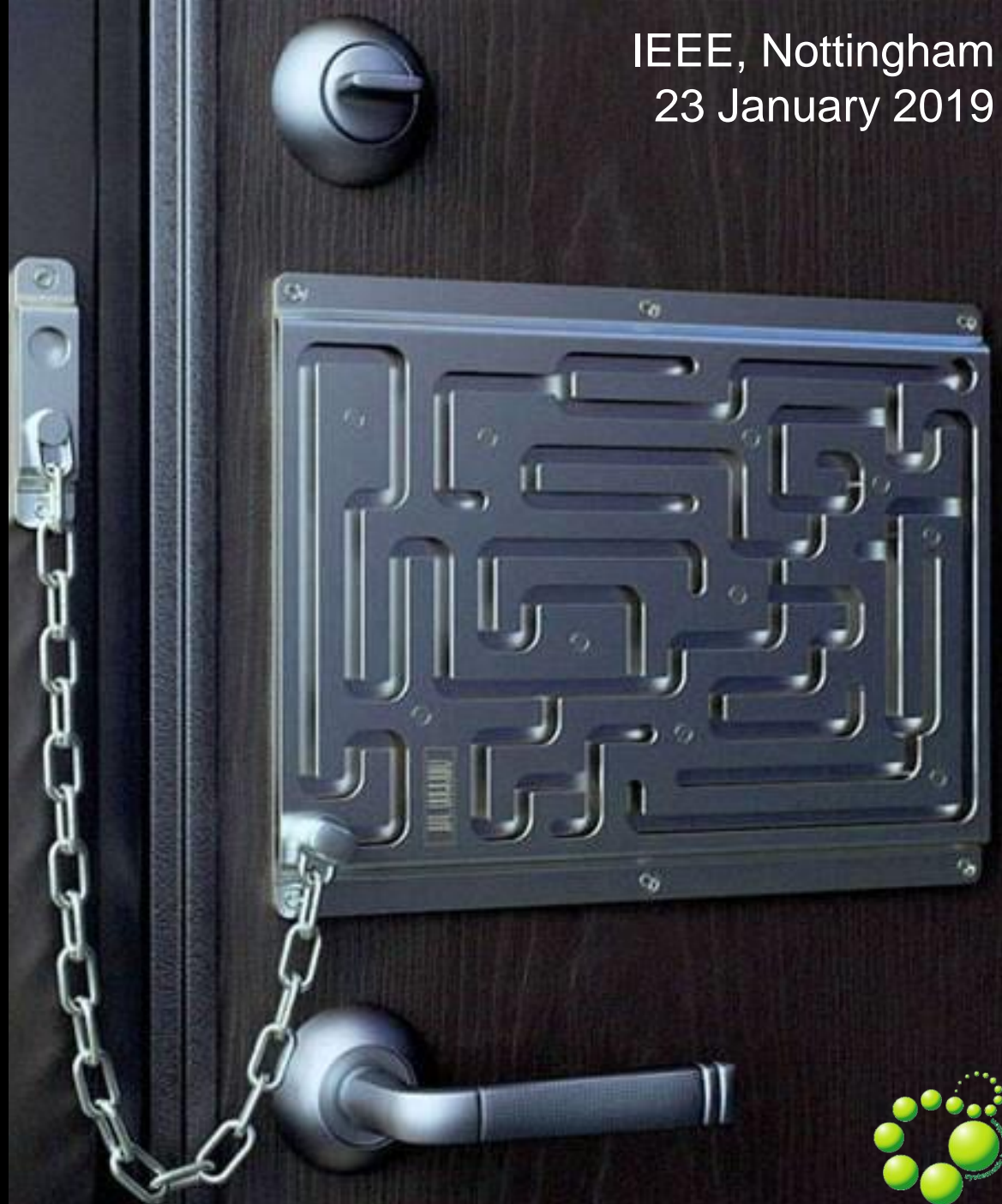


# Systematic Innovation, Complex Systems & Capability Maturity:

not getting so far  
ahead of the parade  
no-one knows you're  
in the parade anymore

