

Playing Chess with Companies

simon wardley

@swardley

@lefep

LEF

with text bubbles

DANGER!
Will Robinson
DANGER!

Alas this will be
complex ...

... so I've added some text bubbles
(orange).

TABV. NOVA PARTIS AFRICAE

So what?

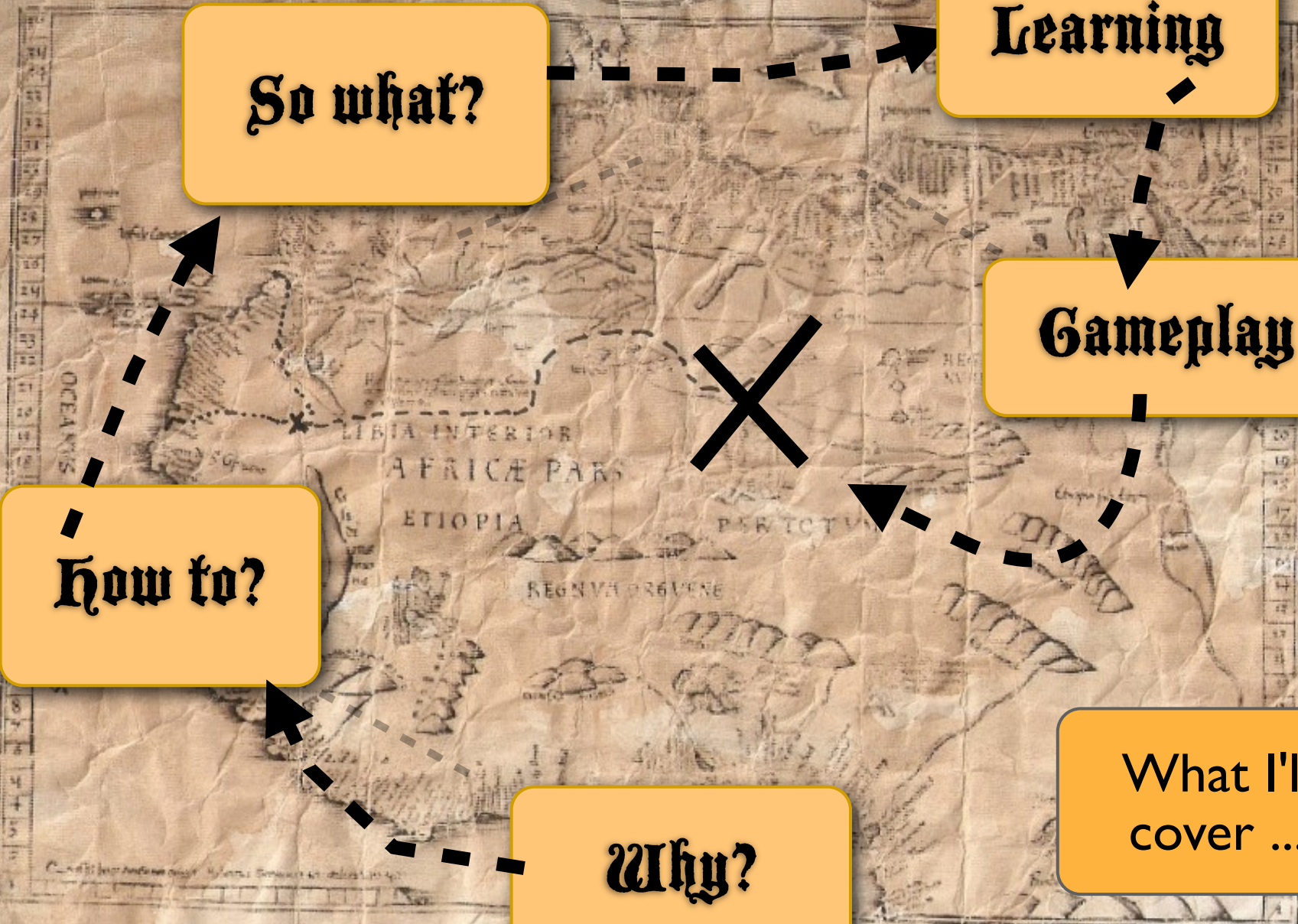
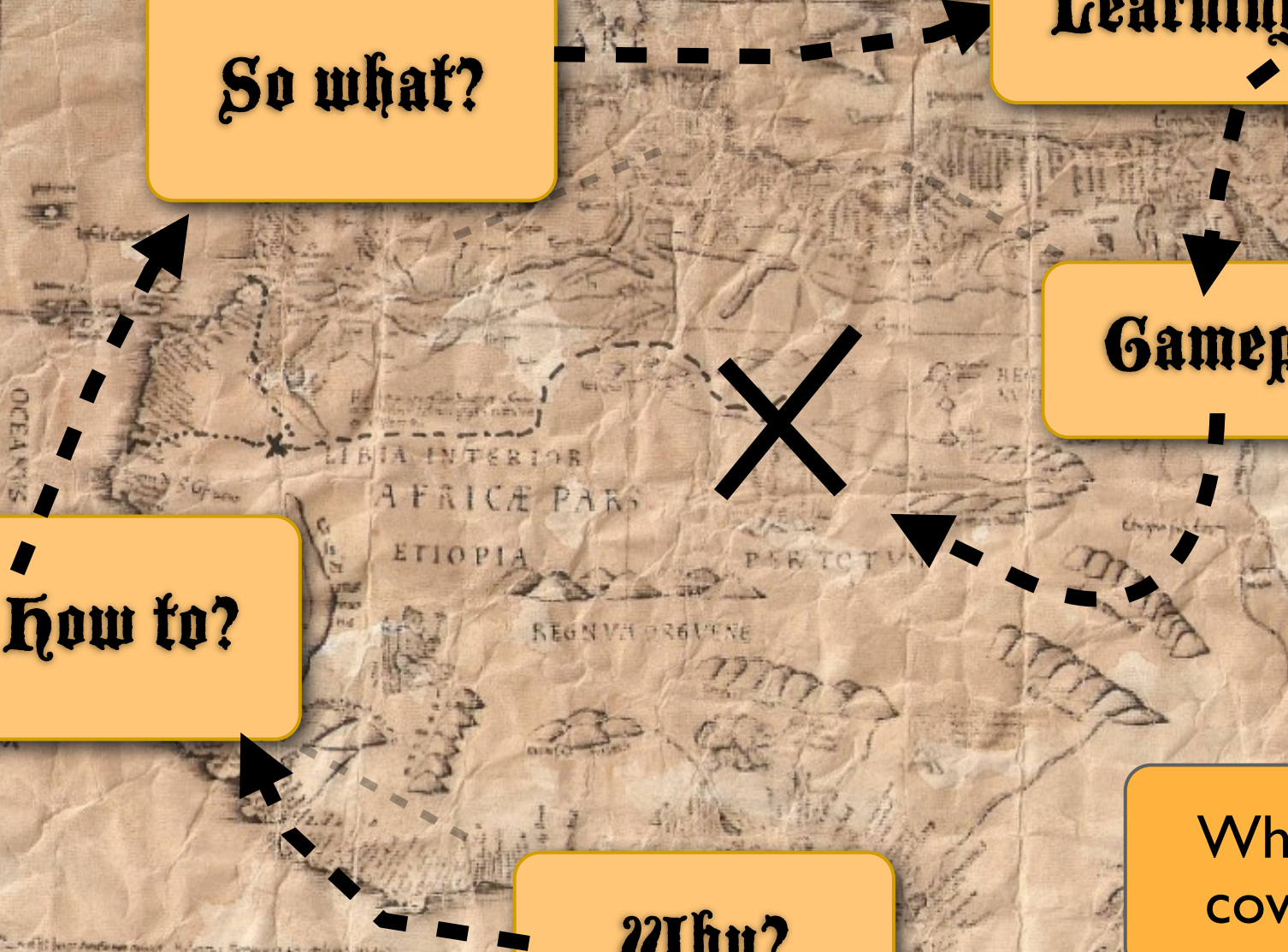
Learning

Gameplay

How to?

Why?

What I'll cover ...



What people say ..

**strategy was the most critical
factor to their organizations
future**

97% of Executives in HBR Study, Feb 2014

Most companies have documents covering ...

STRATEGY

Rip out ...

Purchasing Decisions (Oracle vs SAP)

and ...

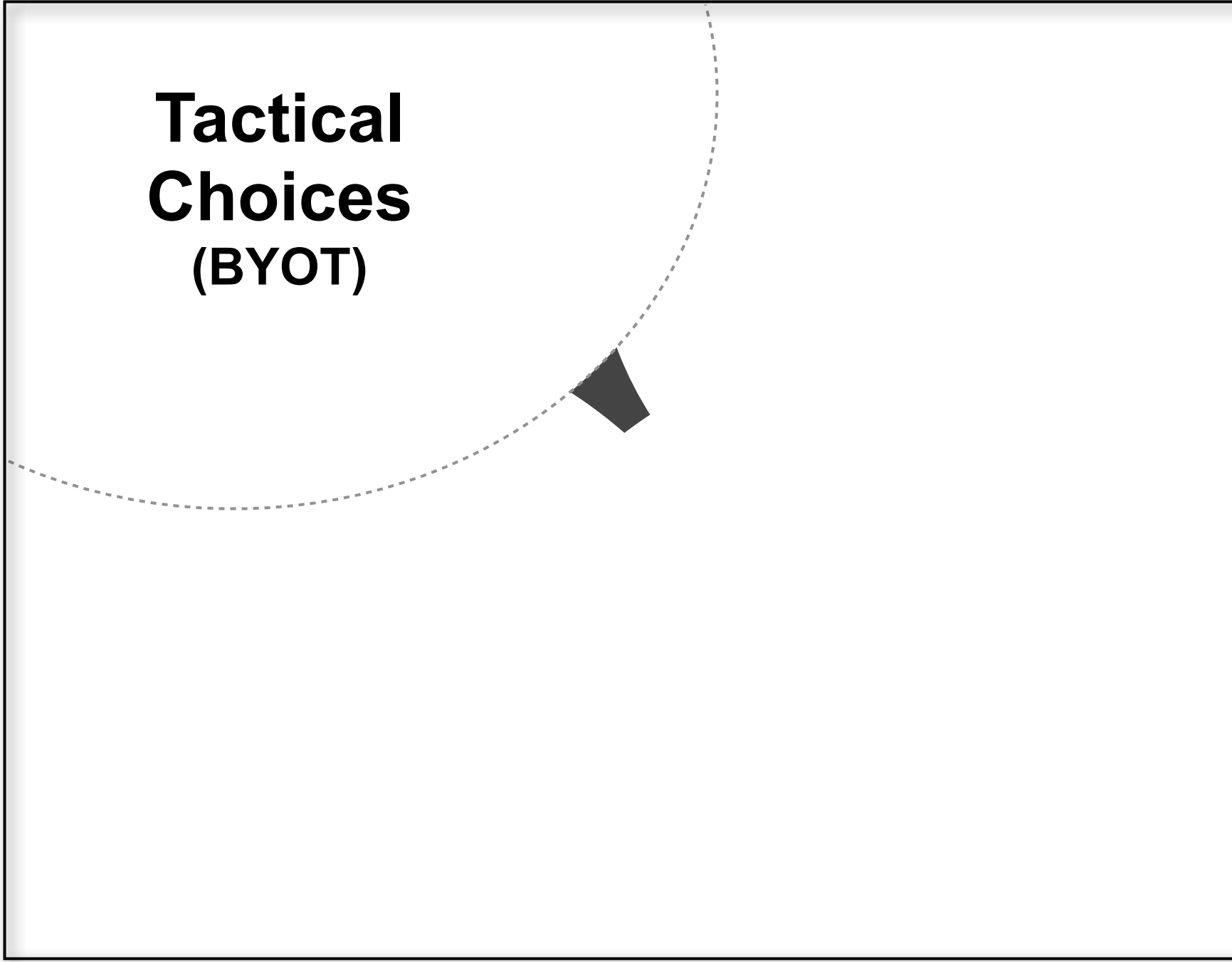
Implementation Details

(Private vs Public)

and ...

**Operational
Details
(SLAs)**

Tactical Choices (BYOT)



Because this is
all ...

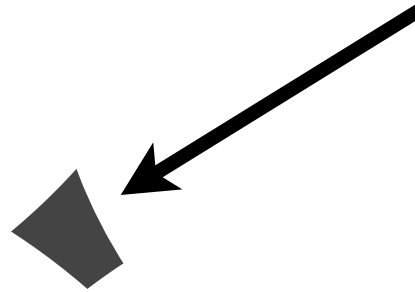
How?
What?
When?



What is left is ...

Why?

Vague



The Realities of Decision-Making with Big Data

By B2B Insights
Contributor



A survey by the [SAS Institute](#) found that 67% of companies are now using big data in order to gain an edge over their competitors. Their use of analytics has enabled 46% to streamline operations, 36% to identify target customers, and 29% to evaluate employees.

Your business's software systems already collect vast amounts of data, and these tools are fully capable of parsing this data into meaningful, useful, and actionable information. Are you utilizing all the information you have at your fingertips in order to make better decisions?

Using Big Data in Sales

Your business's [POS software system](#) is a natural repository for big data. Think of all the numbers you can pull from your system: what you're selling, how much you're selling it for, who you're selling it to, and when you sell the most. You can pull sales information for the past year, the past month, or the past three days. The things you can do with this information include:



Normally we do stuff as ...

Everyone else is!
67% of successful
companies do ...

7 Steps For a Successful Social Media Strategy

By Nick Shin

Published July 21, 2010

According to the [2010 Social Media Marketing Report](#), 67% of marketers plan to increase their use of social media channels including blogs, Twitter, and Facebook.

As more companies integrate social media into their marketing and communications plans, emphasis needs to be on **creating a social media strategy**. Without a strategy, you'll undoubtedly be sucked into a **social media time sink**.



1,287

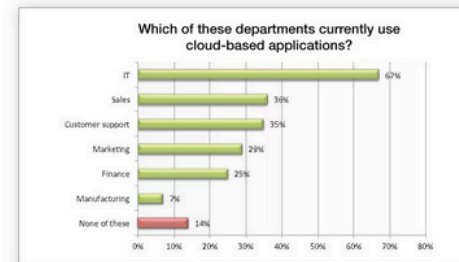


Survey: CIOs Bullish on Cloud Benefits, But Worry About SaaS Data Silos

CIOs continue to grow more and more bullish about cloud solutions, with a whopping 92% saying that cloud provides business benefits, according to a recent survey. Nonetheless, IT execs remain concerned over how to avoid SaaS-based data silos. The survey was conducted by Dimensional Research and commissioned by Host Analytics.

by Vance McCarthy

Tags: analytics, BI, cloud, data, Host Analytics, integration, SaaS, survey,



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The Host Analytics/Dimensional survey queried some 350 CIOs and IT executives on attitudes, trends and challenges pertaining to cloud

adoption.

Among the sunnier findings for cloud advocates are these results from CIOs and IT executives:

- 92% said the adoption of cloud technologies is good for business
- 67% said cloud technologies help IT deliver better systems for less money
- 62% said SaaS applications give business stakeholders more ownership of key applications
- Cloud is gaining a foothold across many corporate departments, including IT (67%), sales (36%), and customer support (35%)

MANAGEMENT THEORY AND TOTAL QUALITY: IMPROVING RESEARCH AND PRACTICE THROUGH THEORY DEVELOPMENT

JAMES W. DEAN, JR.
University of Cincinnati
DAVID E. BOWEN
Arizona State University West

We introduce this theory-development forum by comparing total quality and management theory at both global and topic-specific levels. Our analysis suggests that management research could be enhanced by incorporating some insights of total quality into management theory. We also conclude, however, that management practice could be improved by incorporating insights from management theory into total quality efforts, and that, in fact, total quality has already incorporated many such insights. Finally, we suggest some directions for theory development and research on total quality.

BPR implementation process: an analysis of key success and failure factors

Majed Al-Mashari and Mohamed Zairi
Bradford University Management Centre, Bradford, UK

Keywords BPR, Implementation, Process management, Success

Abstract This paper provides a holistic view of the Business Process Re-engineering (BPR) implementation process. It reviews the literature relating to the hard and soft factors that cause success and failure for BPR implementation, classifies these factors into subgroups, and identifies key factors of success and failure. Finally, it explains how these factors influence the process of BPR implementation.

Introduction

Following the publication of the fundamental concepts of BPR by Hammer (1990) and Davenport and Short (1990), many organisations have reported dramatic benefits gained from the successful implementation of BPR. Companies like Ford Motor Co., CIGNA, and Wal-Mart are all recognised as having successfully implemented BPR.

Past was no different ...

Everyone else is!
67% of successful
companies do ...

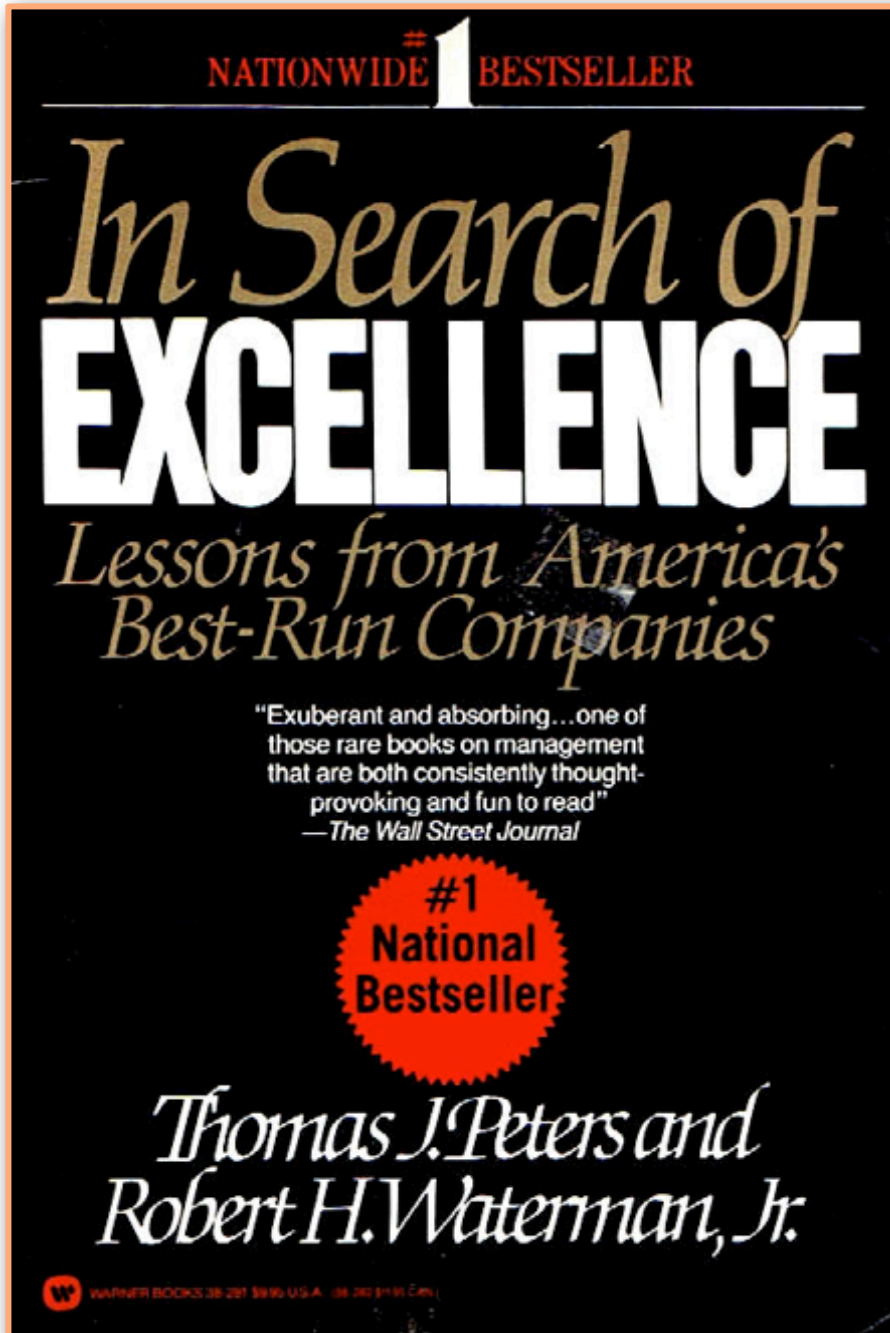
Economic Value Added (EVA™): An Empirical Examination Of A New Corporate Performance Measure*

Shimin Chen
*Professor of Accountancy
Clarion University*

James L. Dodd
*Assistant Professor of Accounting
Drake University*

Is there a single measure of corporate performance enabling investors to identify investment opportunities and motivate managers to make value-added business decisions? Obviously, this is a question of utmost importance to investors, managers, and business researchers. Economic Value Added (EVA)¹ has been acclaimed to be such a measure (Tully, 1993). As defined by Stern Stewart Management Services of New York City, EVA is the difference between a

til a September 20, 1993, article in *Fortune* magazine (Tully, 1993). Following the article's strong praise of EVA as the most recent and exciting innovation in measuring corporate success, a flurry of papers have been published telling successful EVA stories and promoting EVA adoption (Rutledge, 1993; Walbert, 1993 and 1994; Birchard, 1994; Brossy and Balkcom, 1994; Byrne, 1994; McConville, 1994; White, 1994; Stewart, 1995).



