

A summary of my OSCON 3 hr Tutorial on ...

Situation Normal, Everything Must Change

1

Business/IT Co-evolution

*How are business and
IT changing each other?*

2

Business/IT Relationship Management

*How can Enterprise IT
add more value to the
organization?*

3

The Consumerization of IT

*How are consumer
technologies and the
Internet affecting both
the firm and central IT?*

4

Organizing IT for the Future

*What will the retained
central IT function
look like?*

5

The Changing Nature of Work

*How will management,
employees and the
culture of the firm need
change?*

6

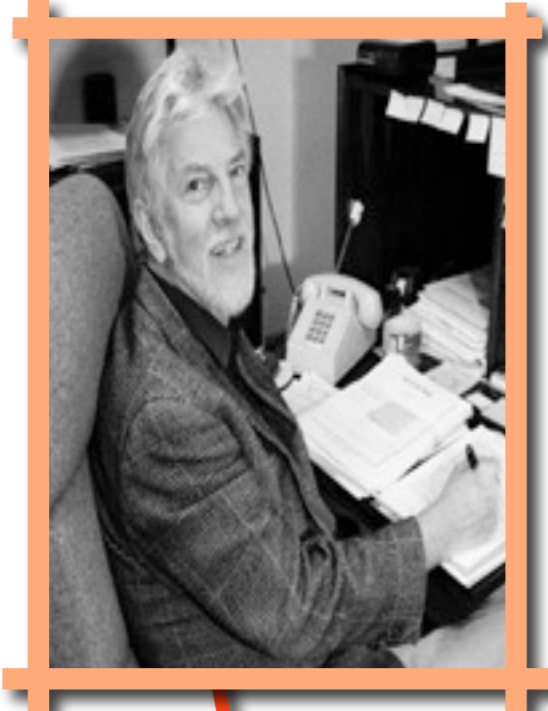
Business Sustainability

*How can IT be used
to help make firms
more
environmentally
friendly?*

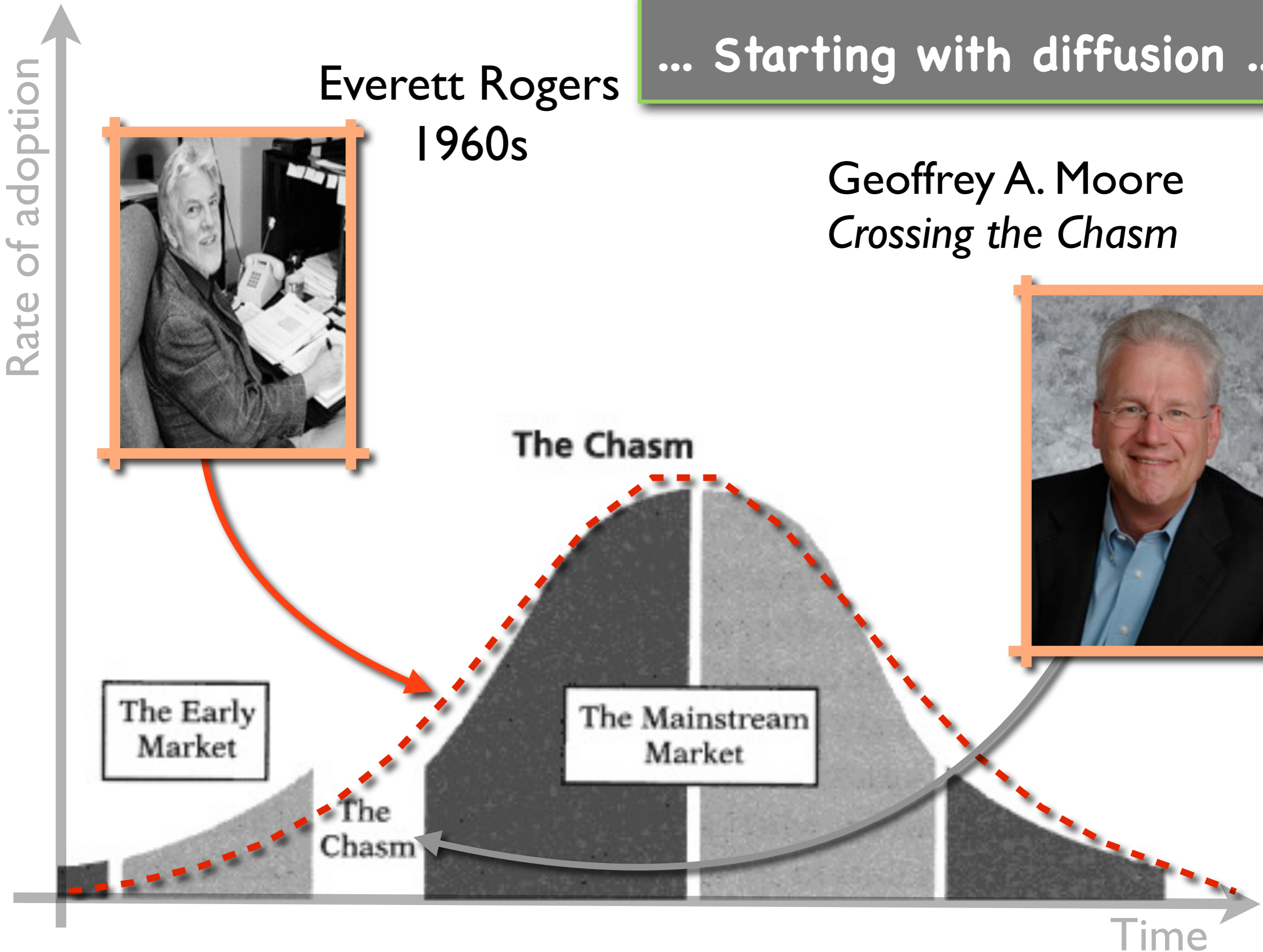
... this is what I do ...

... Starting with diffusion ...

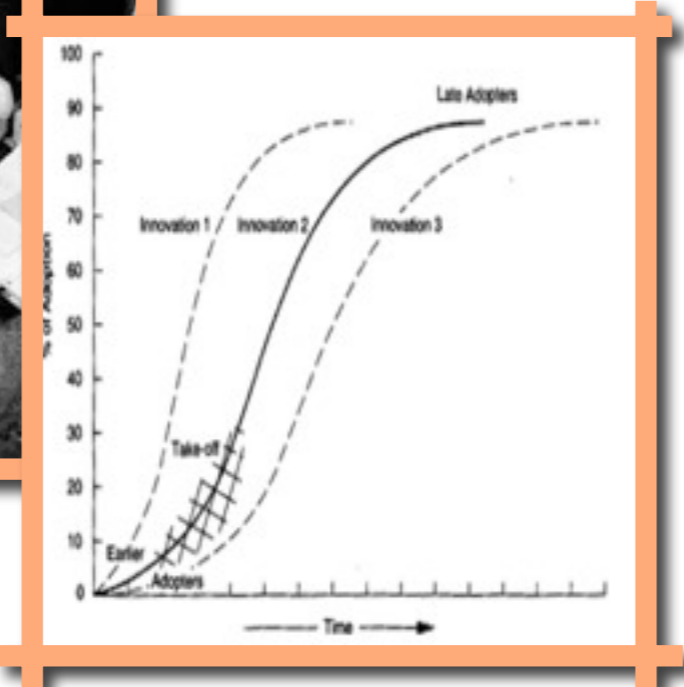
Everett Rogers
1960s



Geoffrey A. Moore
Crossing the Chasm

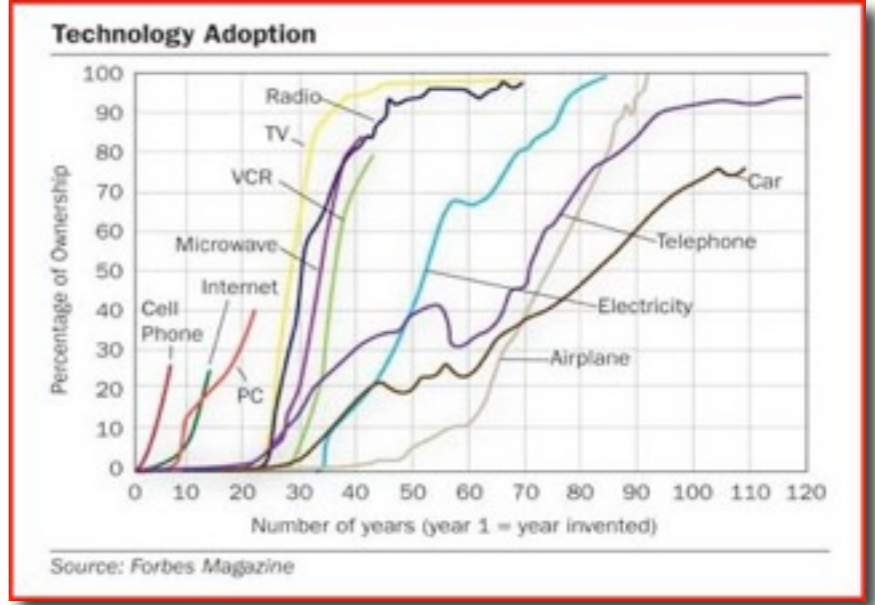


Total Adoption



Everett Rogers
Diffusion of Innovations, 1962

Diffusion Curve

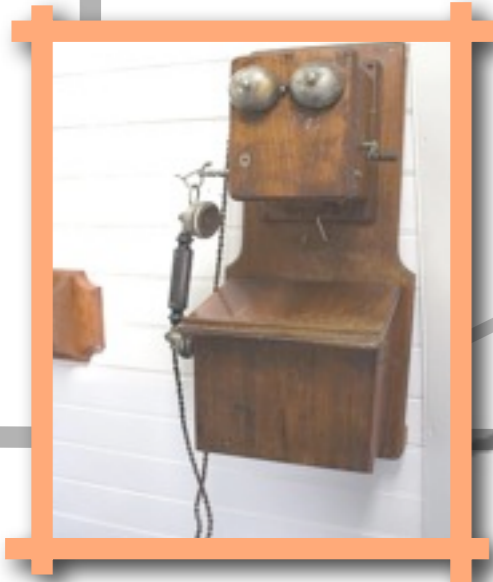


Cumulative

... and diffusion curves ...

Time

Total Adoption



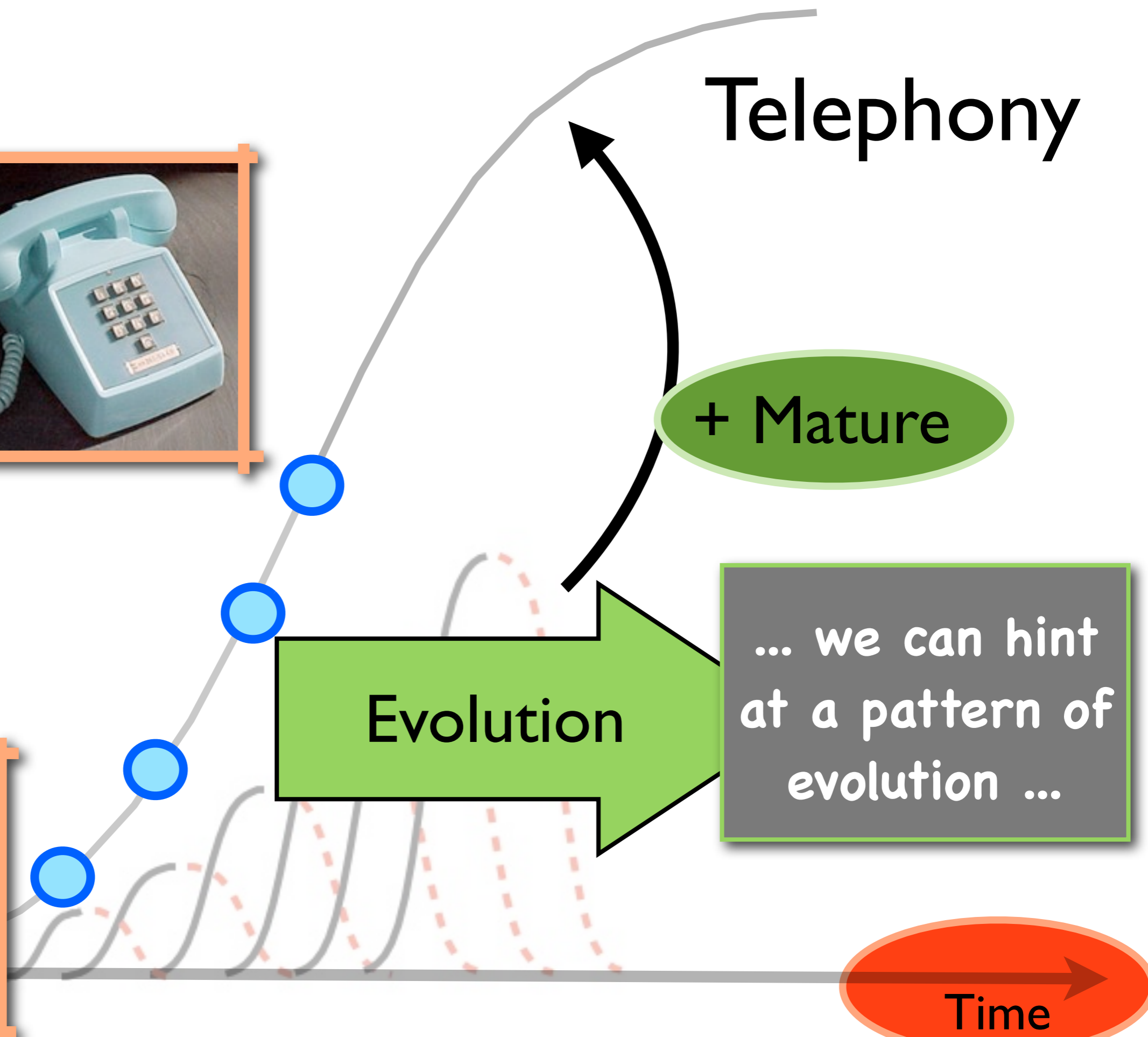
Telephony

+ Mature

Evolution

... we can hint
at a pattern of
evolution ...

Time



Ubiquity

... by abolishing time, we can clearly see that pattern.
Now, we have correlation, data ...