Kobus Cilliers



**HANDS ON**

**HANDS ON**

**SYSTEMS SYSTEM**

**ATIC**

**ATIC**

**INNOVAT**

**INNOVAT**

**ION**

**ION**

Darrell mann

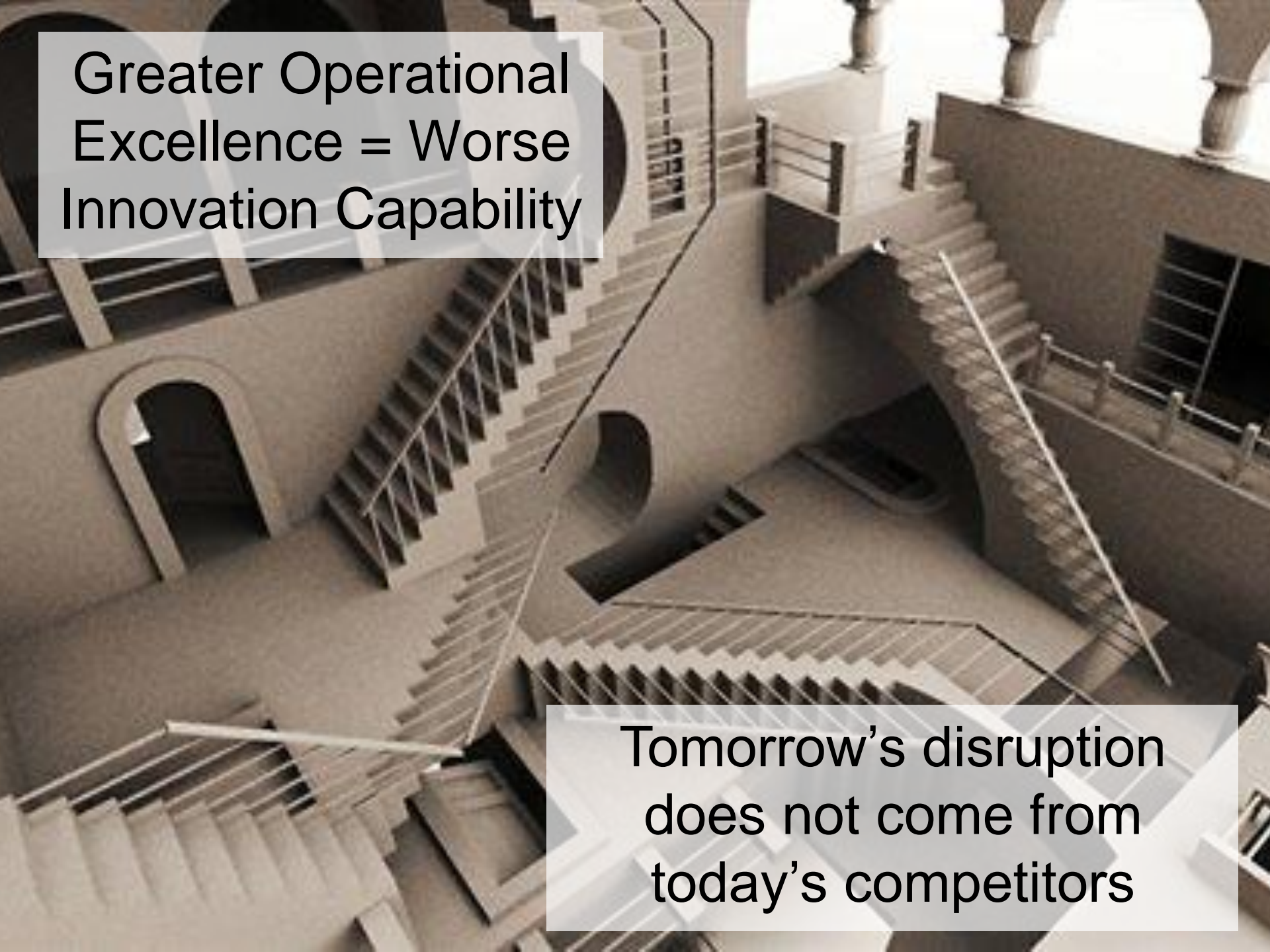
for Business  
& Management

Darrell Mann



# Some of our clients from the last 17 yrs:





Greater Operational  
Excellence = Worse  
Innovation Capability

Tomorrow's disruption  
does not come from  
today's competitors

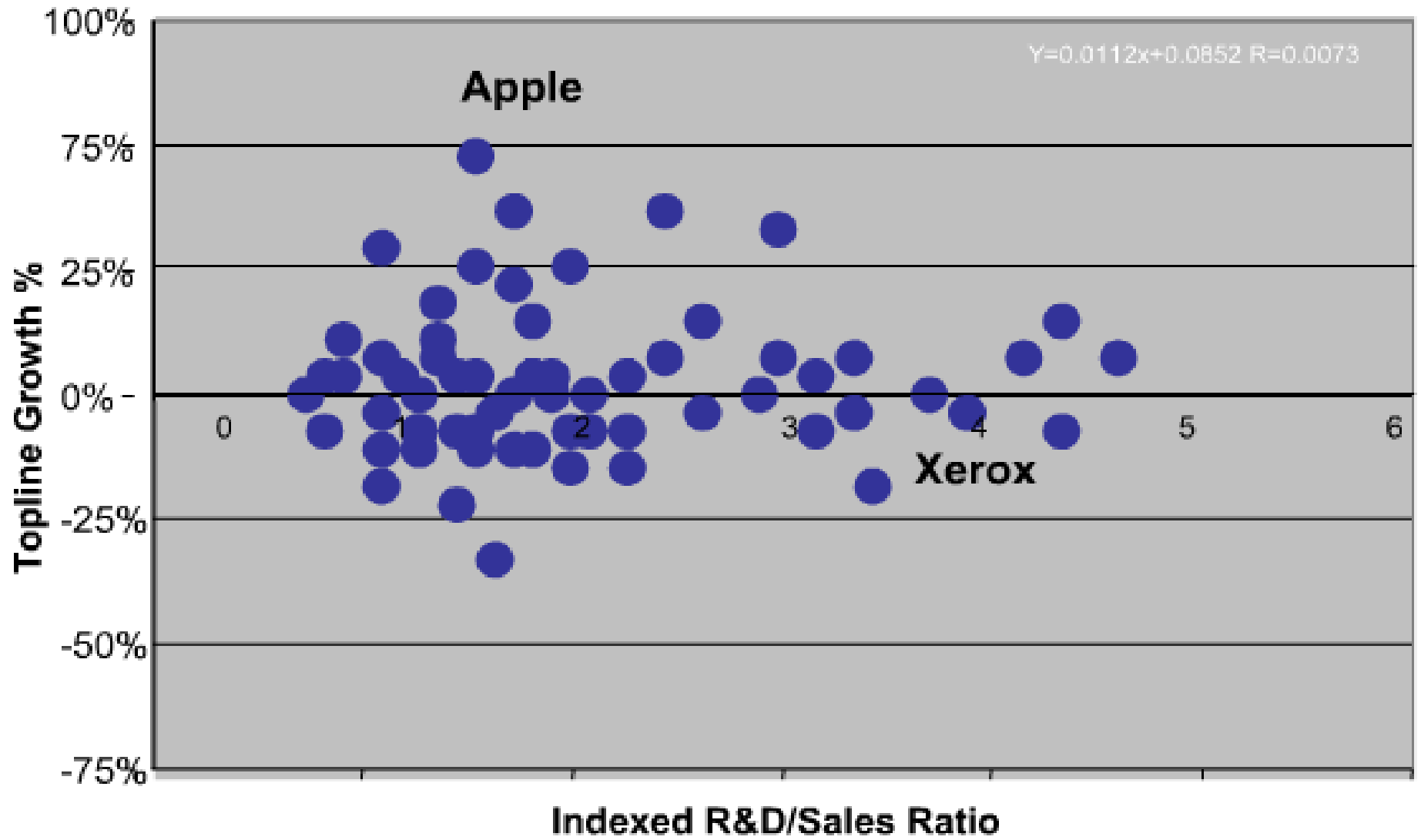
# Random Innovation



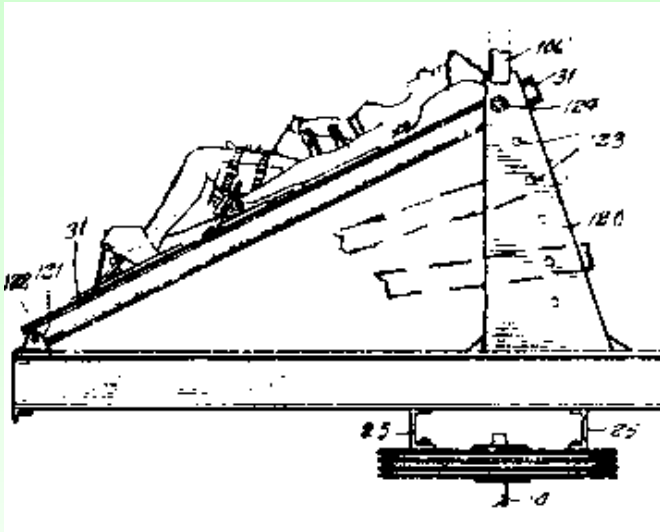
Economist.com



# Innovation Performance

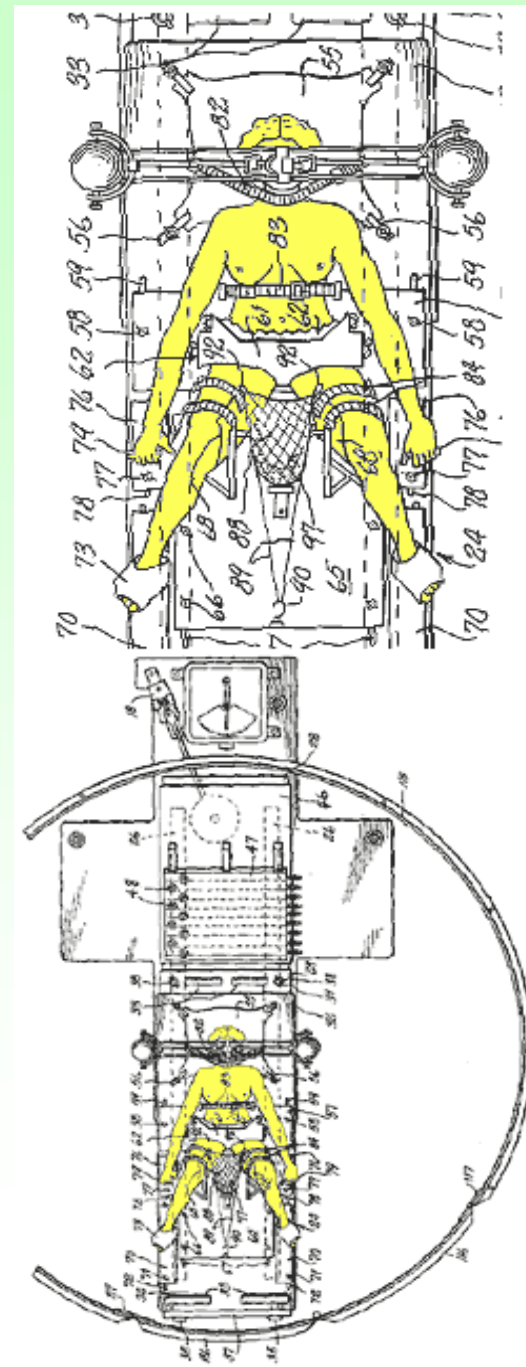


# Innovation?



US Patent 3,216,423

98% of attempted  
'innovations' fail



# Spot The Innovation

How many innovations?  
Explain your reasoning.





# Spot The Innovation

How many innovations?

Explain your reasoning.



**MILLIONS of systems**



**HUNDREDS of different problems**



**TENS of successful solutions**



# Five Pillars of Structured Innovation

**C  
O  
N  
T  
R  
A  
D  
I  
C  
T  
I  
O  
N  
S**

**I  
D  
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Y**

**F  
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C  
T  
I  
O  
N  
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Y**

**R  
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C  
E  
S**

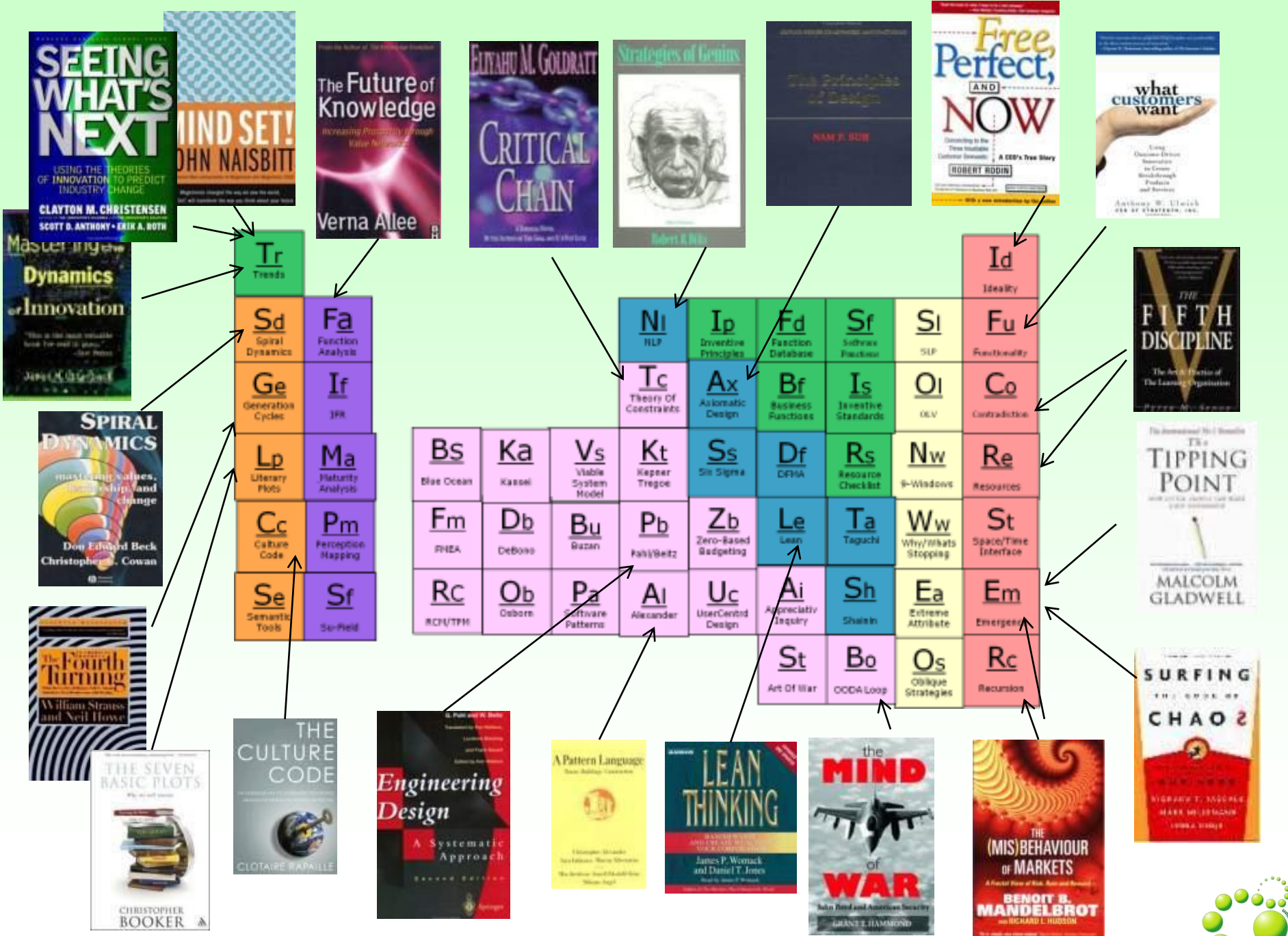
**S  
P  
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R  
F  
A  
C  
E**