1984

62 Companies for
you to emulate



Backward causality

If A does B and A is
successful ...

This is what
most strategy
is ...

THEN

If you do B, you too will be
successful.

Ask yourself ...

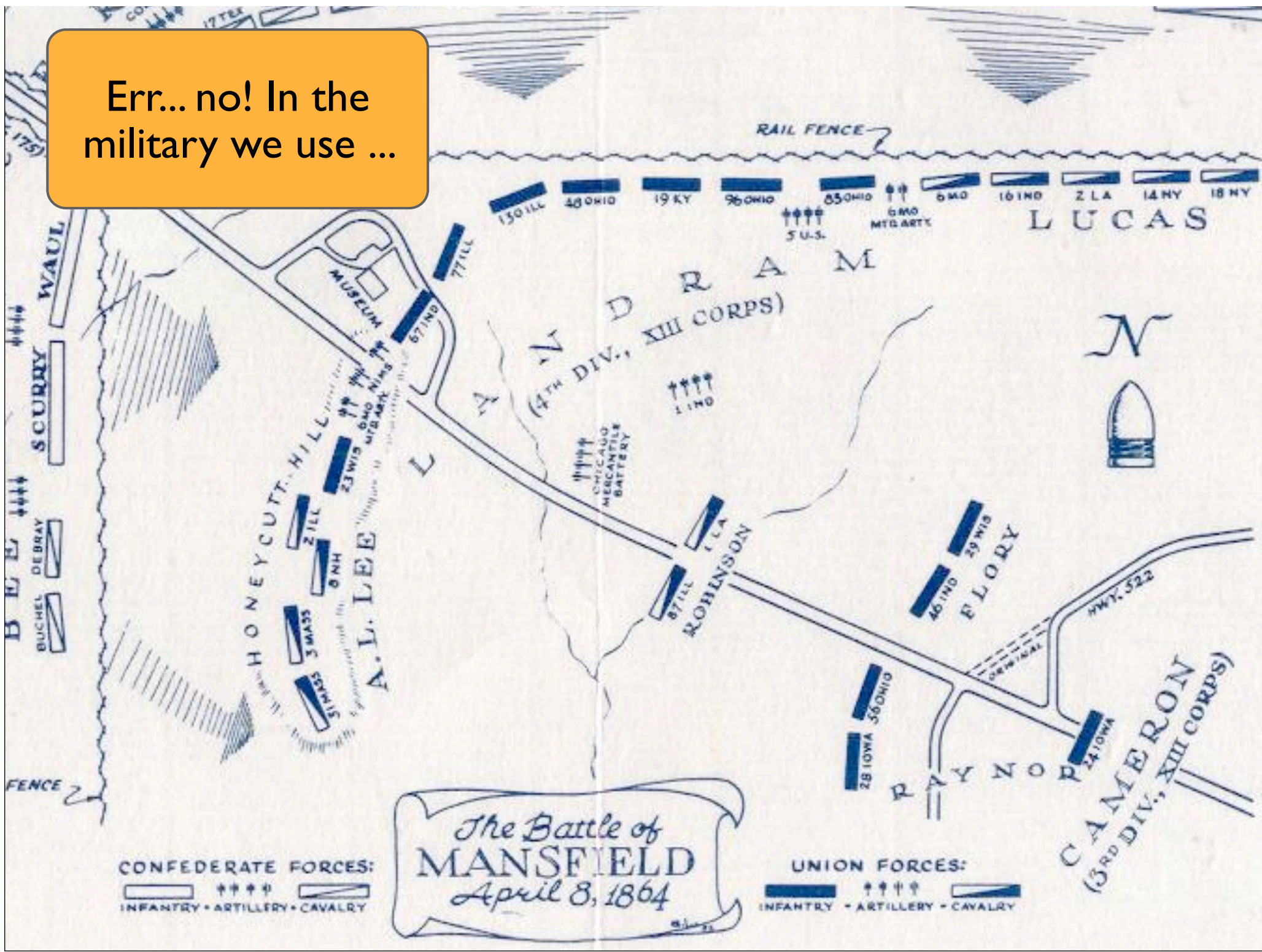
Q. Why does a
General bombard a
hill?



... because 67%
of other successful
generals bombard
hills?

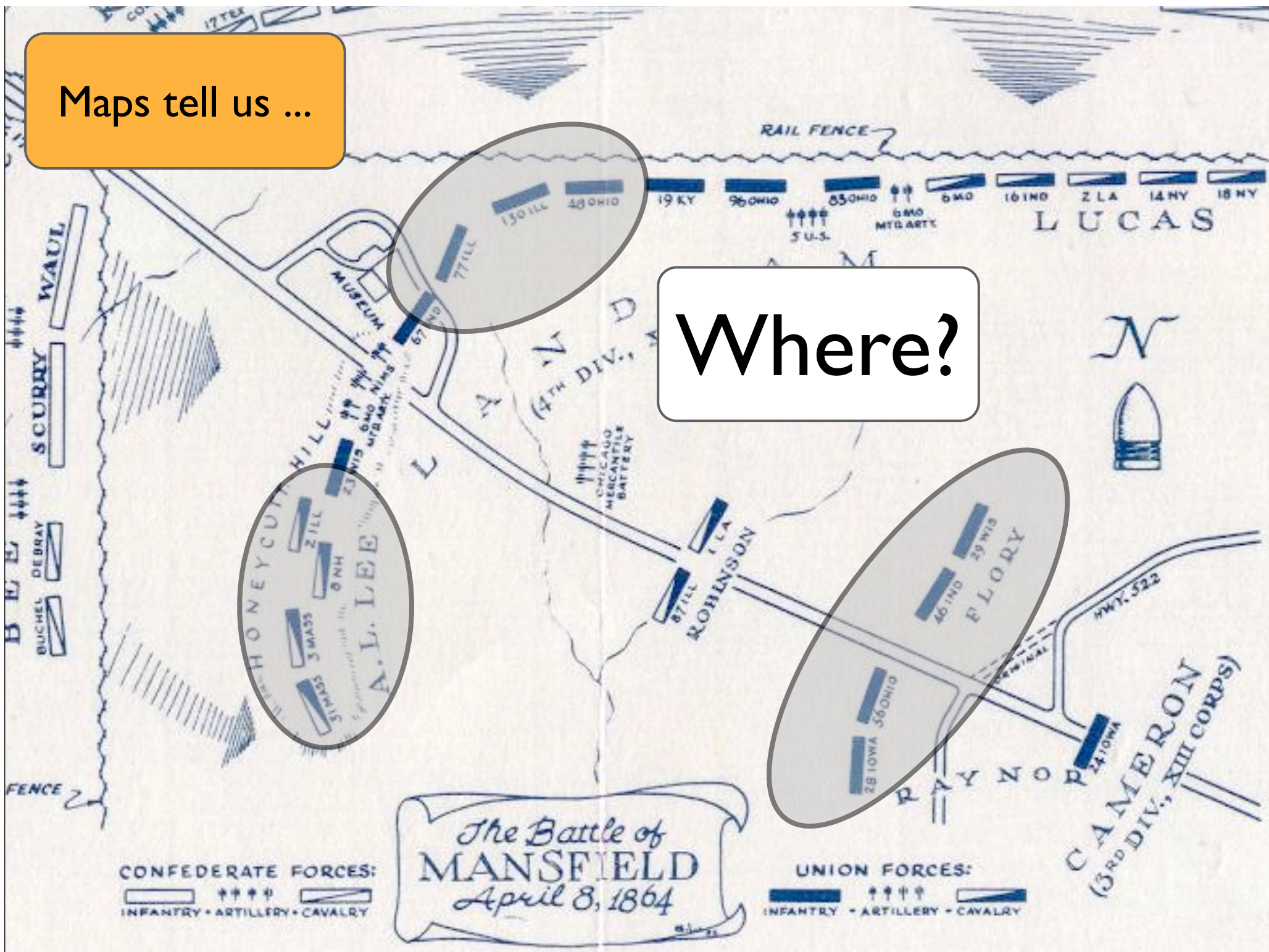


Err... no! In the military we use ...



Maps tell us ...

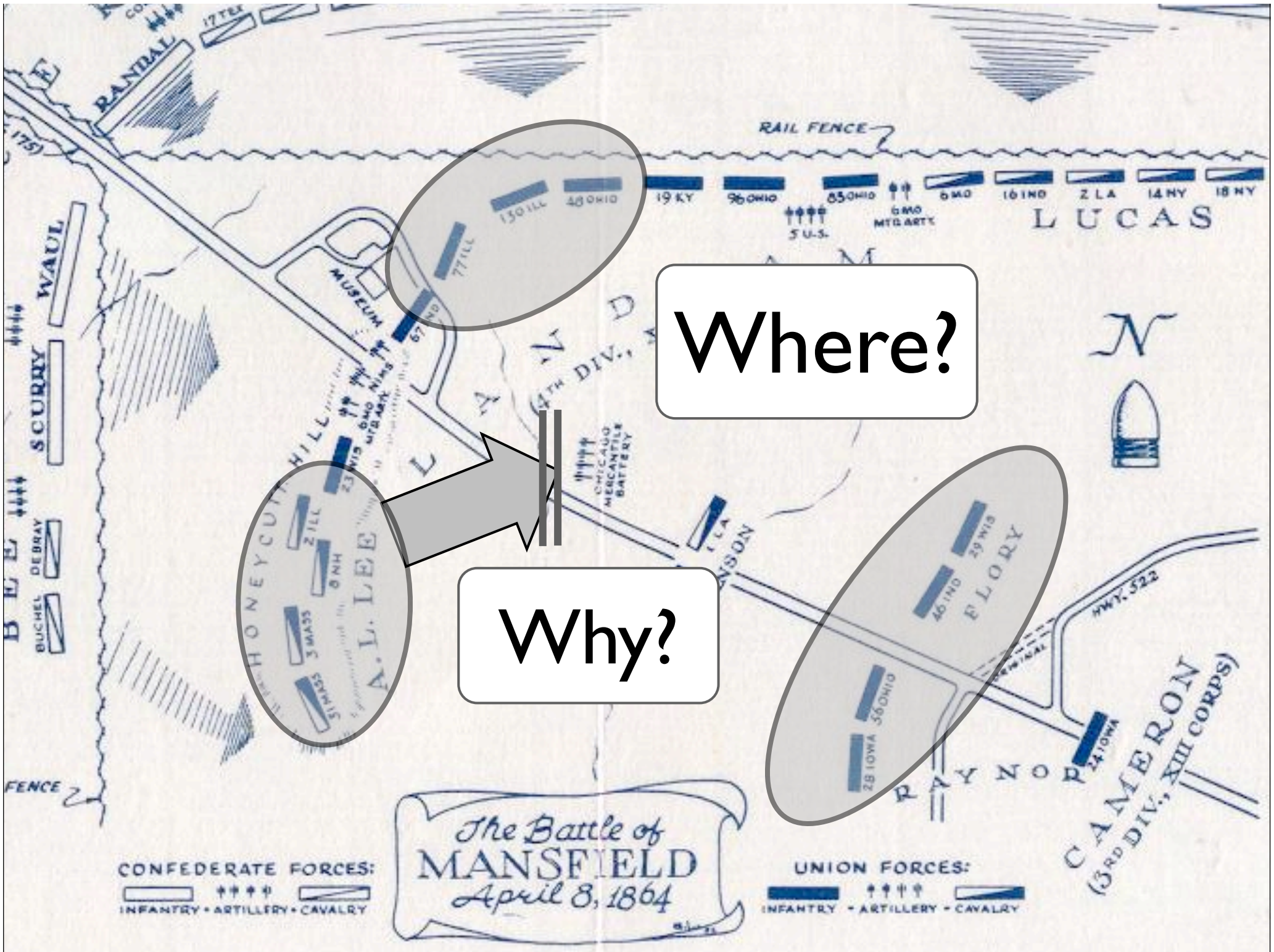
Where?



CONFEDERATE FORCES:
INFANTRY • ARTILLERY • CAVALRY

The Battle of
MANSFIELD
April 8, 1864

UNION FORCES:
INFANTRY • ARTILLERY • CAVALRY



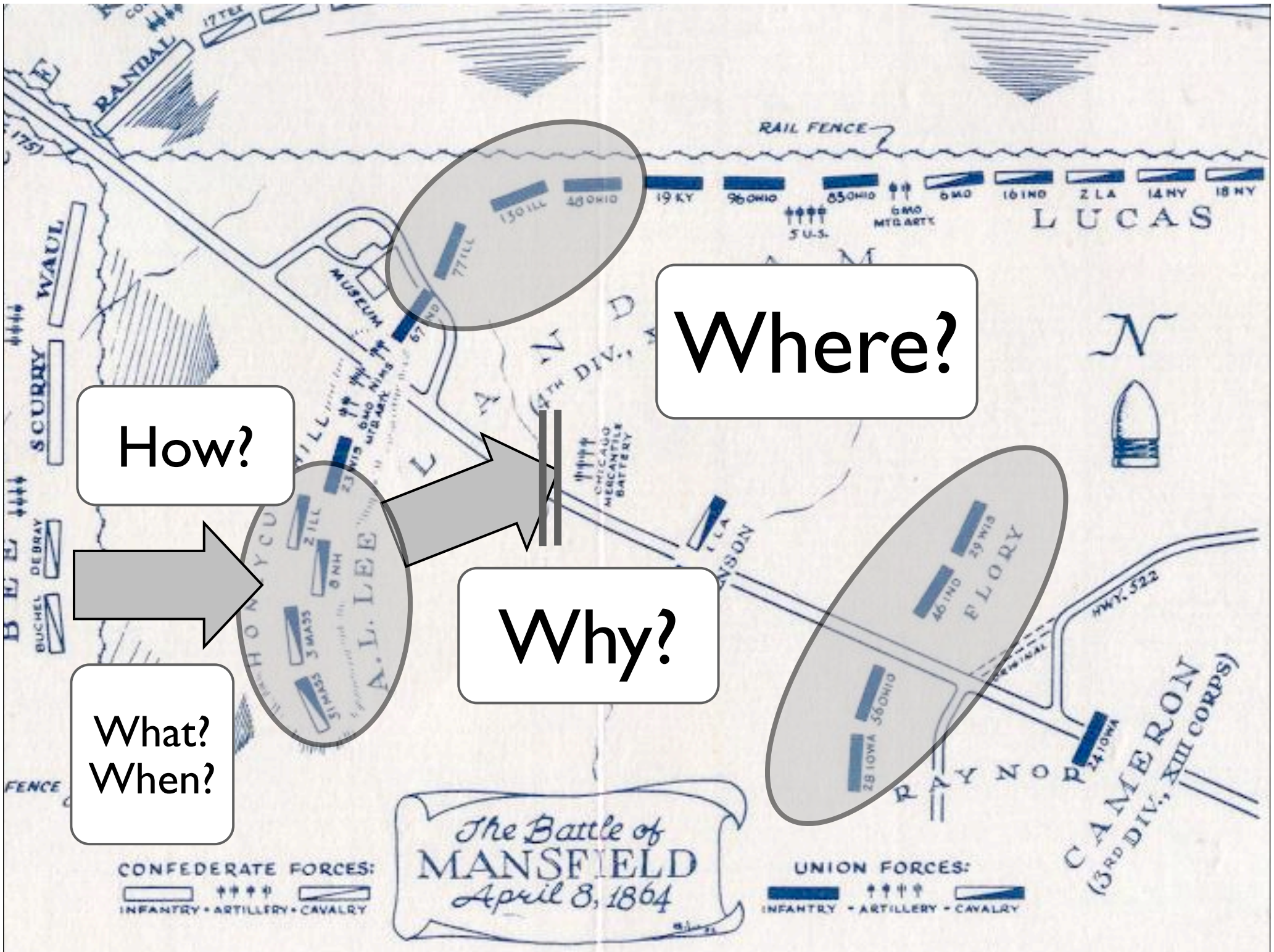
Where?

Why?

The Battle of
MANSFIELD
April 8, 1864

CONFEDERATE FORCES:
INFANTRY • ARTILLERY • CAVALRY

UNION FORCES:
INFANTRY • ARTILLERY • CAVALRY



Where?

How?

What?
When?

Why?

In Military ...

Where?

Why?

**Situational
Awareness**

In Military ...

Where?

Why?

How?

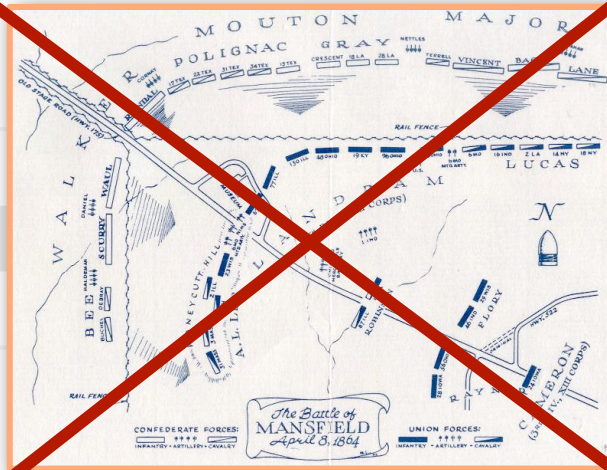
What?

When?

**Situational
Awareness**

Action

In Business ...




How?

What?

When?

67% of successful companies do ...

Business is usually a tyranny of action over situational awareness ...

A black and white cat is sitting at a wooden conference table in a room with wood-paneled walls and several black chairs. The cat is wearing a bright pink necktie. A white speech bubble with a black outline is positioned to the left of the cat, containing the text "Does it matter?".

Does it
matter?

Typical business
doctrine ...

I'd rather have a first-rate
execution and second-rate
strategy any time

*Jamie Dimon, CEO of
JPMorgan Chase*

How it stands up to
scrutiny ...

**execution is the key to a
strategy's success - is as flawed
as it is popular.**

*Professor Roger L. Martin,
The Execution Trap, 2009*

.....
Strategic Play (AWARENESS)
.....

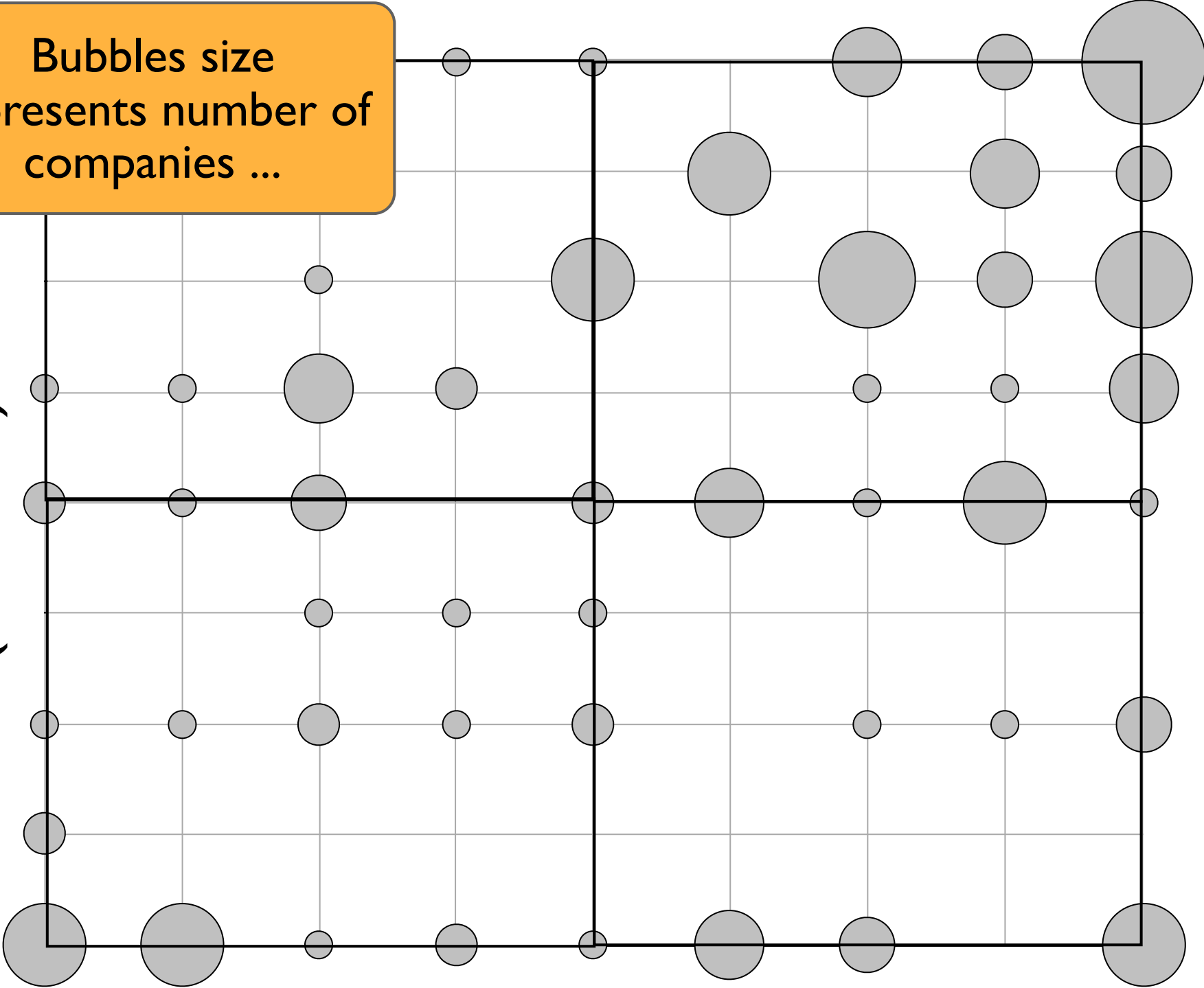
I looked into this problem in 2012 ...