Utility Service

Commodity

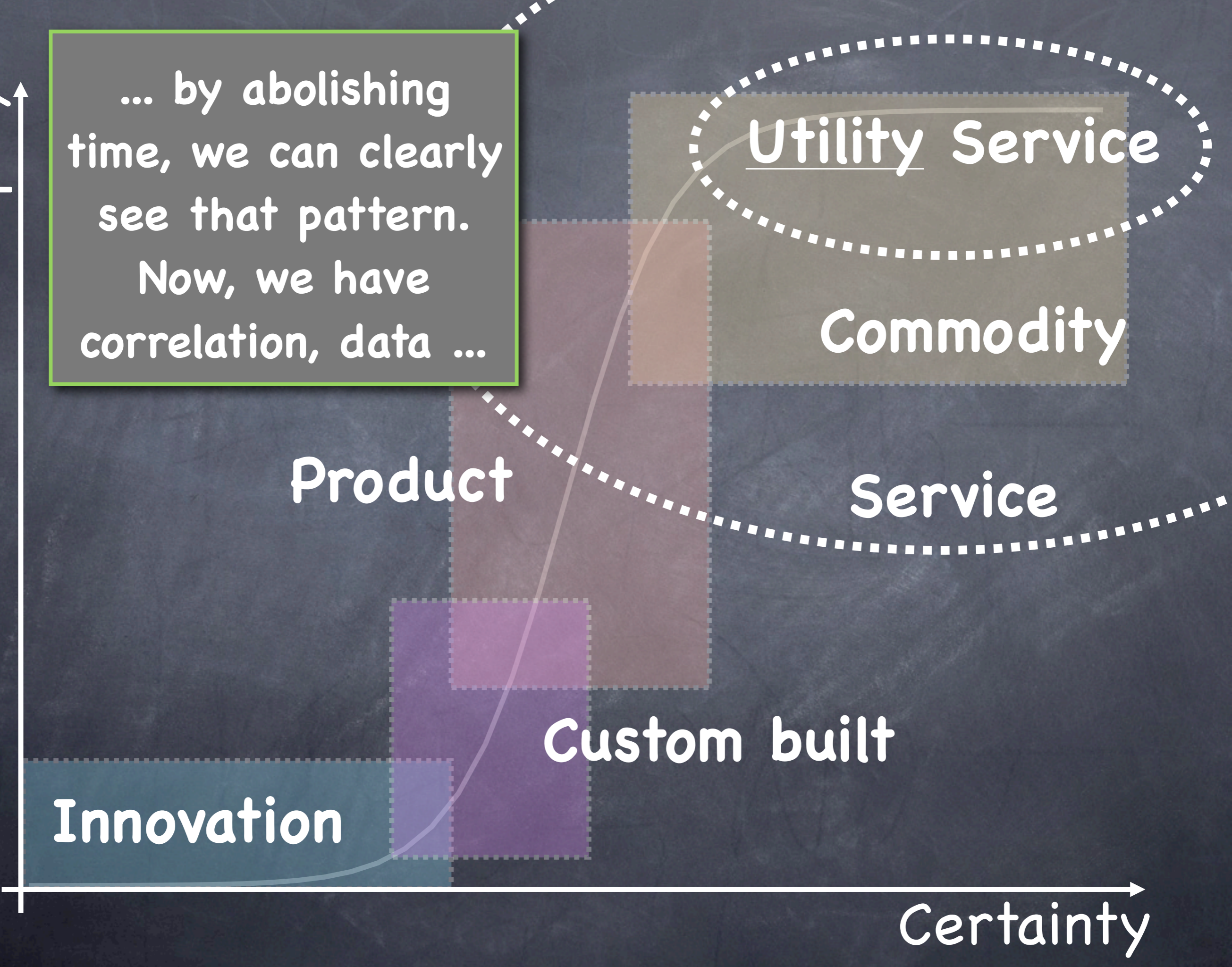
Product

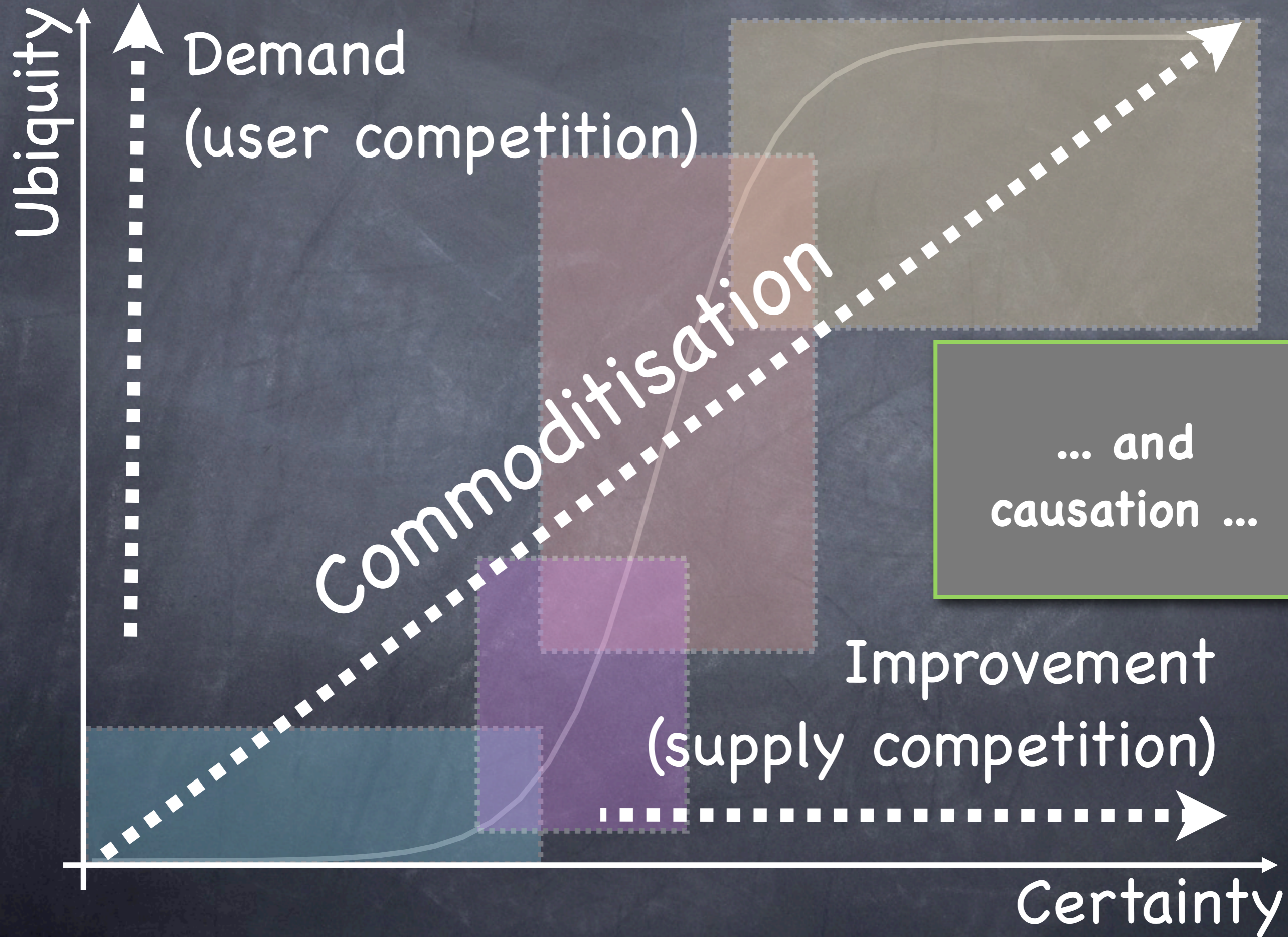
Service

Custom built

Innovation

Certainty





No Data

No Causation

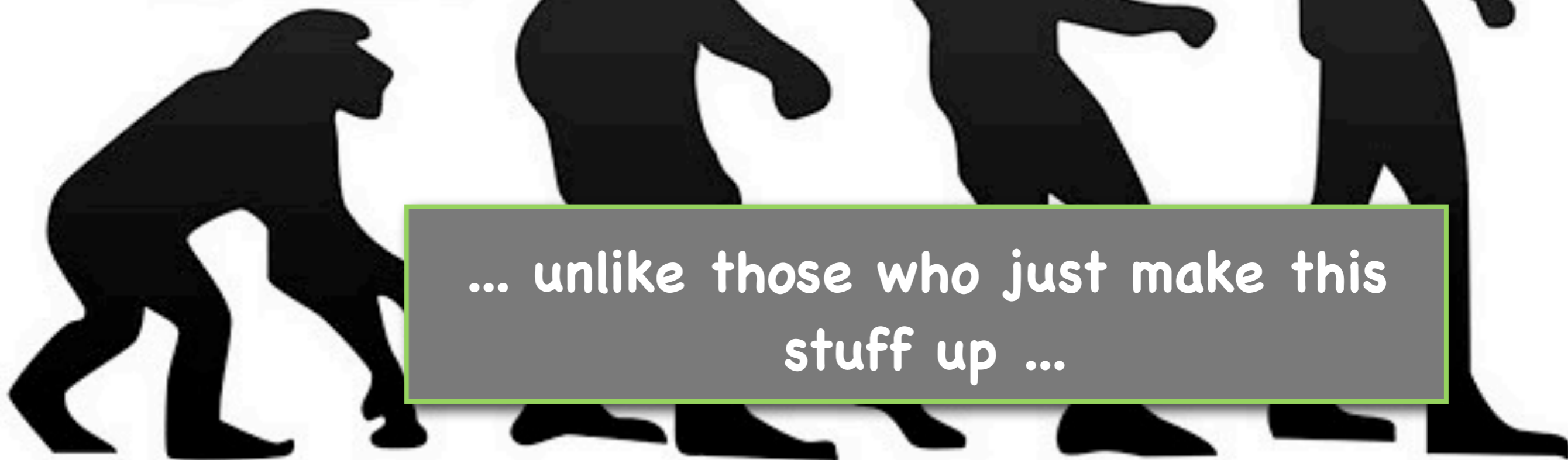
No Correlation

Cloud

Web

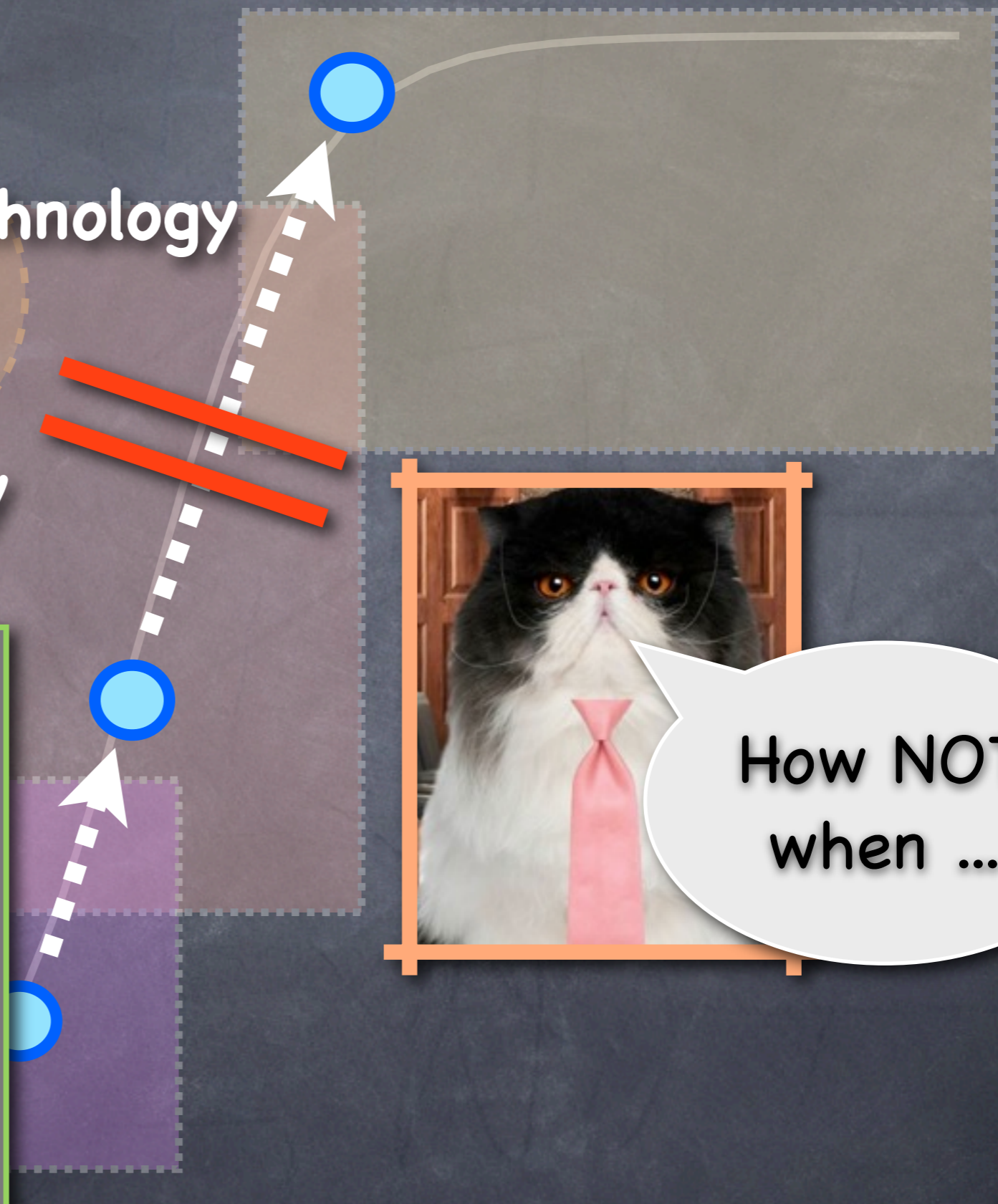
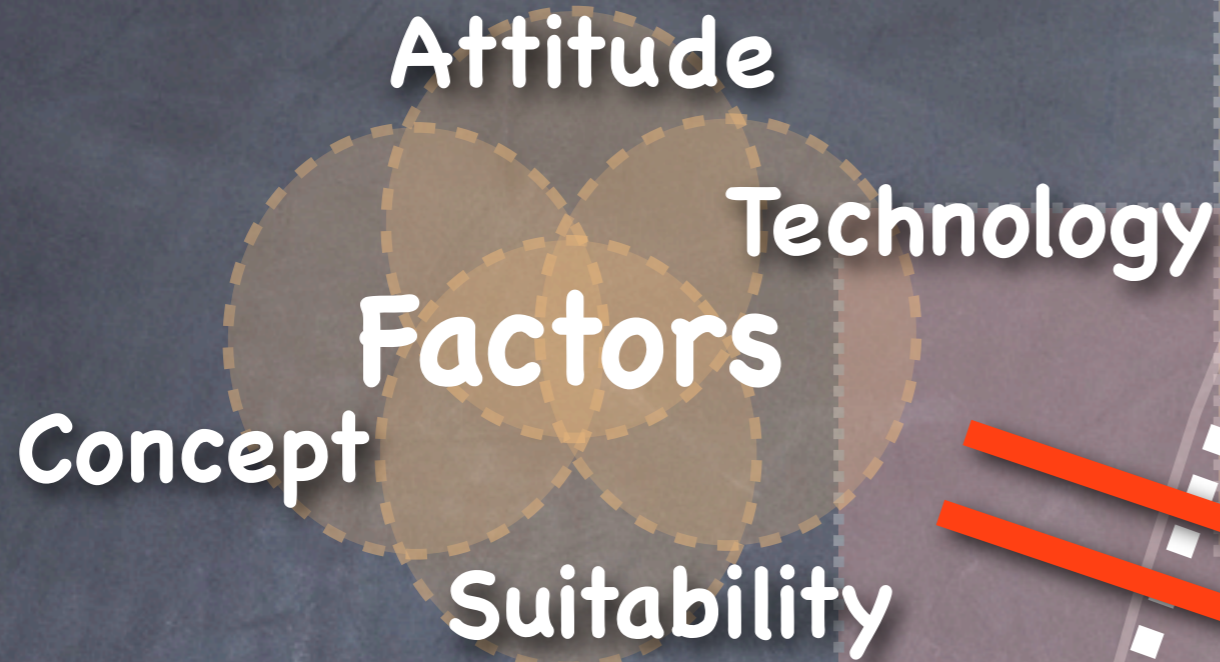
Client Server

Mainframe



... unlike those who just make this stuff up ...

Ubiquity



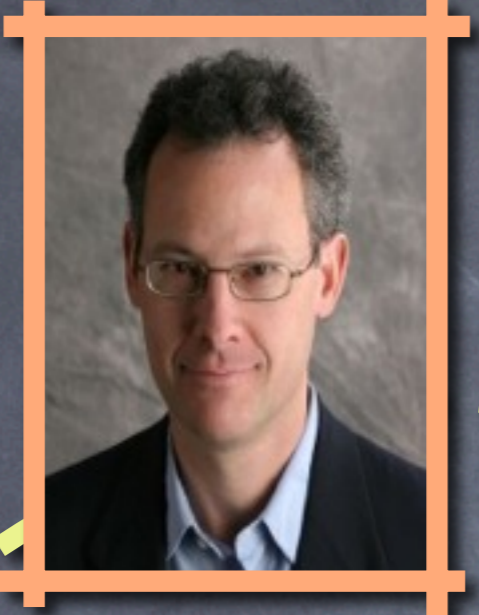
How NOT when ...

... unfortunately we can't say when things will change (we abolished time). Fortunately barriers exist, ...

Certainty

Ubiquity

N. Carr



... Unfortunately IT isn't one thing ...

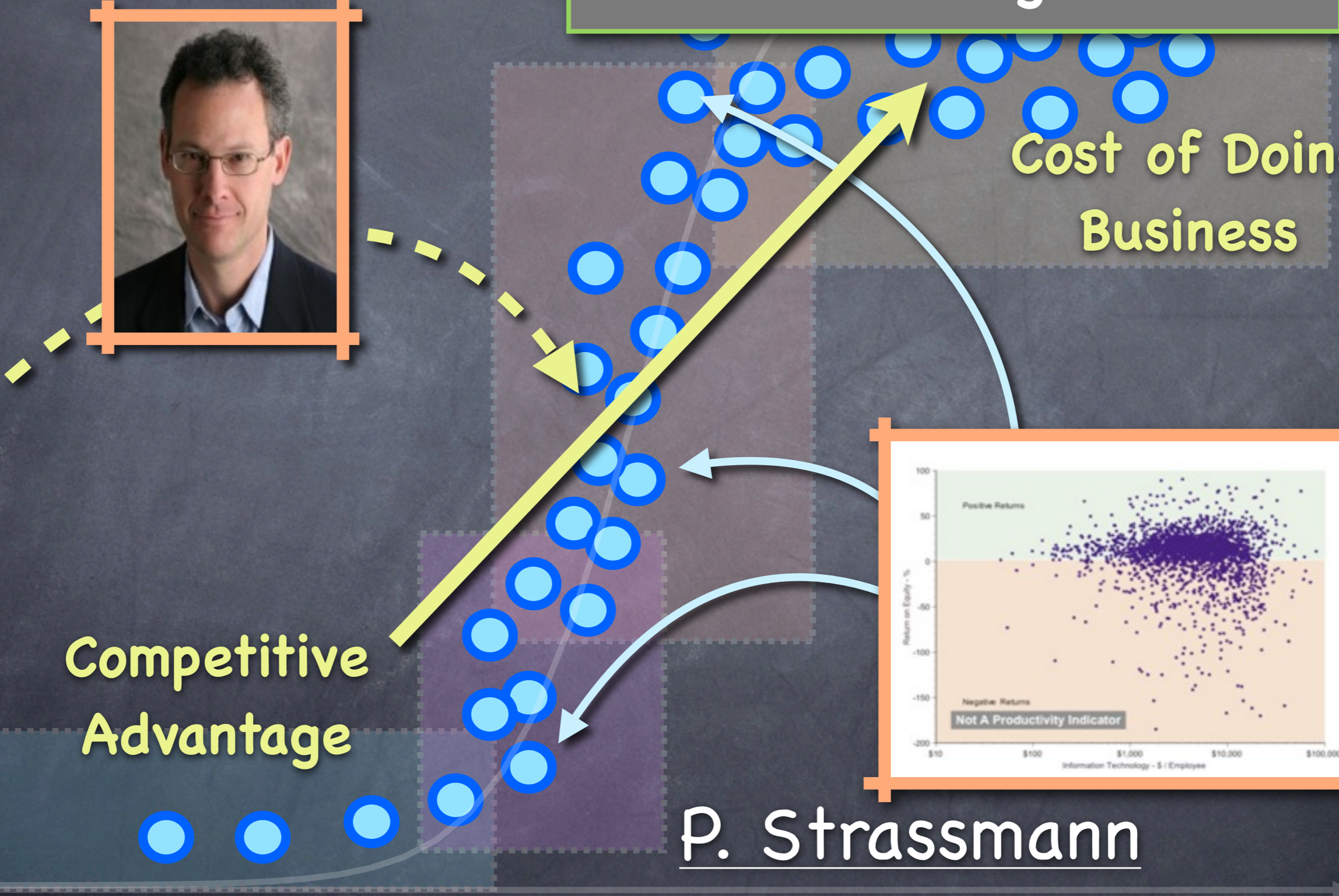
Cost of Doing Business

Competitive Advantage

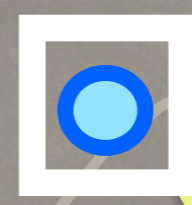


P. Strassmann

Certainty



Ubiquity



Consumption
"Perspective"

... and there is a difference
between consumer and
producer perspective ...

Brand
(+ lifestyle)



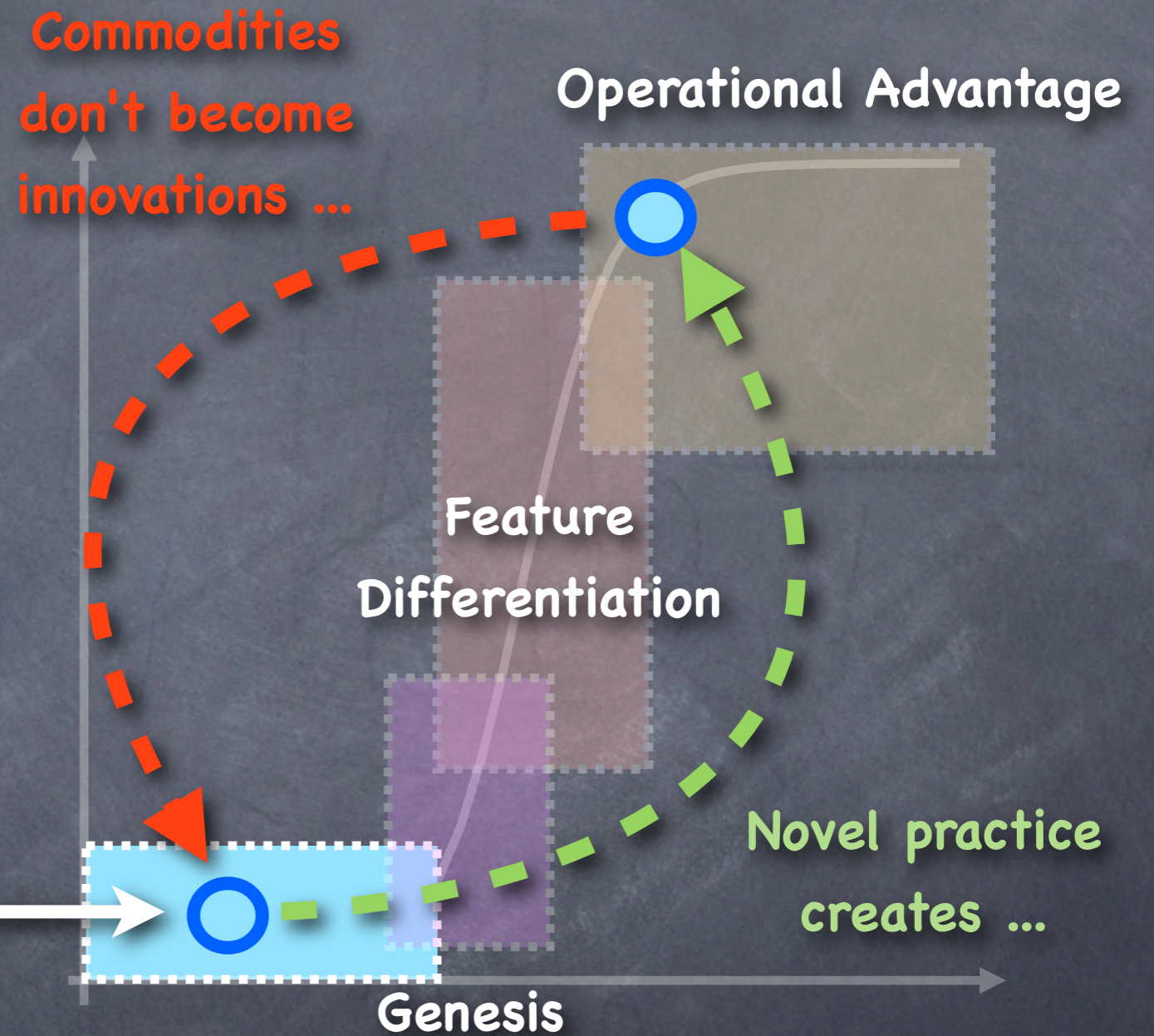
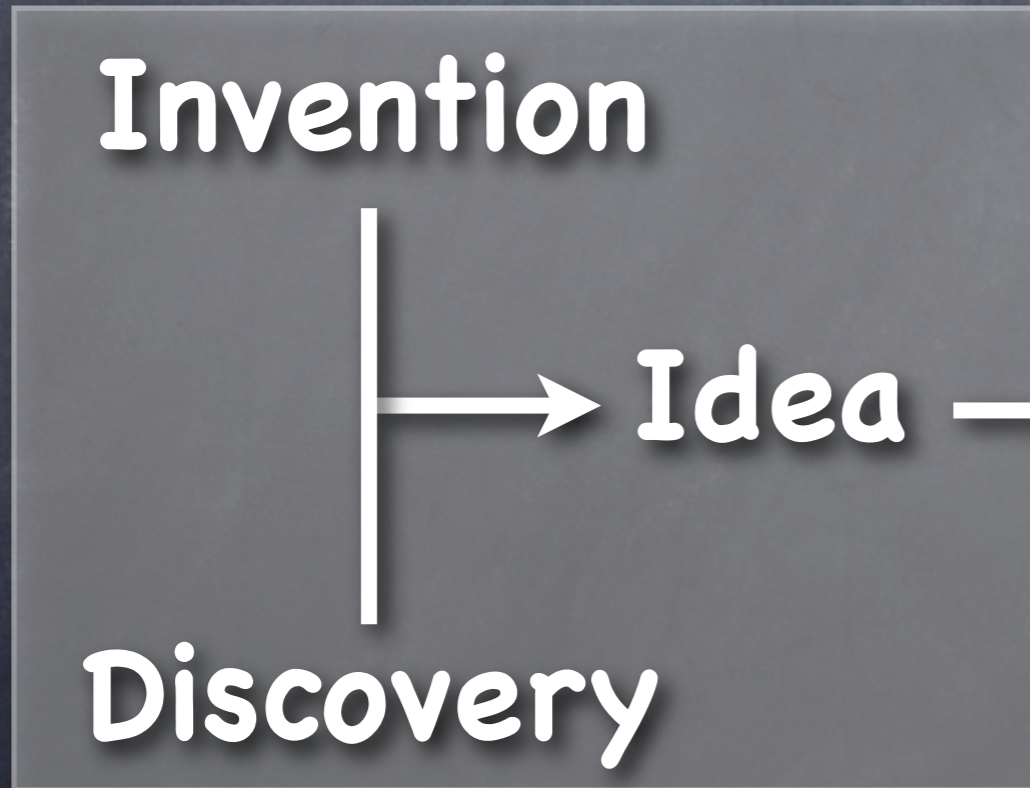
Production
"Perspective"



Certainty

... even the creative process can have different effects ...

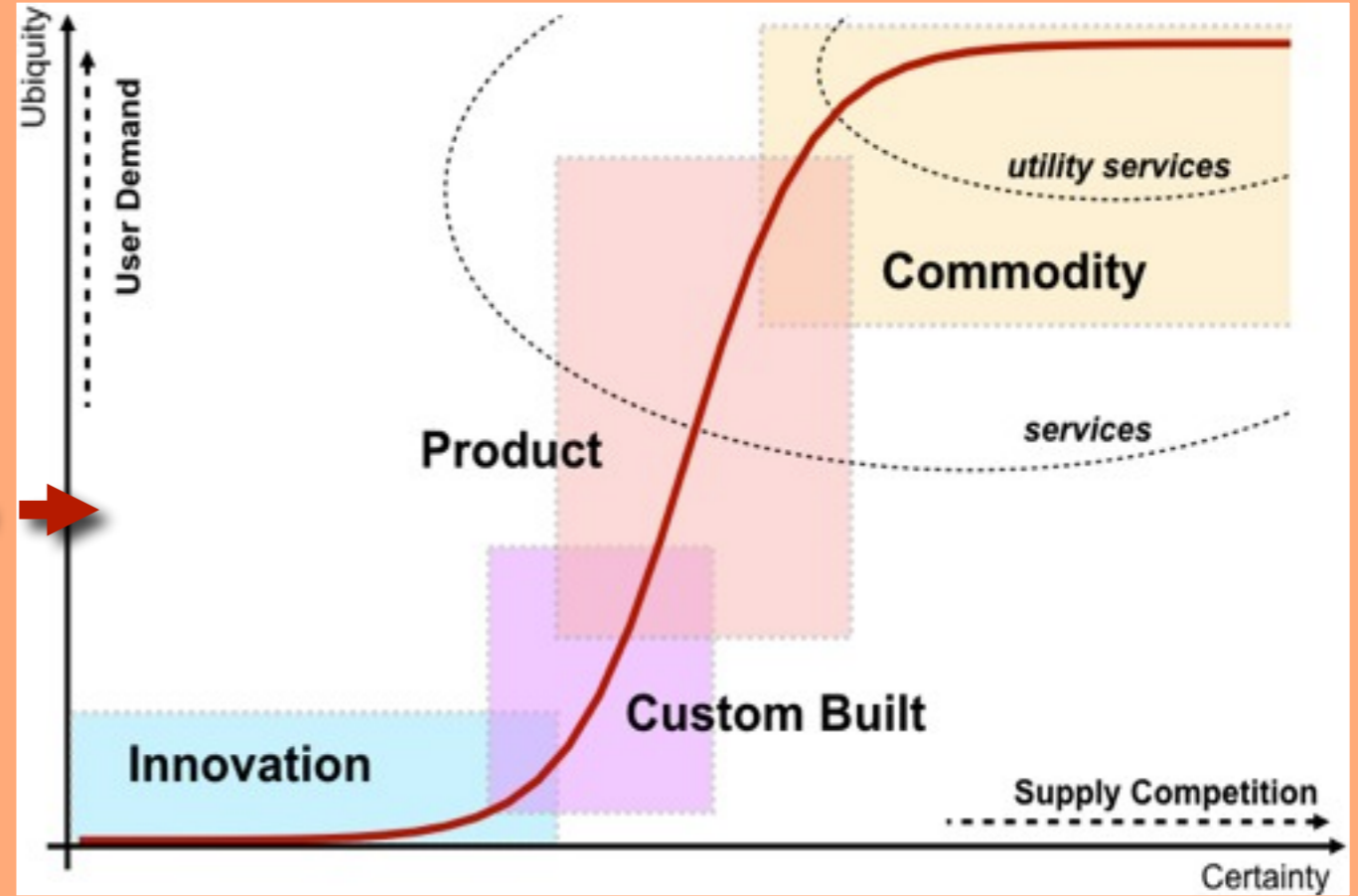
"Creative Process"



Evolution of Business Technology



Copyright 2004 by Nicholas G. Carr



$$\text{Future Worth} \propto \frac{1}{\text{Certainty}}$$

... and there is an inherent link between future worth and uncertainty ...

Ubiquity



Camera Phone Time keeper
Address book

Calculator

Internet

Digital music player

Radio

GIS

Social Network

Augmented Reality

Social G

ID Card

Health Monitor

... and many devices bundle multiple activities ...

Certainty

DANGER!
Complexity
DANGER!

... which is why examining evolution is
complex ...

Ubiquity

Economies of scale (volume operations)
Focus on core (outsource)
Pay per use (utility)

efficiency

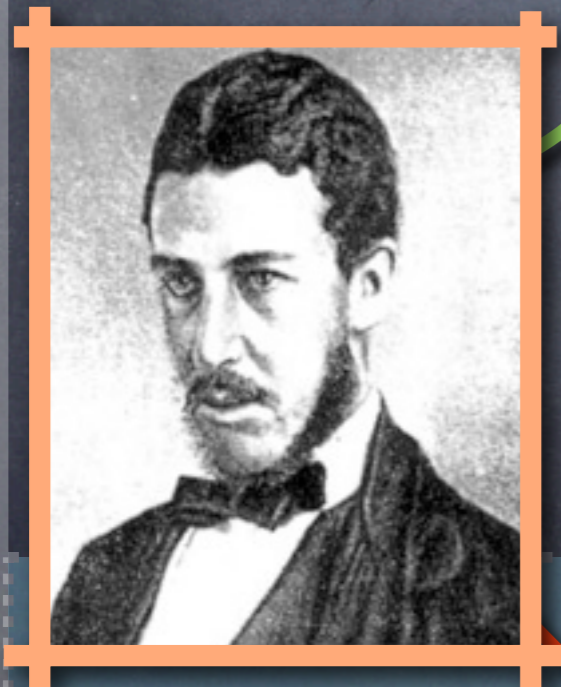
... Fortunately
evolution creates
common benefits ...

consumption

Agility (Self Service)

Opportunity (long tail, co-evolution, price elasticity)

Innovation (creative destruction, componentisation)



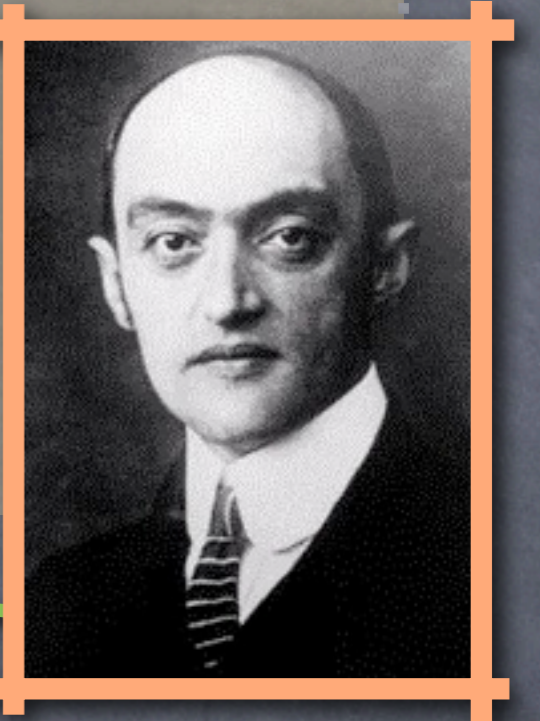
William Stanley Jevons, 1865

Certainty



... and consequences ...