# Death By A Million Tools





All the insights in one place



98% of QFD-sparked innovation attempts fail  
98% of Lean-sparked innovation attempts fail  
98% of 6Sigma-sparked innovation attempts fail  
98% of Design-Thinking innovation attempts fail  
98% of JTBD-sparked innovation attempts fail  
98% of OBI-sparked innovation attempts fail  
98% of WOIS-sparked innovation attempts fail  
98% of Blue-Ocean innovation attempts fail  
98% of i4i-sparked innovation attempts fail  
98% of Agile-sparked innovation attempts fail  
98% of Scrum-sparked innovation attempts fail  
99.5% of Open Innovation attempts fail



# SUCCESS



WHAT PEOPLE THINK  
IT LOOKS LIKE

# SUCCESS



WHAT IT REALLY  
LOOKS LIKE







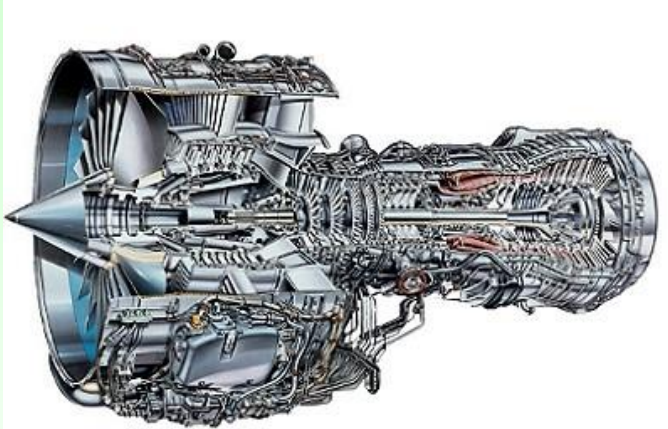
**For every complex problem  
there is an answer that is  
clear, simple, and wrong.**

*H. L. Mencken*



# Complicated versus Complex

## COMPLICATED



“The” root cause

Known rules of behaviour

“If we keep doing what we’ve always done, we’ll keep getting the same result”

## COMPLEX



“conspiracy of causes”


NO safe rules of behaviour

“If we keep doing what we’ve always done, we ***might*** get the same result”



CAUSE and  
EFFECT  
relationships  
are often  
highly  
tenuous...



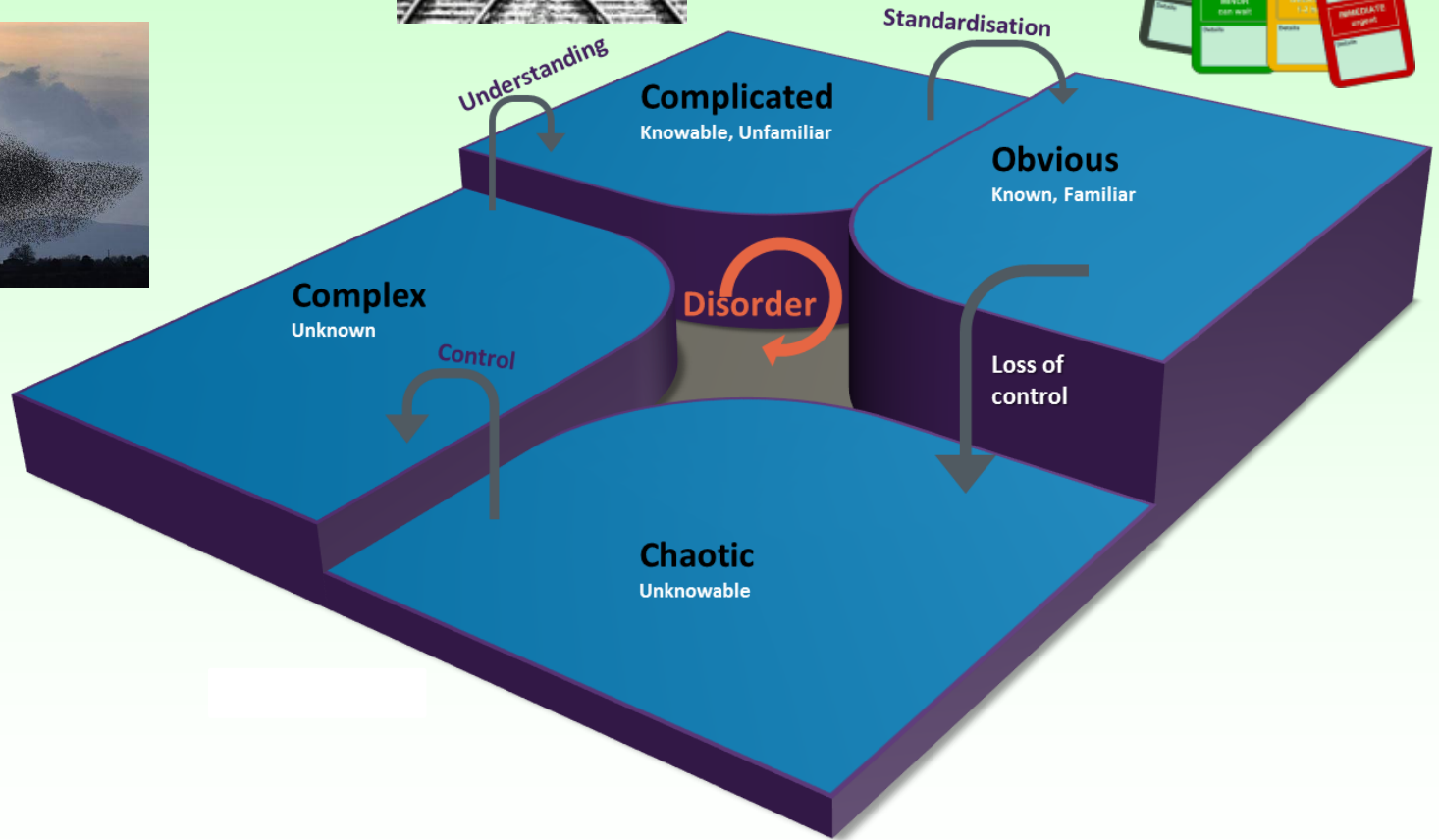
The image features a large, intricate swirling pattern in shades of blue and white, resembling a vortex or a complex flow field. A small butterfly with green and black wings is positioned on the left side, appearing to fly towards the center of the swirl. The background is dark with a pattern of small white dots, suggesting a starry sky or a digital simulation. The overall composition is centered and balanced, with the text overlaid on the right side.

...which means  
you can't 'exclude the  
trivial' because it could turn  
out to be the thing that  
triggers a non-linear shift

“fly as close to your neighbours as possible”



# Cynefin



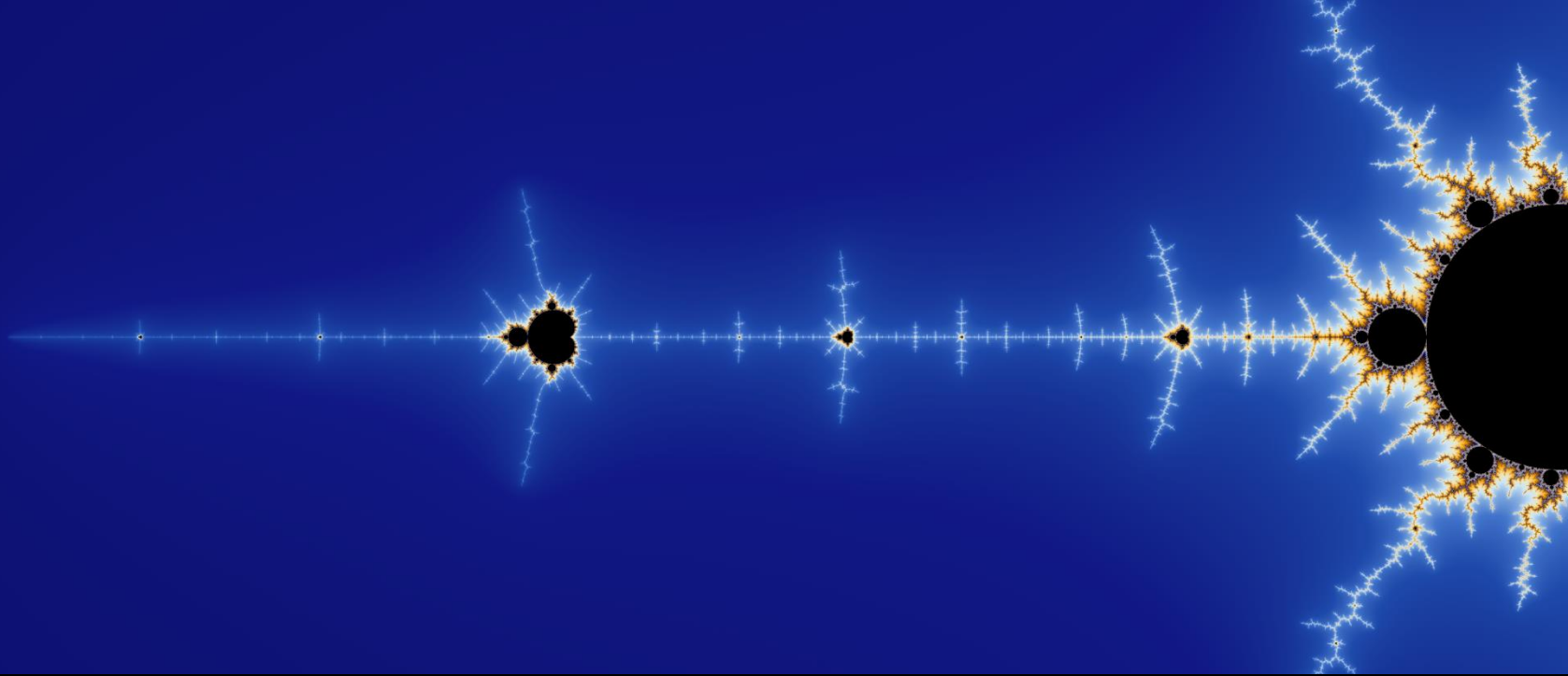
Dave Snowden  
Cognitive Edge



“get away from the falcon”



For every complex problem there are thousands of clear, simple, wrong answers.