--- **Uses Open to Compete (ACTION)** ----->

Bubbles size represents number of companies ...

Strategic Play (AWARENESS)

Uses Open to Compete (ACTION)



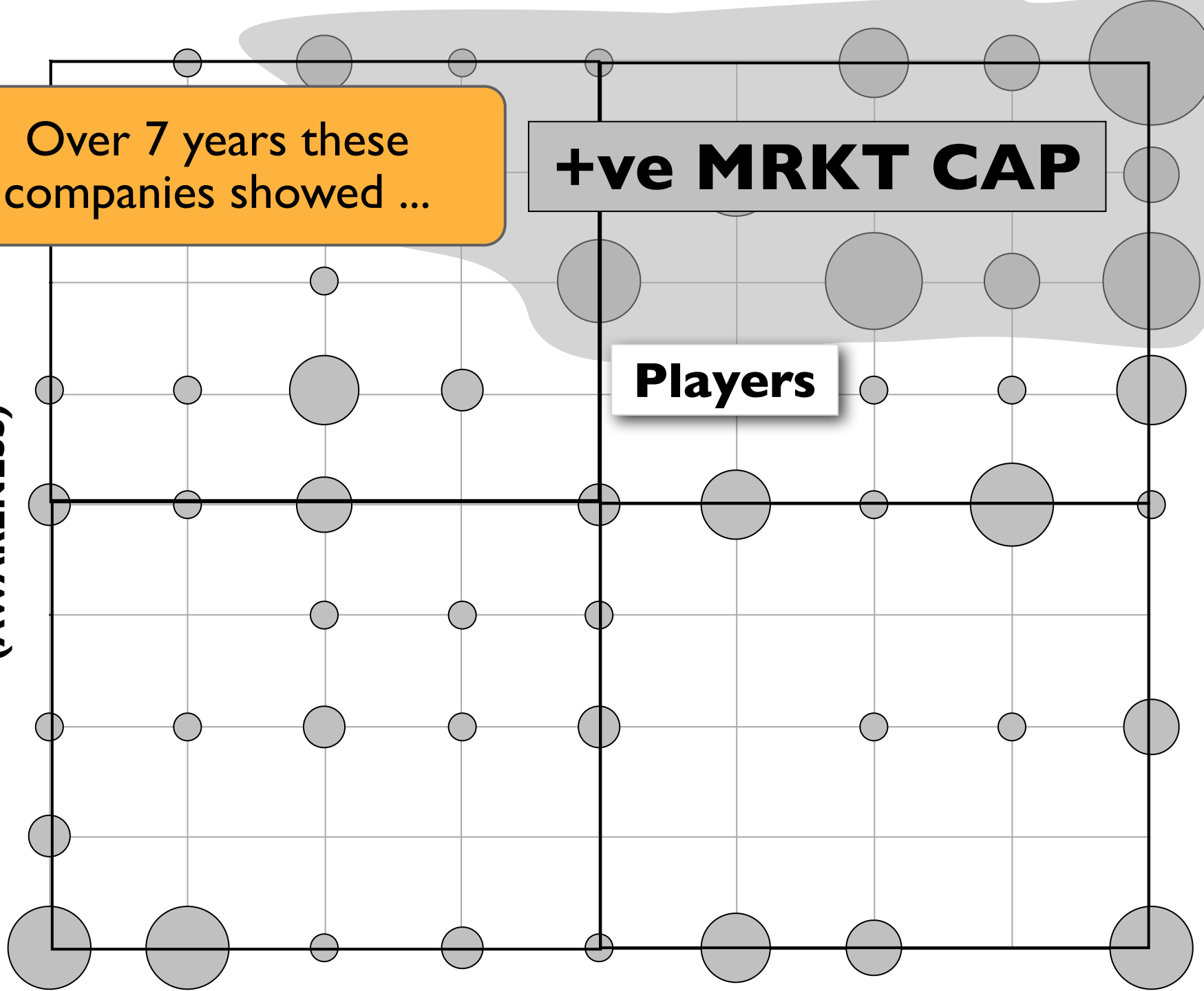
Over 7 years these companies showed ...

+ve MRKT CAP

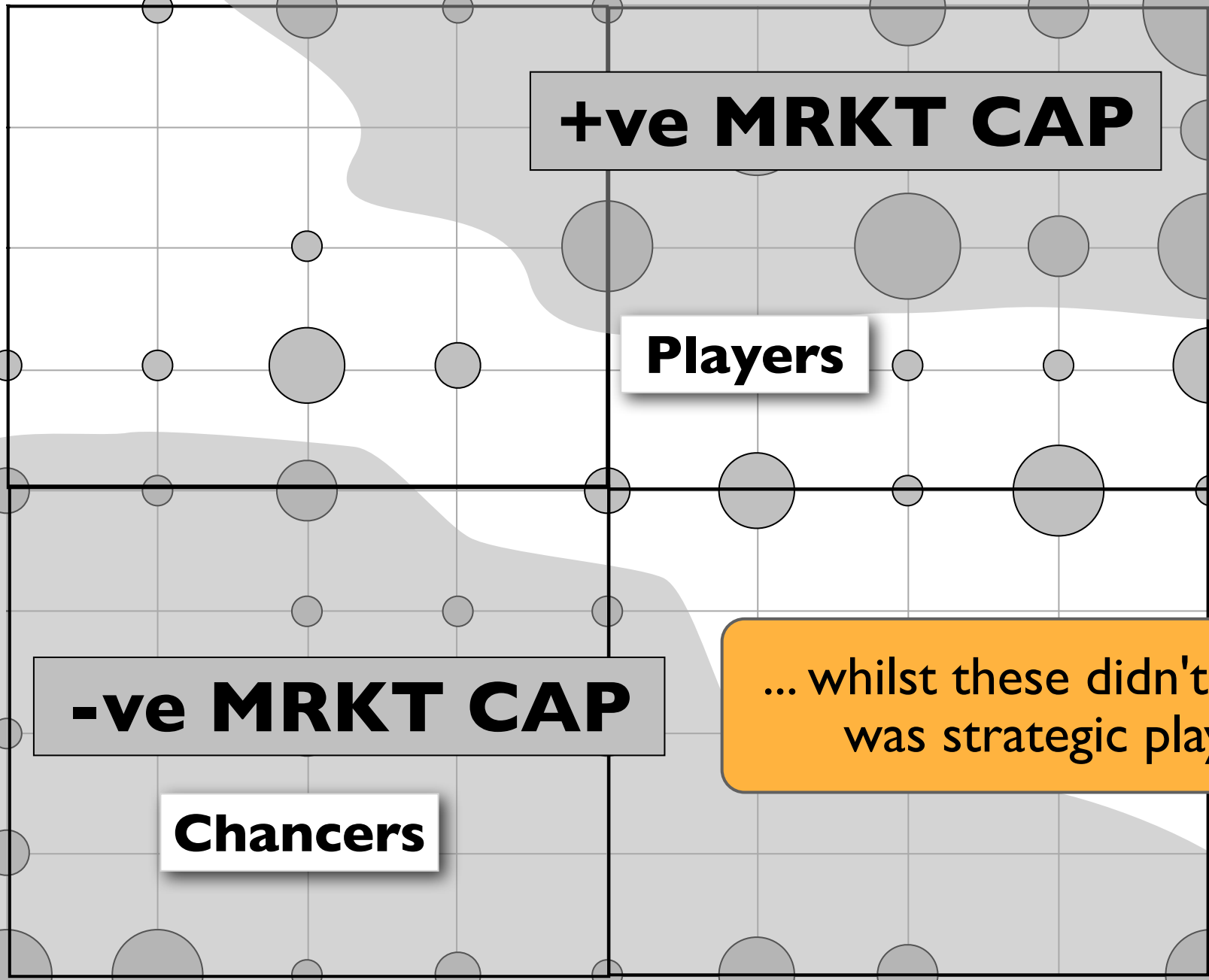
Players

**Strategic Play
(AWARENESS)**

... Uses Open to Compete (ACTION) ----->



Strategic Play
(AWARENESS)



+ve MRKT CAP

Players

-ve MRKT CAP

Chancers

... whilst these didn't. Key was strategic play.


--- **Uses Open to Compete (ACTION)** ----->

NB

97% of execs consider strategy to be critical
to future success

Most business strategy is a tyranny of
action over
situational awareness

Lack of situational awareness has a **negative**
impact on market cap

A black and white cat is sitting at a wooden conference table. The cat is wearing a bright pink necktie. The background consists of dark wood paneling and several black office chairs. A white speech bubble is overlaid on the left side of the image, containing the text "How do I improve situational awareness?".

How do I
improve
situational
awareness?

TABV. NOVA PARTIS AFRICAE



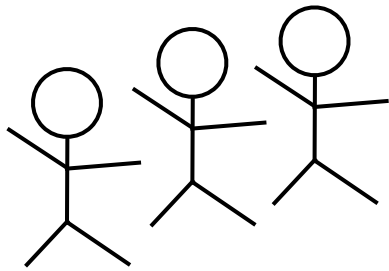
Onto the next bit ...

How to?

Why?

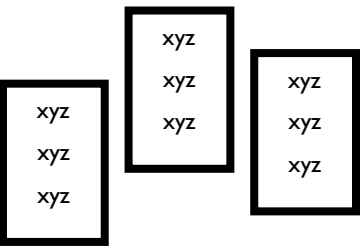


Organisations consist of ...



People

Activities

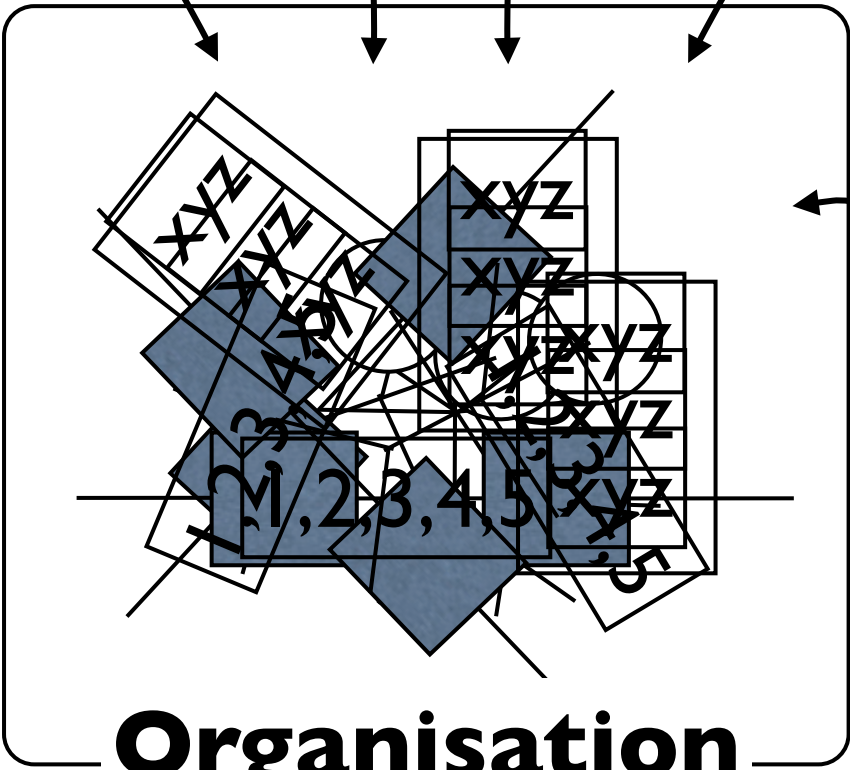


Practices

1,2,3,4,5
1,2,3,4,5
1,2,3,4,5

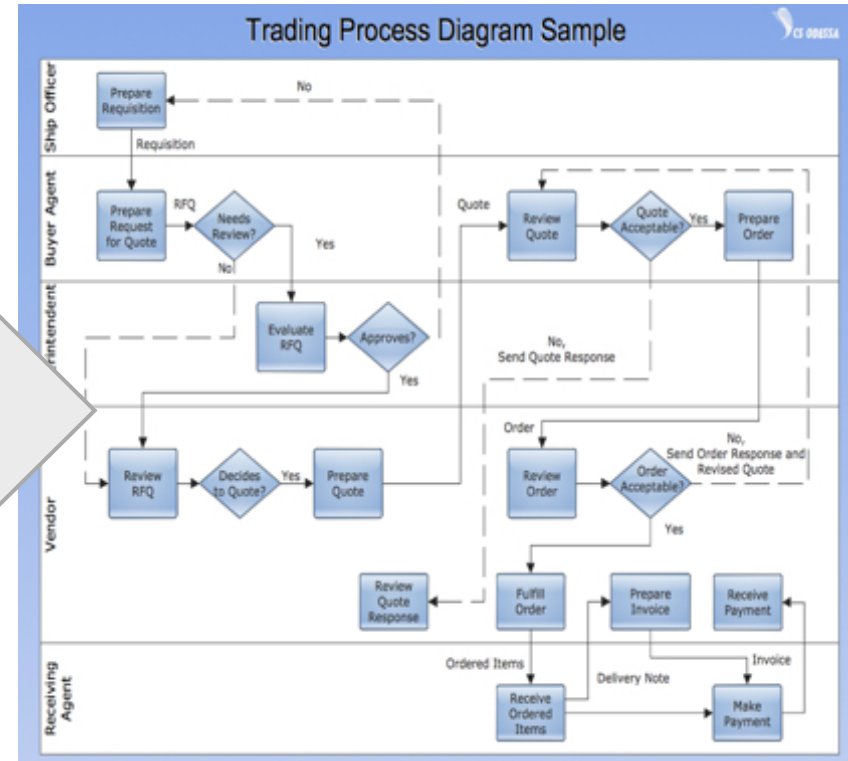
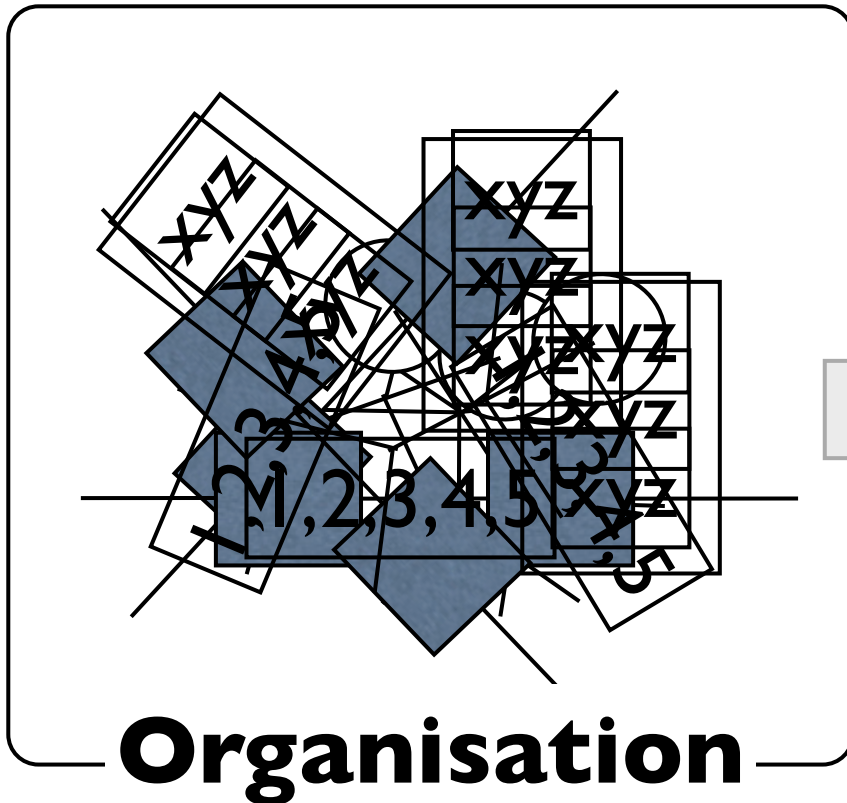
Data

Capital



Organisation

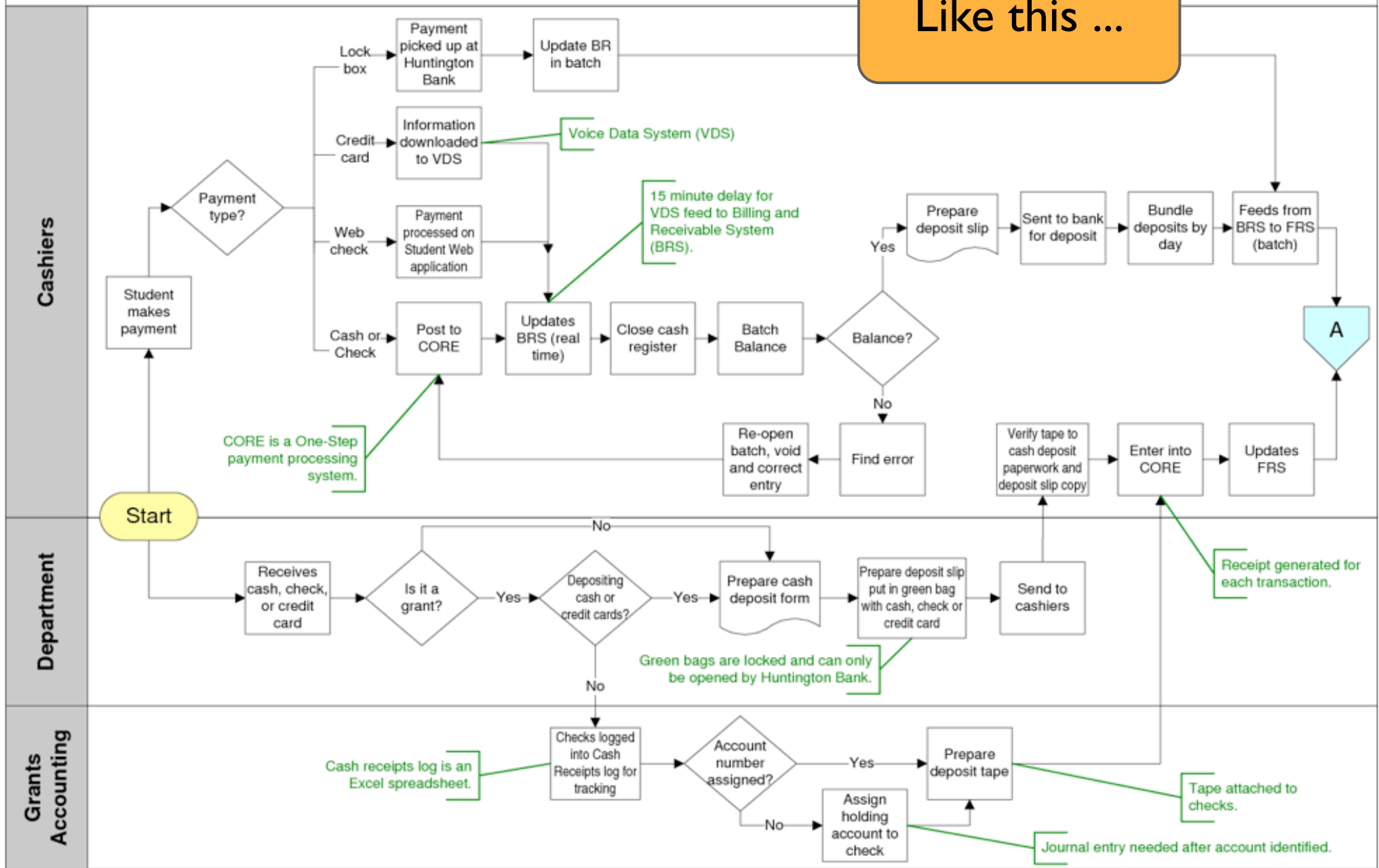
We usually try to make sense of this with ...