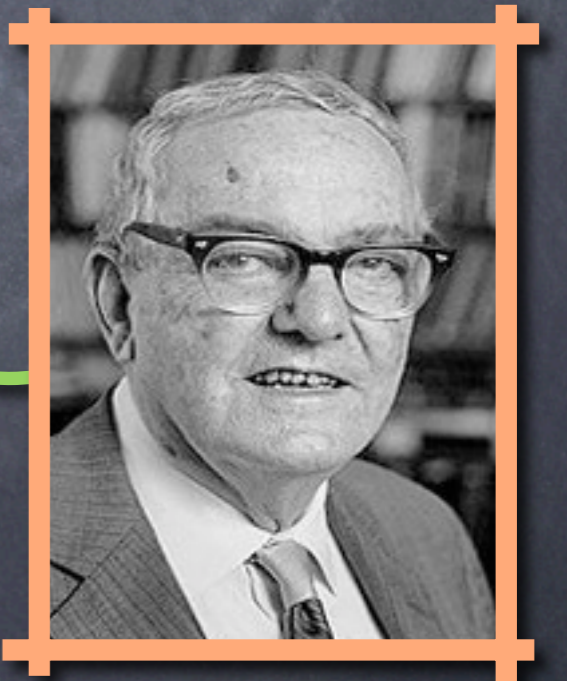
Joseph A. Schumpeter
(1883 - 1950)



+ Efficiency
(not reduced budgets)

Accelerated
Innovation

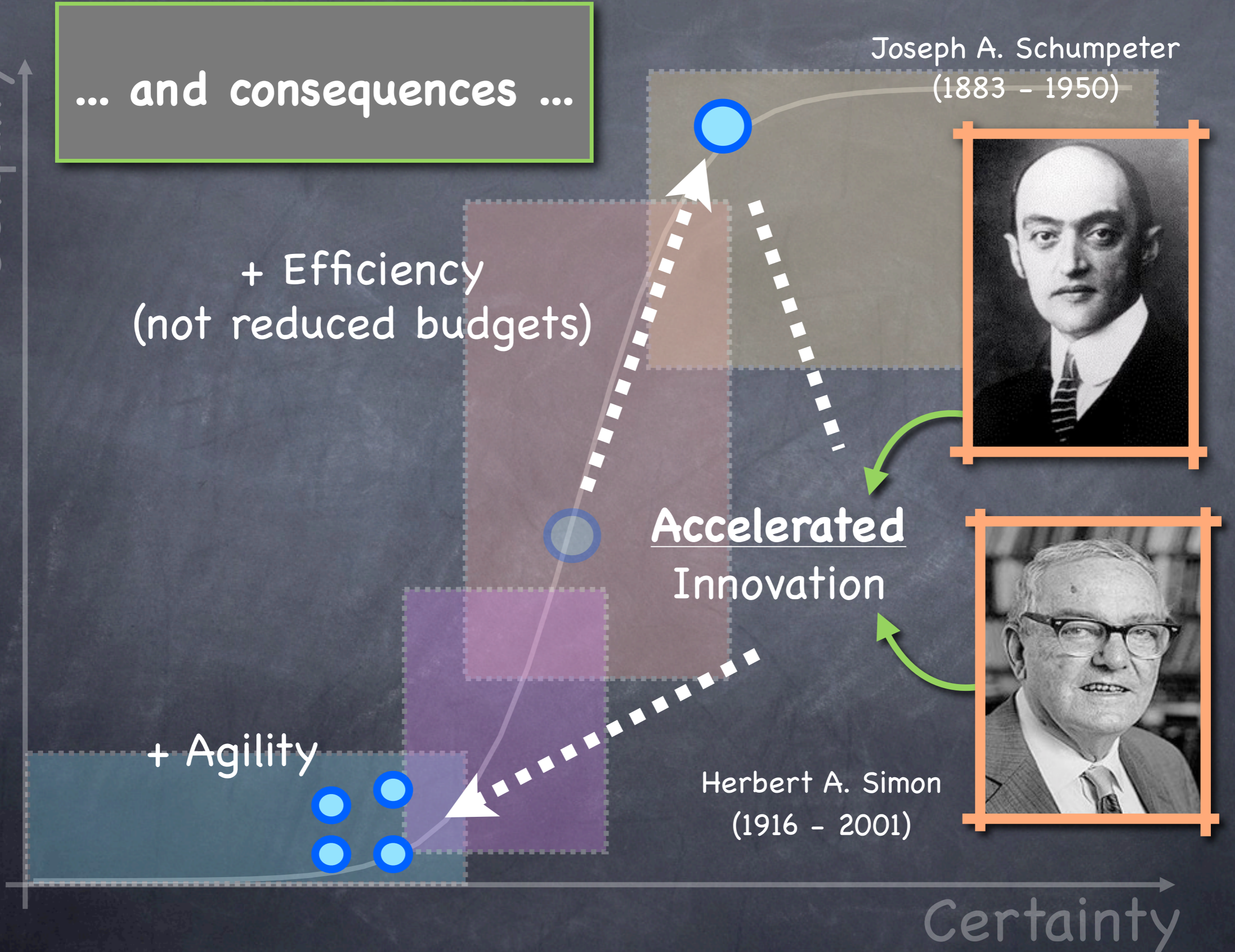
Herbert A. Simon
(1916 - 2001)



+ Agility

Certainty

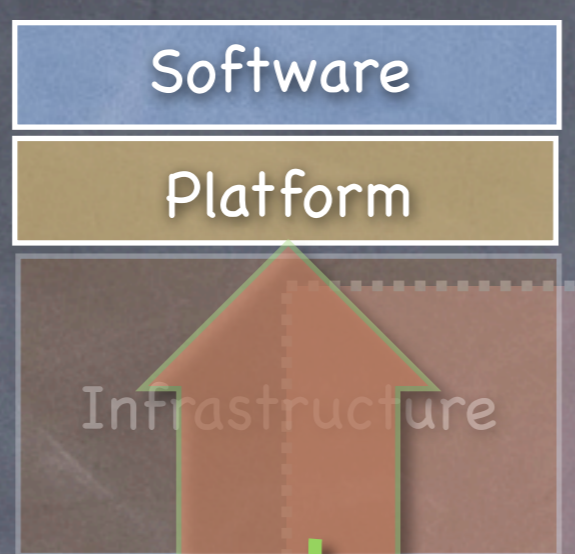
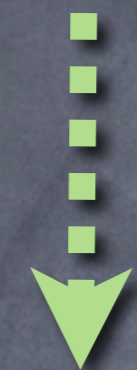
Ubiquity



Equity



Less Visible



... these impacts increase as you move to higher order systems ...

Stronger

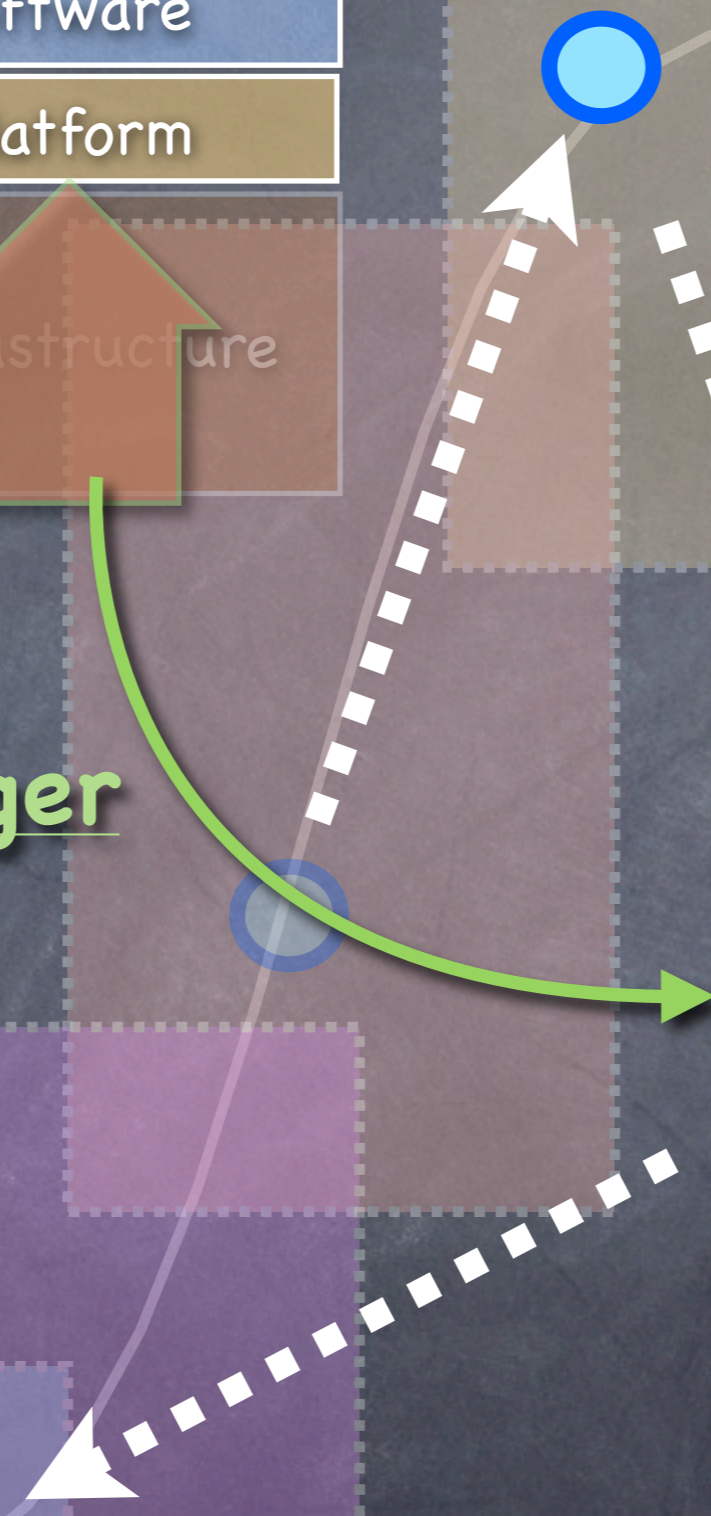
Accelerated Innovation

Big Data

Mash-ups



Certainty



Ubiquity

Transition

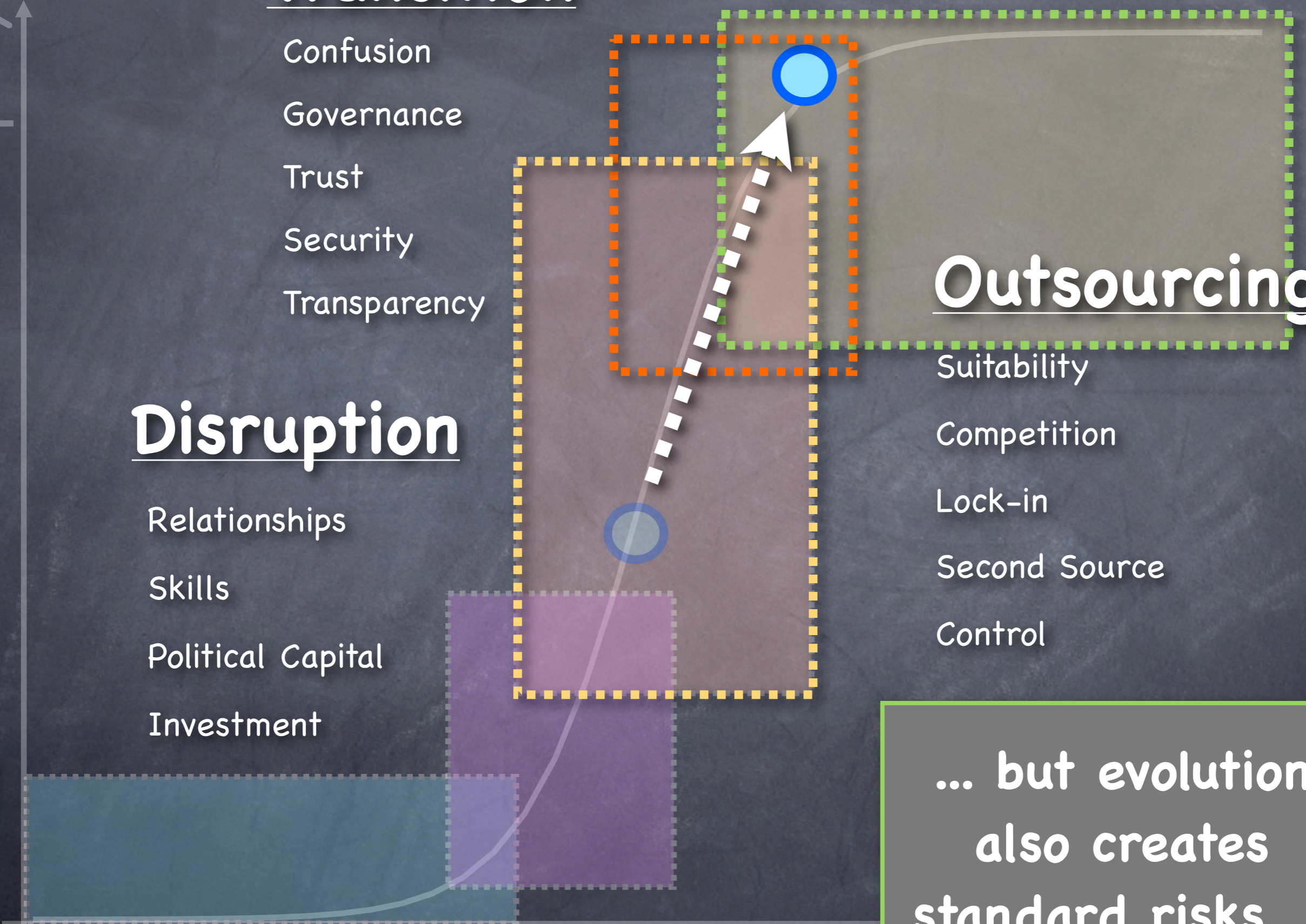
Confusion
Governance
Trust
Security
Transparency

Disruption

Relationships
Skills
Political Capital
Investment

Outsourcing

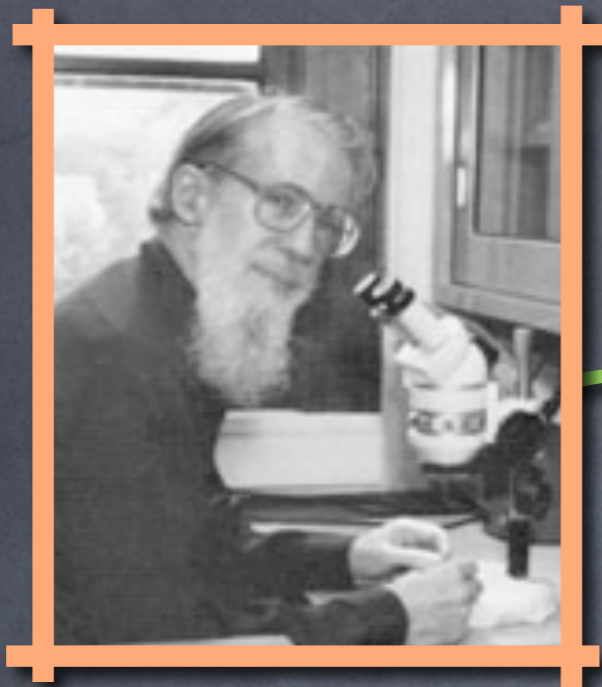
Suitability
Competition
Lock-in
Second Source
Control



... but evolution
also creates
standard risks ...

certainty

Ubiquity



Prof. Van Valen
"Red Queen Hypothesis"

The need to constantly evolve in order to stand still relative to a surrounding ecosystem

Market

... then again you have no choice ...

Pressure

Pay per use

Focus on core

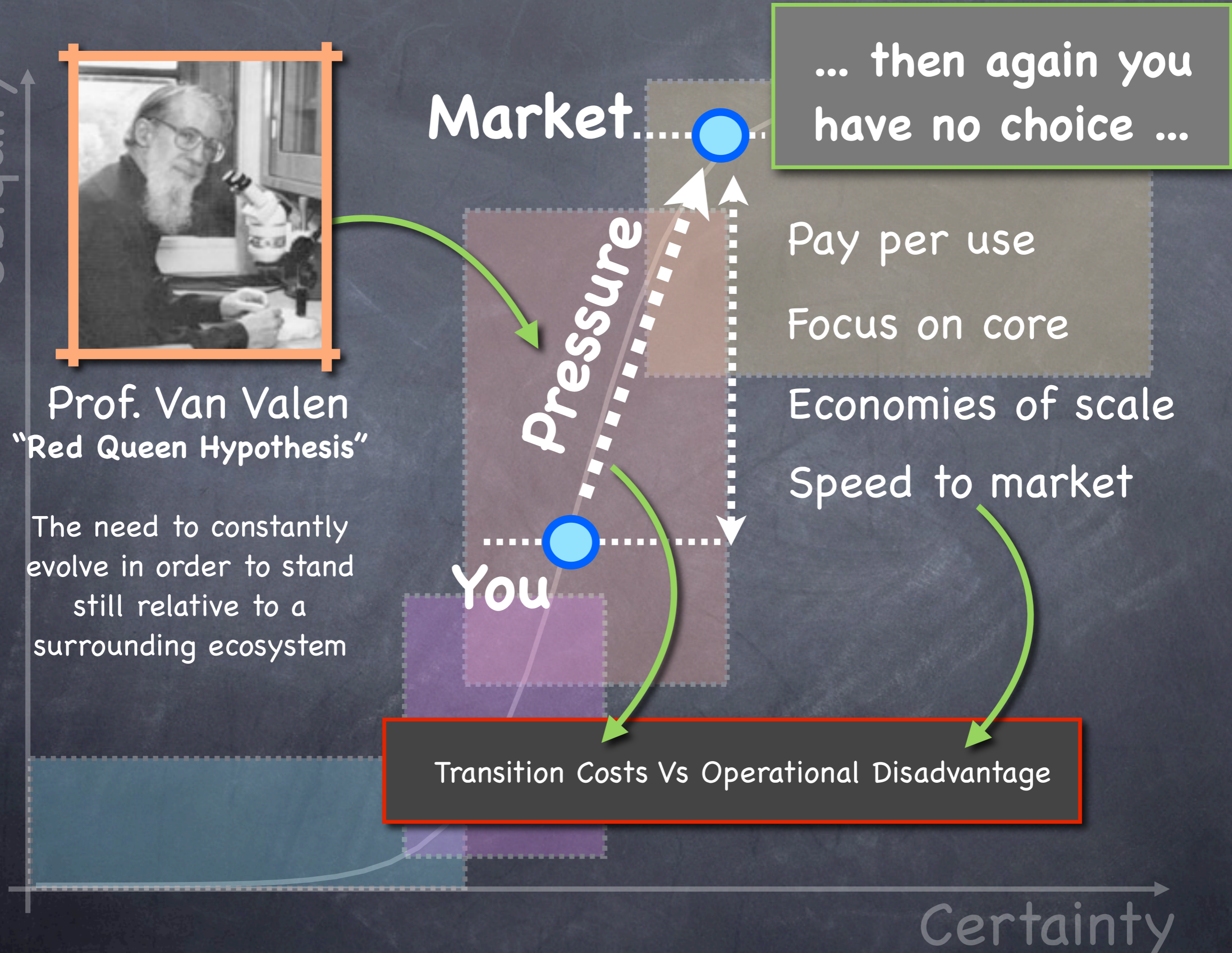
Economies of scale

Speed to market

You

Transition Costs Vs Operational Disadvantage

Certainty



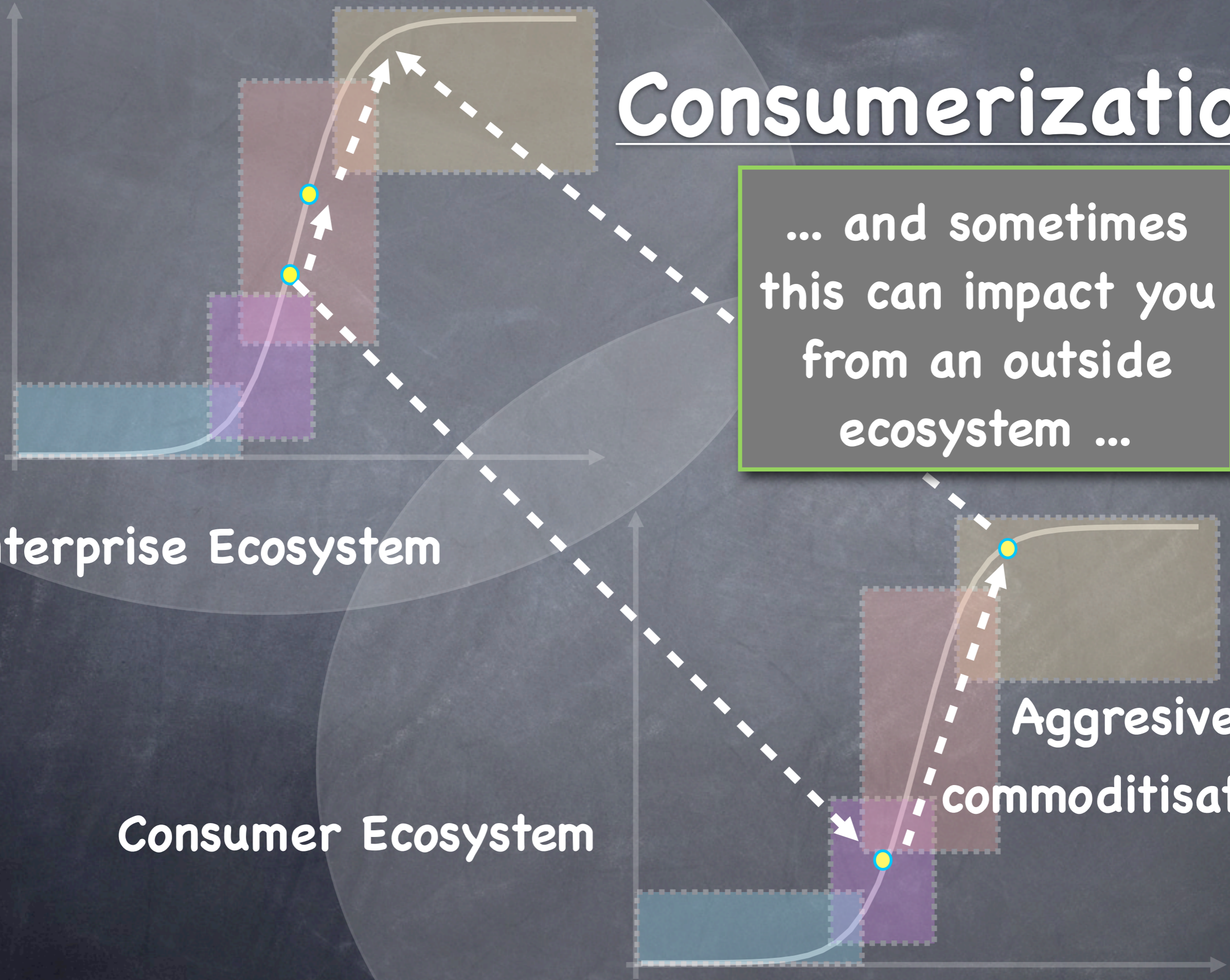
Consumerization

... and sometimes this can impact you from an outside ecosystem ...