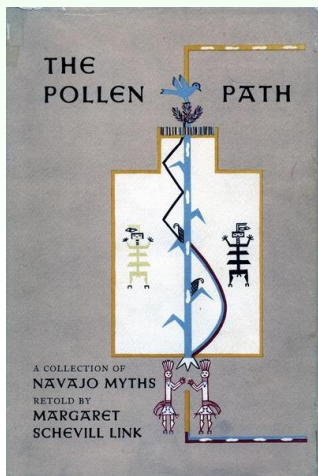
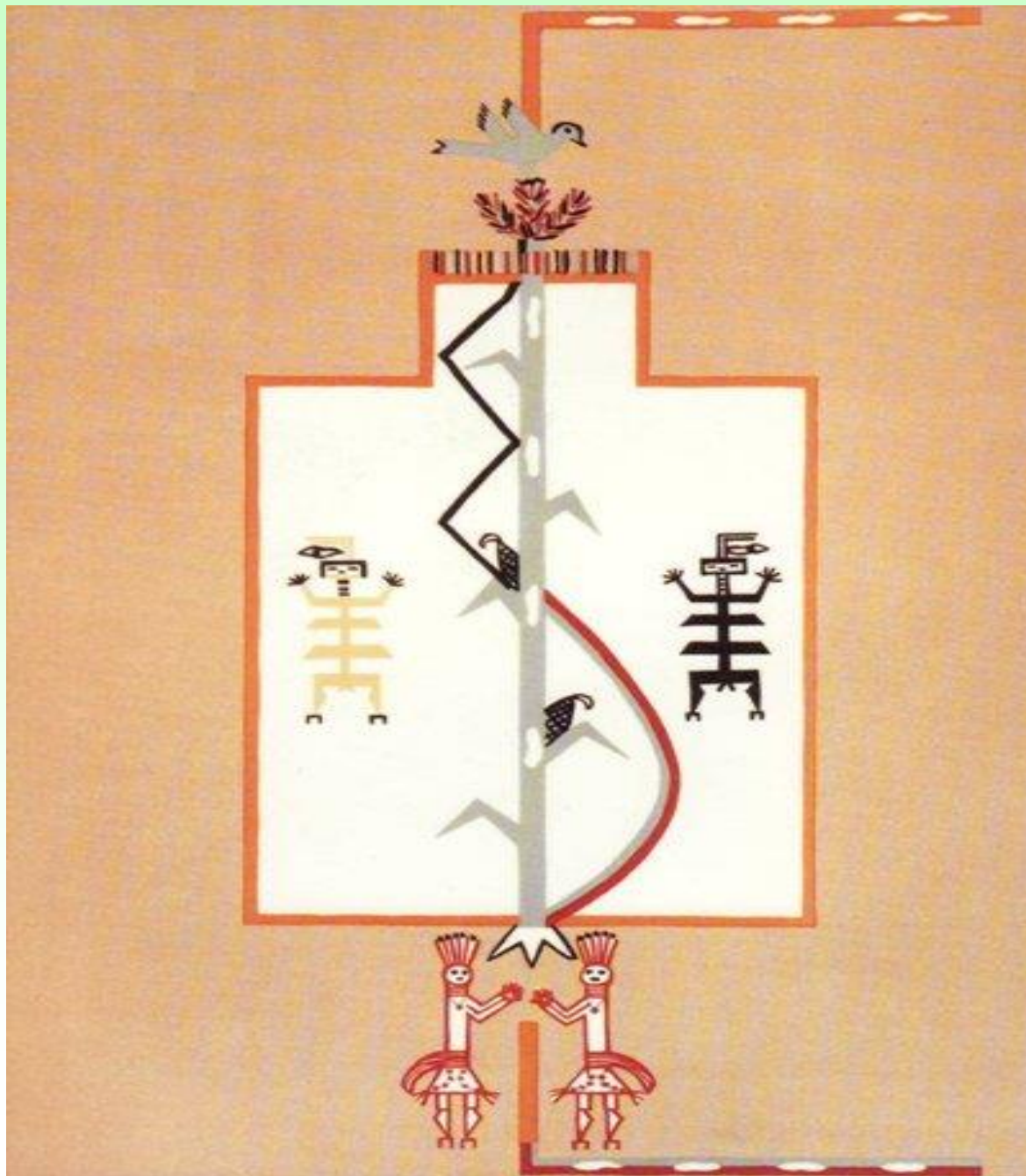
For every complex problem there is a clear, simple, right one.

If we understand and affect **the first principles**.