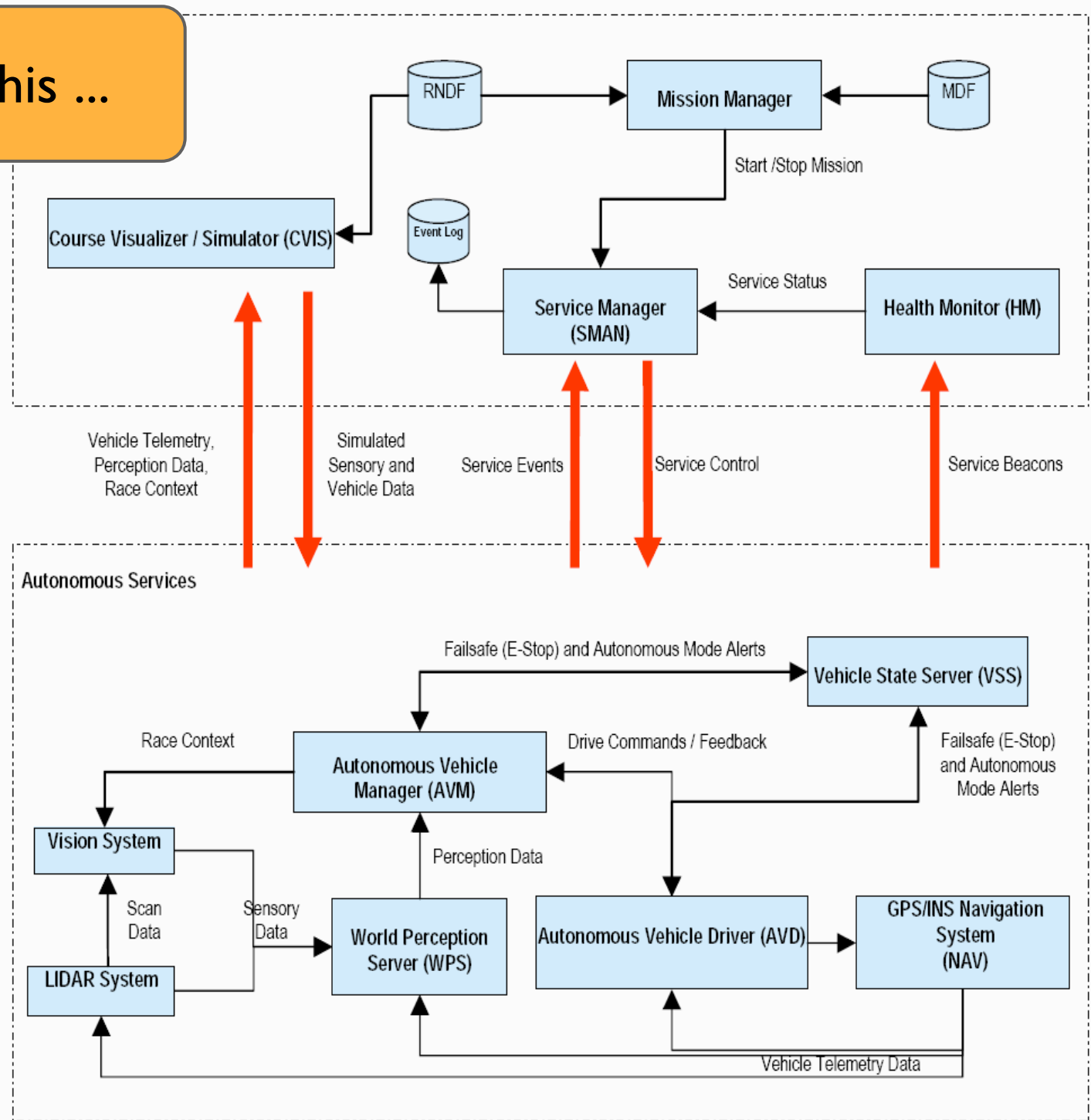
Box and Wire

13.0 Cash Receipts

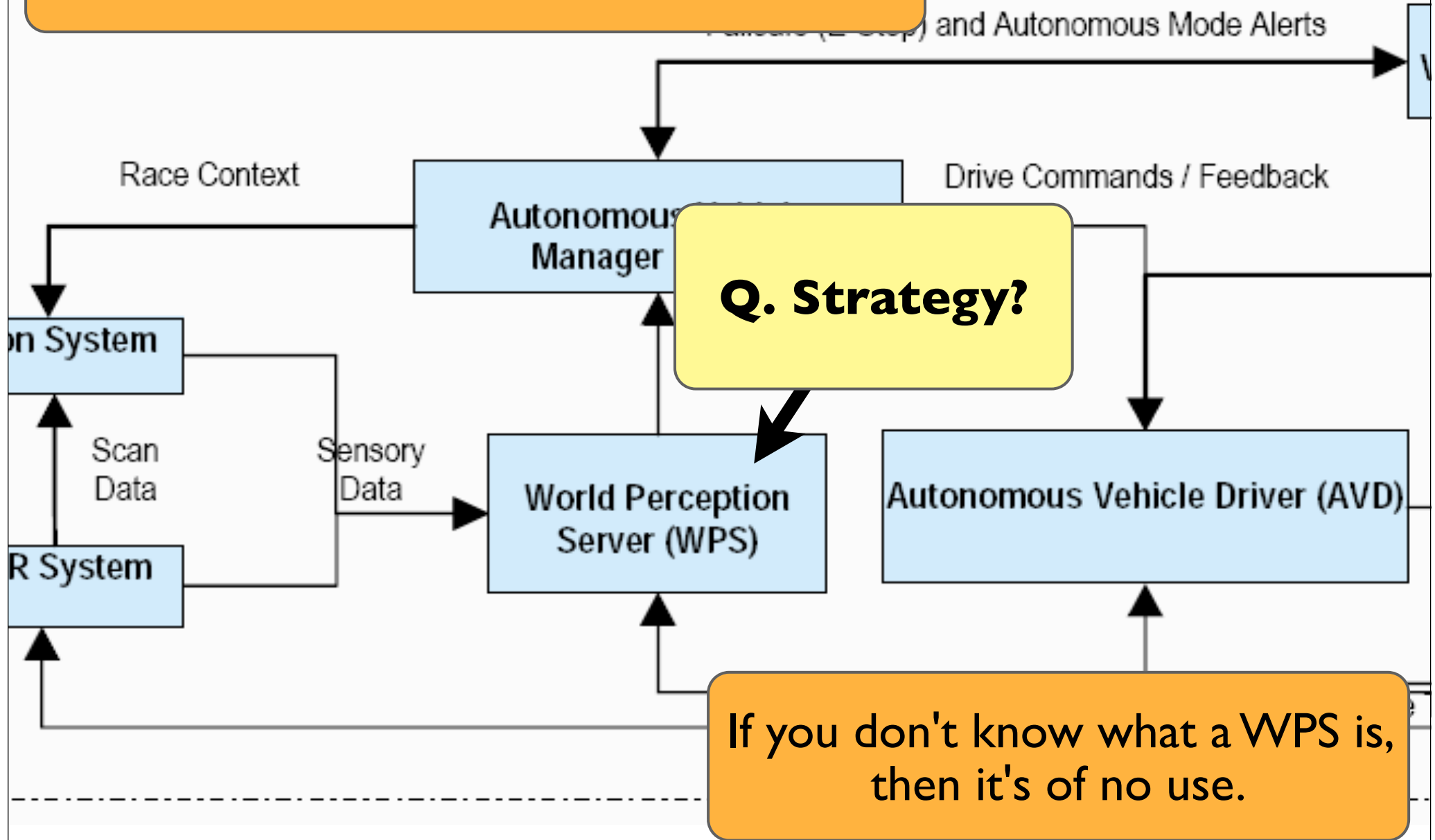
Like this ...



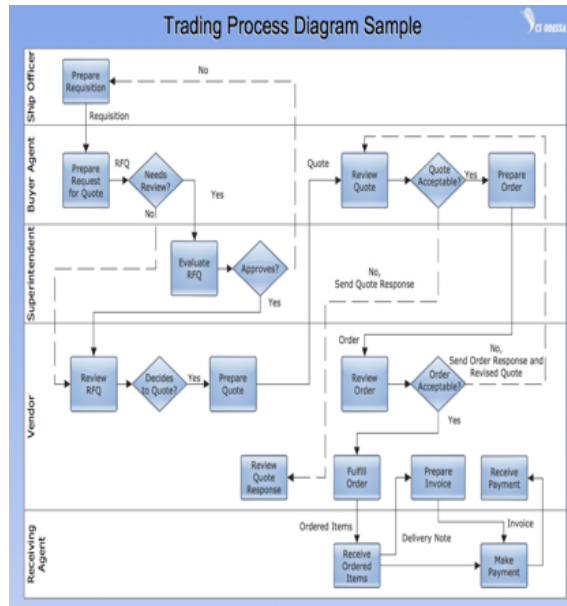
Or this ...



Problem is the box and wire diagrams tell us nothing ... the meaning is within the text of the boxes.

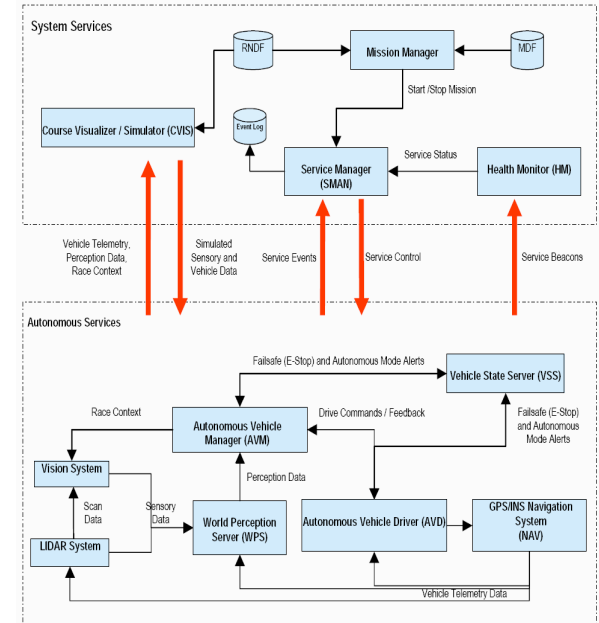


Alas we use multiple forms of box and wire for the same organisation



Business Speak

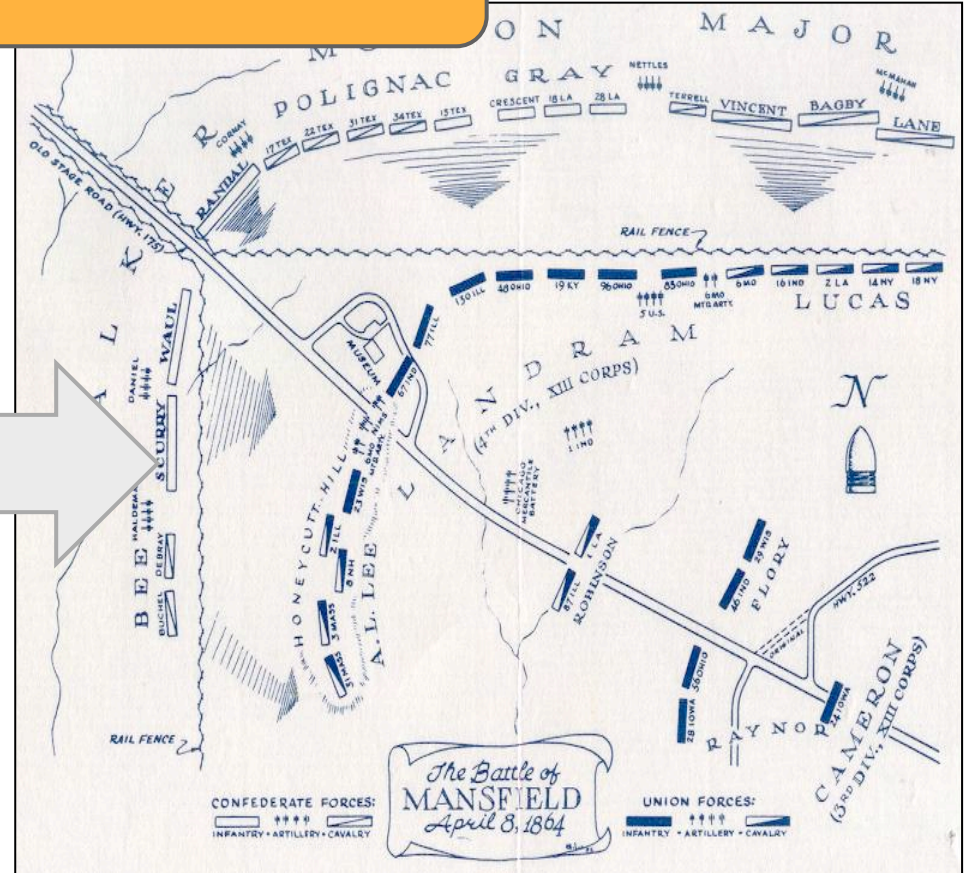
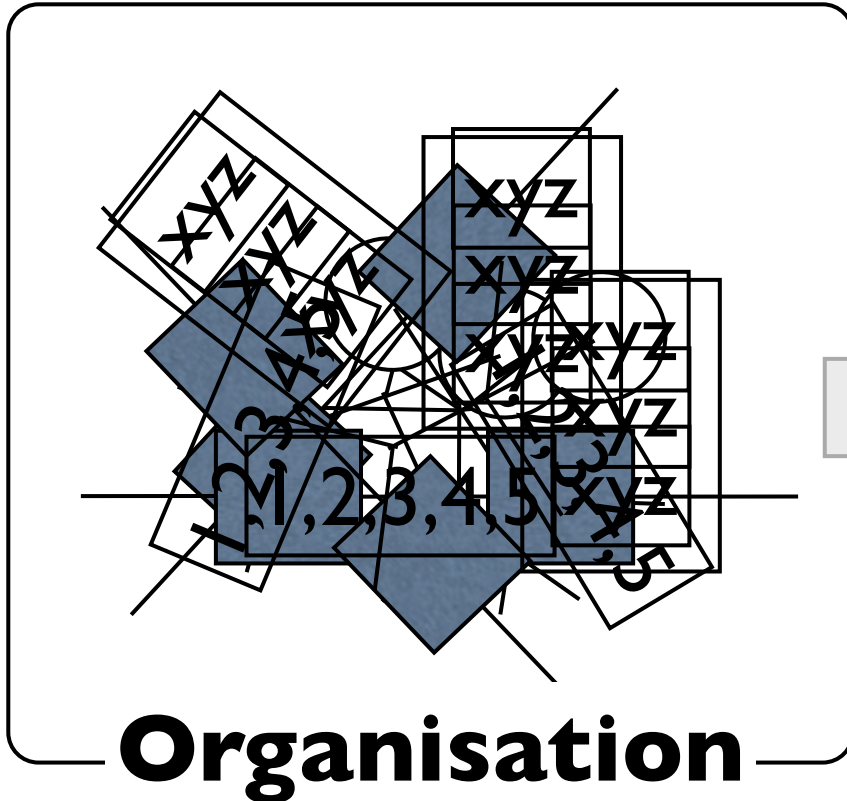
?&!A?



Technology Speak

... causing all sorts of translation issues.

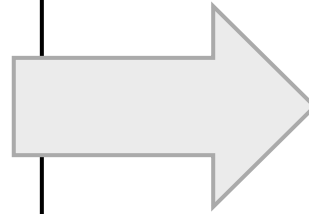
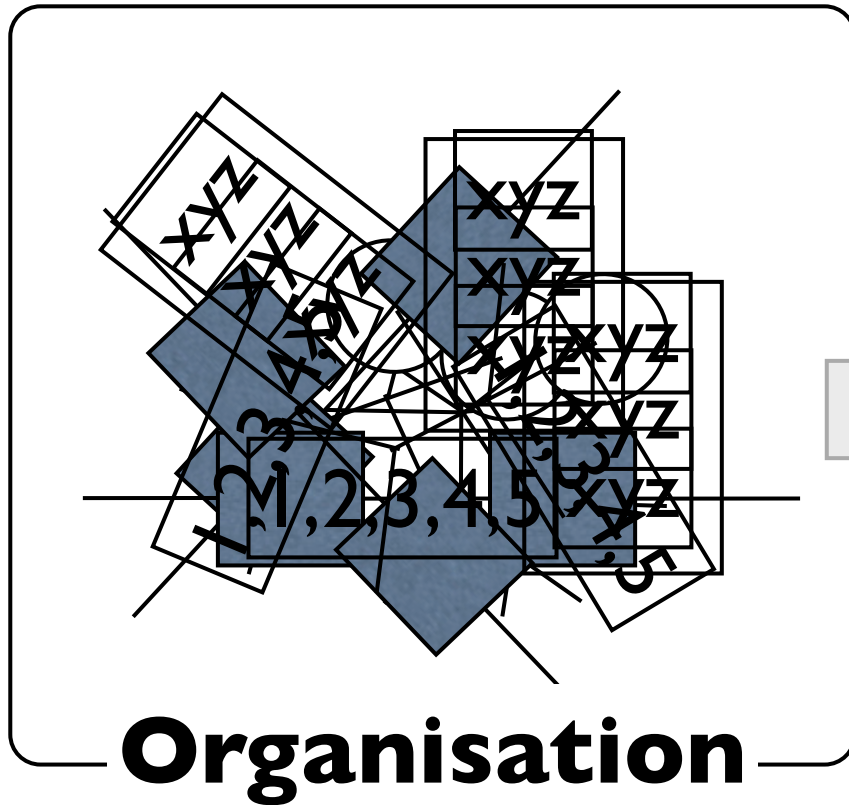
What we want ...



Map

How?

Organisations consist of ...



Value Chain

Value Chain

Value Chain



Let's pretend your
business is making ..



Value Chain

Visible

User needs ... i.e. what they want

Invisible

Supplier needs ... i.e. what you need to make it happen.