Enterprise Ecosystem

Consumer Ecosystem

Aggressive
commoditisation



Ubiquity

Disruptive to Existing Vendors

+ Efficiency
(not reduced budgets)

Effect make originate
outside competitive
ecosystem

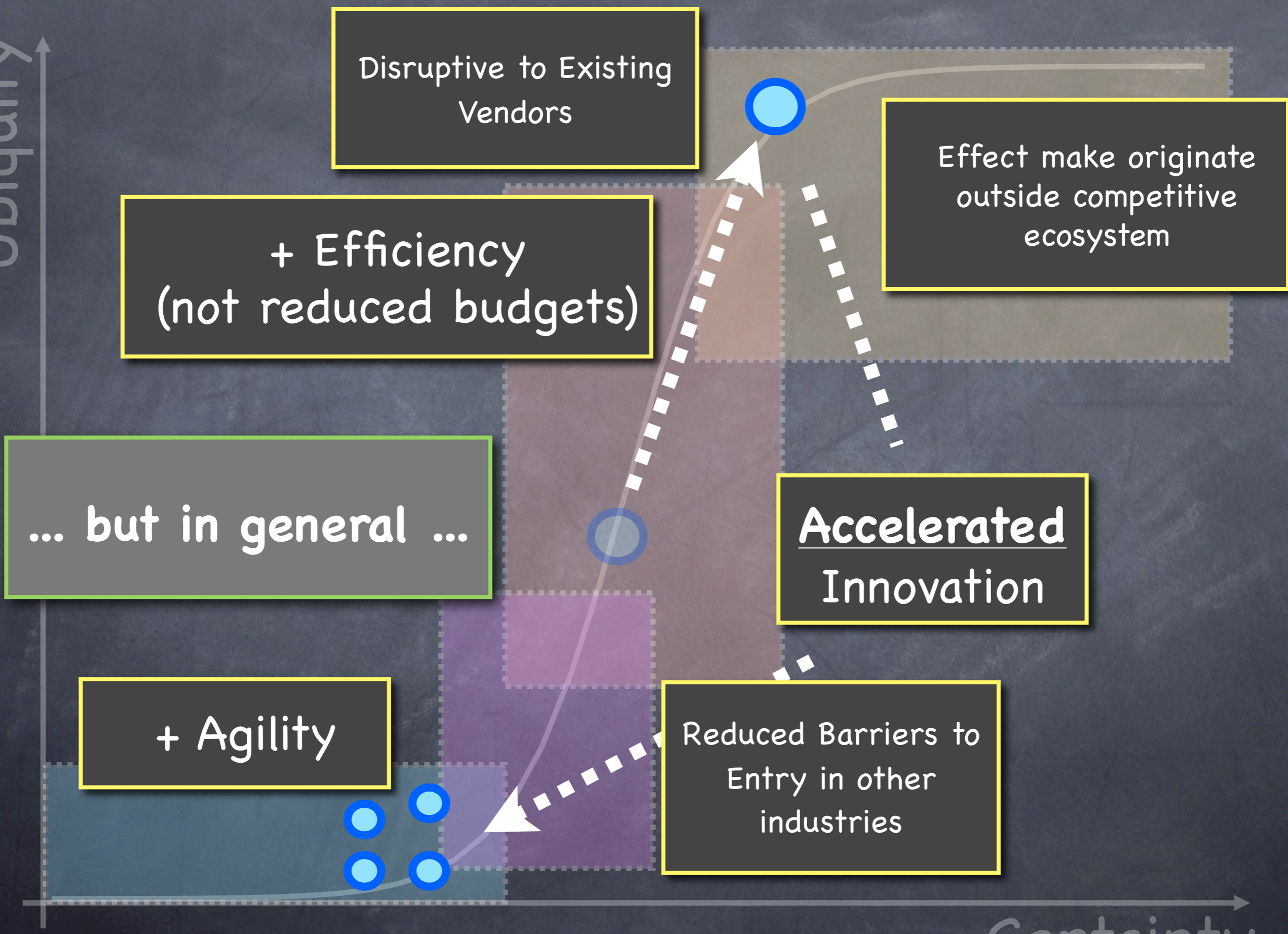
... but in general ...

Accelerated
Innovation

+ Agility

Reduced Barriers to
Entry in other
industries

Certainty



Frequency

Dynamic
Deviation
Uncertain
Emergent
Serendipity
Worth

Repeatable
Standard
Known
Predictable
Procedural
CODB

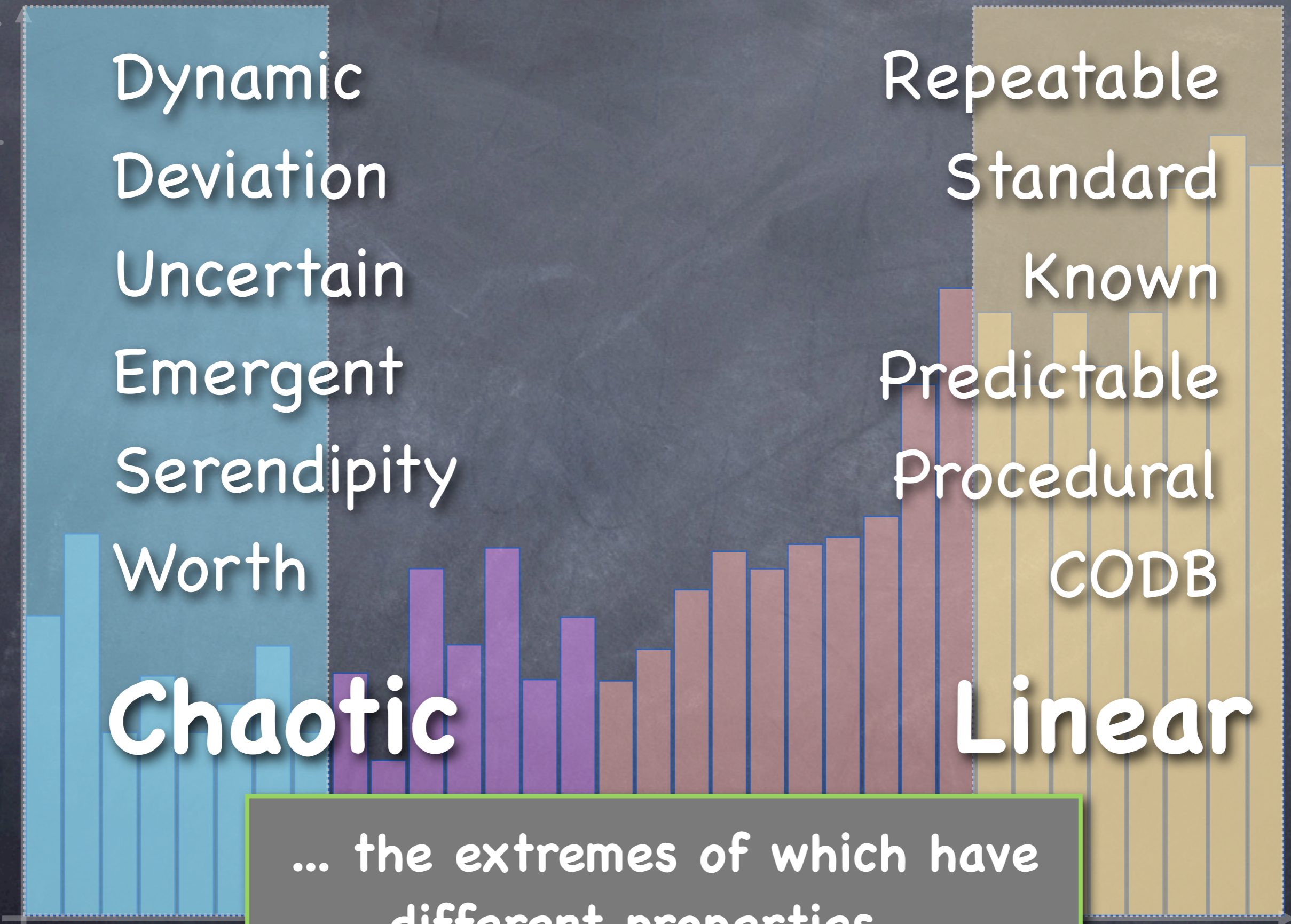
Chaotic

Linear

... the extremes of which have different properties ...

Innovation

Commodity



... evolution in effect creates a virtuous circle ...

Commoditisation

User & Supply Competition

Innovation

Creative Destruction
Componentisation

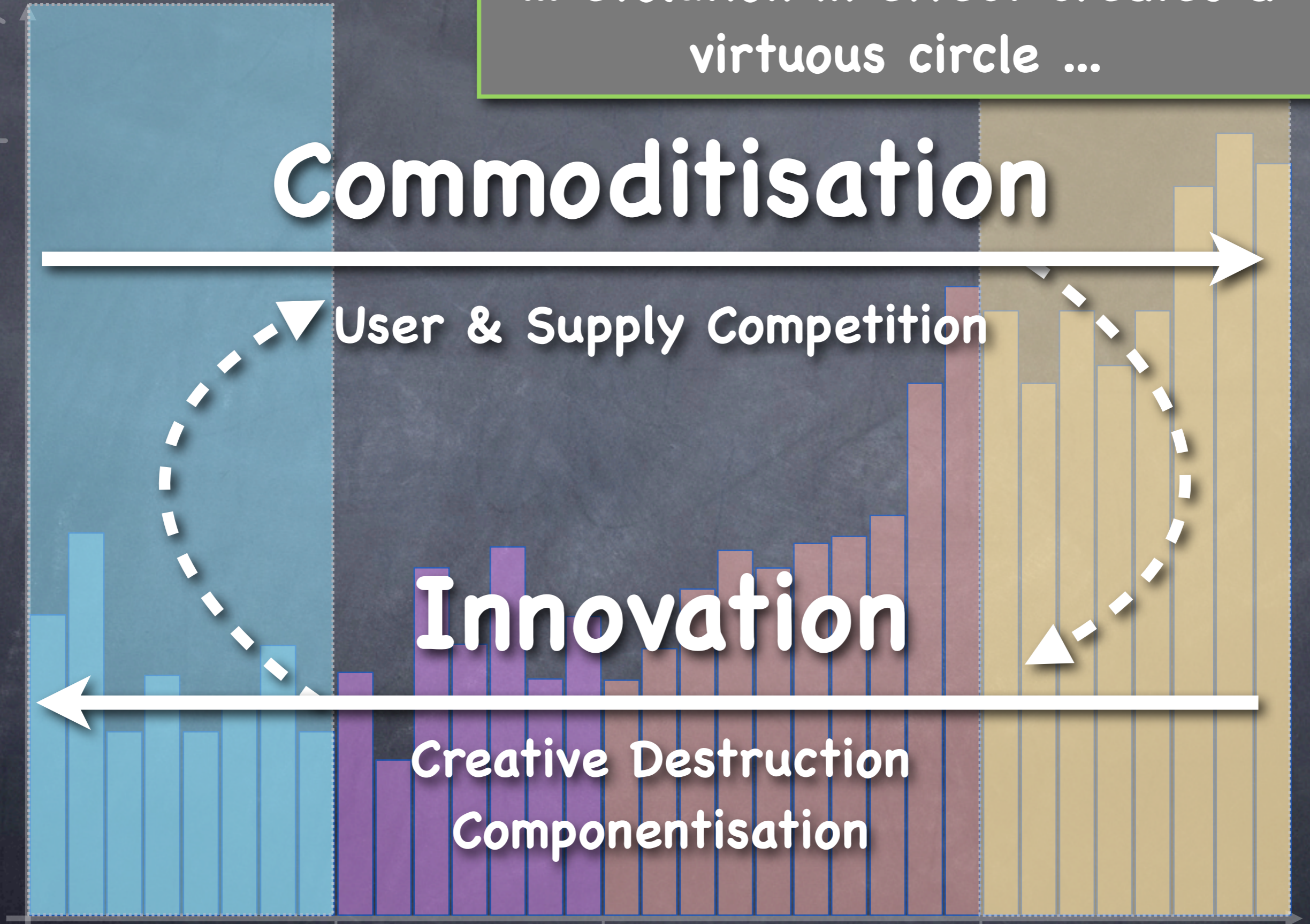
Innovation

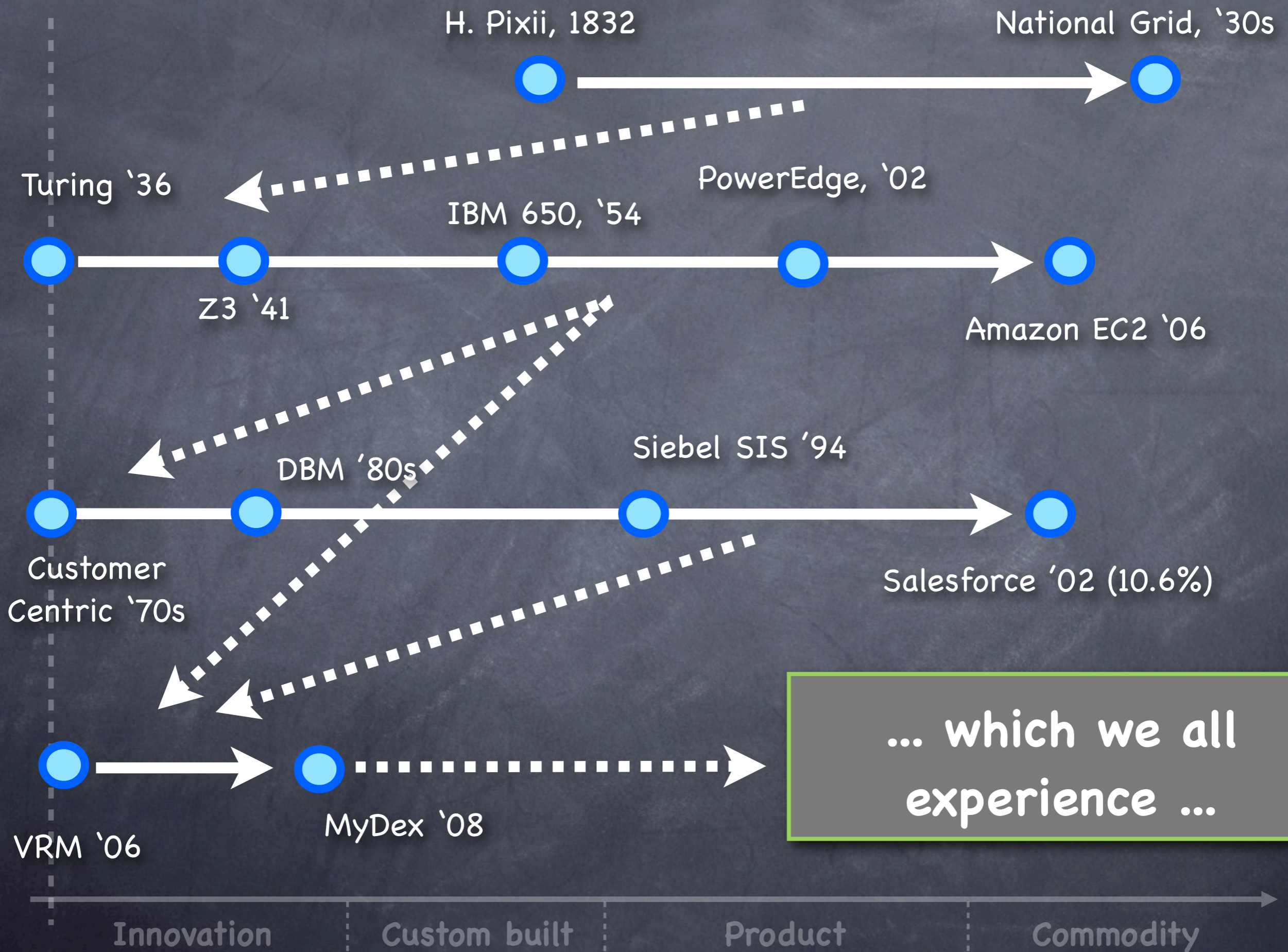
Custom built

Product

Commodity

Frequency





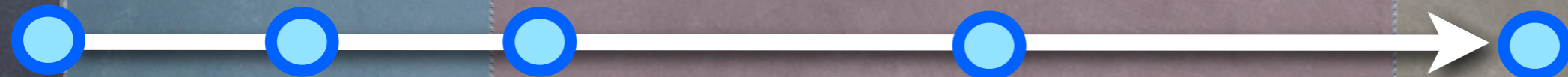
Chaotic

Transition

Linear

Lists

Siebel SIS '94



Customer

DBM '80s

Salesforce '02

Centric '70s

... of course, as an activity evolves, its characteristics change ...

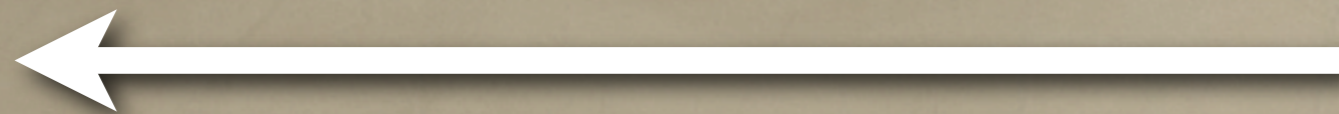
Innovation

Custom built

Product

Commodity

Frequency



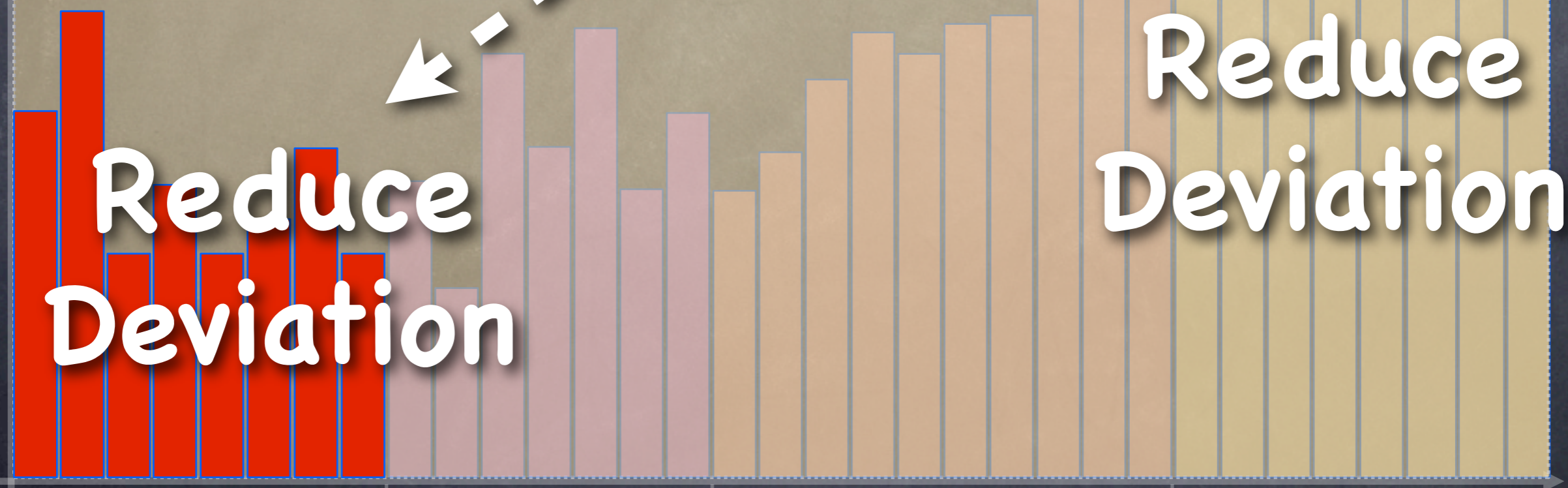
6 Sigma

... which is why
one size doesn't
fit all ...



Reduce
Deviation

Reduce
Deviation



Innovation

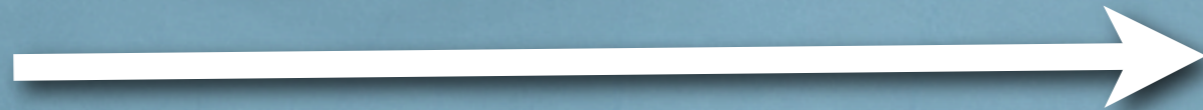
Custom built

Product

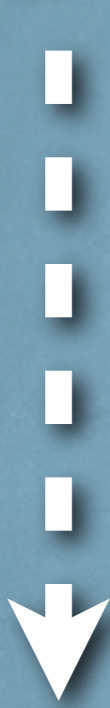
Commodity

Frequency

Agile



... ditto ...



Encourages
Deviation

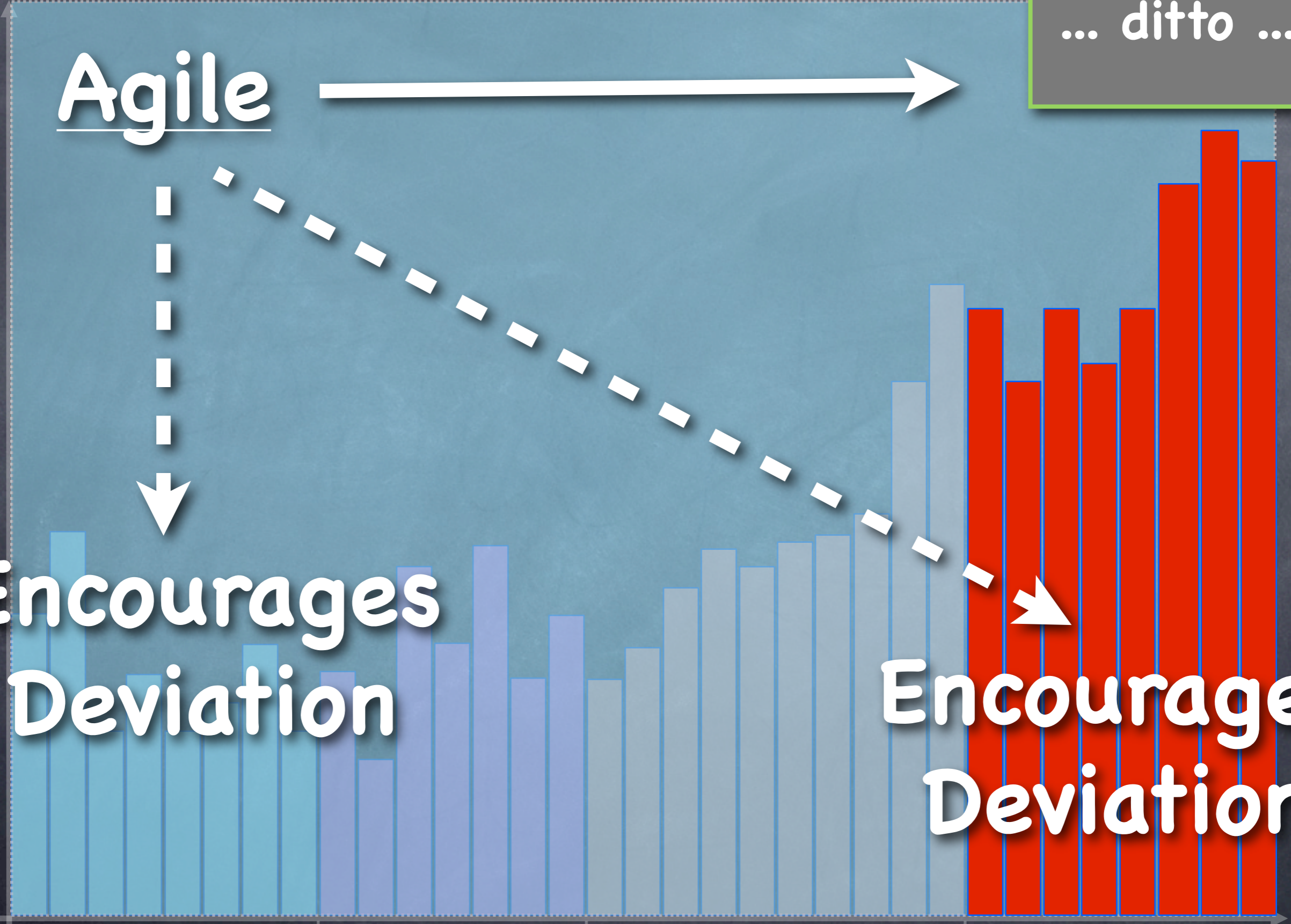
Encourages
Deviation

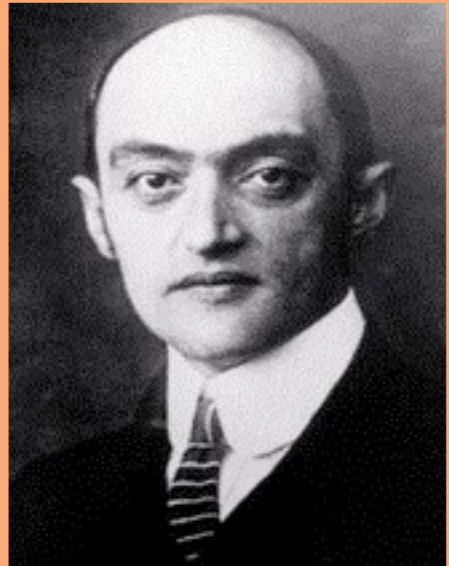
Innovation

Custom built

Product

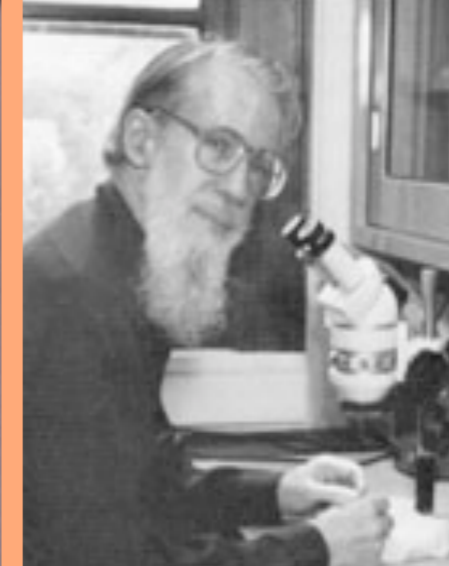
Commodity





Survival Tomorrow

VS



Survival Today

Innovation Paradox

Survival today requires 'coherence, coordination and stability'.