# TIME



# TIME

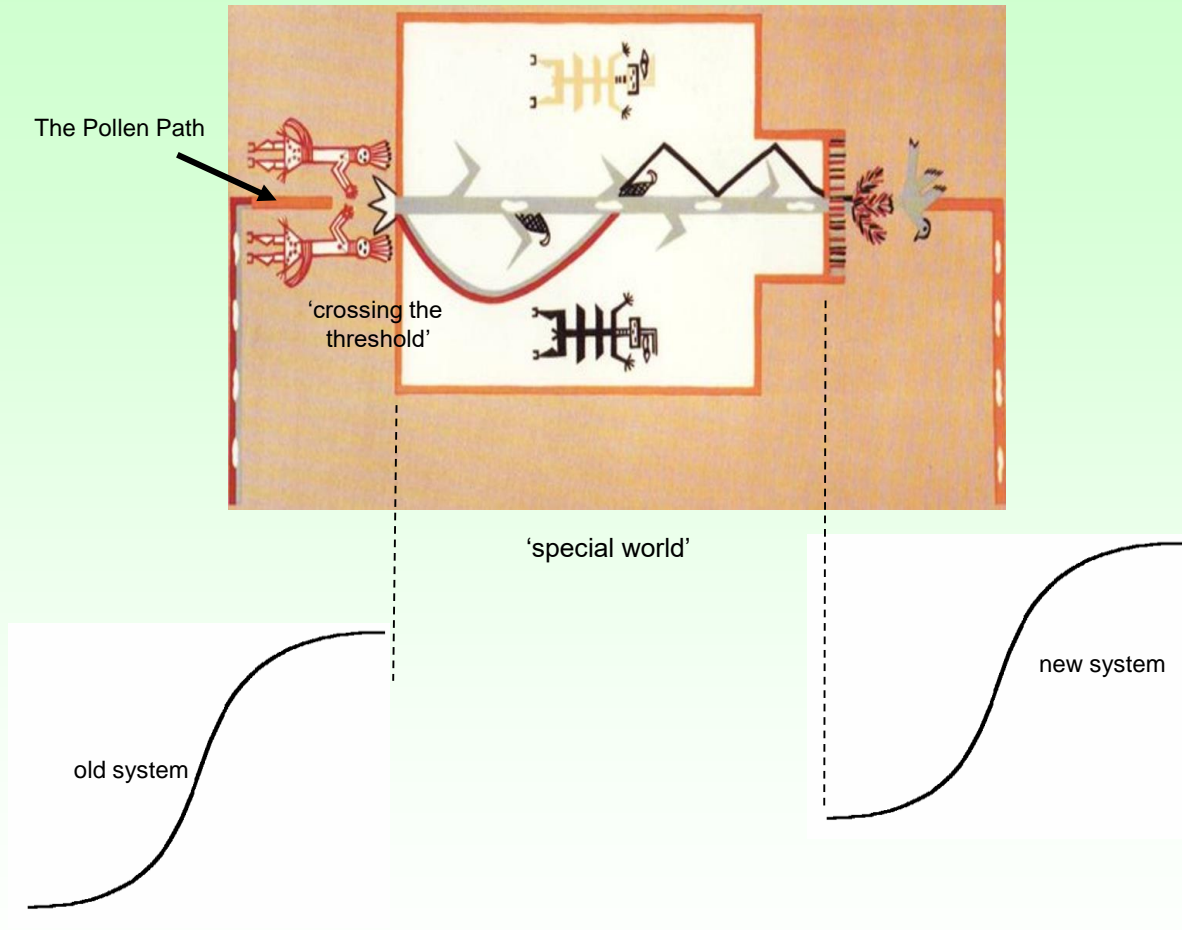


*We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten.*

Bill Gates

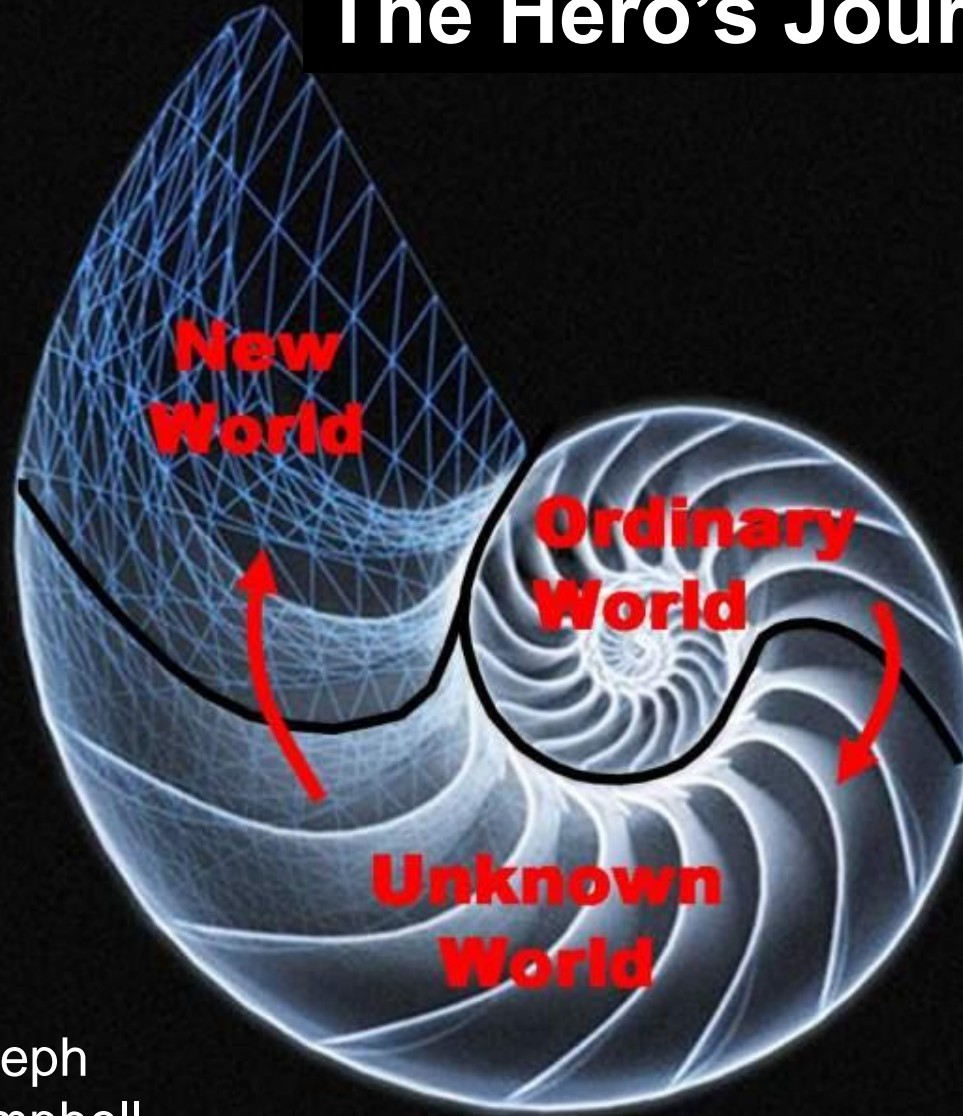


# TIME



# TIME

## The Hero's Journey



Joseph  
Campbell



# TIME

## Act I Separation

Crossing The  
Threshold

Meeting The  
Mentor

Refusal  
Of The Call

Call To  
Adventure

Ordinary  
World

Return With  
Elixir

Resurrection

## Act III Return

Tests, Allies  
And Enemies

## Act II-A Descent

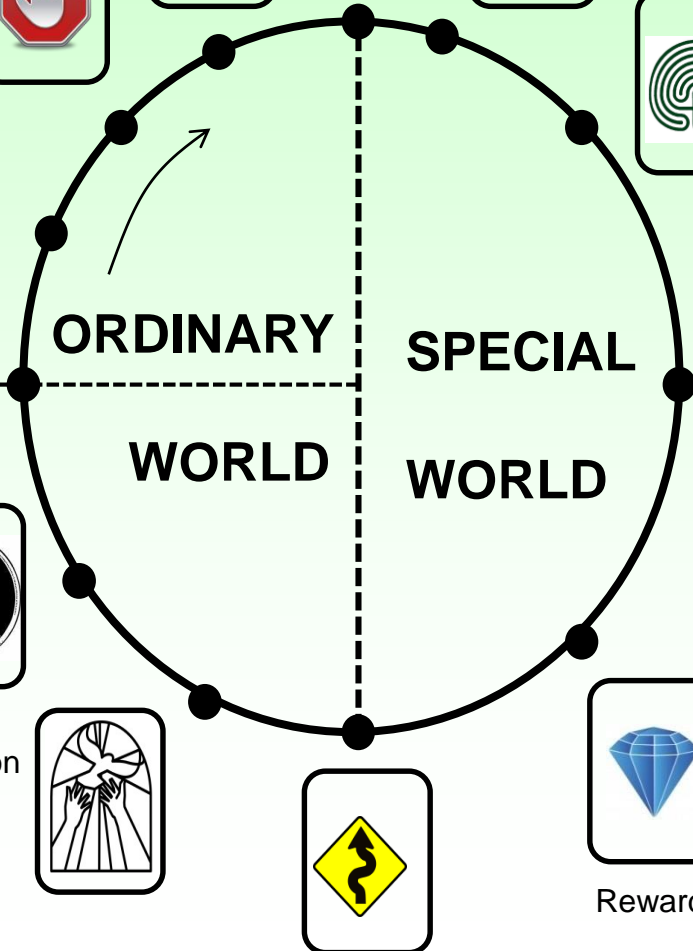
Approach The  
Inmost Cave

The Ordeal

Reward

## Act II-B Initiation

Road Back

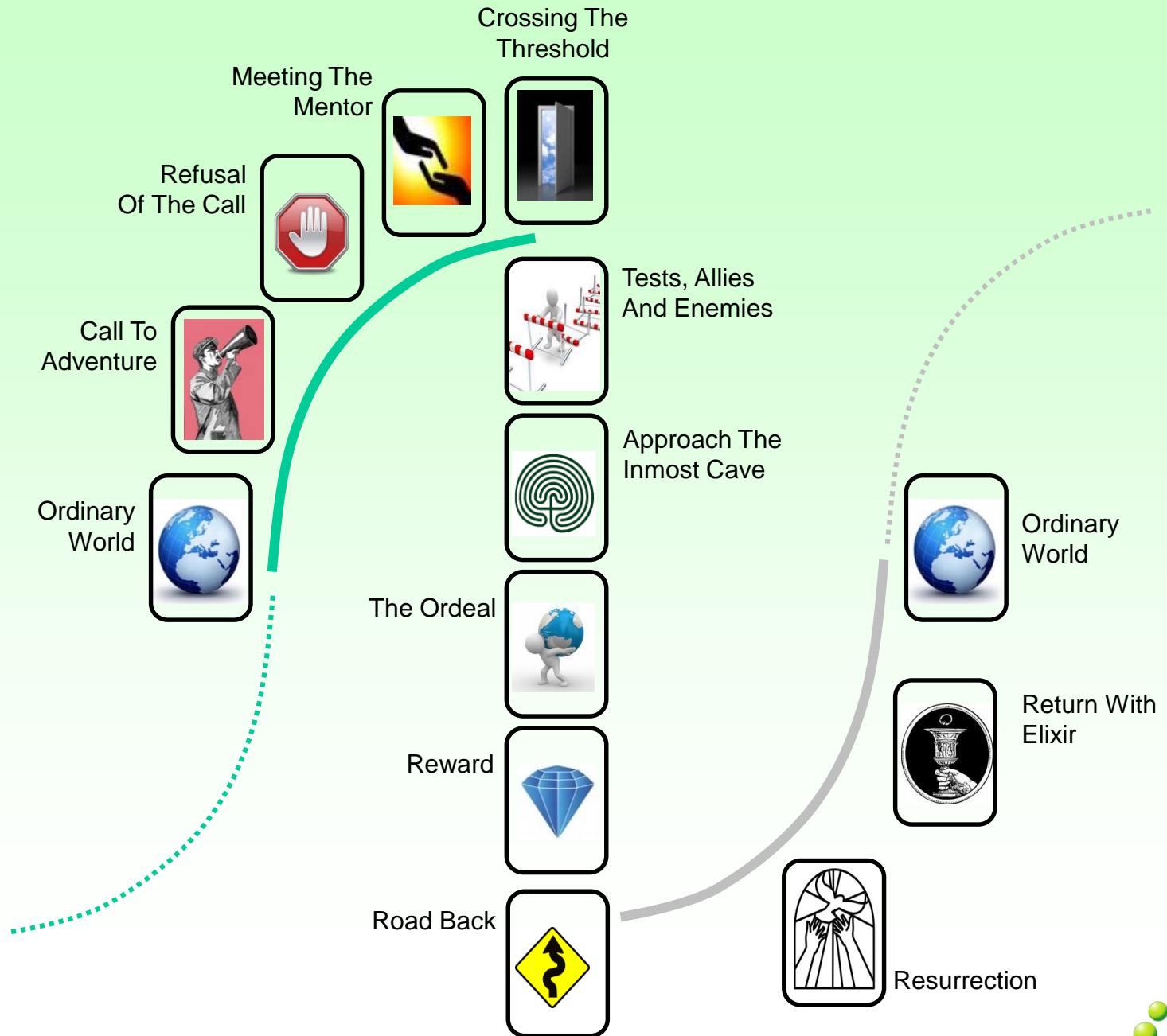


ORDINARY  
WORLD