Value Chain

Invisible

Visible

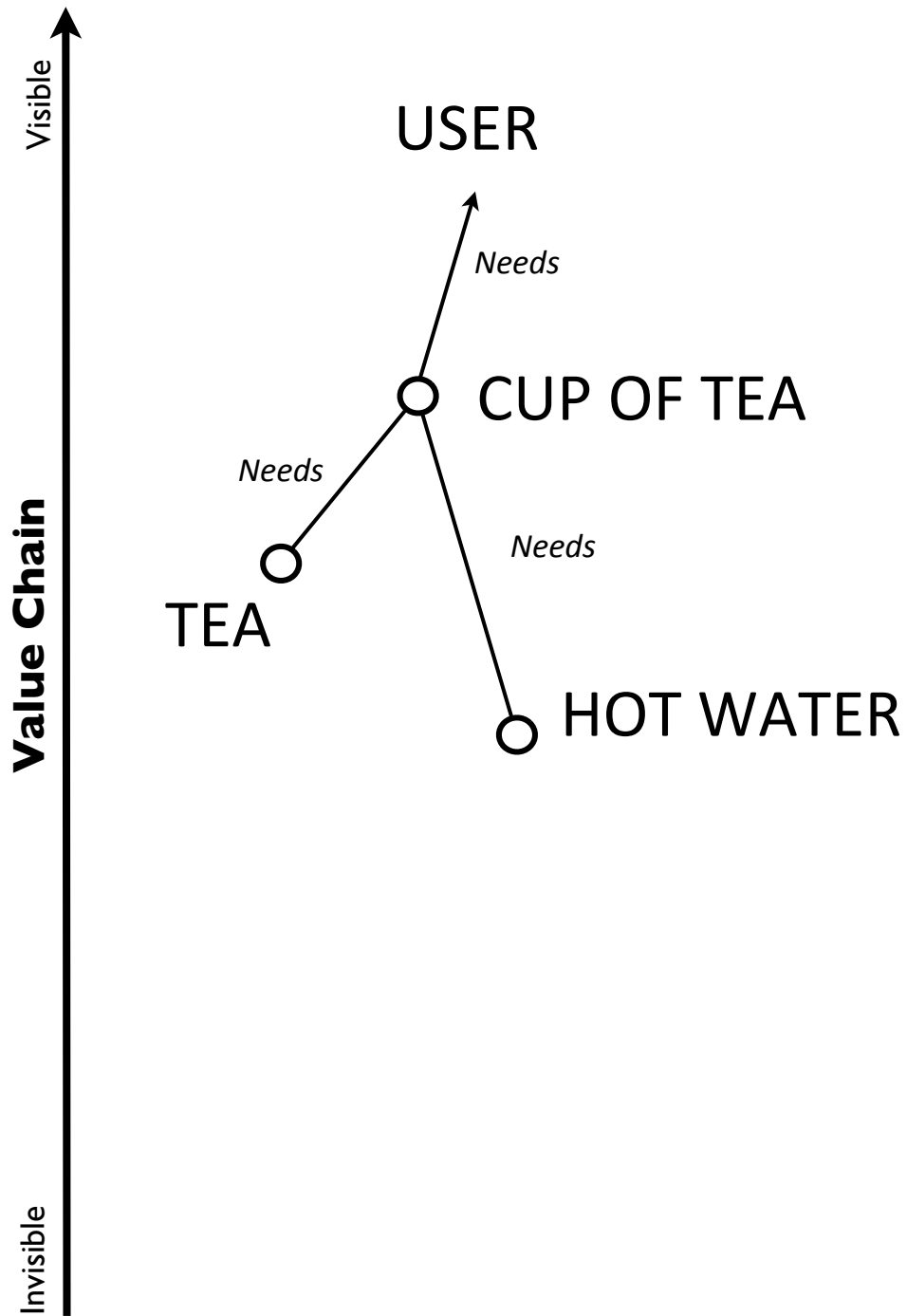
USER

○ CUP OF TEA

Needs

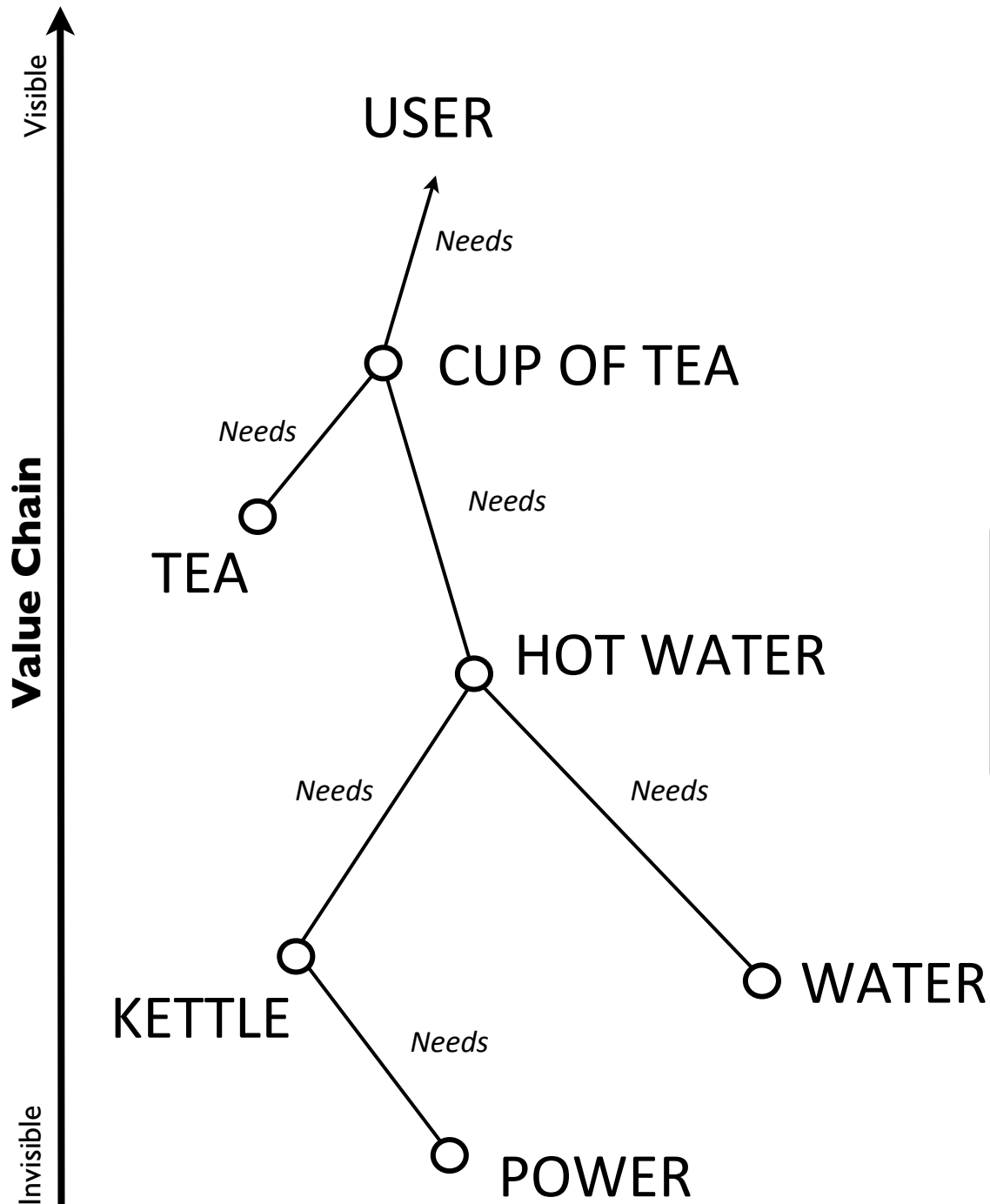
User need is for a 'cup of tea'

Hence YOU need to have the capability to make a cup of tea ...



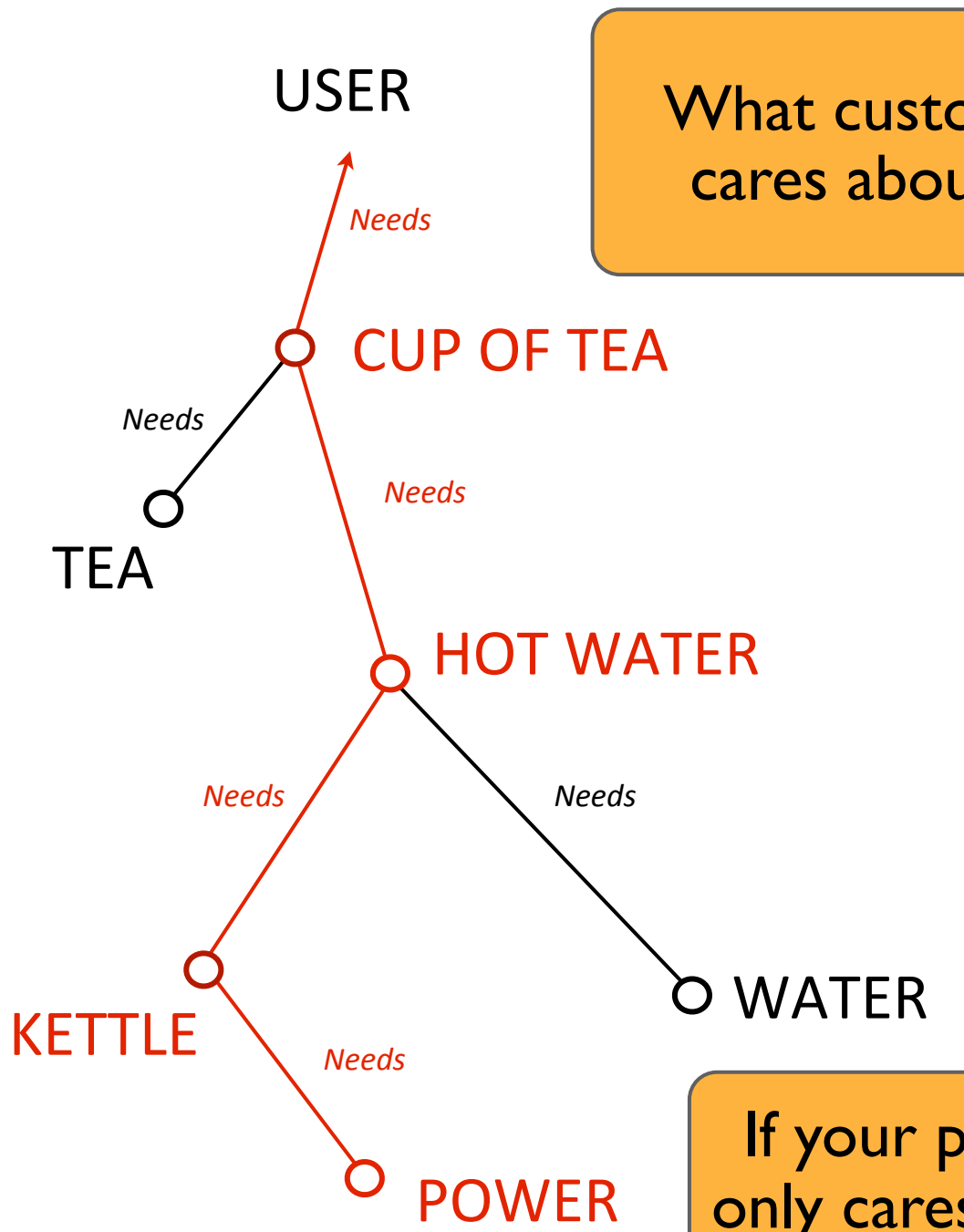
But a cup of tea needs many things (tea, hot water etc)

... there's a lot more but I'm keeping the diagram simple



You can build a chain of needs and the capabilities required to meet those needs.

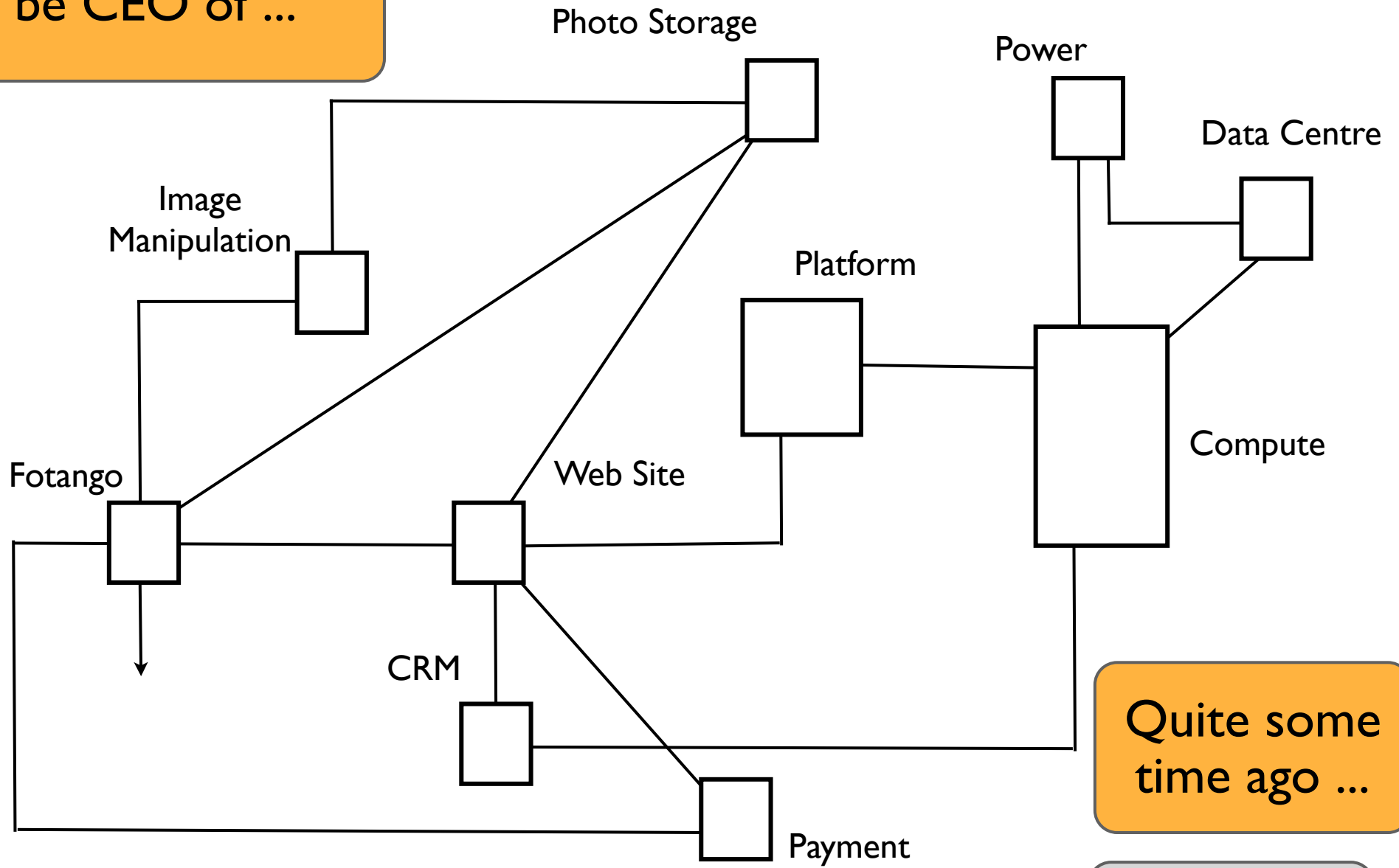
Visible
Value Chain
Invisible



What customer cares about ...

If your power goes, the customer only cares that they don't get a 'cup of tea'.

Company I used to be CEO of ...



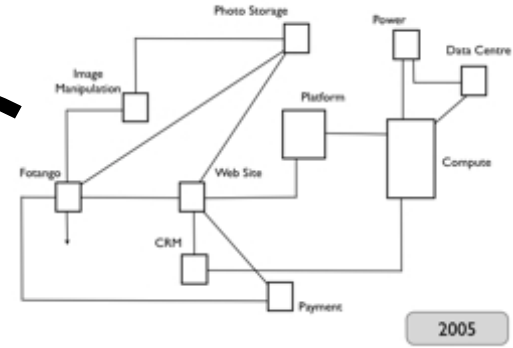
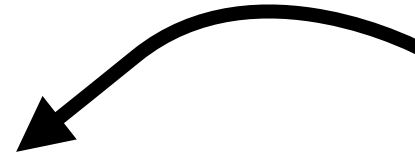
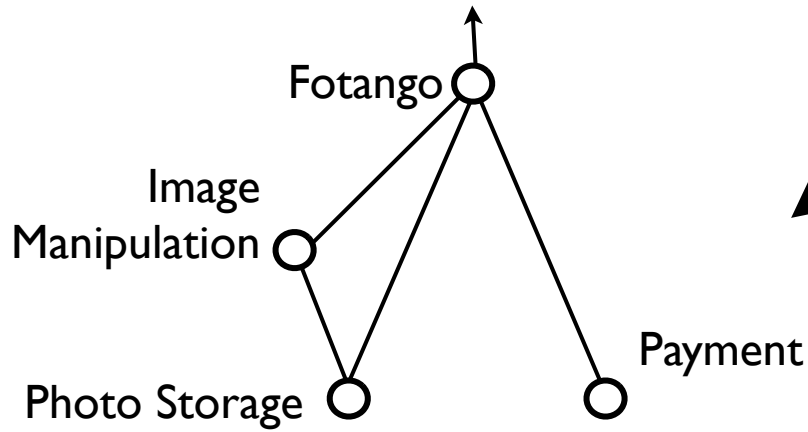
Quite some time ago ...

2005

Value Chain

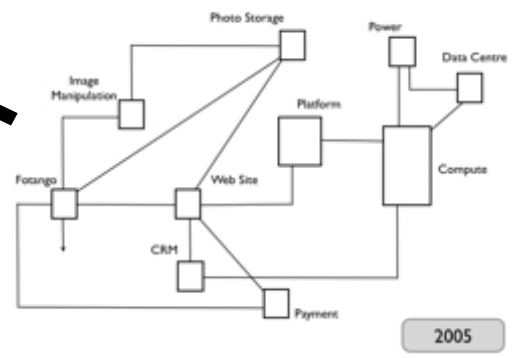
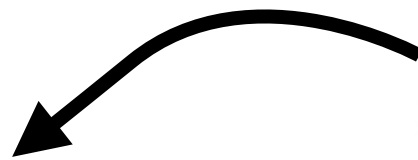
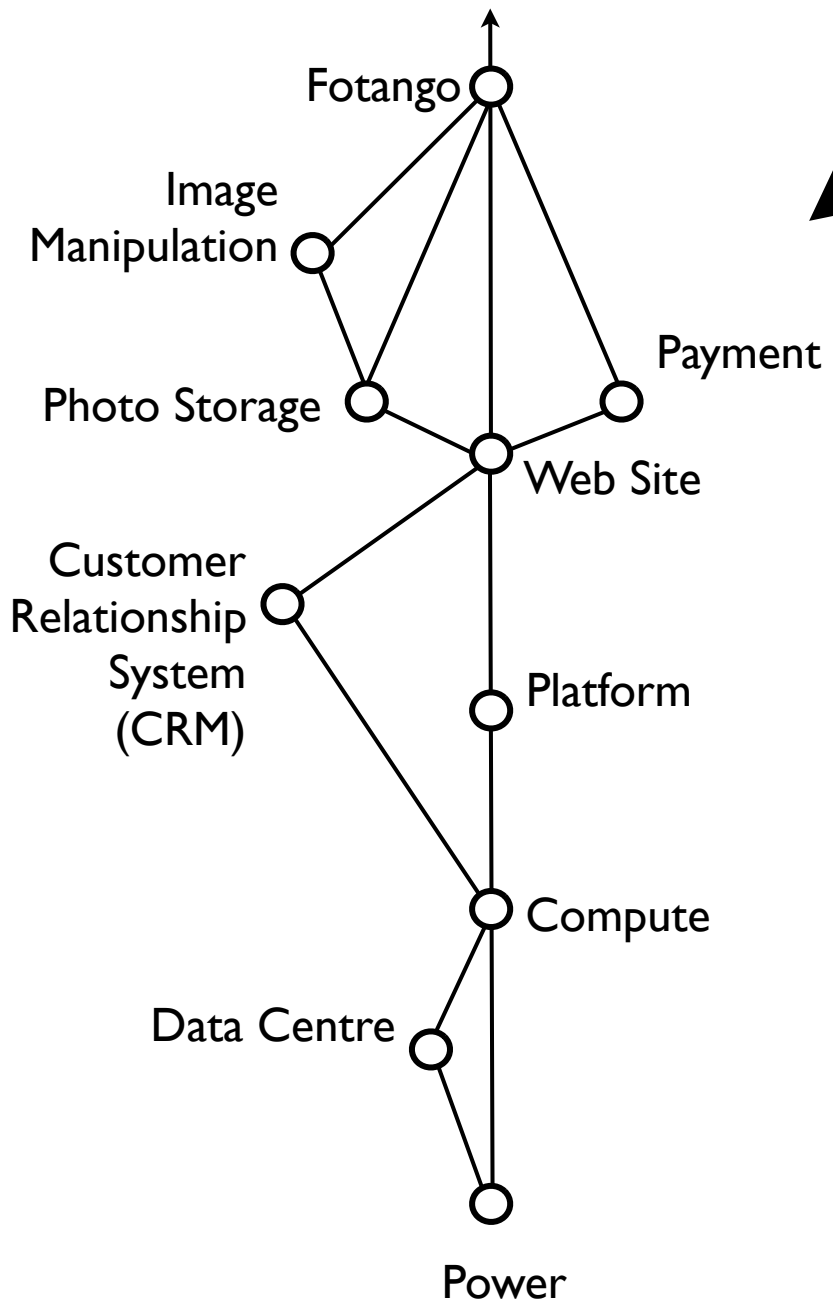
Invisible


Visible



I took the box and wire diagram and turned it into a value chain ...

Visible
Value Chain
Invisible



A ginger cat is the central focus, wearing round black-rimmed glasses and a light pink suit jacket over a white shirt and dark tie. The cat has its mouth wide open, sticking out its pink tongue. Its right paw is raised in a fist-like gesture. The background is a laboratory with shelves holding various glass bottles and equipment. A whiteboard is visible on the left side of the frame.

The problem with simply using value chains is ...

Change!