Survival tomorrow requires the replacement of these erstwhile virtues.

Salaman & Storey

... there are no viable magic bullets ...

built

Product

Commodity

1. One size fits all

2. But it worked for a while

3. Outsourcing failures.

4. Business Alignment.

5. Management Yo-Yo's.

6. Innovation vs Efficiency.

... and typical problems are caused by trying to use magic bullets ...

... your methods need to adapt as the activity evolves ...

Innovation

Custom built

Product

Commodity

**Your
Company**

Grow

Die

Compete

Evolve

Consume

Produce

Reproduce

Competitor

... and your company
is more like an
organism competing
in an ecosystem ...

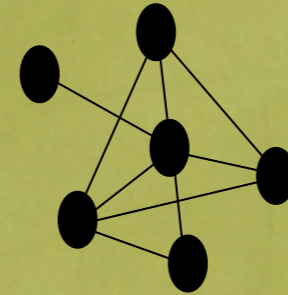
**Business
Environment**

Competitor

... you have energy stores,
actors and activities ...

Capital
Financial
Physical
Human
Social

Agents



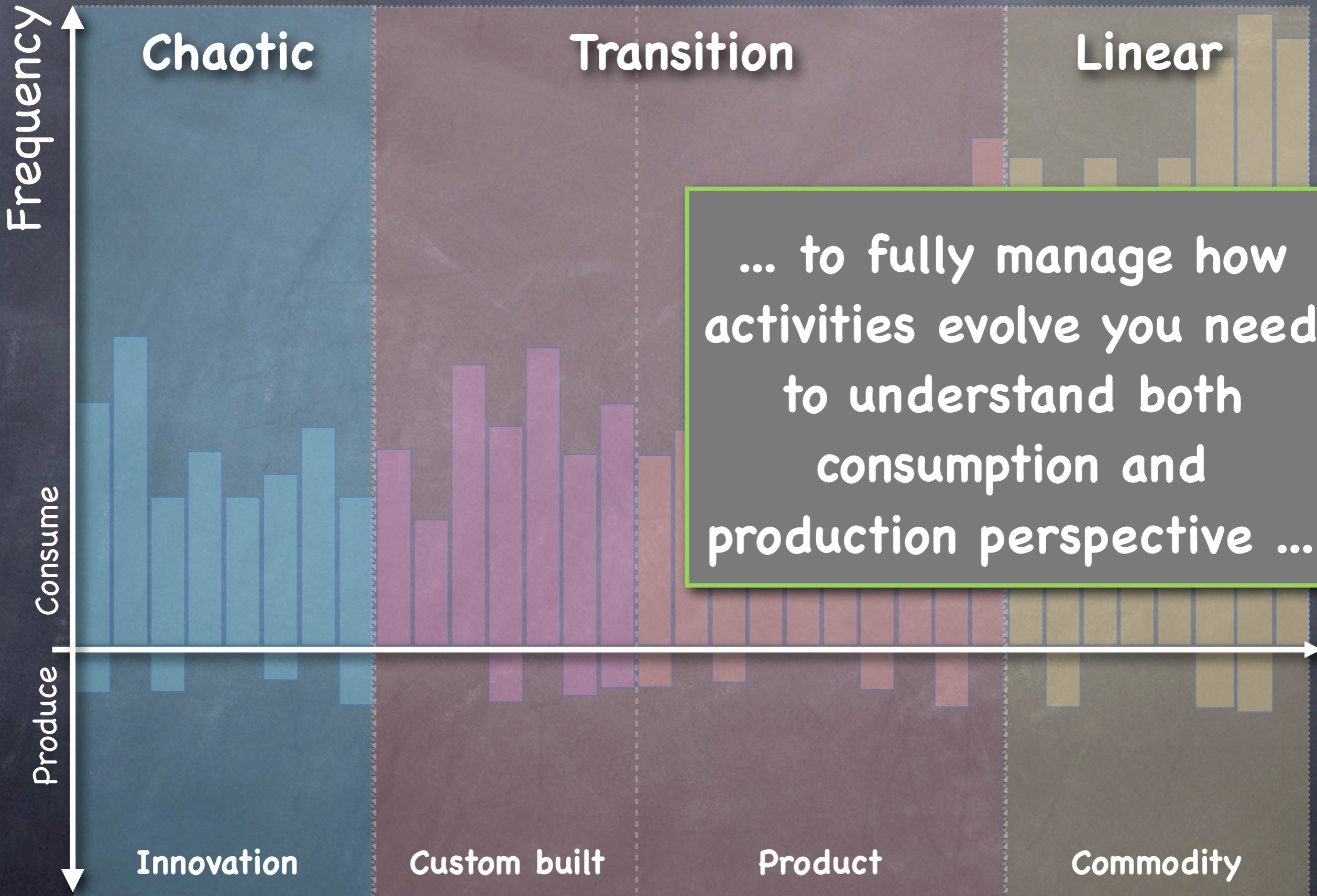
Activities



... and everything is in
flux ...

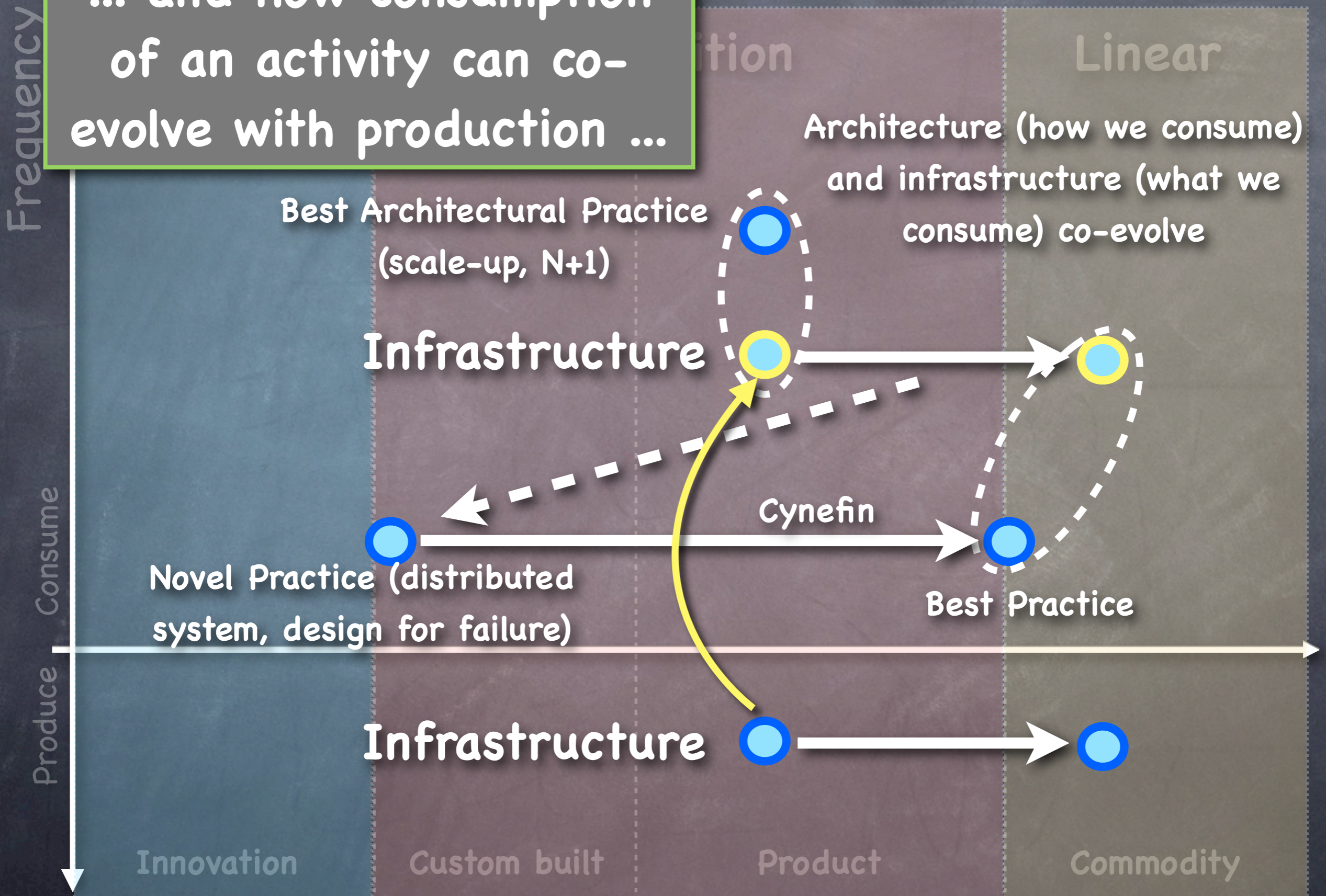
DANGER!
Complexity
DANGER!

... which is why management is complex ...

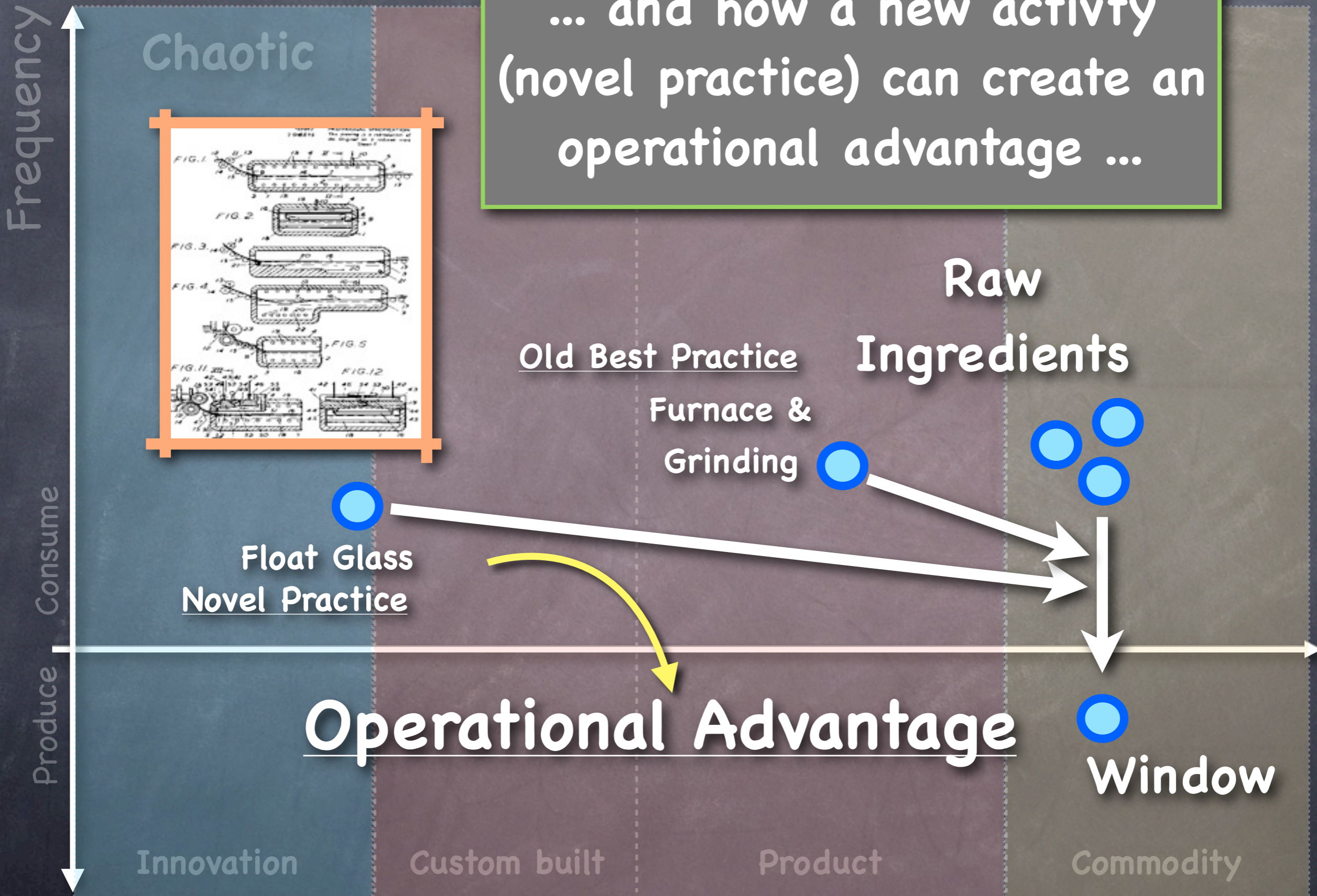


... to fully manage how activities evolve you need to understand both consumption and production perspective ...

... and how consumption of an activity can co-evolve with production ...

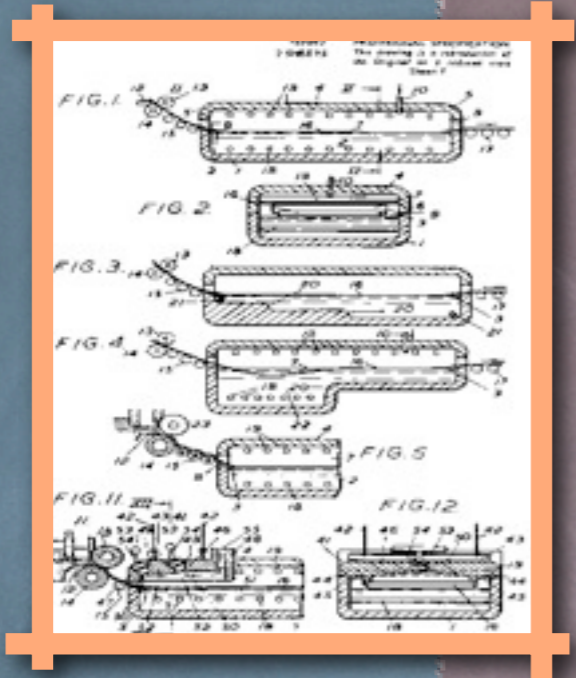


... and how a new activity (novel practice) can create an operational advantage ...



Frequency

Chaotic



Raw

Old Best Practice

Ingredients

Furnace & Grinding

Float Glass Novel Practice

Operational Advantage

Window

Innovation

Custom built

Product

Commodity

Consume
Produce

... with this we can identify what practices fit ...

Experiment

ROI

Best Practice

Adapt

Customer
Focus

Standardise

Take Risks

Market Driven

Avoid Risk

Fail Quick

Price vs QoS

Network

Ecosystem

Regiment

Innovation

Custom built

Product

Commodity

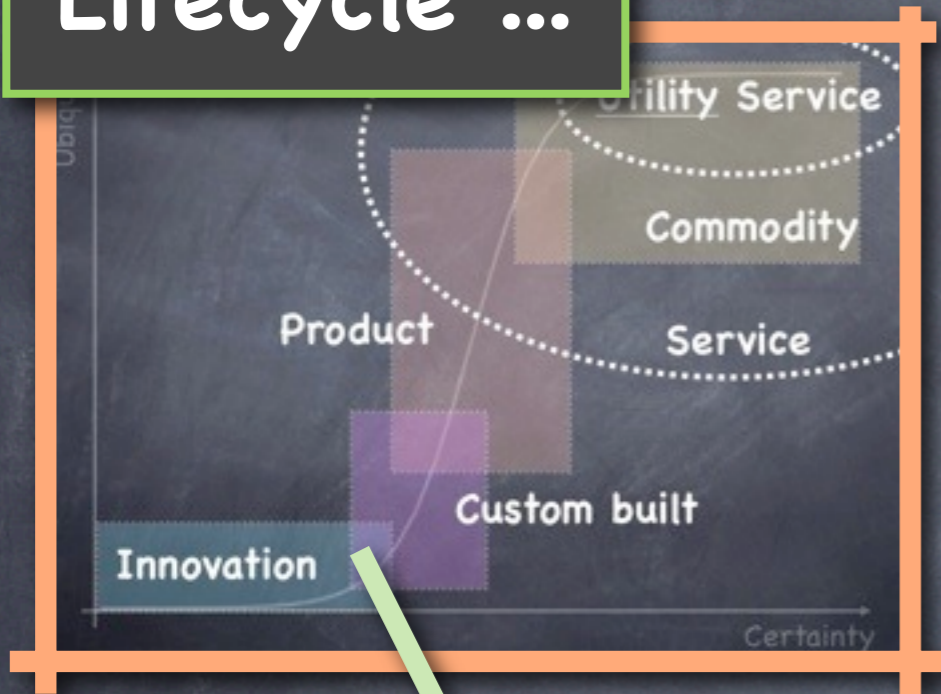
Frequency



No, I don't
know its ROI

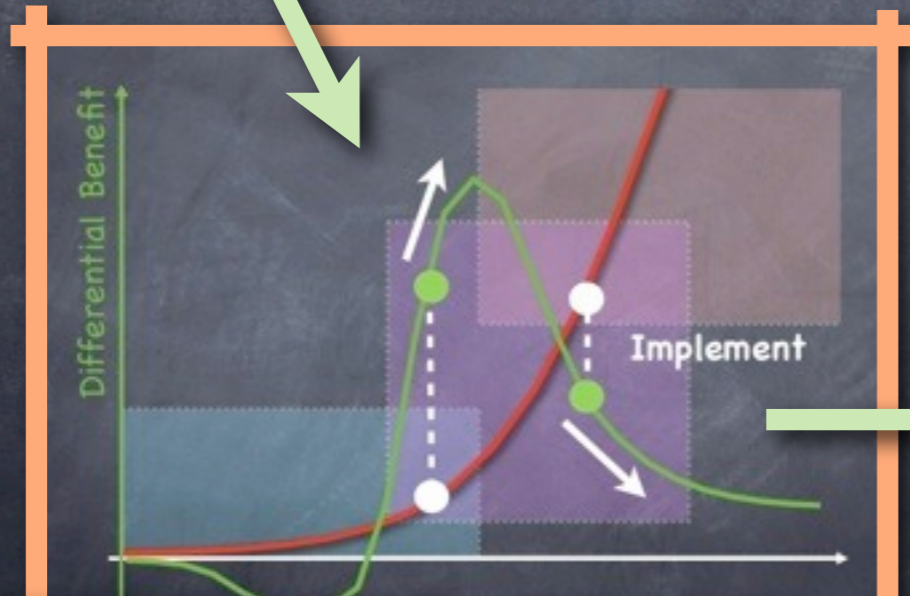
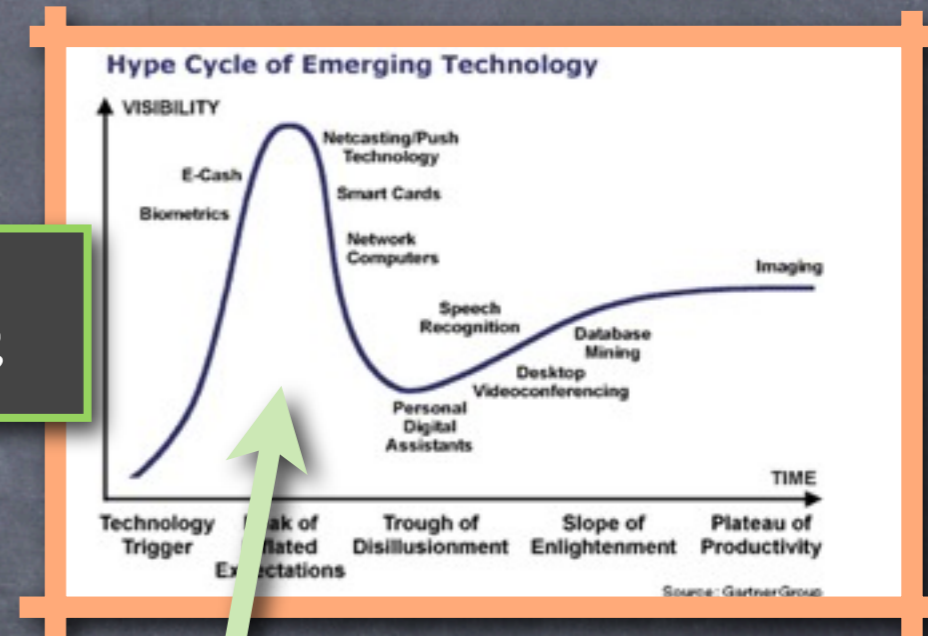
.... and why we
go wrong ...

Lifecycle ...

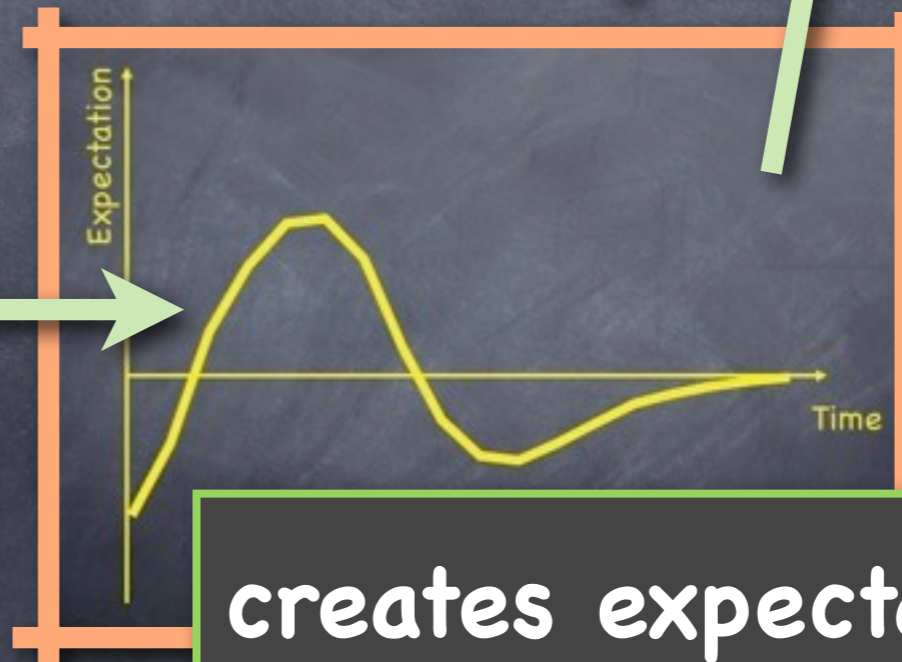


... and why we can't avoid gambling (uncertainty), despite our best efforts ...

= hypecycle

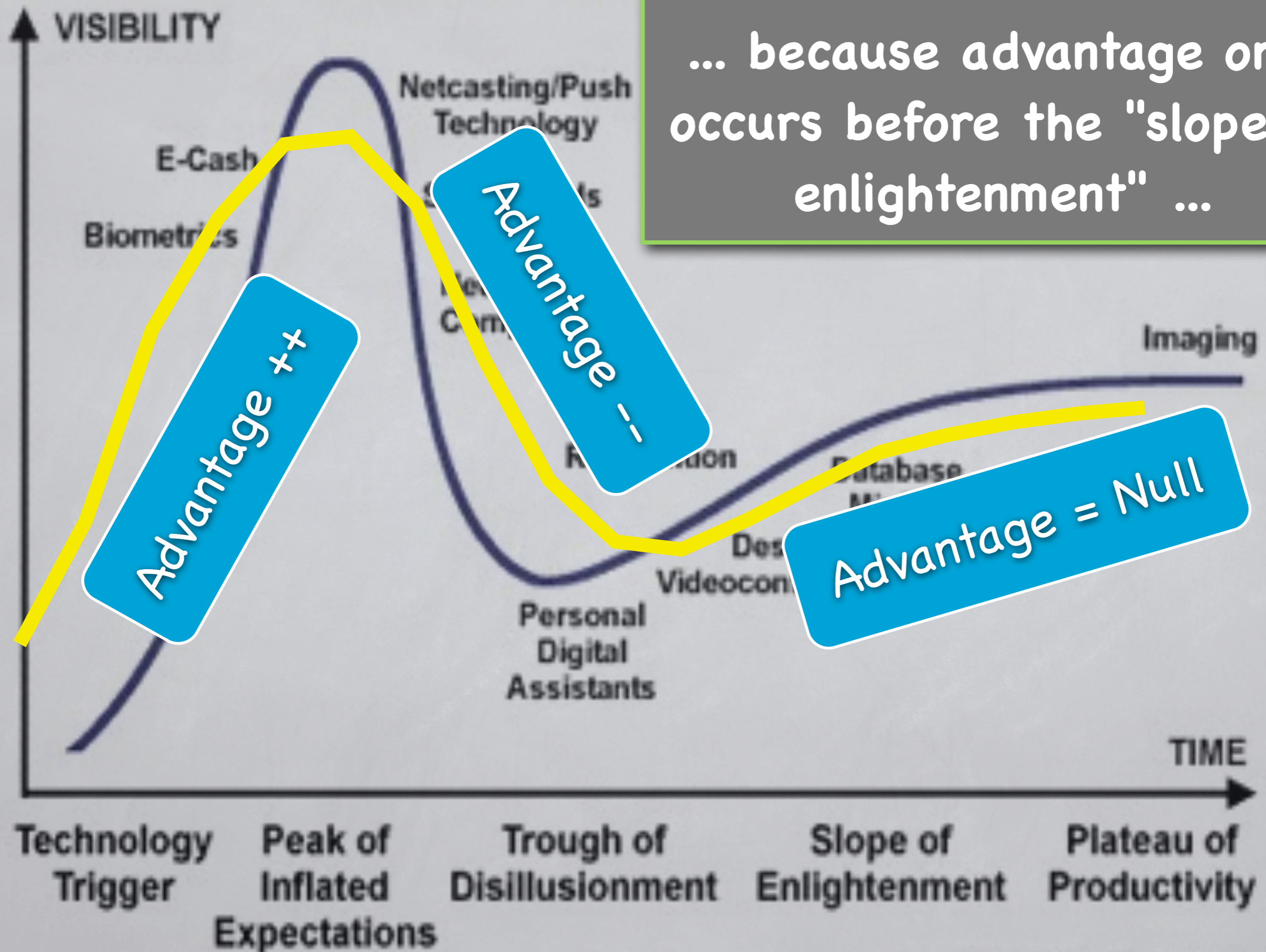


+ Value Curve ...