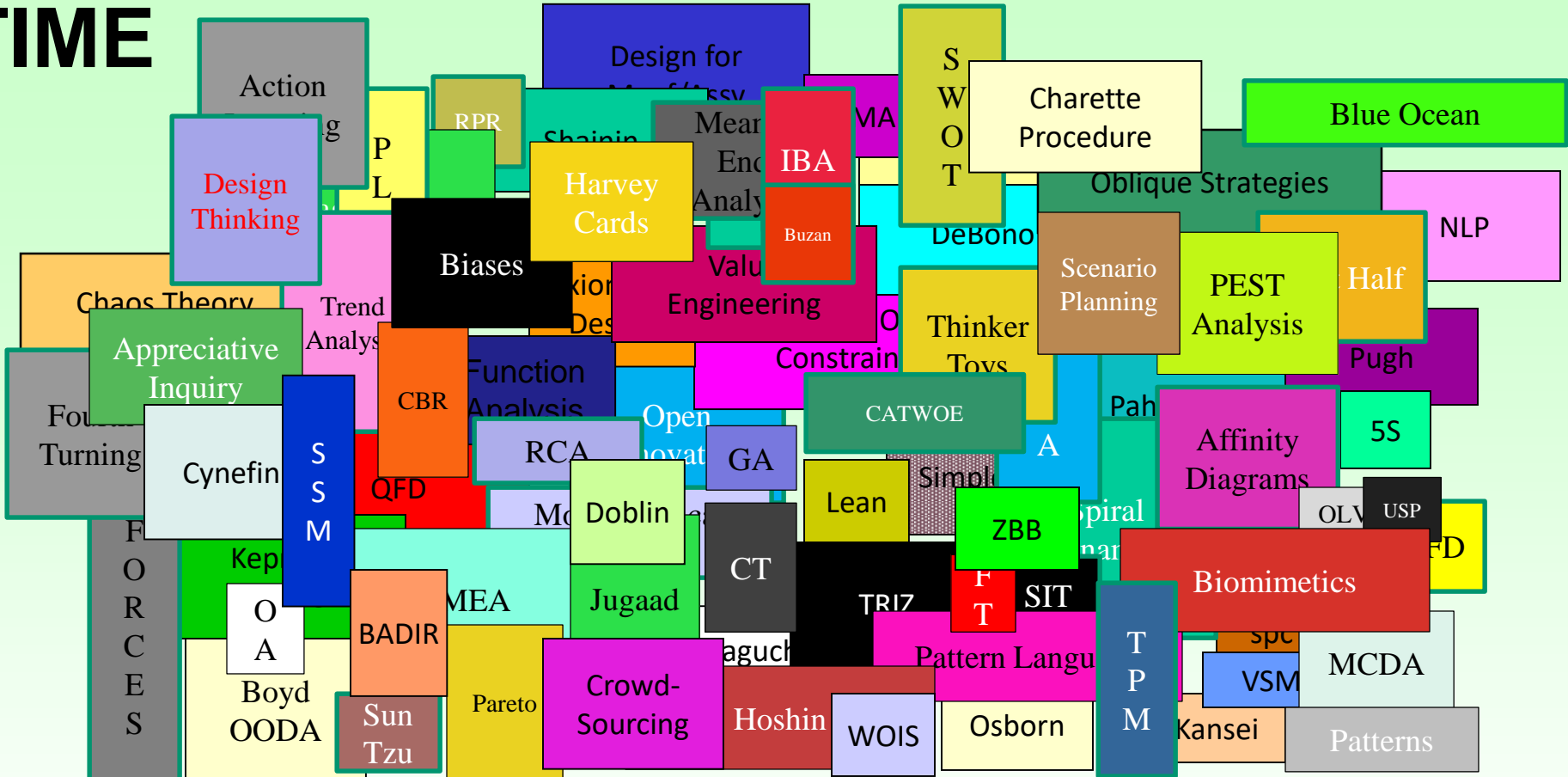
SPECIAL  
WORLD



# TIME



# TIME



Ordinary World



Call To Adventure



Refusal Of The Call



Meeting The Mentor



Crossing The Threshold



Tests Allies And Enemies



The Inmost Cave



The Ordeal



Reward



Road Back



Resurrection



Return With Elixir



Ordinary World



# Innovation Capability Maturity Model





# Some Organisations Do Get It Right...



The Steve Jobs Effect/'insanely great'



'Beat Sony'/Institutionalised Innovation Tools



40% product turn every 3 years



Skunkworks



'50% of innovations from the consumer'



Average 40 suggestions/employee/yr  
90+% implementation rate



Employees spend 30% of time on 'non'Google'