Nokia

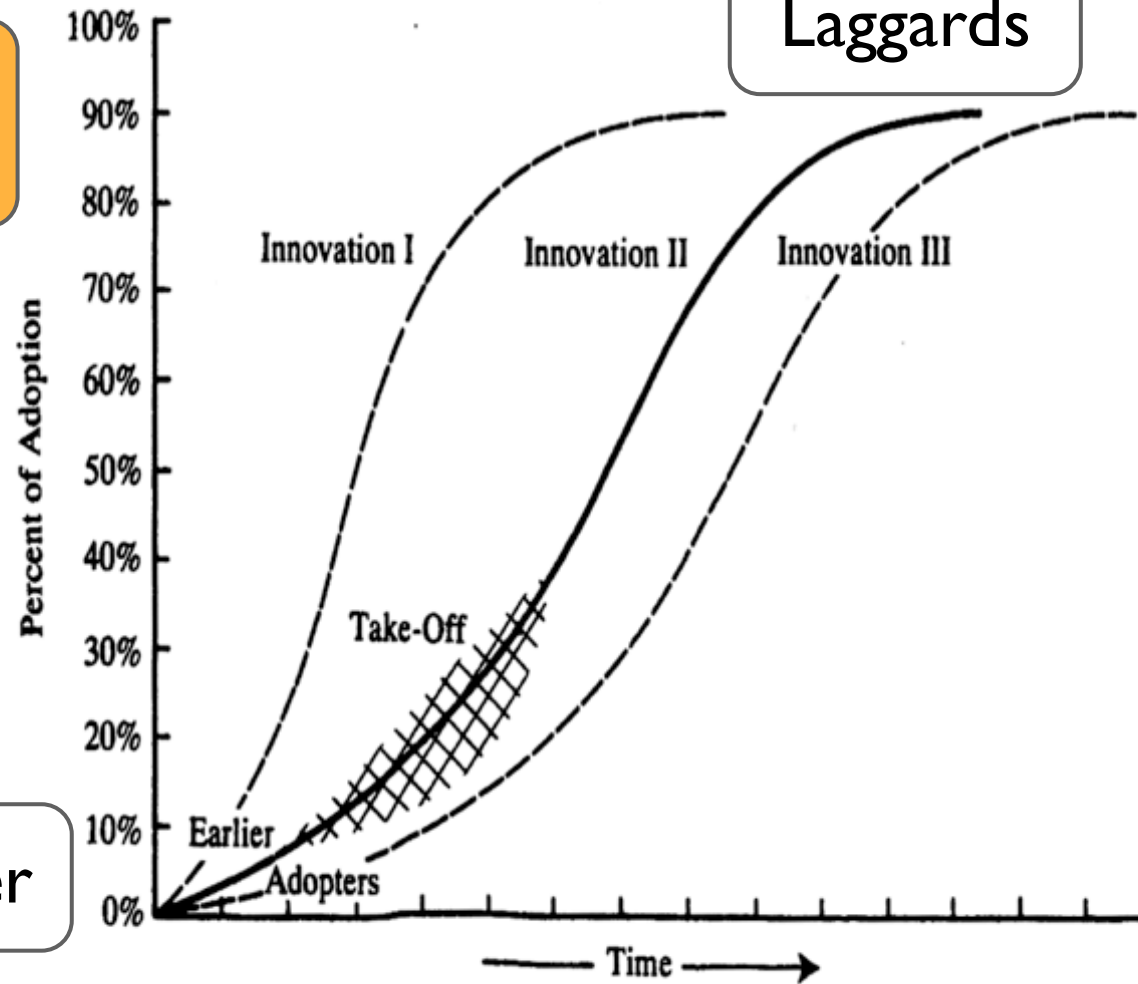


Nokia today is not the same as Nokia yesterday or Nokia Tomorrow

The problem with
change is new stuff
appears ...



Figure 1-2. The Diffusion Process



... and spreads.

Early Adopter

Everett Rogers,
Diffusion of Innovation 1962

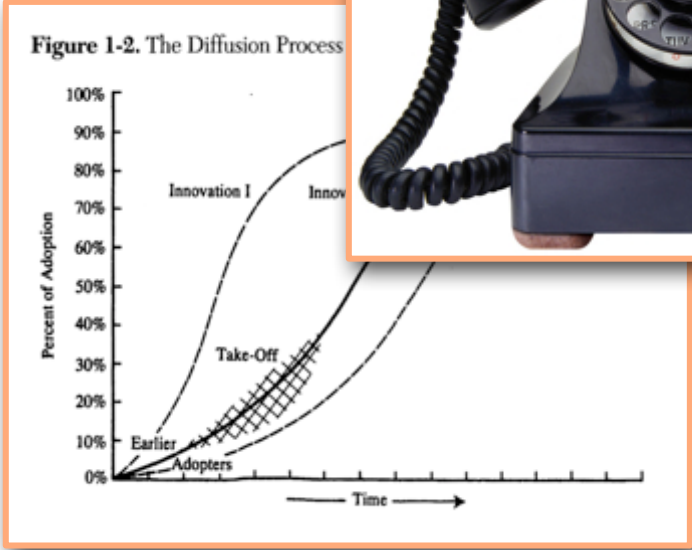
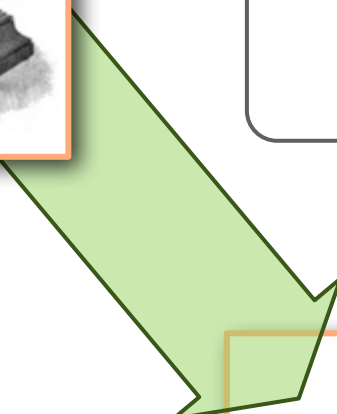
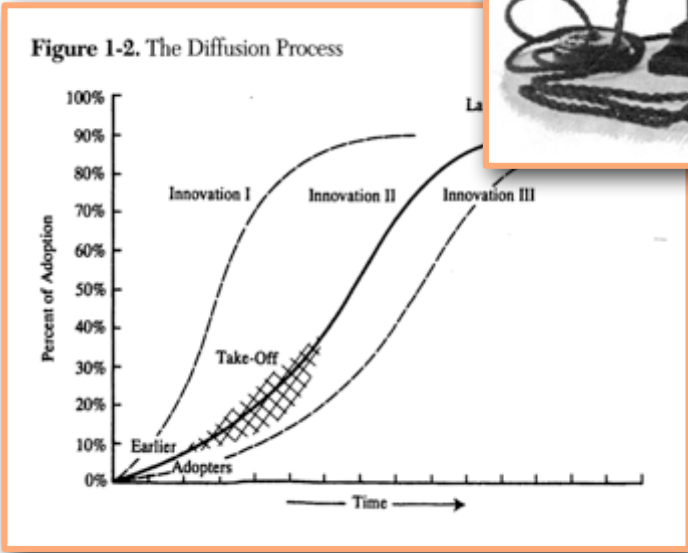
A ginger cat is the central focus, wearing round black-rimmed glasses and a light pink button-down shirt. The cat's mouth is wide open, and its pink tongue is extended. The background is a laboratory with shelves of glass bottles and equipment. Two text boxes are overlaid on the image: a yellow one on the left and a white one in the center.

So,
change ...

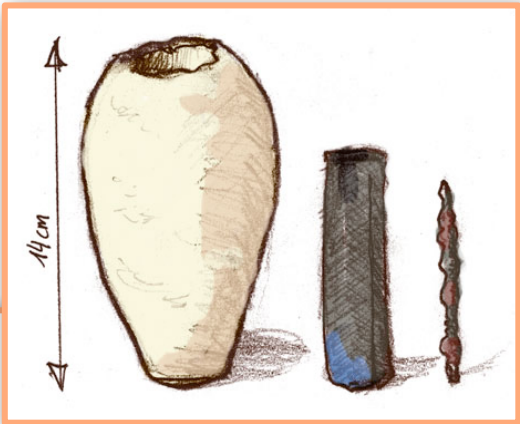
**It's
Random!**



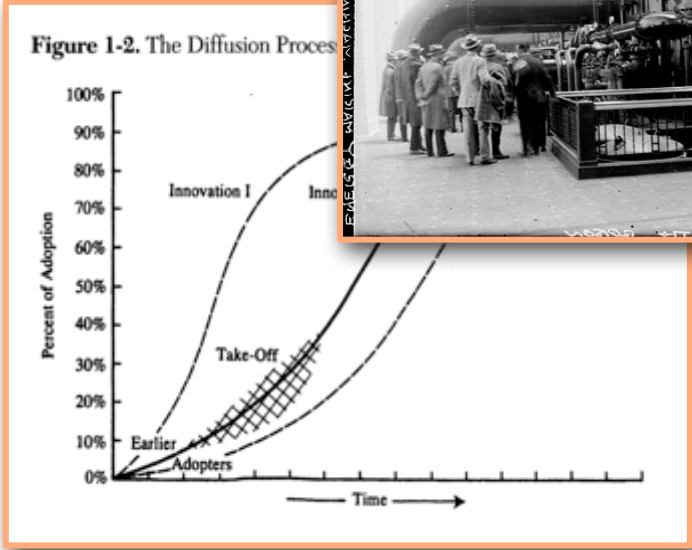
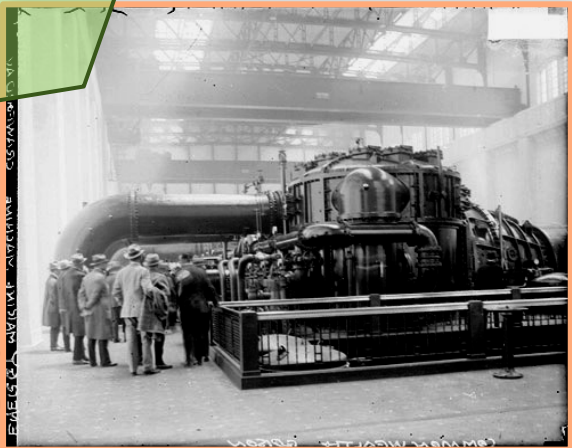
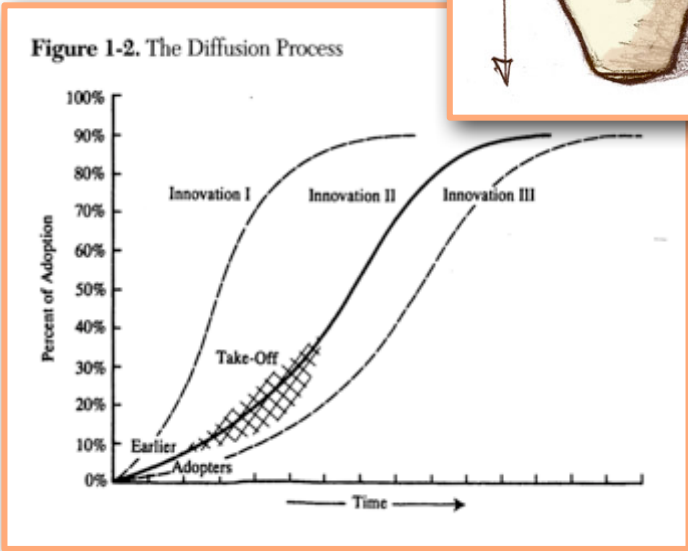
Evolve



Not quite ...



Evolve



Things don't just diffuse they evolve ...

E.g. new thing
appears ...

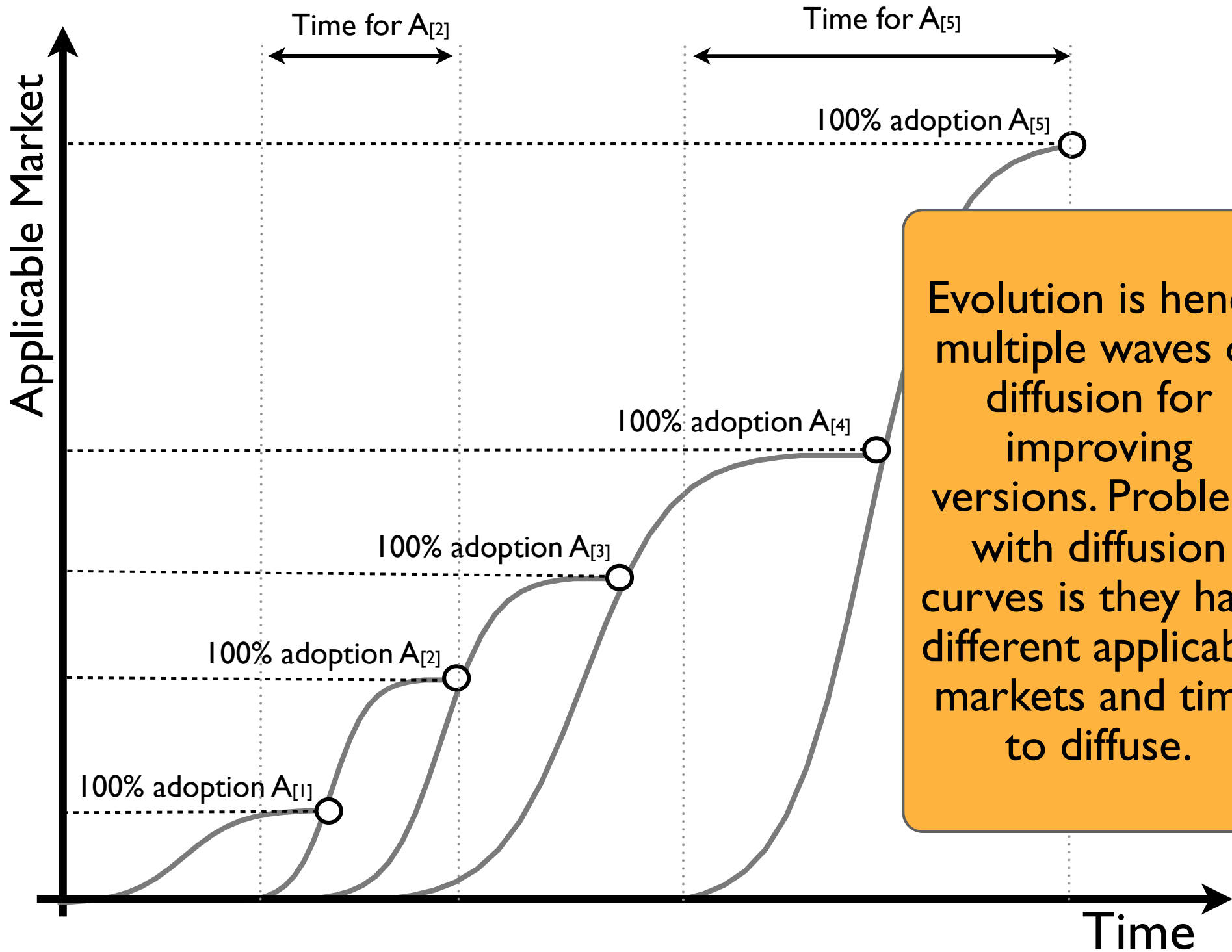
$A[1]$

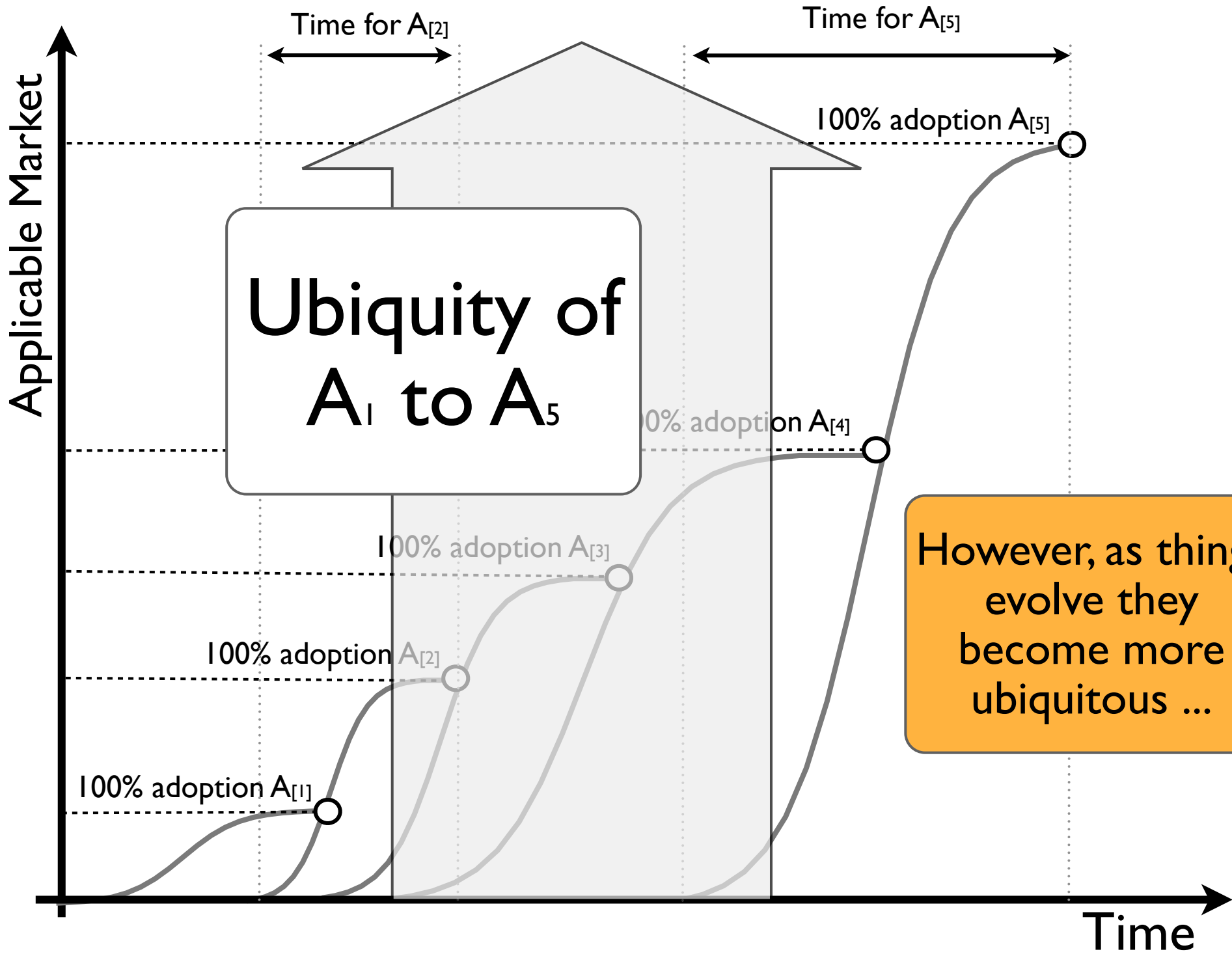
$A_{[1]}$ $A_{[2]}$ $A_{[3]}$ $A_{[4]}$ $A_{[5]}$



Evolution

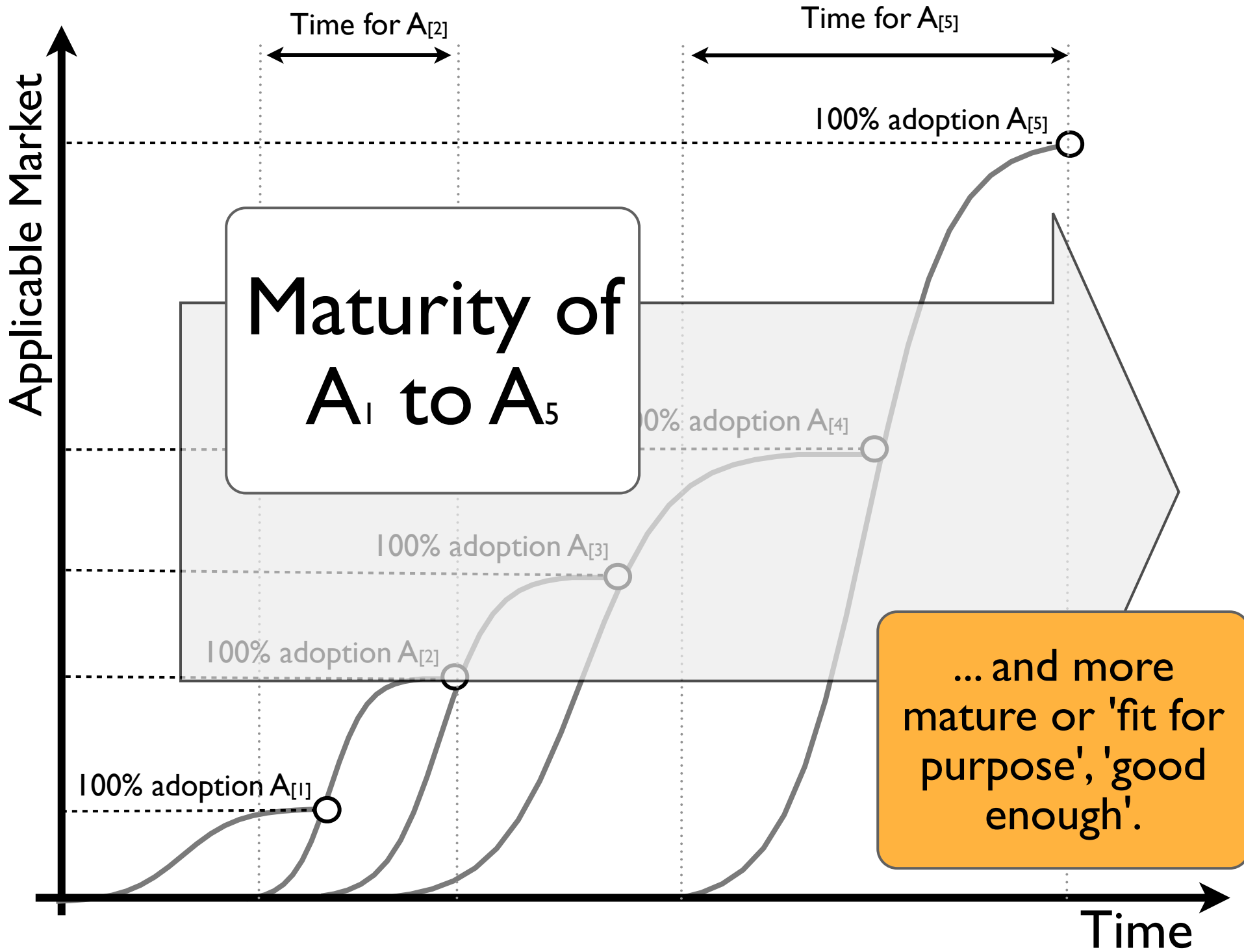
... then we get
better versions of it.






Ubiquity of
 A_1 to A_5

However, as things
evolve they
become more
ubiquitous ...