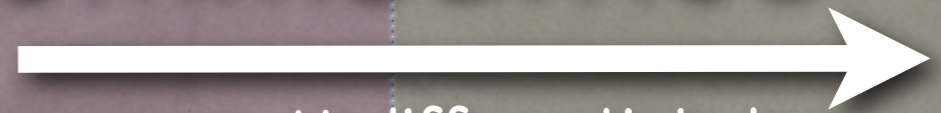
creates expectation curve

Hype Cycle of Emerging Technology



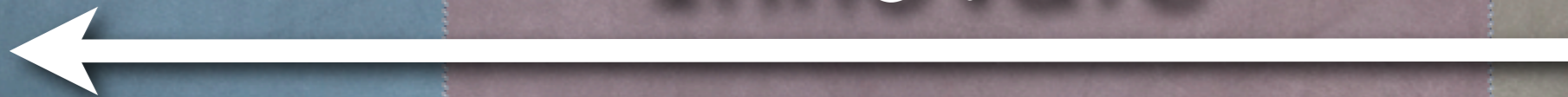
... but we can exploit these relationship to create more effective patterns of organisation ...

Commoditise



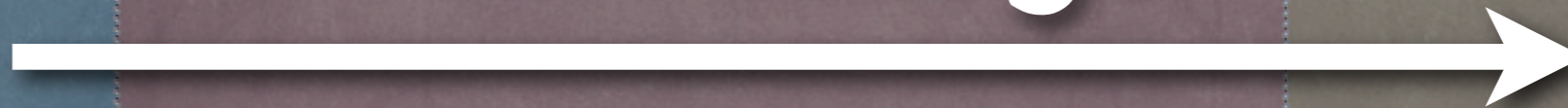
Undifferentiated
to Utility Services

Innovate



Worth $\propto \frac{1}{\text{Certainty}}$

Leverage



Adoption (Ecosystem)

Innovation

Custom built

Product

Commodity

Innovate

Adapt

Experiment

Take Risks

Network

Leverage

to identify future patterns

Customer Focus

Market Driven

Best Practice

Price vs QoS

Commoditise

Standardise

... we see these patterns in the cloud ...

enable next wave

- + High rates of Innovation
- + Reduced cost of gamble
- + Efficiency

Speed

(identify & commoditise)

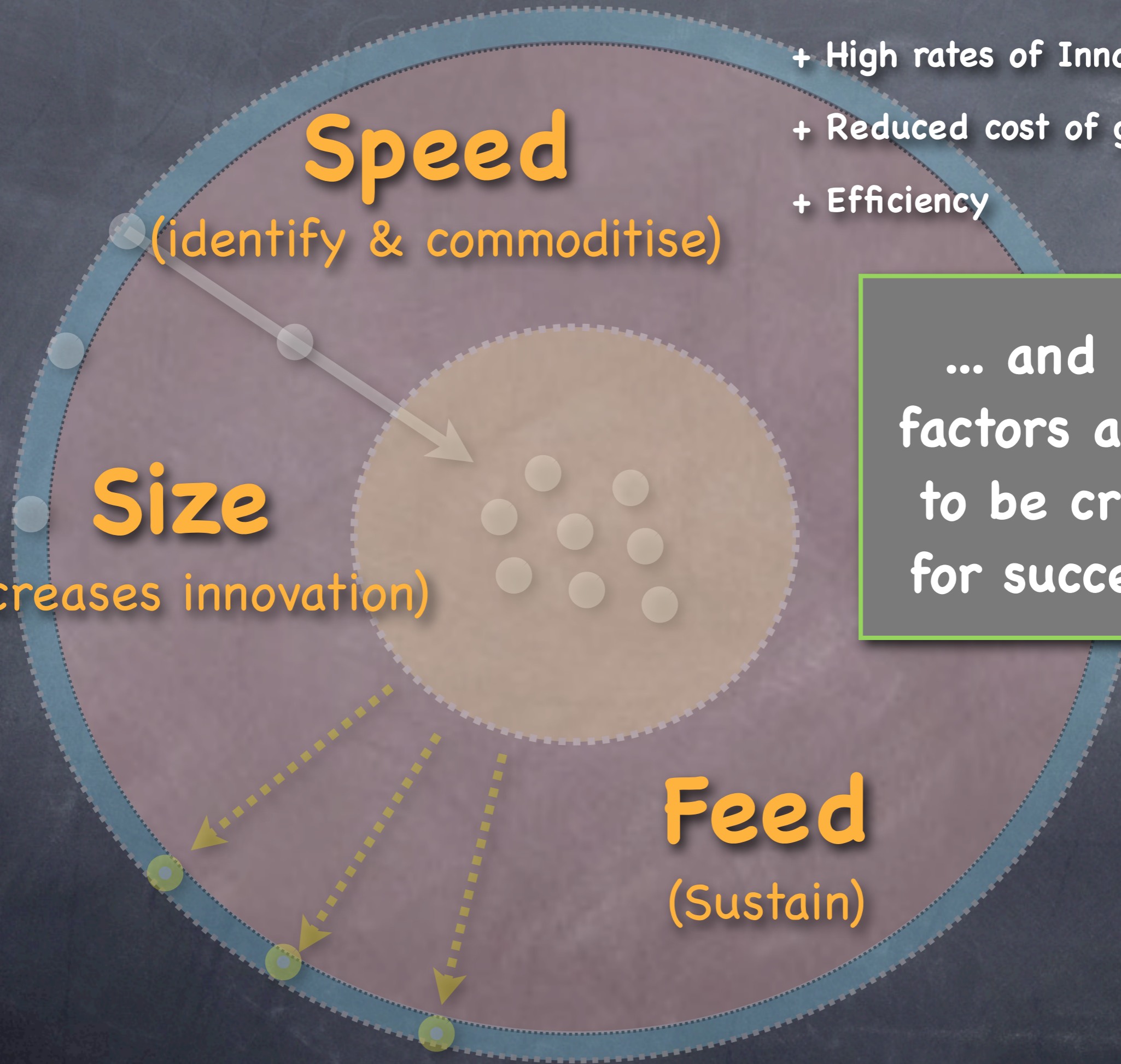
Size

(increases innovation)

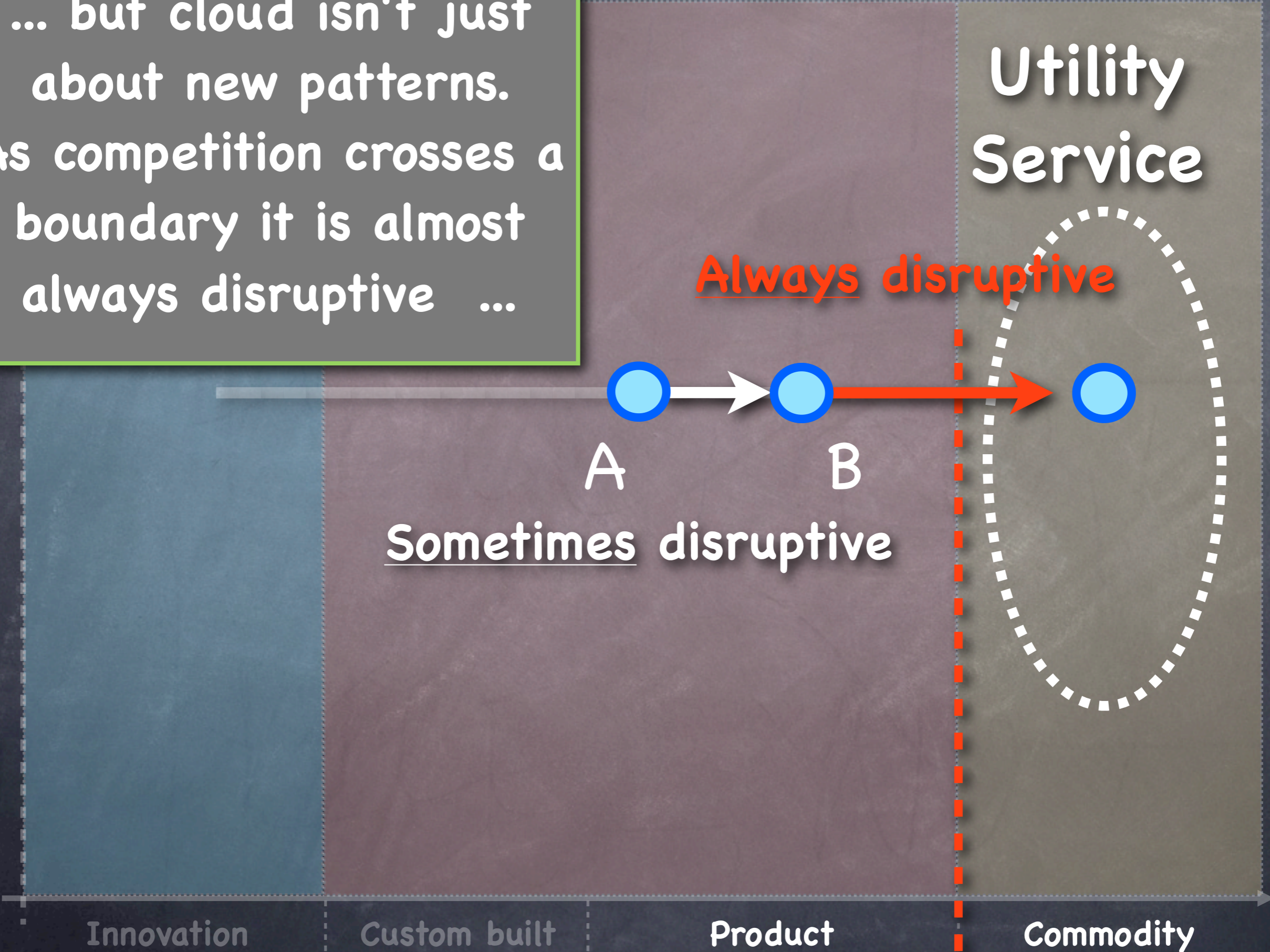
Feed

(Sustain)

... and new factors appear to be critical for success ...



... but cloud isn't just about new patterns. As competition crosses a boundary it is almost always disruptive ...



"Success is a lousy teacher"

Bill Gates

... because past success creates inertia barriers to change ...

amazon.com

Personal

Success

Organisation

Institutional

Markets

AMZN not encumbered by previous business models in infrastructure

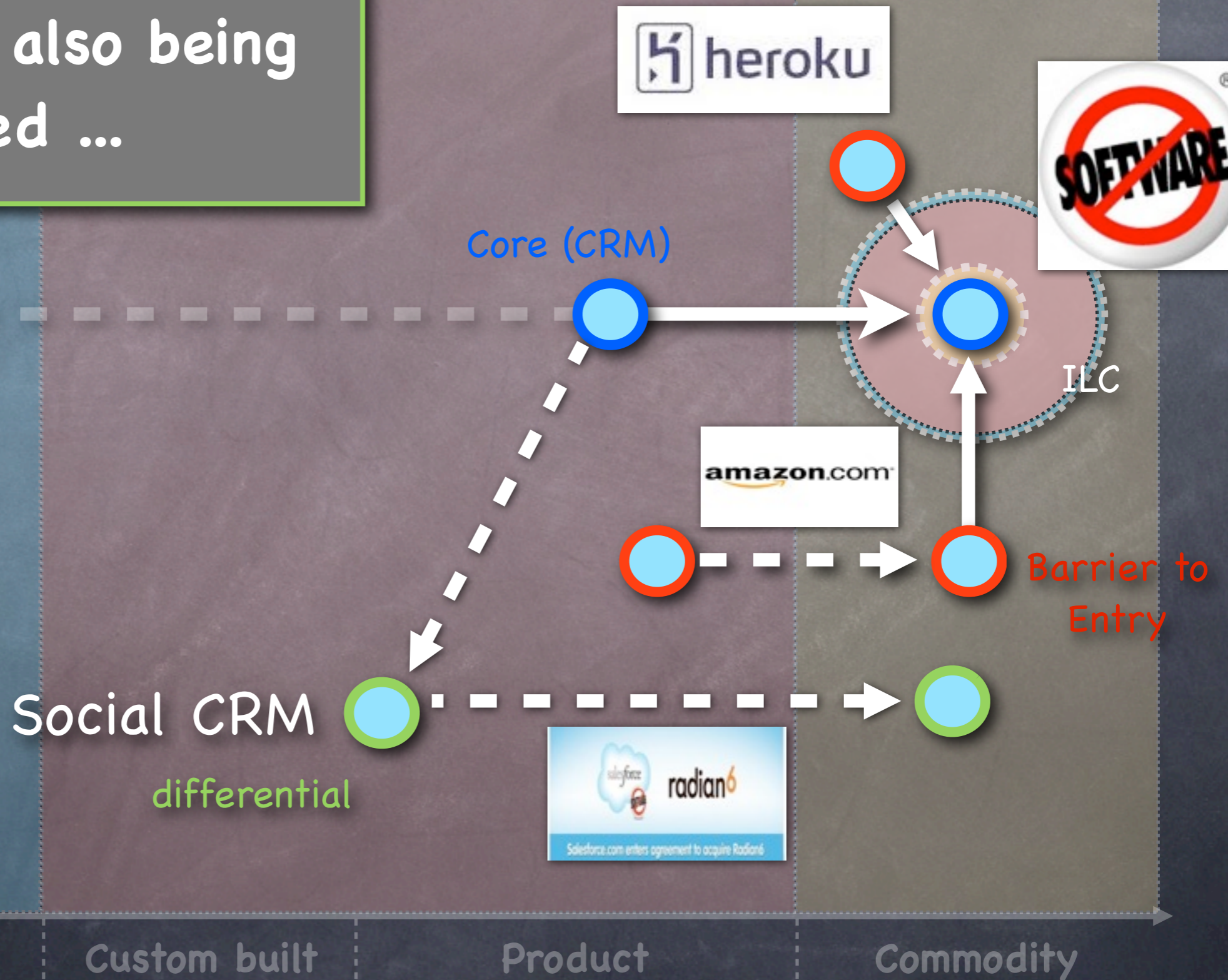
Innovation

Custom built

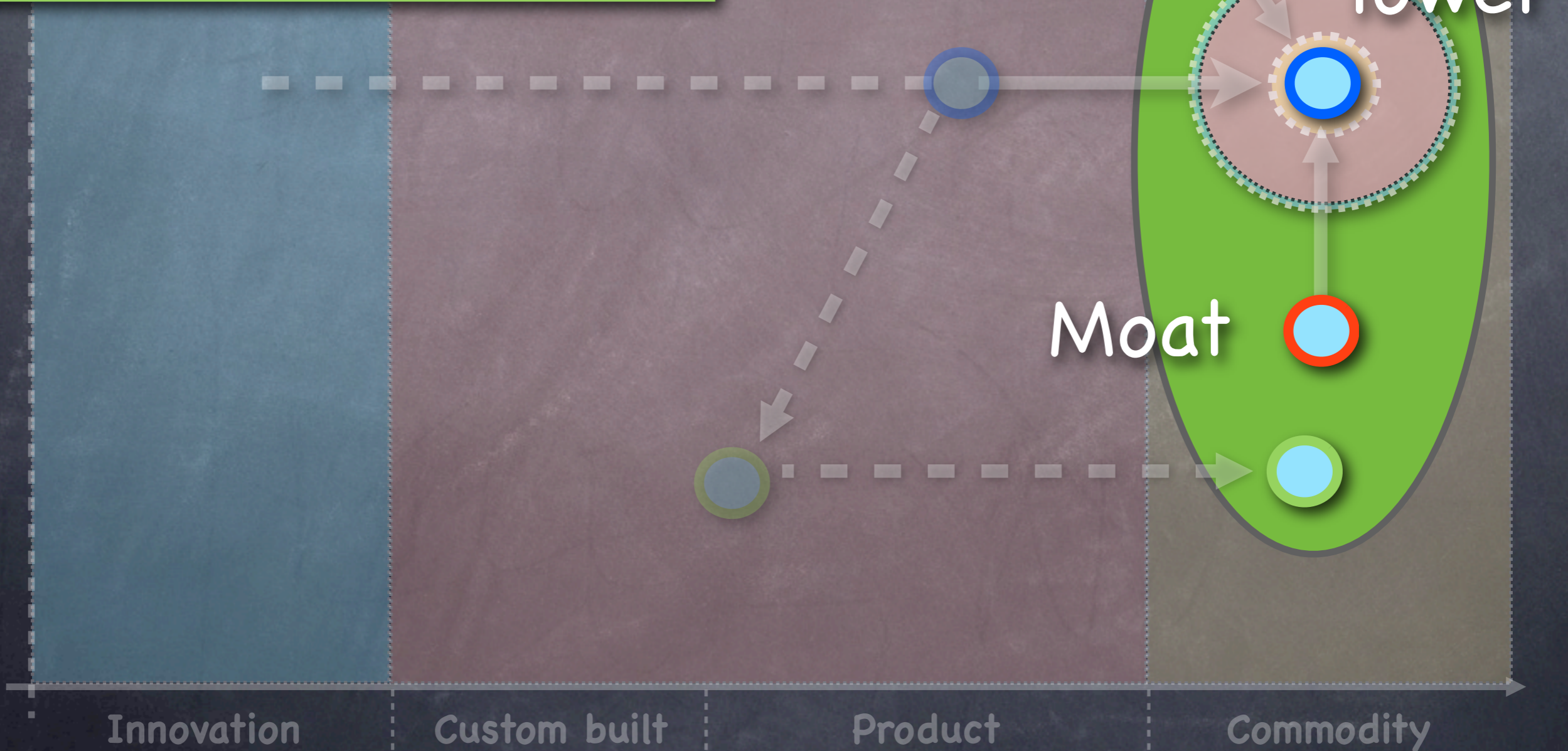
Product

Commodity

... and in this disruptive phase, new tactical games are also being played ...



... including **Tower** (new core revenue) & **Moat** (area devoid of differential value with high barriers to entry) ...



... the use of open source as a tactical weapon ...

Infrastructure

amazon.com

openstack™
CLOUD SOFTWARE

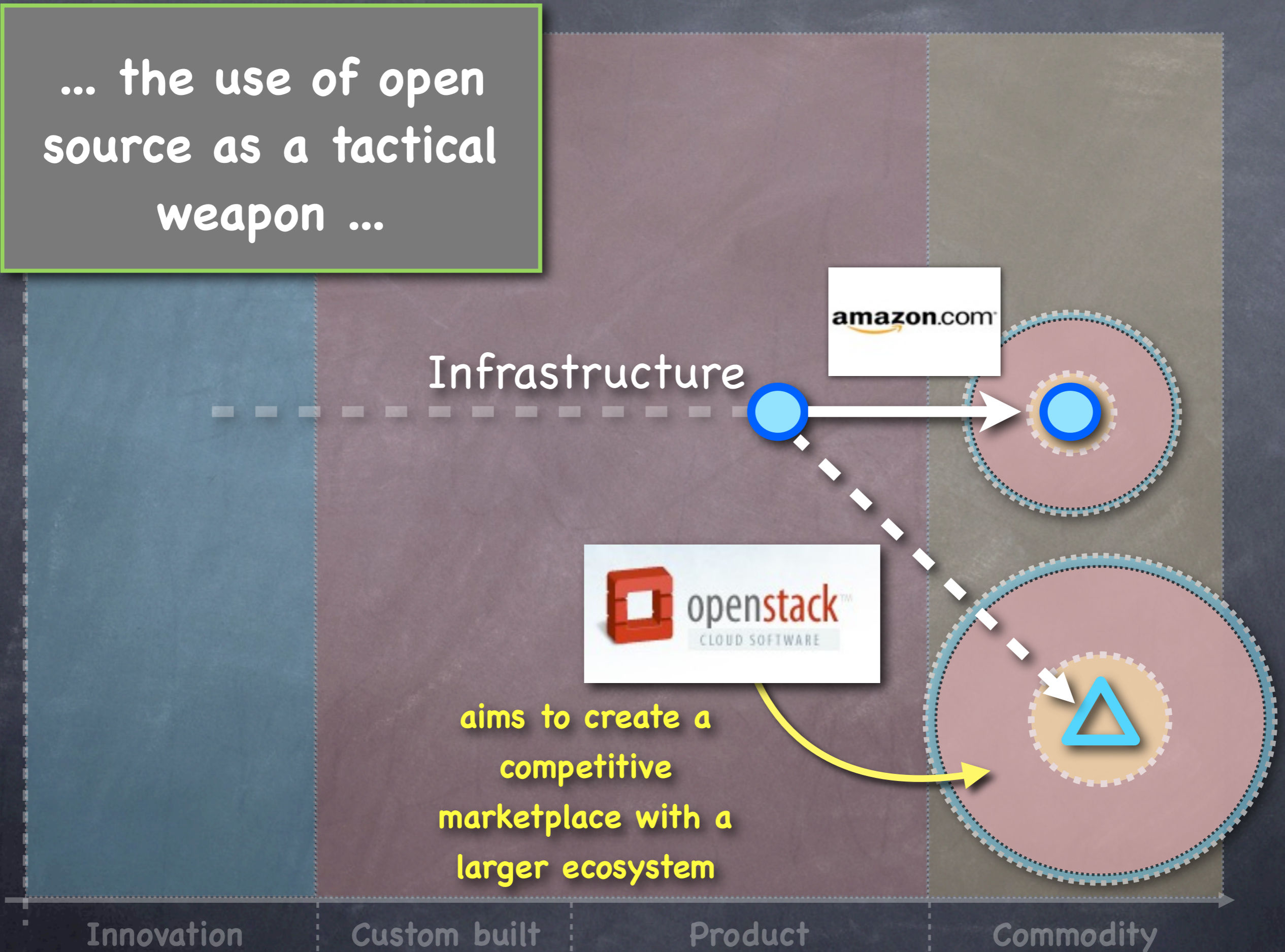
aims to create a competitive marketplace with a larger ecosystem

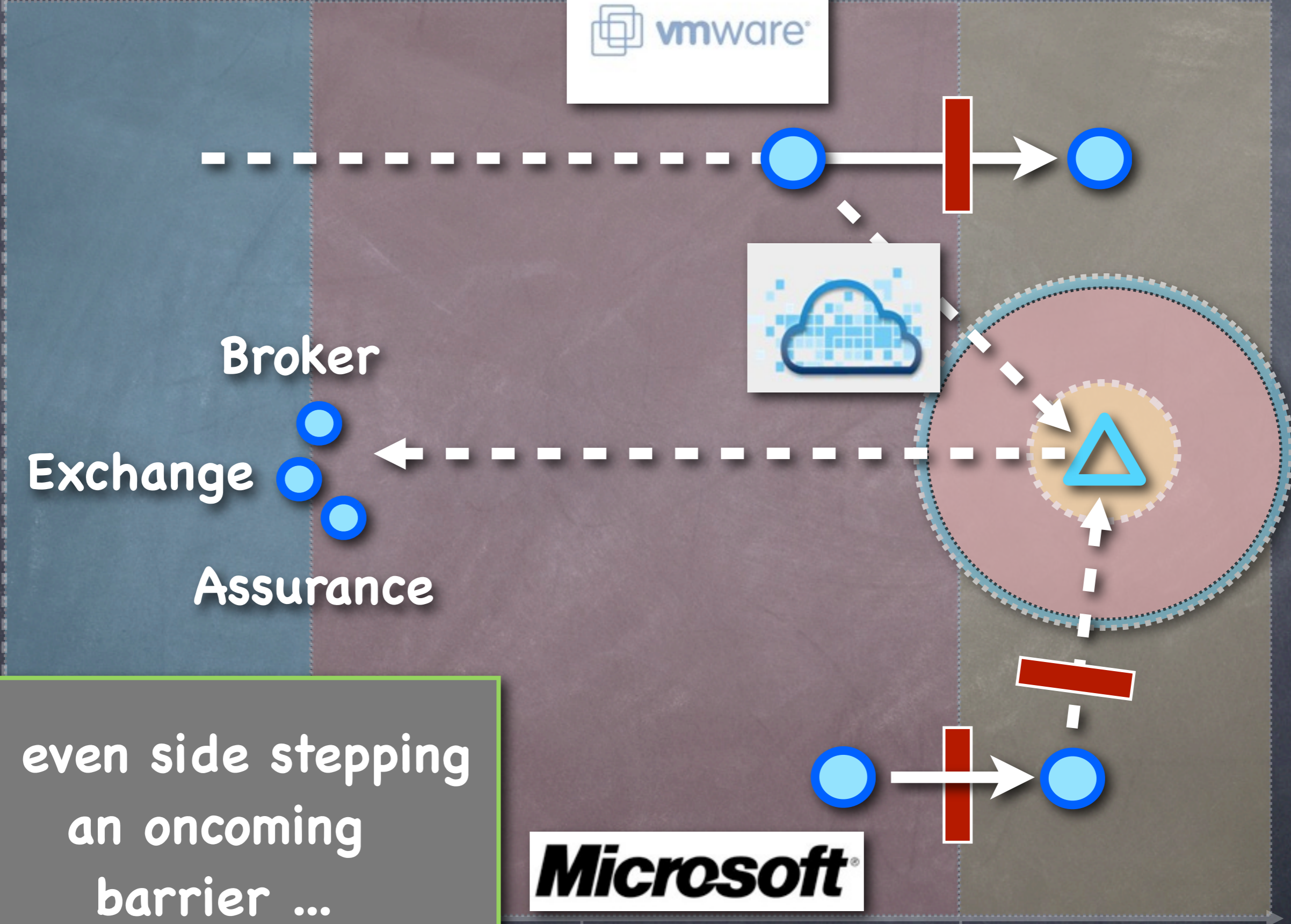
Innovation

Custom built

Product

Commodity





... even side stepping
an oncoming
barrier ...