'Self-organising' teams



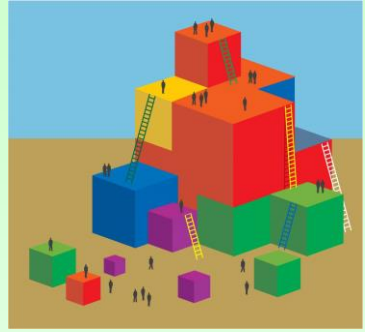
# INTERFACE



SEEDING



CHAMPIONING



MANAGING



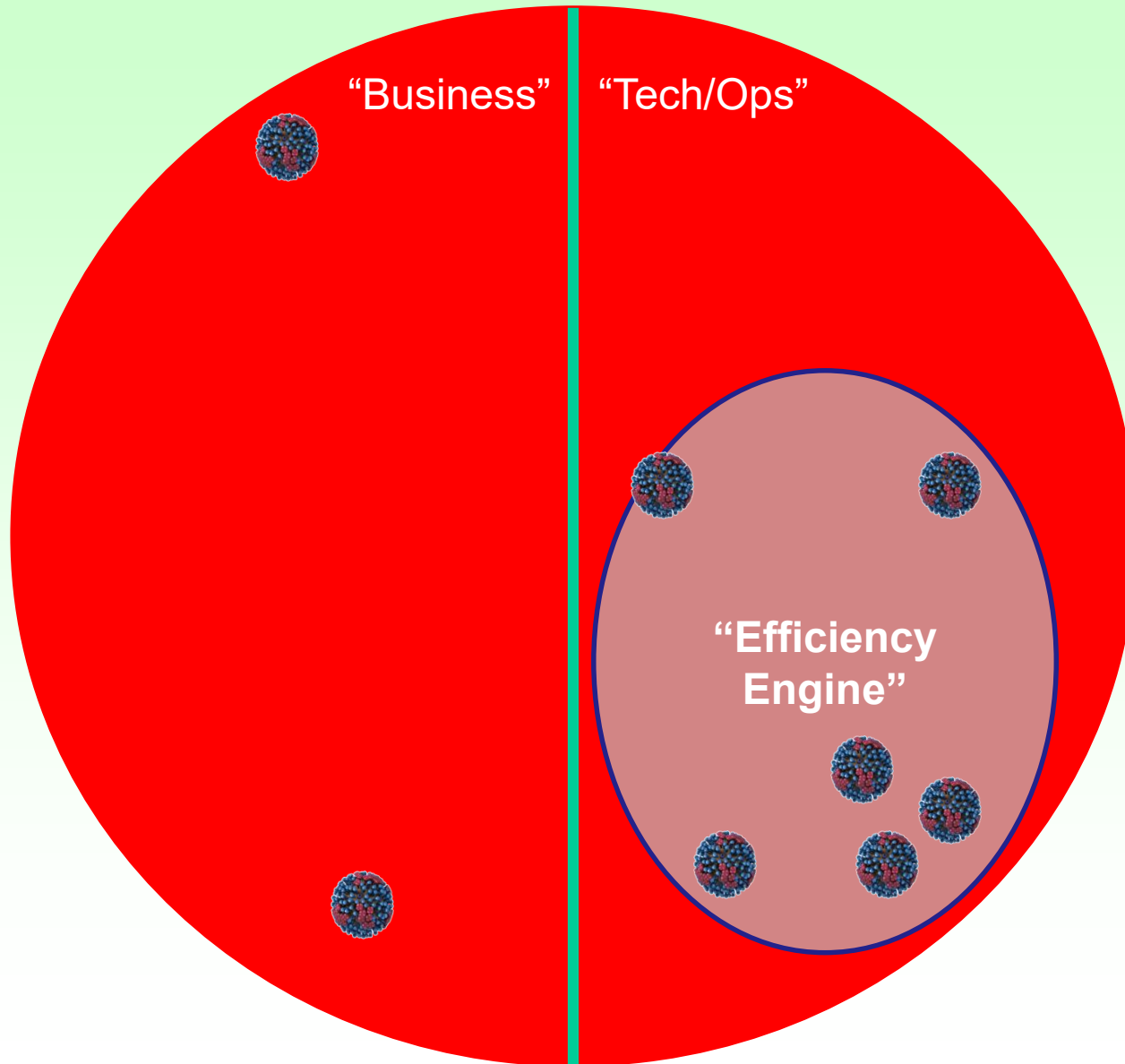
STRATEGISING



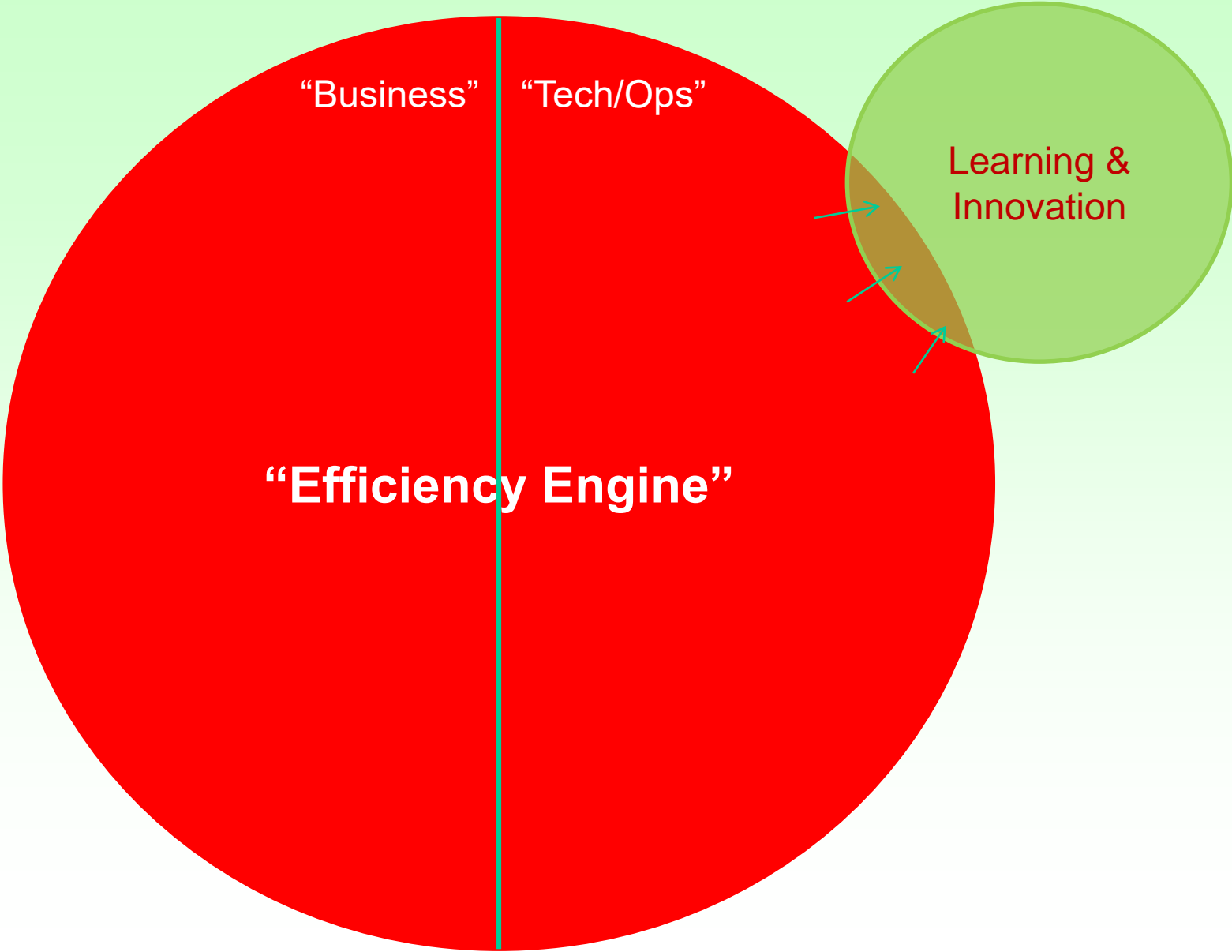
VENTURING



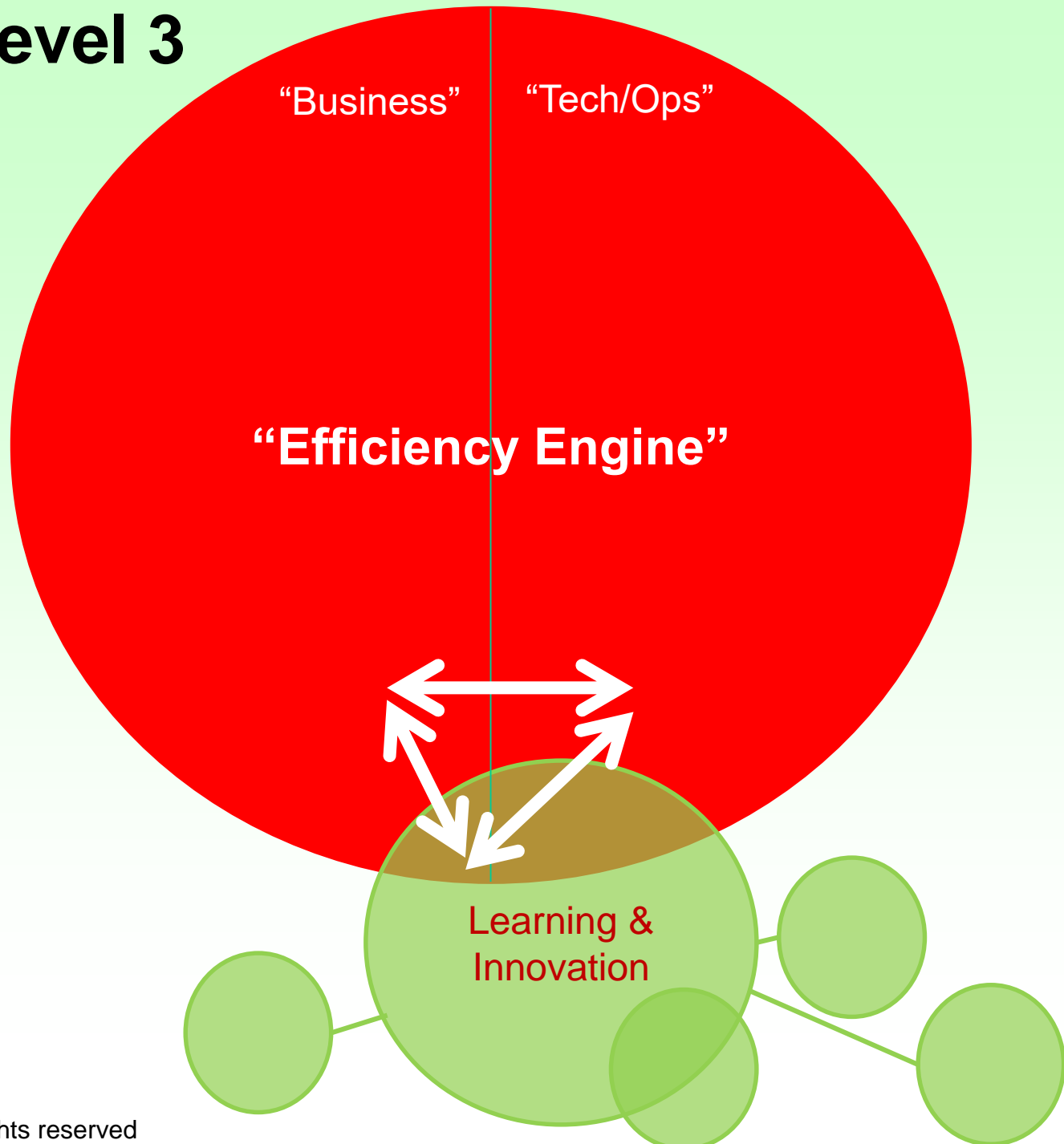
# INTERFACE – ICMM Level 1



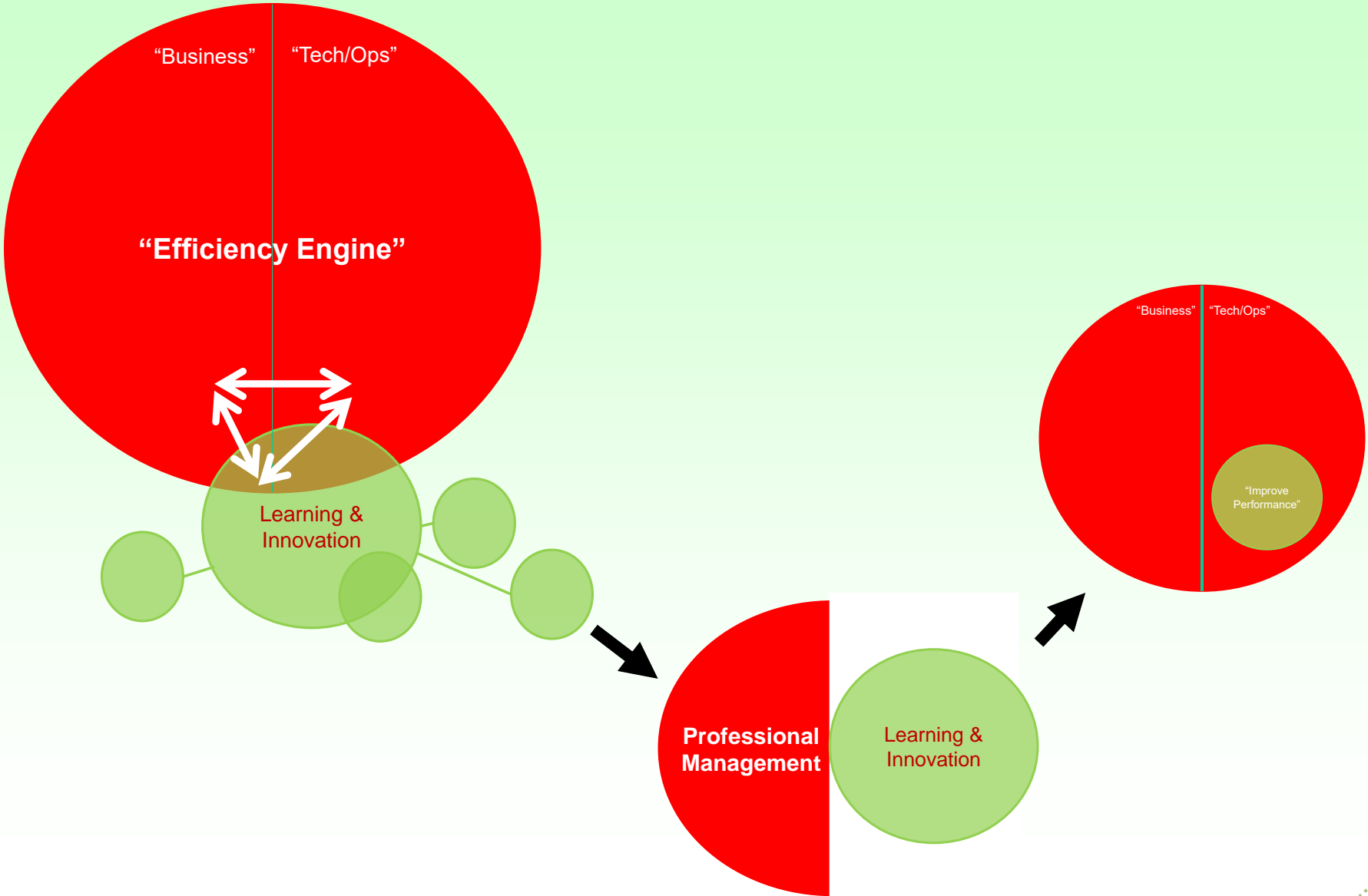
# INTERFACE: ICMM Level 2



# ICMM Level 3



# INTERFACE: ICMM Level 4



# INTERFACE: ICMM Level 5





“Efficiency Engine”

Everything’s working  
Feels good  
Clear rules  
Clear Direction  
(‘Progress’)

Knowledge exists

Routine  
Manage-able  
Controllable

ordinary world



Learning & Innovation

Nothing seems to work  
Uncomfortable/horrible  
Confusion  
Find ‘new rules’  
Challenge assumptions

Knowledge has to be found

Creativity  
Not manage-able  
‘Out of control’

special world 





# INTERFACE & SPACE

SEEDING	CHAMPIONING	MANAGING	STRATEGISING	VENTURING
Societal - Live Different	Societal - Live Different	Societal - Live Different	Societal - Live Different	Societal - Live Different
C-Suite - Work Different	C-Suite - Work Different	C-Suite - Work Different	C-Suite - Work Different	C-Suite - Work Different
SBU/Division - Sell Different	SBU/Division - Sell Different	SBU/Division - Sell Different	SBU/Division - Sell Different	SBU/Division - Sell Different
Product/Service - Do Different	Product/Service - Do Different	Product/Service - Do Different	Product/Service - Do Different	Product/Service - Do Different
Processes - Do better	Processes - Do better	Processes - Do better	Processes - Do better	Processes - Do better



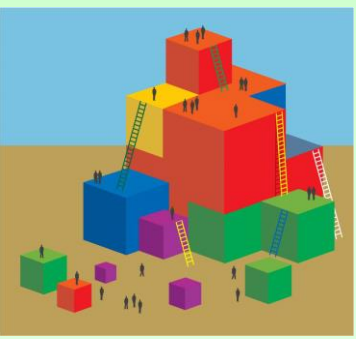
# Relation To Innovation Tools....