A ginger cat is the central focus, wearing round black-rimmed glasses and a light pink lab coat. The cat's mouth is wide open, and its pink tongue is extended. The background is a laboratory with shelves holding various glass bottles and equipment. A white speech bubble is positioned in the lower-left quadrant, and an orange speech bubble is positioned in the upper-left quadrant.

So can we
measure ...

Maturity?

Difficult, if something is mature (e.g. a brick) we quickly agree but ask is a 'smartphone mature' and ...

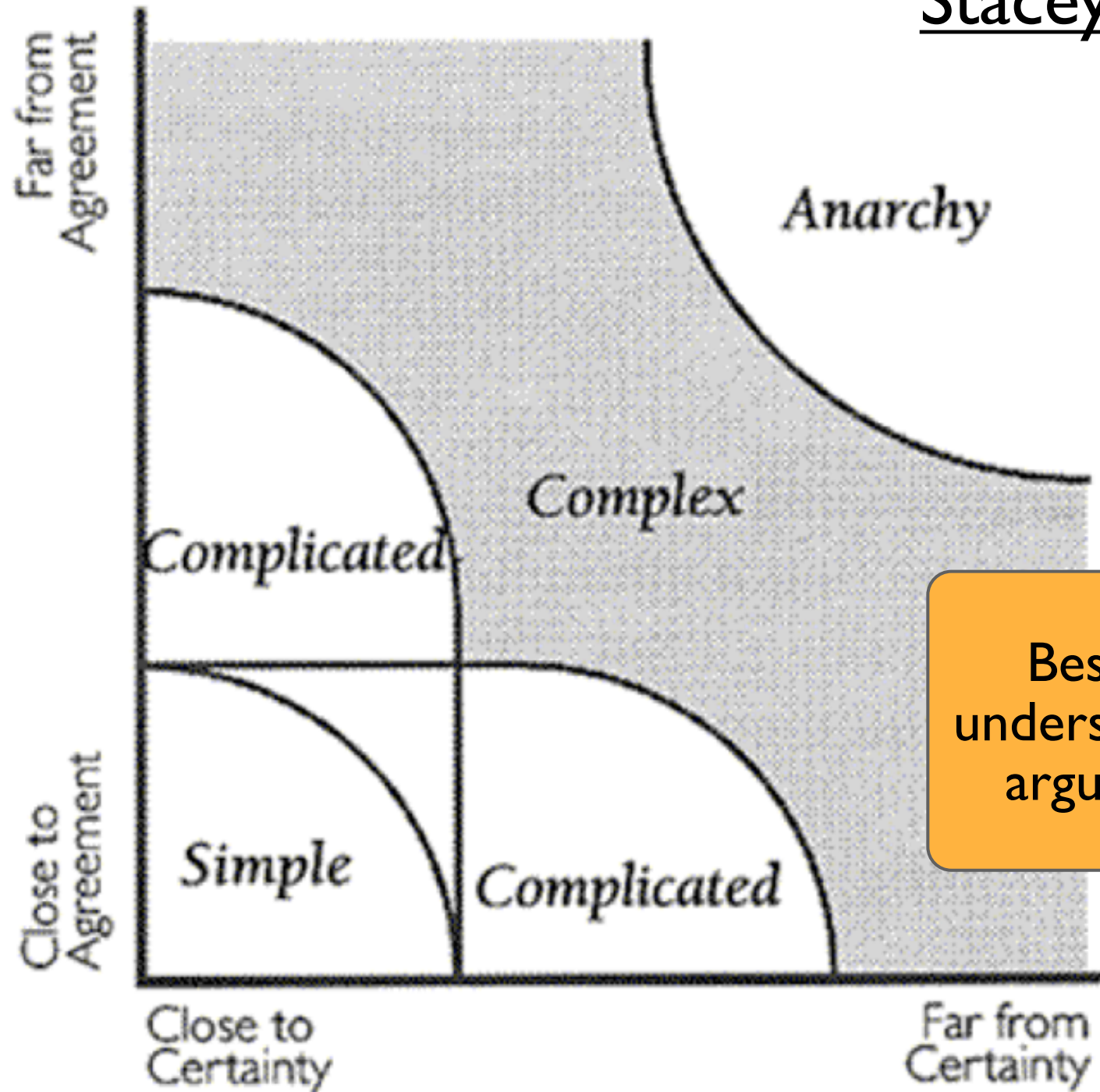


It's
mature!

Not it's
not!

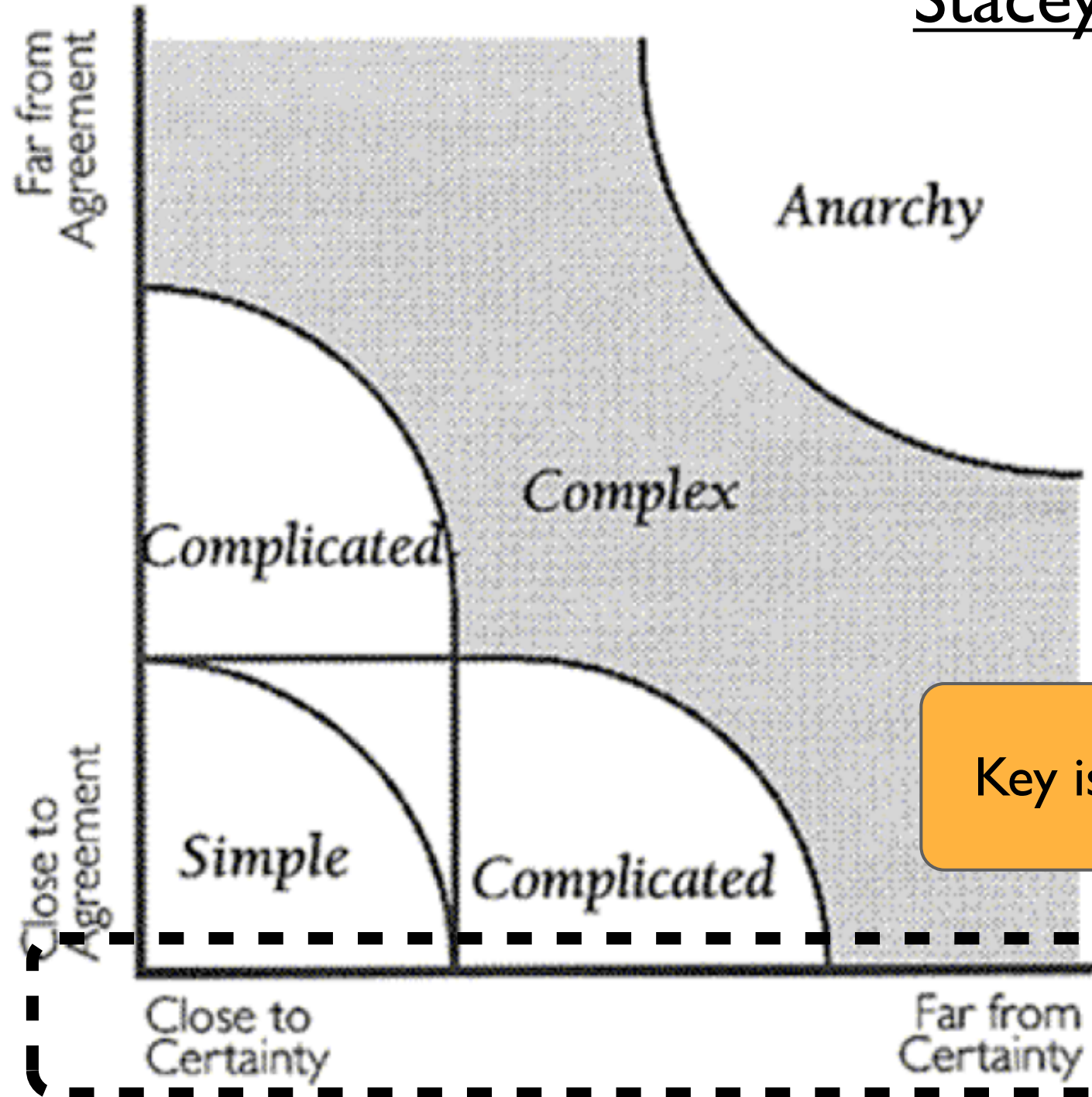
... arguments break out.

Stacey Matrix




Best way of understanding the argument is ..

Stacey Matrix



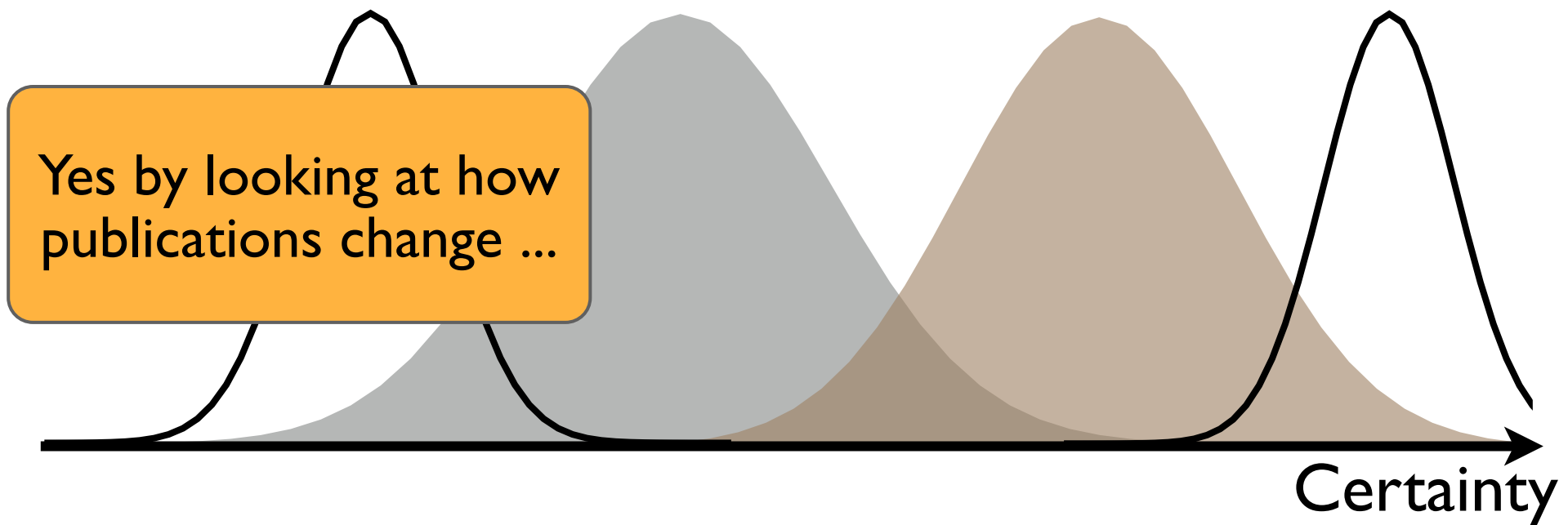
Key is certainty.

A ginger cat is the central focus, wearing round black-rimmed glasses and a light pink lab coat. The cat has its mouth wide open, sticking out its pink tongue. Its eyes are wide and green. The background is a laboratory with shelves holding various glass bottles and equipment. A white speech bubble is positioned in the lower-left quadrant, containing the text 'So can we measure ...'. A larger white speech bubble is positioned in the lower-center, containing the text 'Certainty?'.

So can we
measure ...

Certainty?

Type	I	II (key)	III (key)	IV
Publication Type	Refer to the wonder of the thing , described in terms of impact	Refer to building, construction and awareness	Refer to operation, maintenance and feature differences between different examples	Dominated by use i.e. what is built with this or on top of this including guides for maximising use.
Meaure		Volume	Volume	



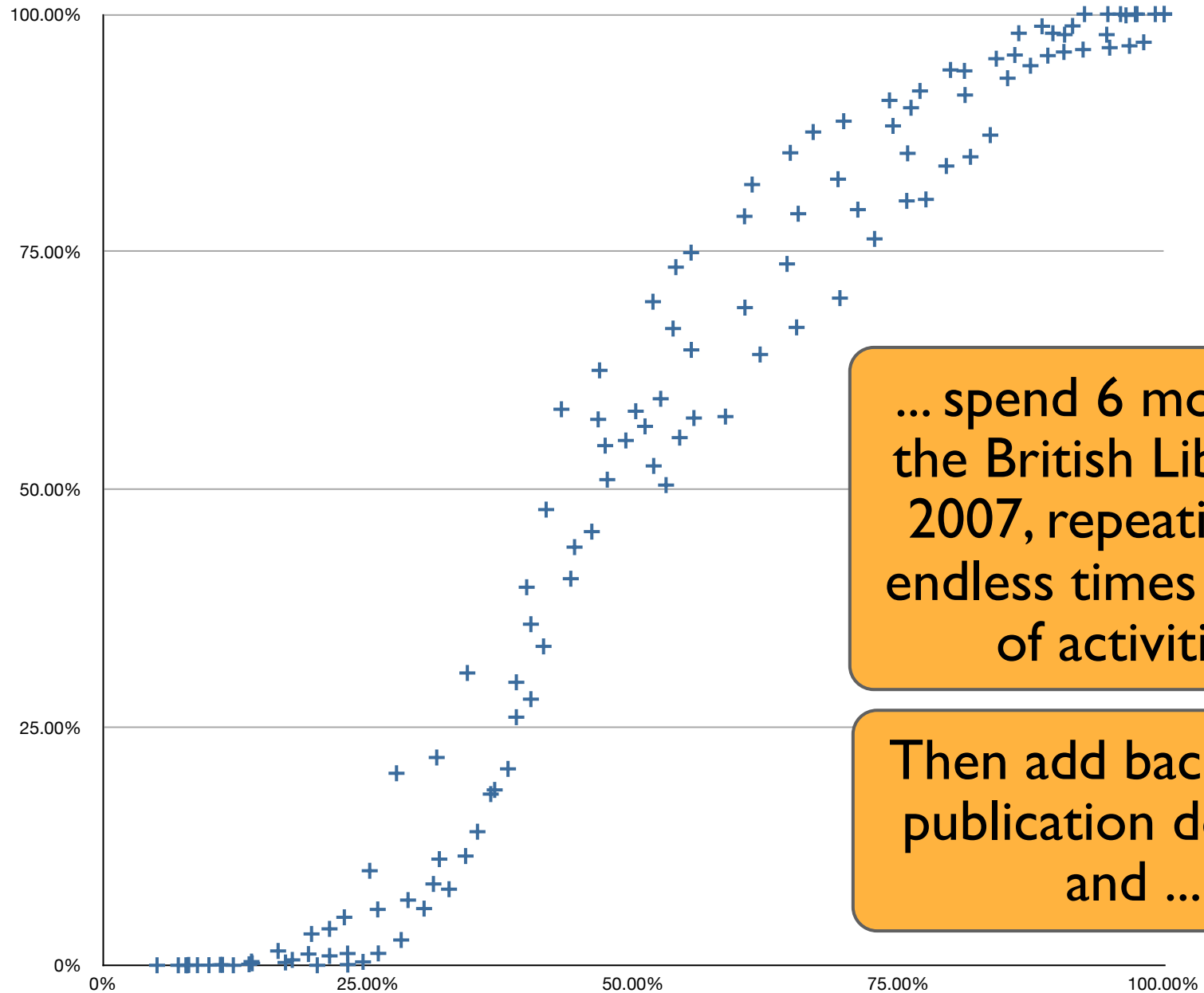
Ubiquity

Ubiquity = f (Actual Market Adoption,
Mature Market Adoption)

We can then measure
ubiquity over certainty
and ...

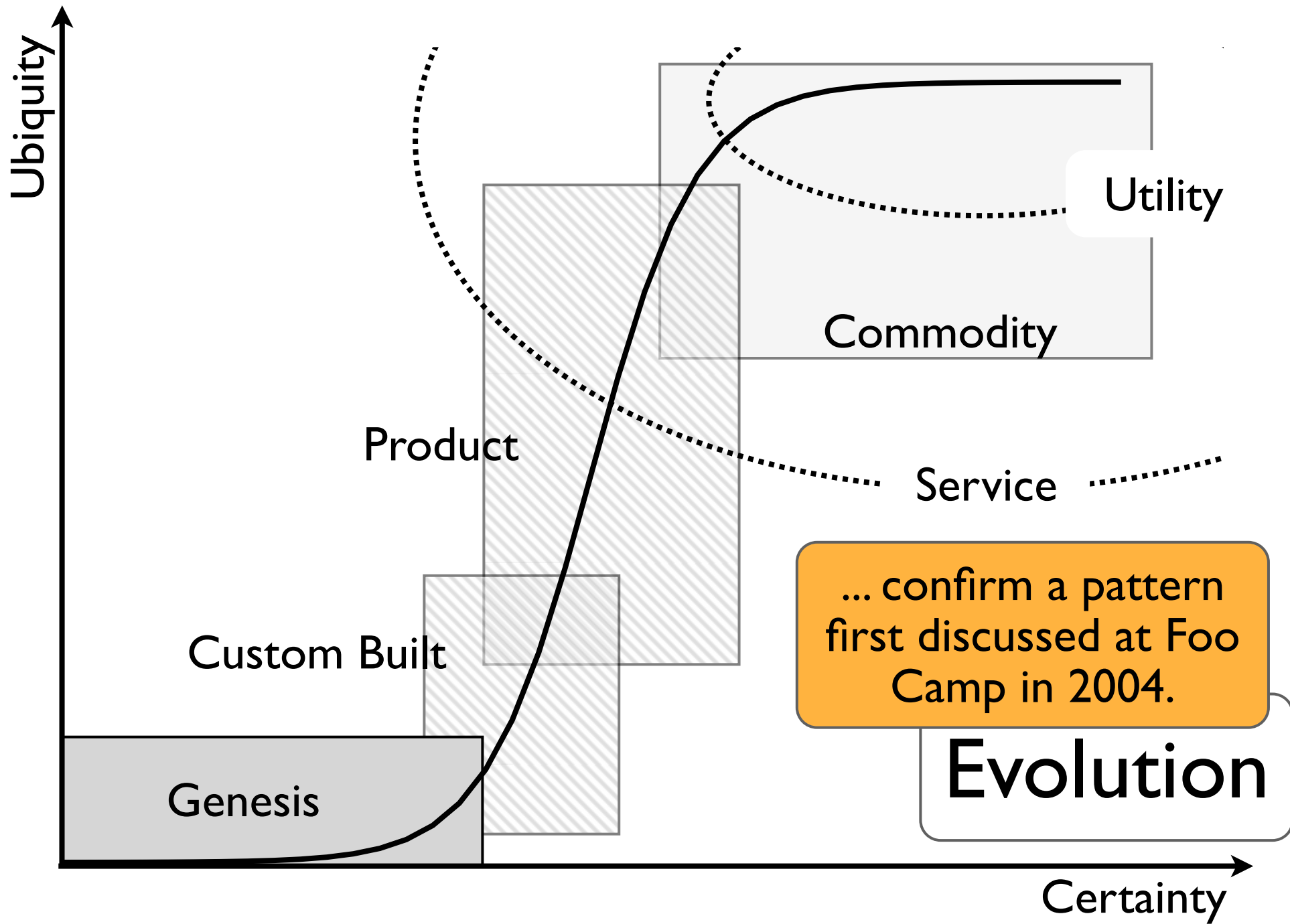
Certainty = f (Volume Publications [Type II + III],
Mature Volume [II + III])

Certainty

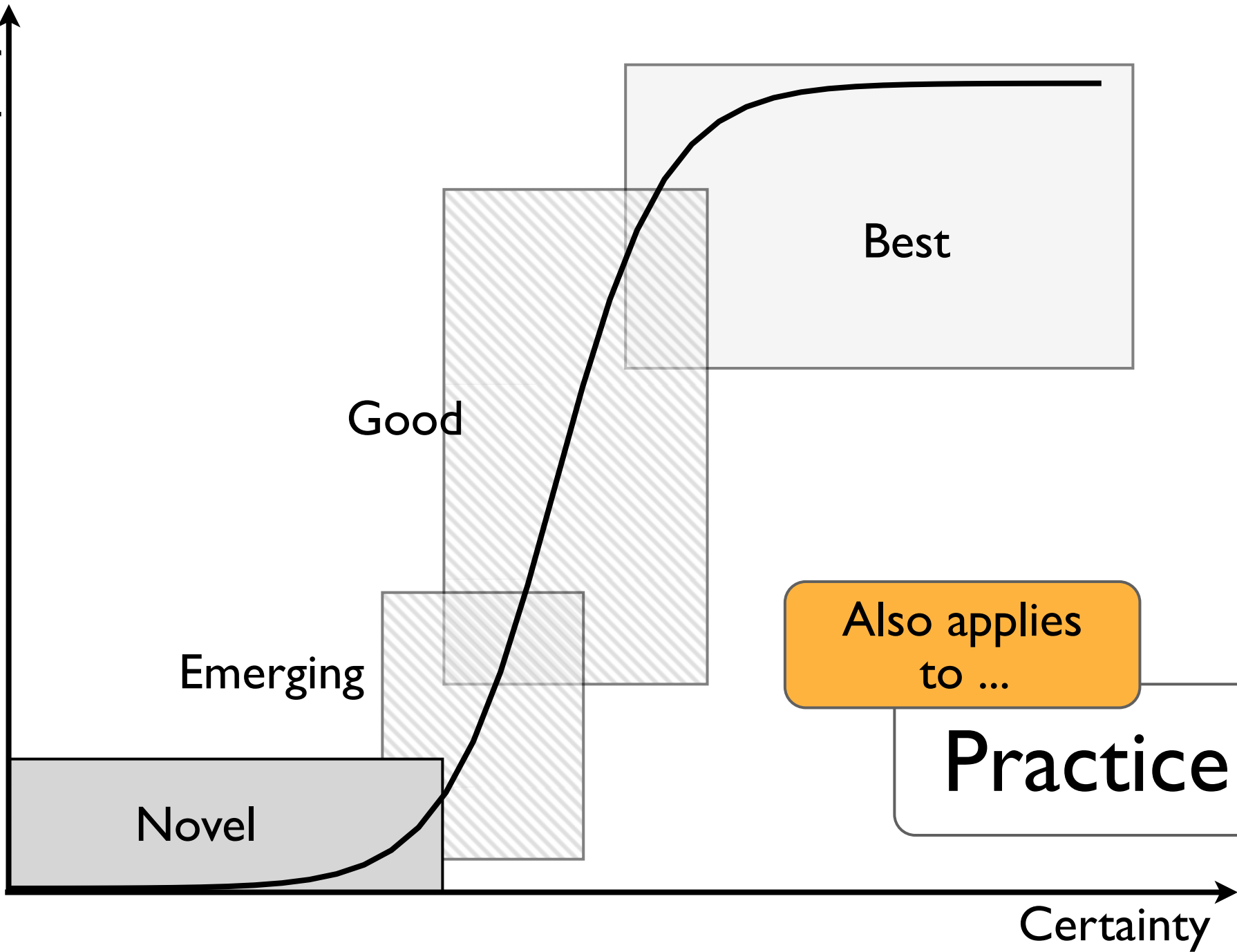


... spend 6 months in the British Library in 2007, repeating this endless times for lots of activities.