Product

Commodity



Steve Jobs



Jeff Bezos

**Creative
Leadership**

**Disruptive
Leadership**

... which leads to the
question of
leadership ...

Innovation

Commodity

... even when factors are in place & benefits are clear, it's not only vendor inertia which slows the change ...

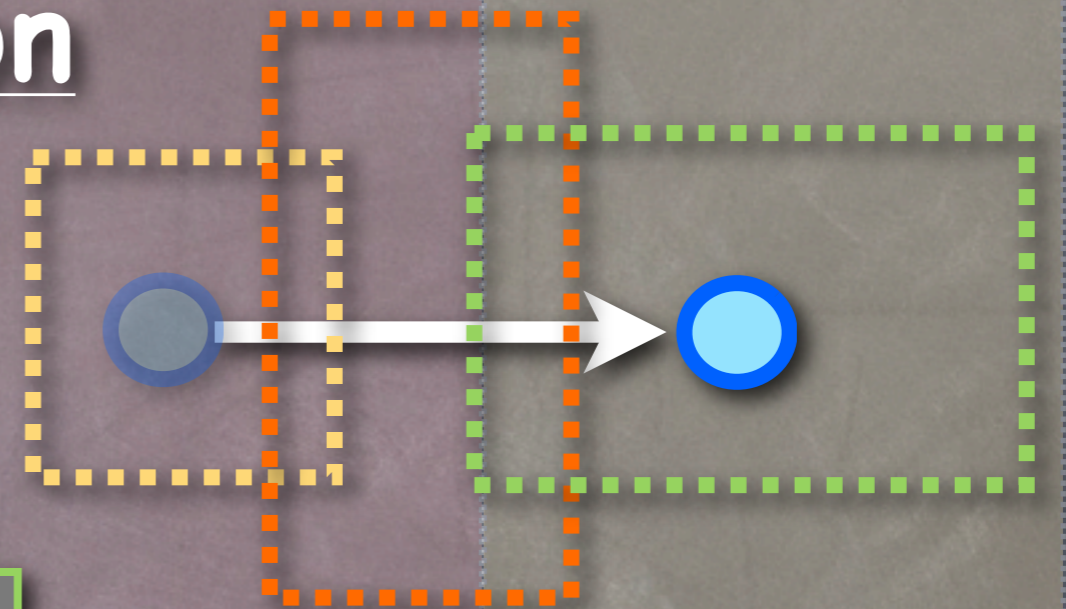


Transition

Disruption

Outsourcing

... but customer inertia through perceived risks ...



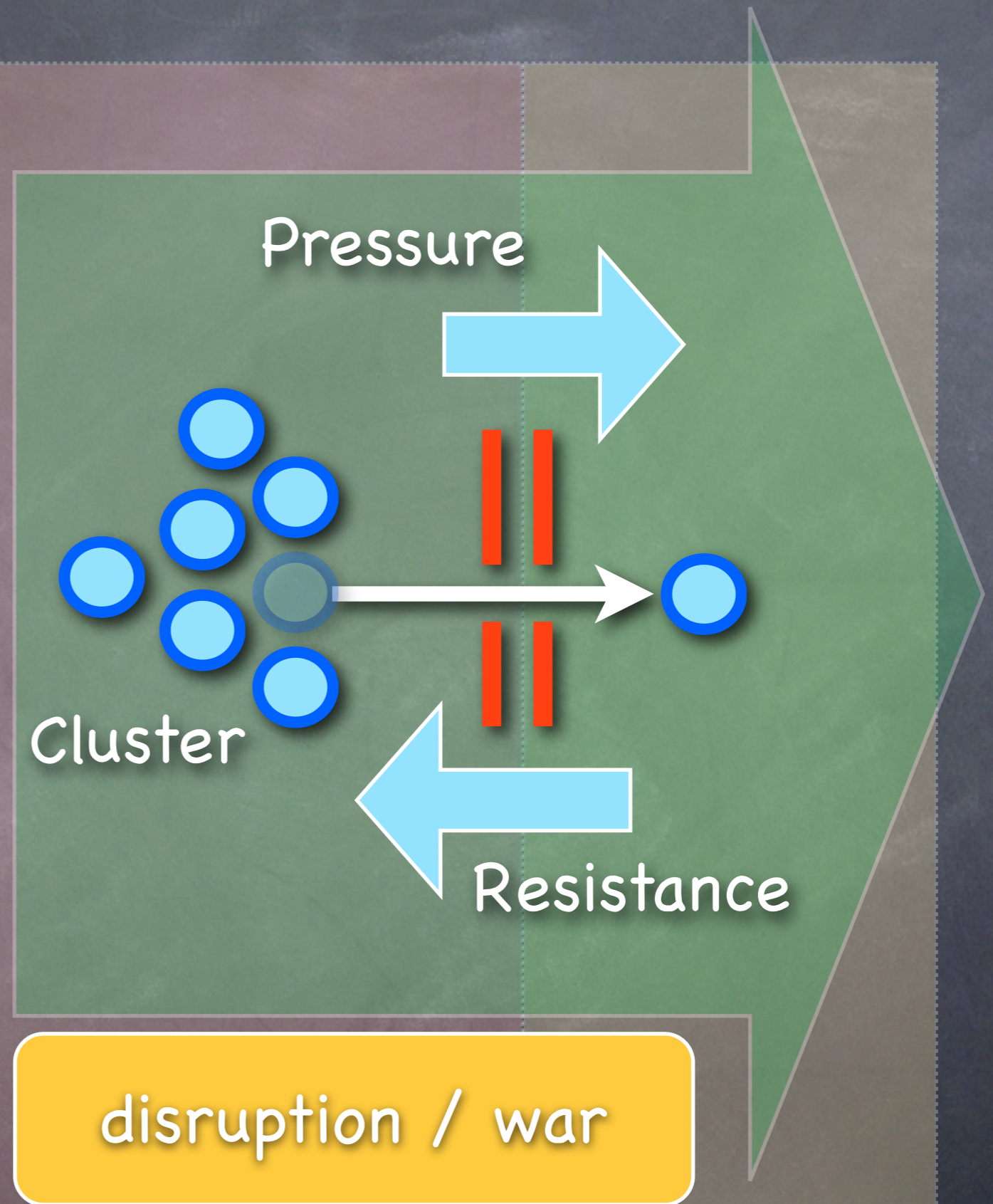
Innovation

Custom built

Product

Commodity

... so activities often build up behind these barriers until breached by an organisation not encumbered by previous models initiating a flood of disruption, a state of war, ...



Innovation

Custom built

Product

Commodity

Creative Leadership

Disruptive Leadership

margin / peace

disruption / war

growth / build

... one of three states:-

Build (creative leadership),

Peace (margin),

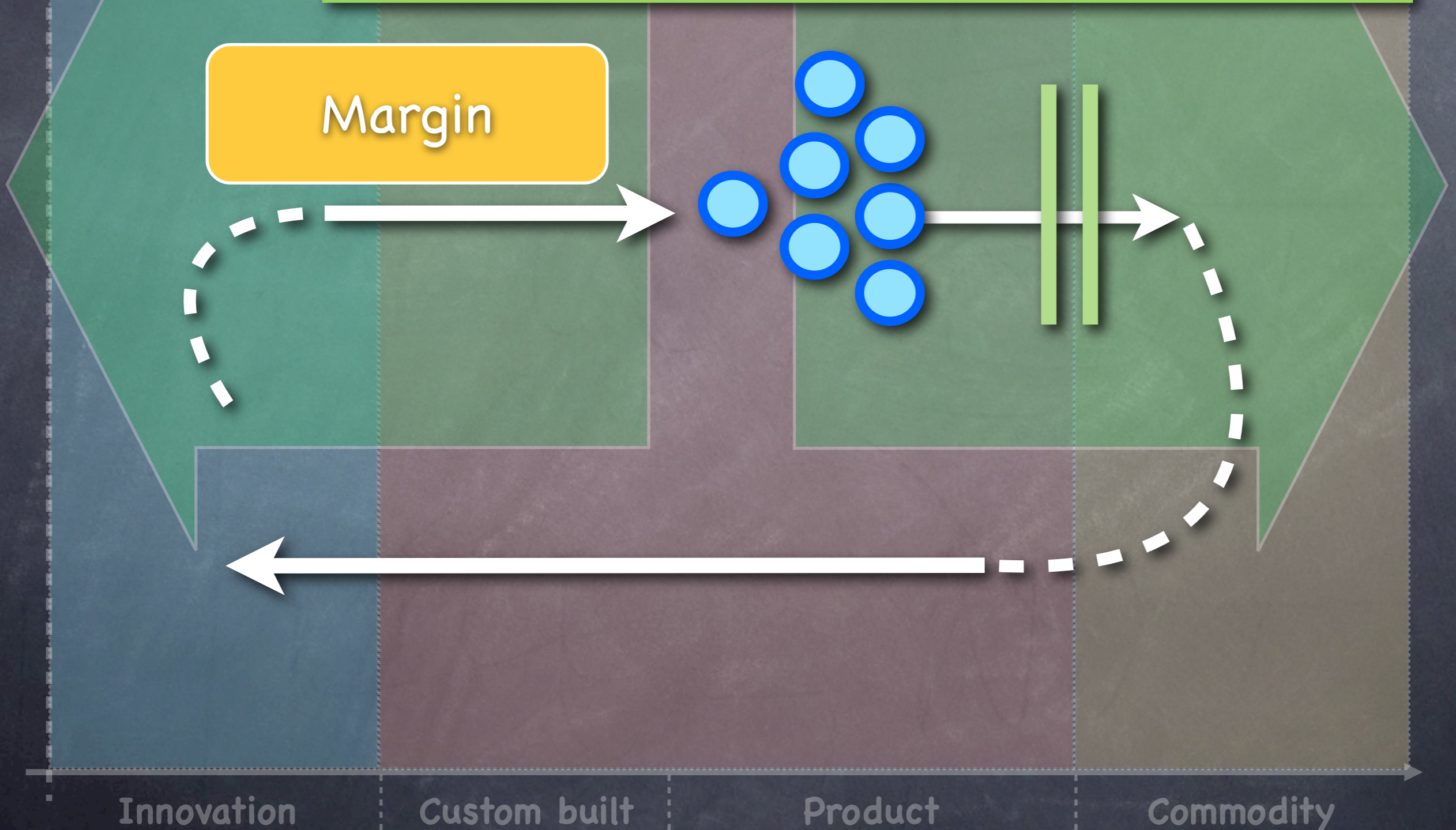
War (disruptive leadership)

Innovation

Custom built

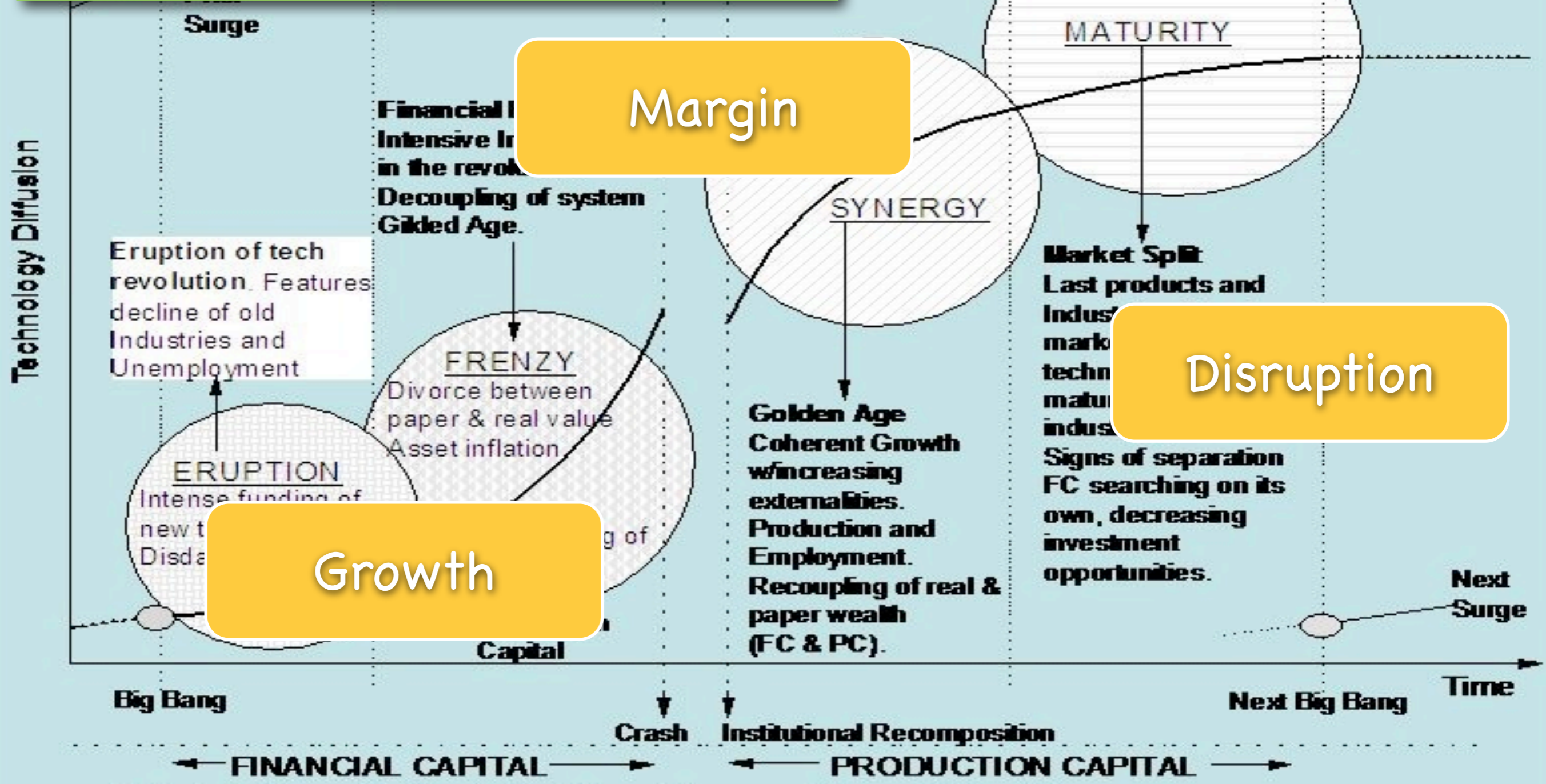
... each with different characteristics
i.e. those inertia barriers are beneficial
in the state of Peace ...

Margin

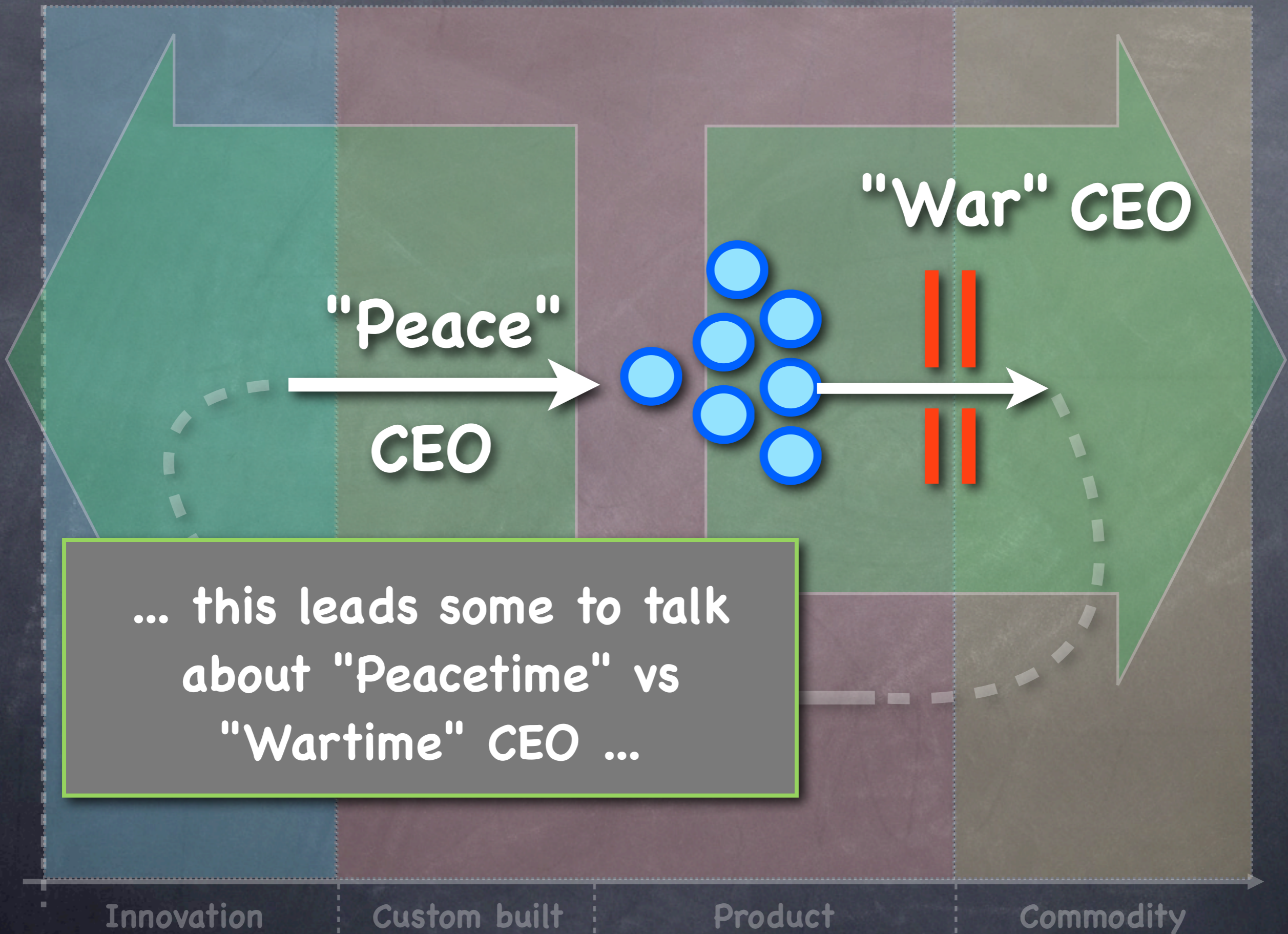


... or K-Waves

... and the largest examples of these state changes can be seen as K-Waves ...



* Carlota Perez, Technological Revolutions and Financial Capital
Page 74. Edward Elger Publishing, 2002



"Peace"

CEO

"War" CEO

... this leads some to talk about "Peacetime" vs "Wartime" CEO ...

Innovation

Custom built

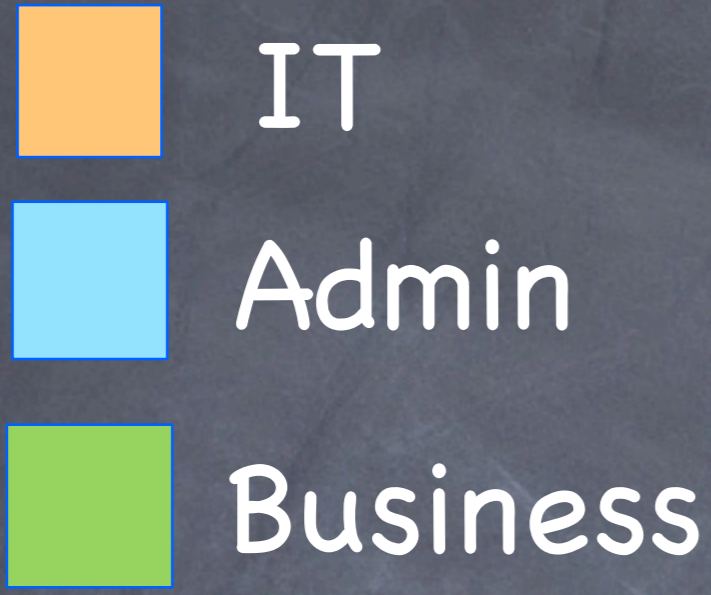
Product

Commodity

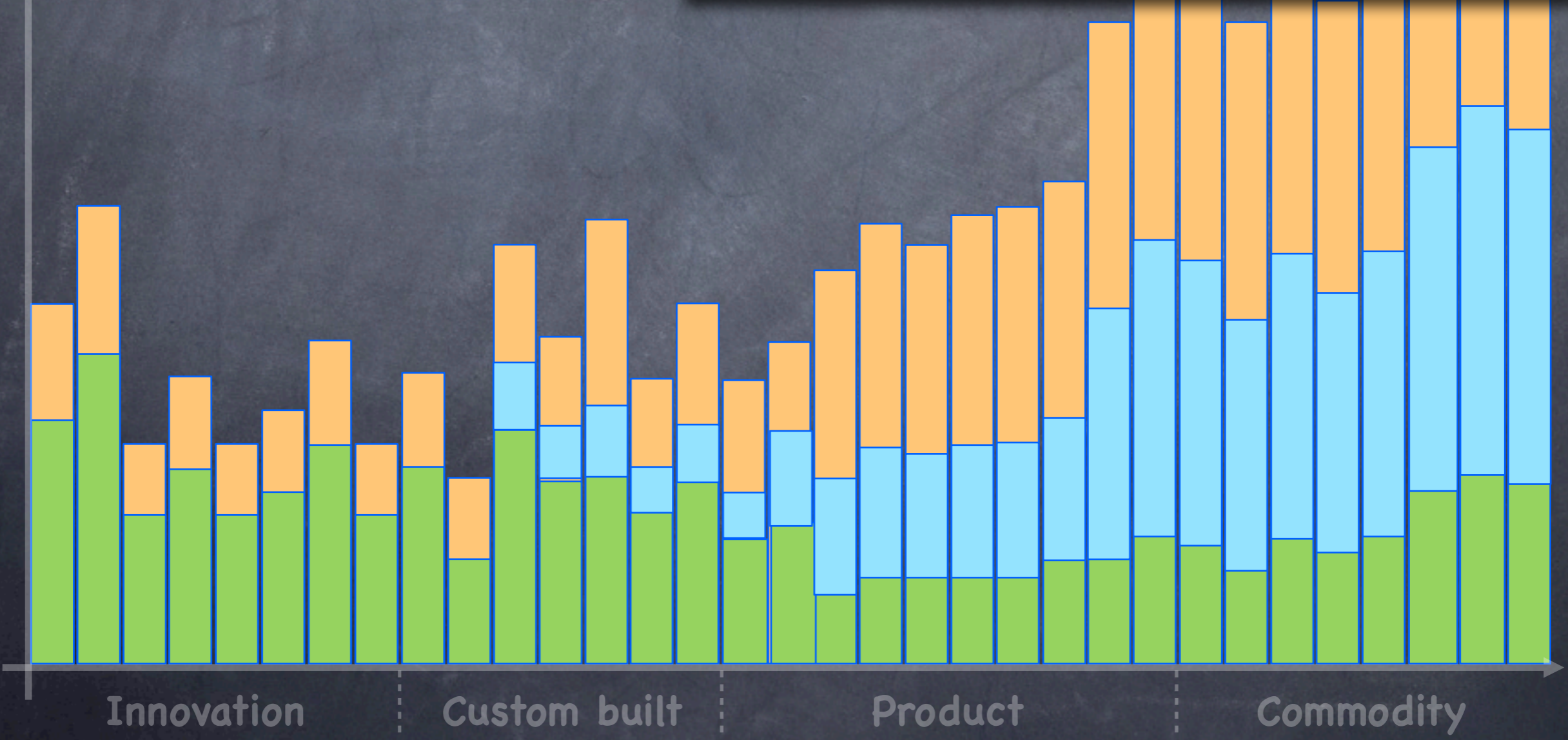


... but large organisations
produce many activities and
hence have multiple fronts
many in different state
(build / peace / war) ...