SEEDING



CHAMPIONING



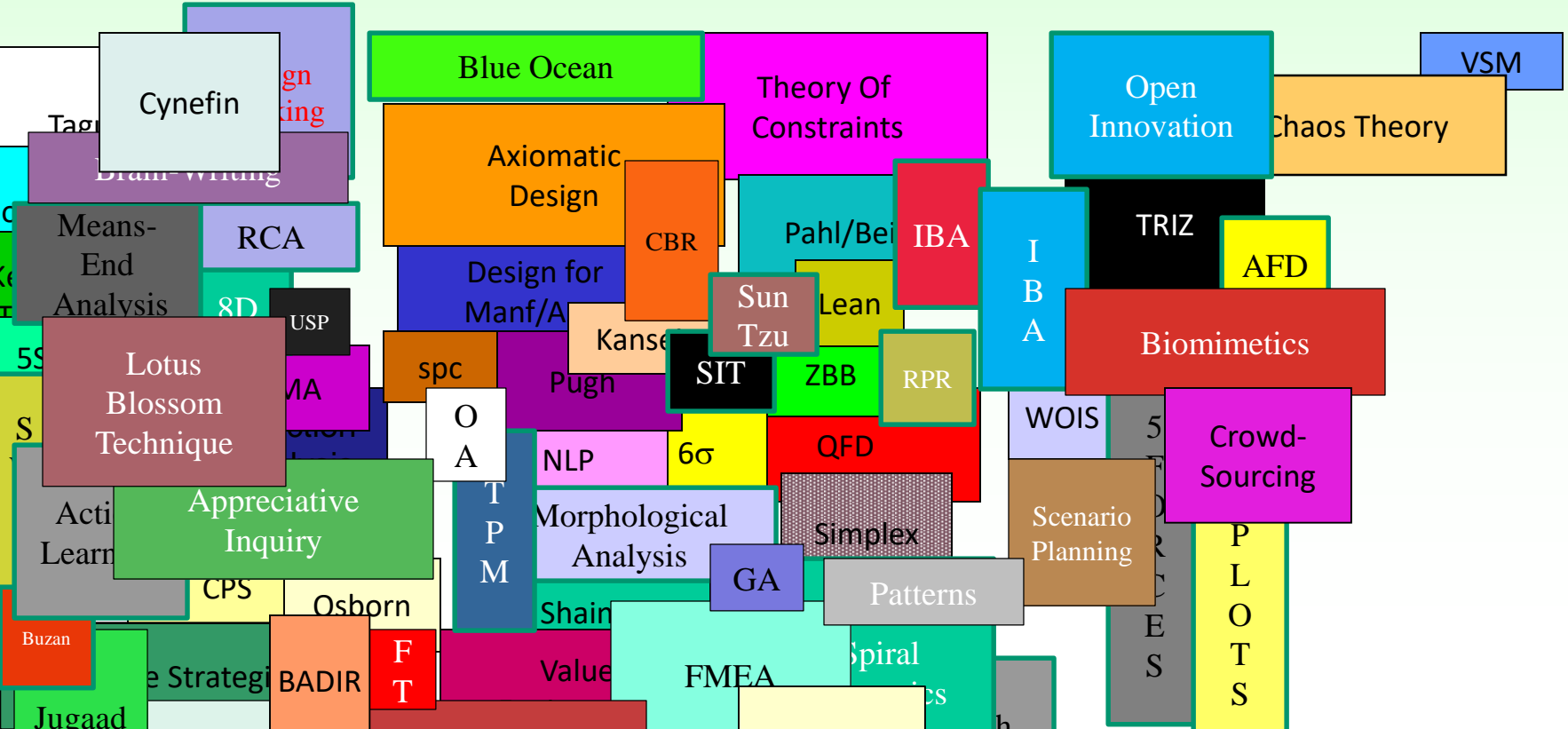
MANAGING



STRATEGISING



VENTURING



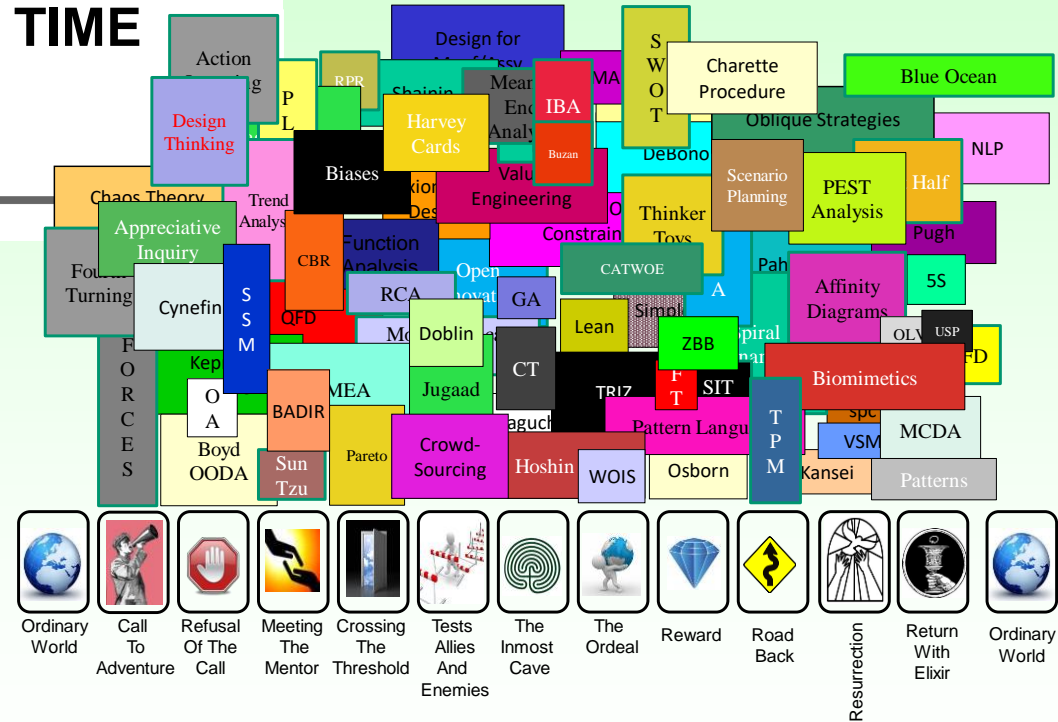
# SYSTEMATIC INNOVATION

TRIZ VIDEOS

MILLION TOOLS



TIME



Selecting The Right Tools:

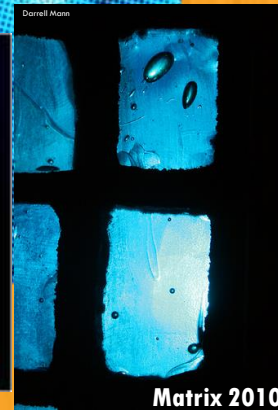
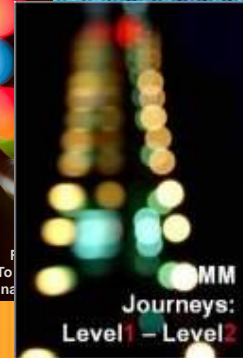
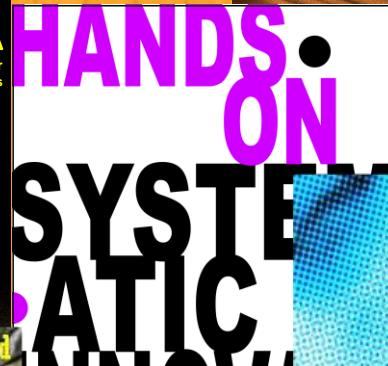
- 1) What kind of change?
- 2) How far through process?
- 3) Level of Capability



<b>Typical Roles</b>	The successful innovator is most likely to be the sort of covert, troop-rallying, lower/mid-level manager rebel prepared to 'ask for forgiveness rather than permission'. Level 1 innovation successes are most likely to be 'pirates', 'privateers' and people with the passion to do what they see is right despite the system
<b>Typical Success Metrics</b>	Number of suggestions submitted. Number of suggestions where feedback has been provided ( 'management is listening!' ). Number of successfully implemented ideas. Money saved. ROI (bearing in mind there was very likely no allowable 'cost' to creating the solution)
<b>Typical Levers</b>	External grant funding. 'Sabbatical' time. Extra-curricular group meetings.
<b>Hero's Journey Ordeals</b>	How to create a track record of success stories with no formal budget or time. How to refuse to work on 'no-win' projects.
<b>Hype Cycle Ch'cs</b>	Peak: Management expresses an interest in (technical) innovation (and probably does a big launch initiative to 'kick start' ) Trough: things go badly wrong when technical throws their solution over the wall to the marketers & business side of the organization.
<b>Management Texts</b>	Orbiting The Giant Hairball, Cubicle Commando. Rules For Renegades, The Art Of War. How To Win Friends And Influence People, Seven Habits Of Highly Effective People. Shibumi Strategy, Chutzpah, How To Measure Anything.
<b>Innovation Tools, Methods</b>	Function Analysis/Value-Stream-Mapping Kepner-Tregoe. DFMA/Trimming Six Thinking Hats Perception Mapping 9-Windows Why-What' s-Stopping? Subversion Analysis/AFD SCAMPER/Inventive Principles 5S/8D/Quality Circles



# The Science Of Successful Step Change



[www.systematic-innovation.com](http://www.systematic-innovation.com)  
[darrell.mann@systematic-innovation.com](mailto:darrell.mann@systematic-innovation.com)