Frequency



... the situation is only made more complex by how we organise ourselves (generally by type of activity i.e. business / IT) ...



... and attempts to create homogenous structures ...



We are IT.

Lifecycle

Lifecycle

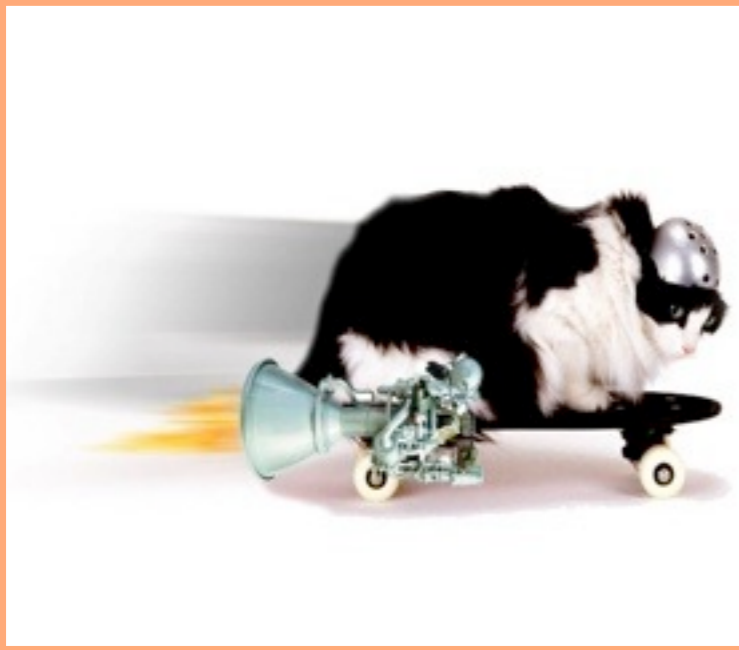
Lifecycle

Experiment

Take Risks

Network

... from people who themselves have different characteristics ...



Pioneer

Lifecycle

Lifecycle

Lifecycle

Best Practice

Avoid Risk

Regiment

... polar opposites ...

Town Planners



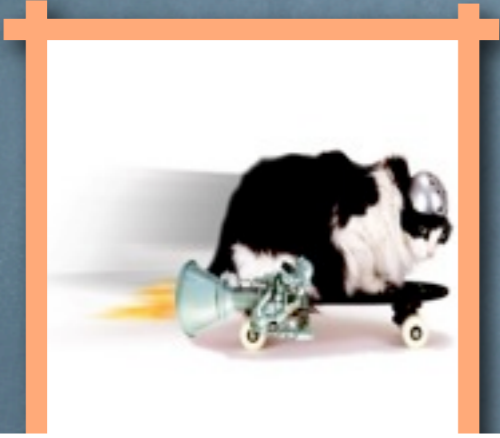


ROI

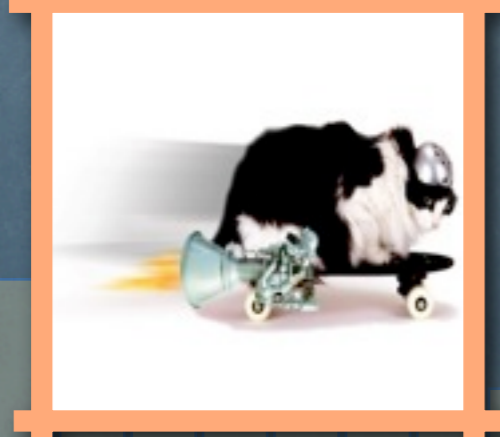
... creating structures with internal conflict that are further highlighted by virtual teams ...



Best Practice

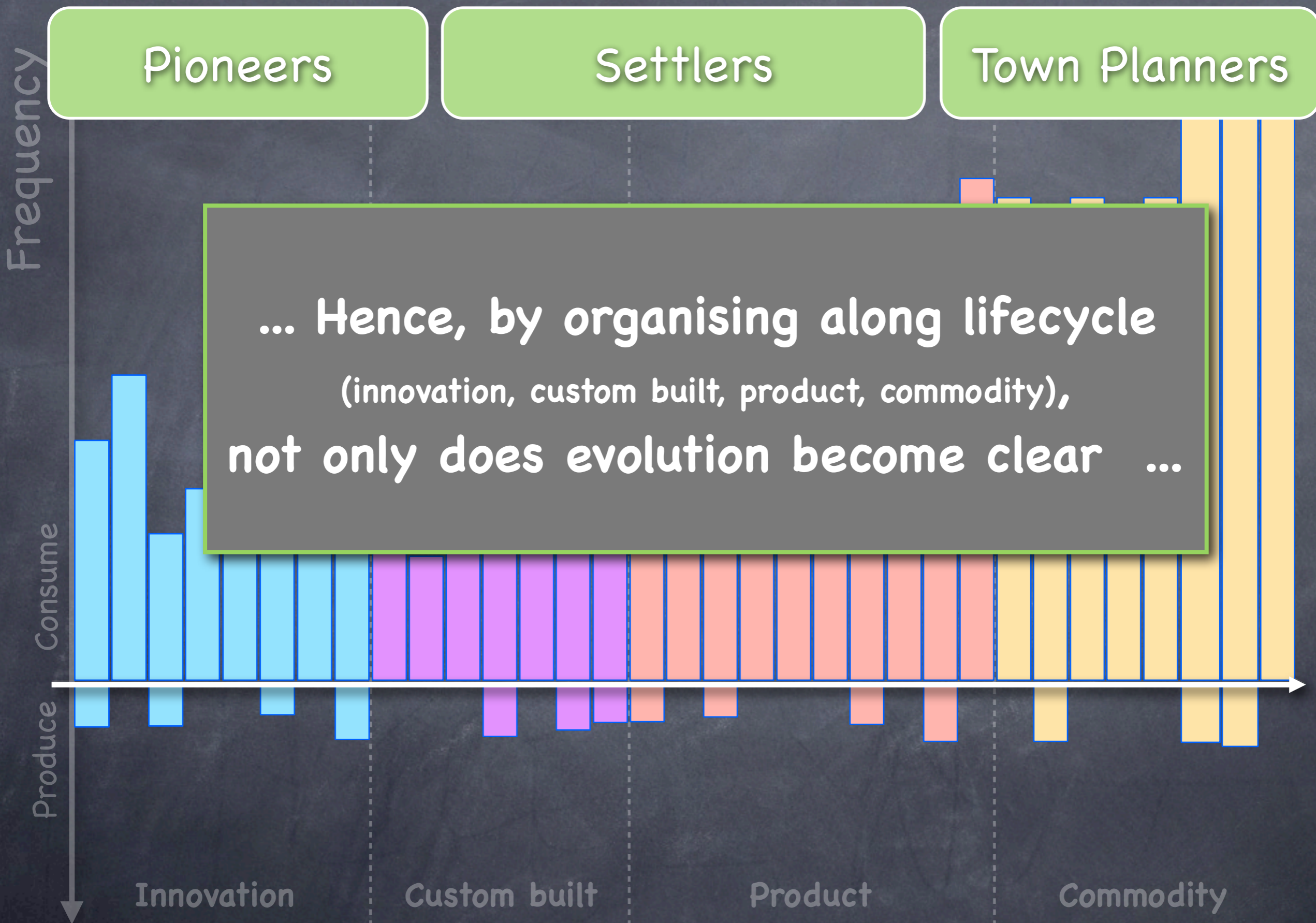


Experiment

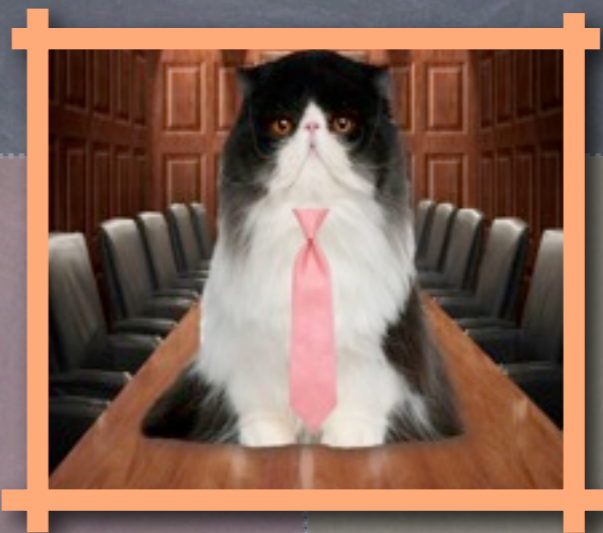


Lifecycle

Lifecycle



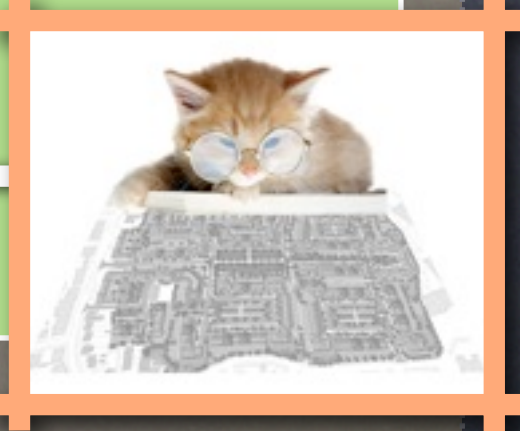
... and management is one of controlling flows and barriers ...



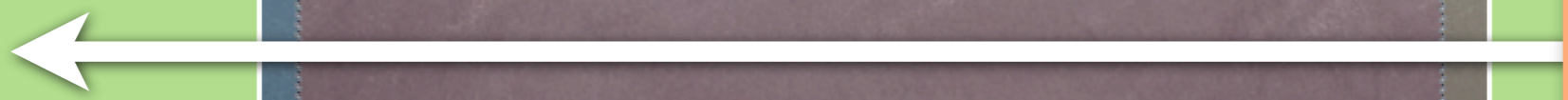
Pioneers

A black and white cat is riding a small, colorful toy motorcycle. The cat is wearing a helmet and the motorcycle has a flame effect coming from the back. The background is a plain white surface.

Settlers

A military tank is shown in a desert environment. The tank is olive green and has a turret with a gun barrel. The landscape is arid with some sparse vegetation and hills in the background.

Town
Planners

An orange tabby kitten is sitting on a table, reading a newspaper. The kitten is wearing blue-rimmed glasses. The newspaper is open in front of it, and the kitten appears to be looking at the text.

Innovation

Custom built

Product

Commodity

Pioneers

Settlers

Town Planners

"Peace"

"War"

"Build"

... even the phases should
become more
controllable ...

Innovation

Custom built

Product

Commodity

Pioneers

Settlers

Town Planners

**Creative
Leadership**

**Disruptive
Leadership**

... and the right styles of
leadership can be
applied ...

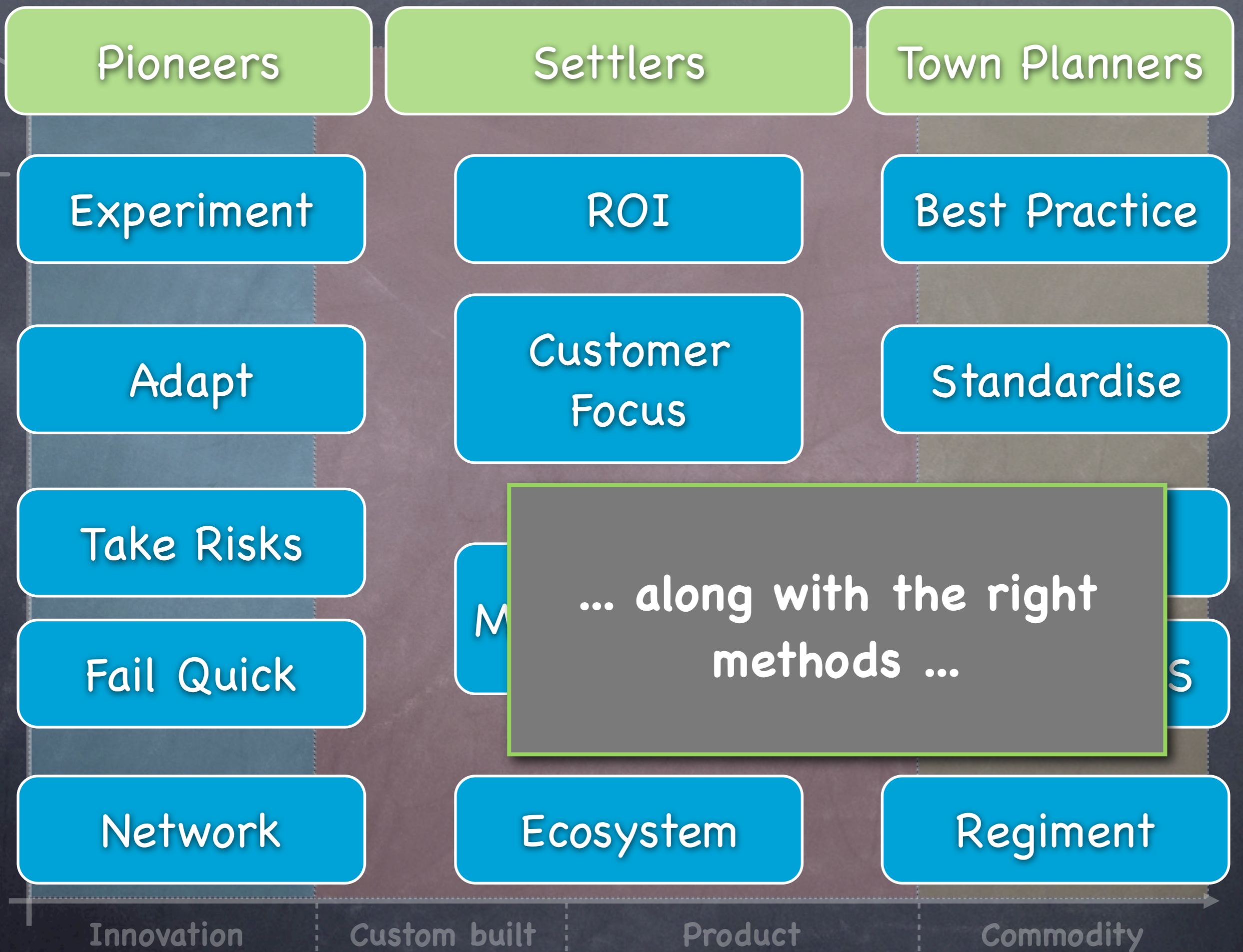
Innovation

Custom built

Product

Commodity

Frequency



Pioneers

Settlers

Town Planners

Experiment

ROI

Best Practice

Adapt

Customer Focus

Standardise

Take Risks

... along with the right methods ...

Fail Quick

Network

Ecosystem

Regiment

Innovation

Custom built

Product

Commodity

Pioneers

Innovate

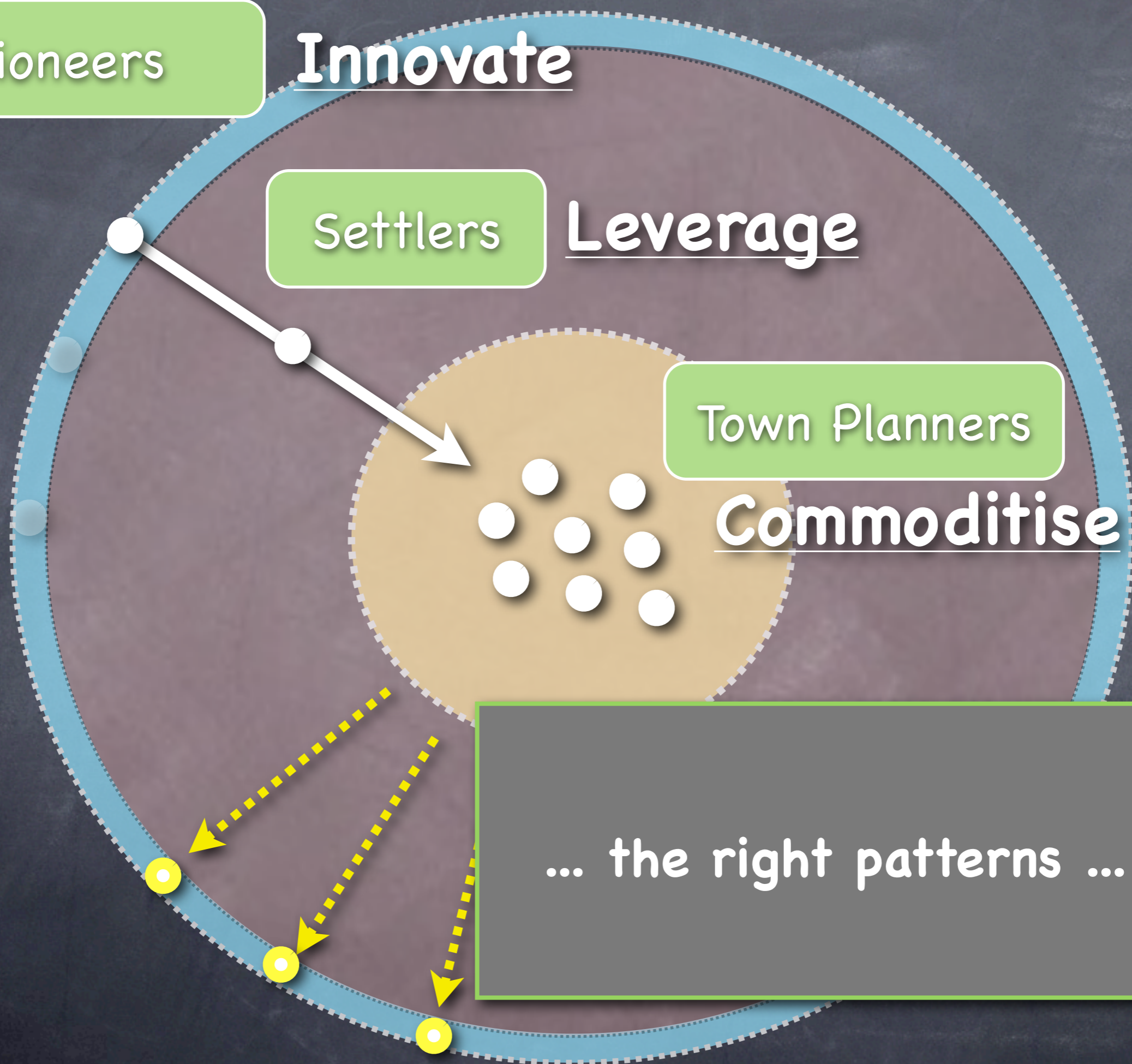
Settlers

Leverage

Town Planners

Commoditise

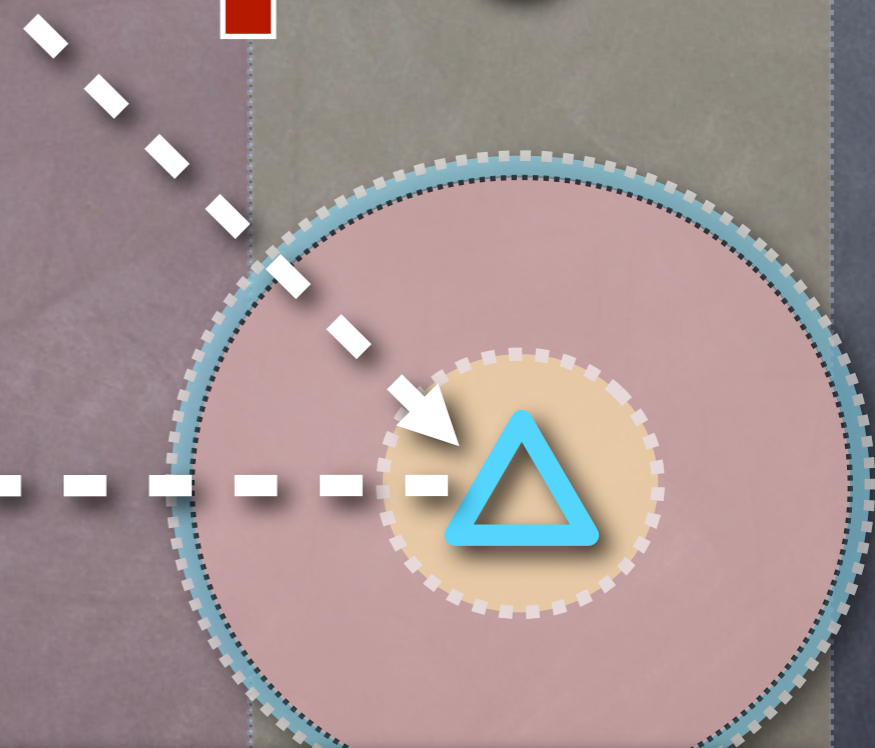
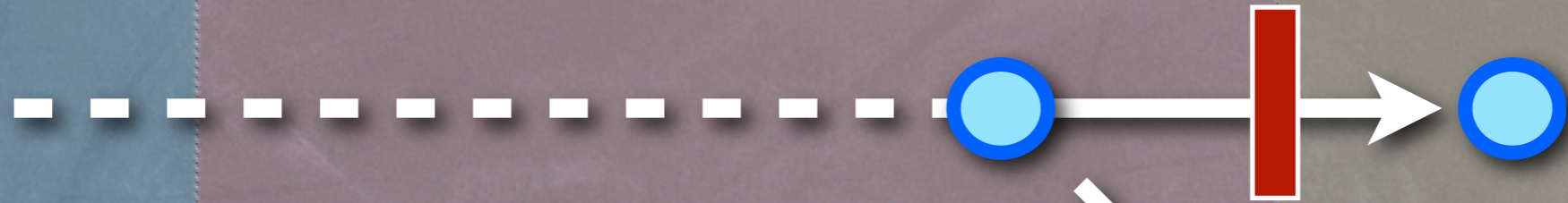
... the right patterns ...



Pioneers

Settlers

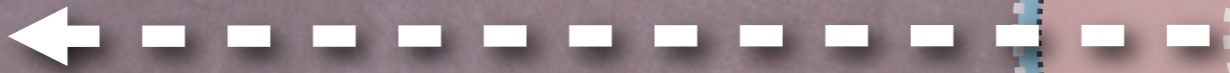
Town Planners



Broker

Exchange

Assurance



... enabling more effective tactical plays ...

Innovation

Custom built

Product

Community

1. One size fits all

2. But it worked for a

... and avoiding the mistakes of the past ...

3. Outsourcing failures.

4. Business Alignment.

5. Management Yo-Yo's.

6. Innovation vs Efficiency.

Innovation

Custom built

Product

Commodity

... problem is, doing this makes management hard ...

Requisite Variety

The system must be able to equal the number of states in the input with at least an equivalent number of states in the regulatory process

Ashby's Law



Solutions. Either
a) Make Management complex
b) Pretend everything is the same.



... BUT the process of simplification (e.g. one size fits all, KPIs everywhere) only works if we all agree to do this
(therefore no-one gains an advantage) ...



We suck at
management

Same
here

... fortunately we don't live in a world of ...

**Situation Normal,
Everything Stays
the Same.**

... but ...

**Situation Normal,
Everything Must
Change**

... here we looked at how different organisation can exploit these factors to their advantage ...

Summary ...

... if you weren't there, you missed it ... and no, there's no video, book or whitepaper because ...

... I might be a "researcher", talk about the tactical use of open source & give conference talks on how to disrupt others but in reality ...

swardley@csc.com
twitter : @swardley

... I'm an arms dealer in organisational tactics and management weaponry aka organisational warfare.

... this presentation is just basics.