Then add back in the publication domains and ...



Ubiquity



Novel

Emerging

Good

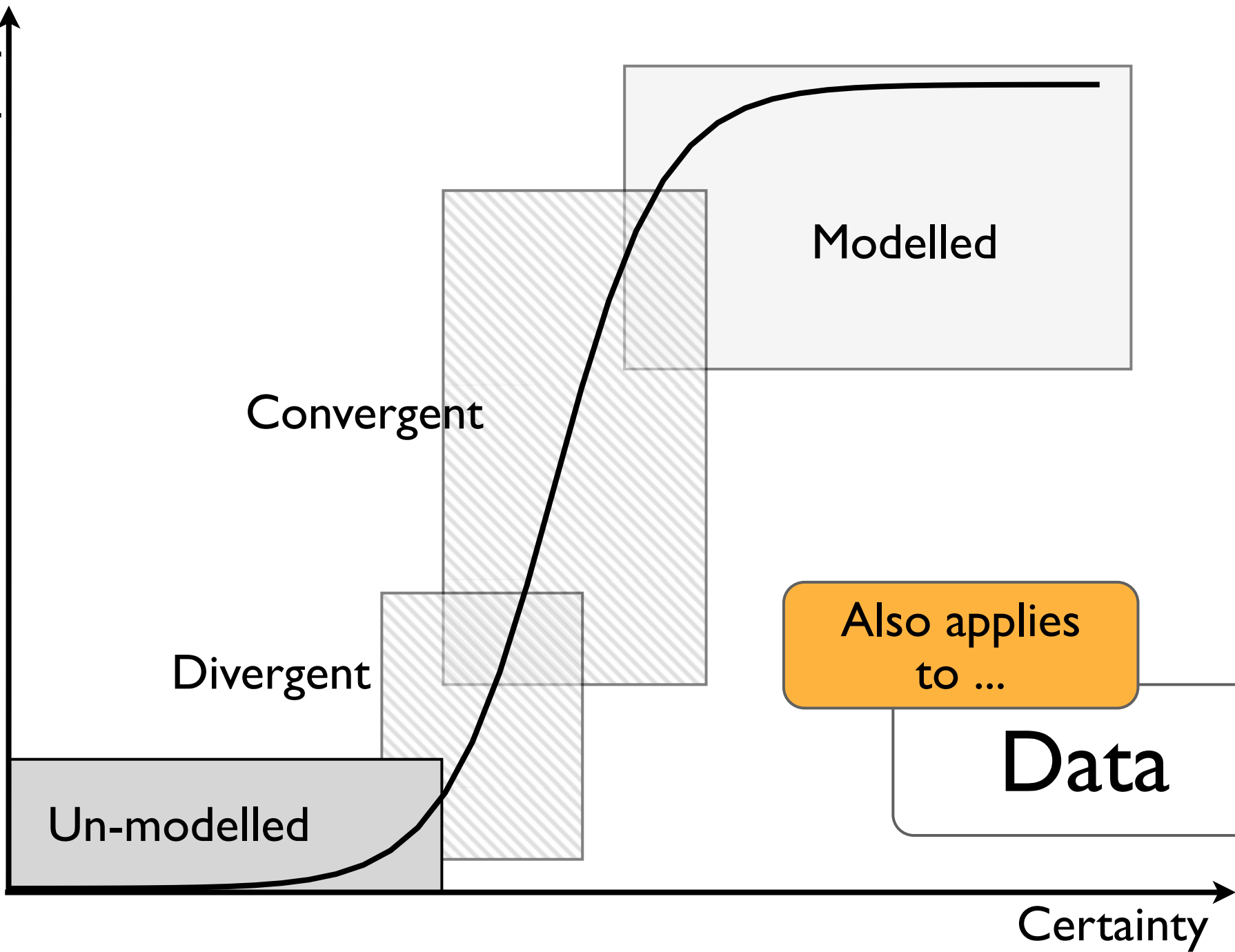
Best

Also applies
to ...

Practice

Certainty

Ubiquity



Convergent

Divergent

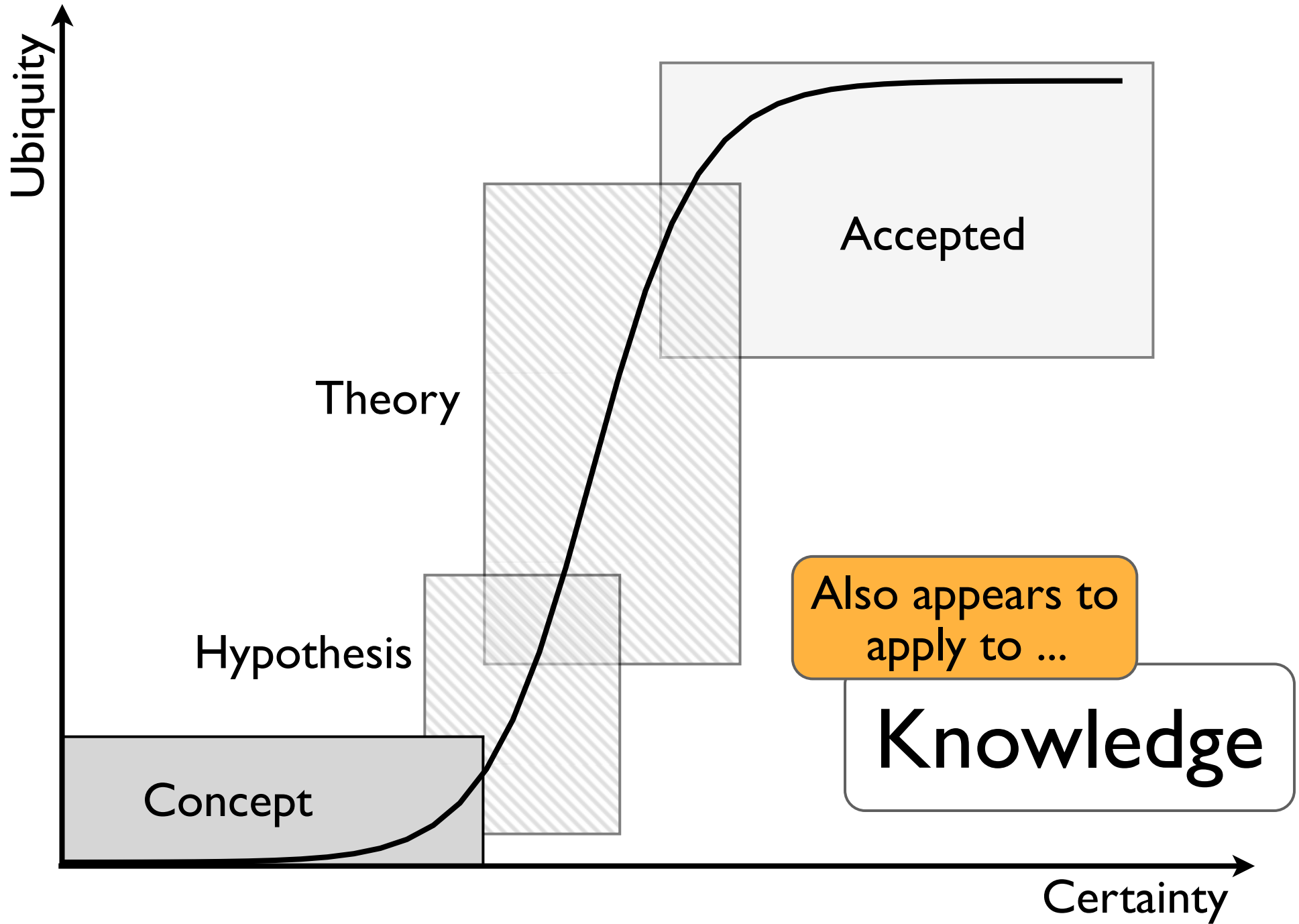
Un-modelled

Modelled

Also applies
to ...

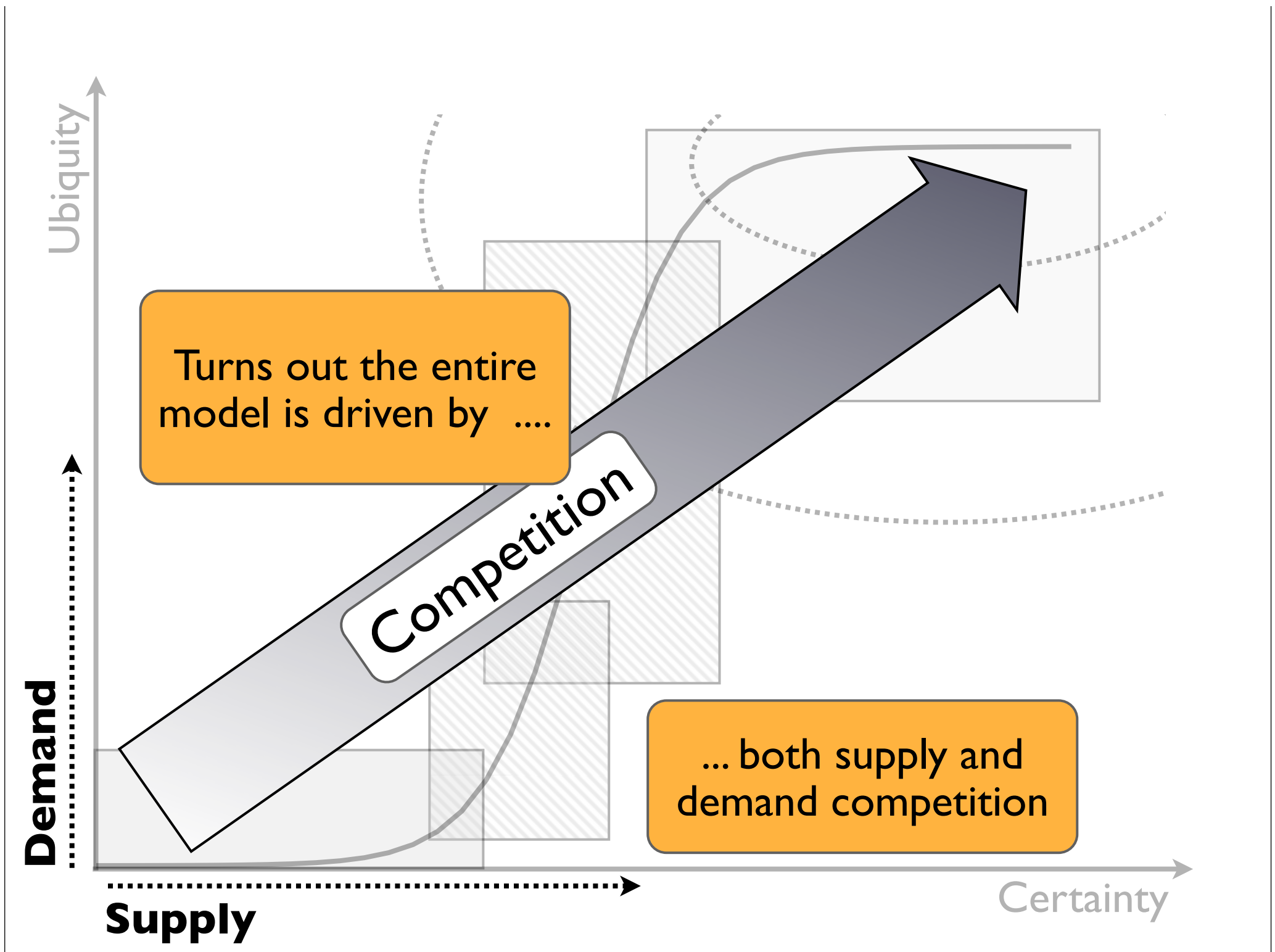
Data

Certainty



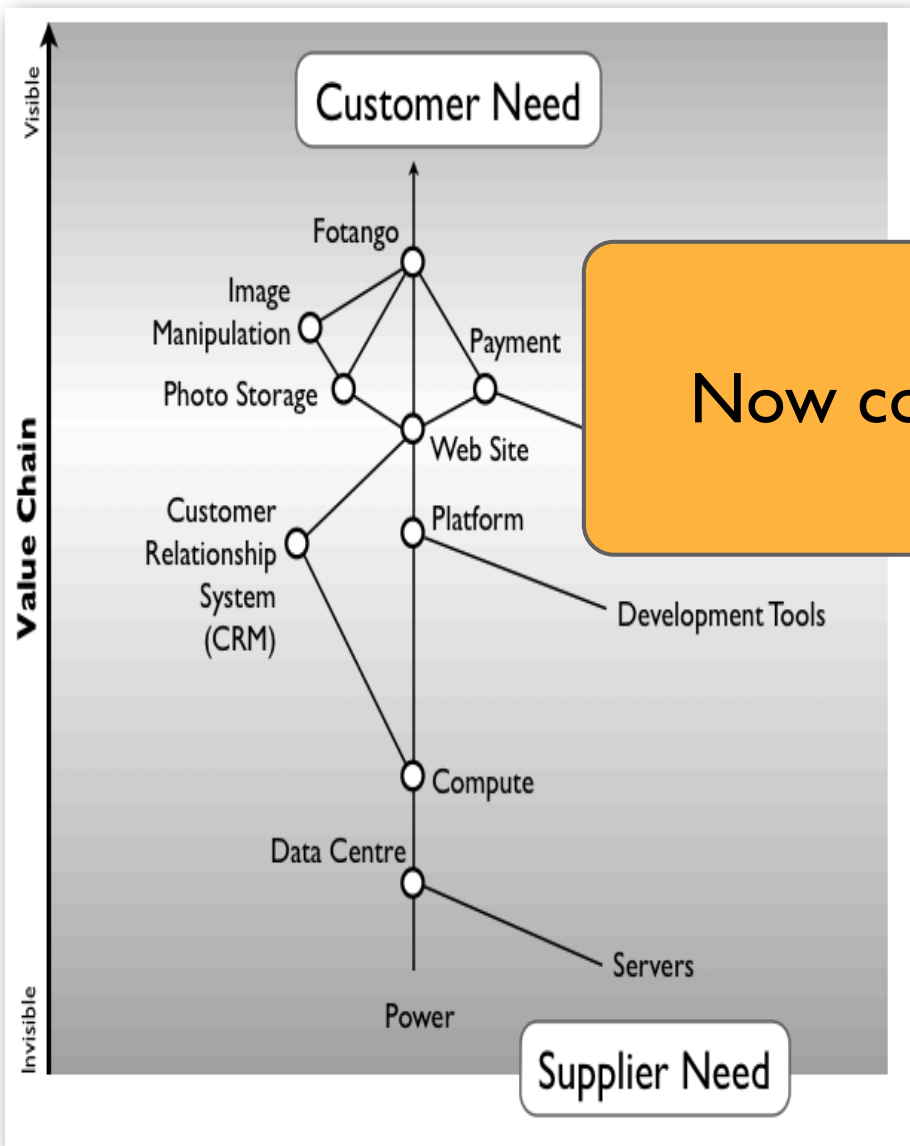
BUT ...

Correlation \neq Causation



Value Chain

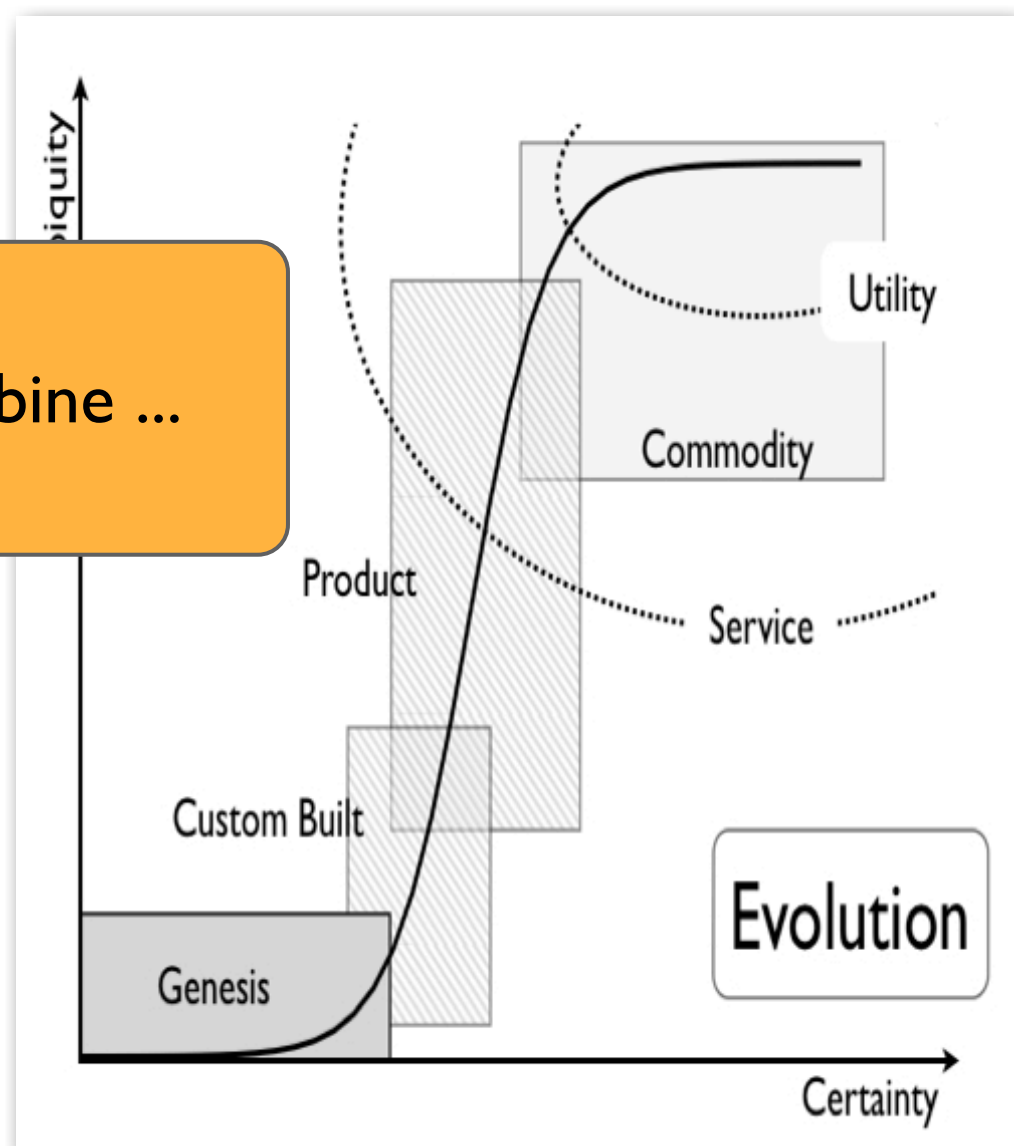
(describes organization)



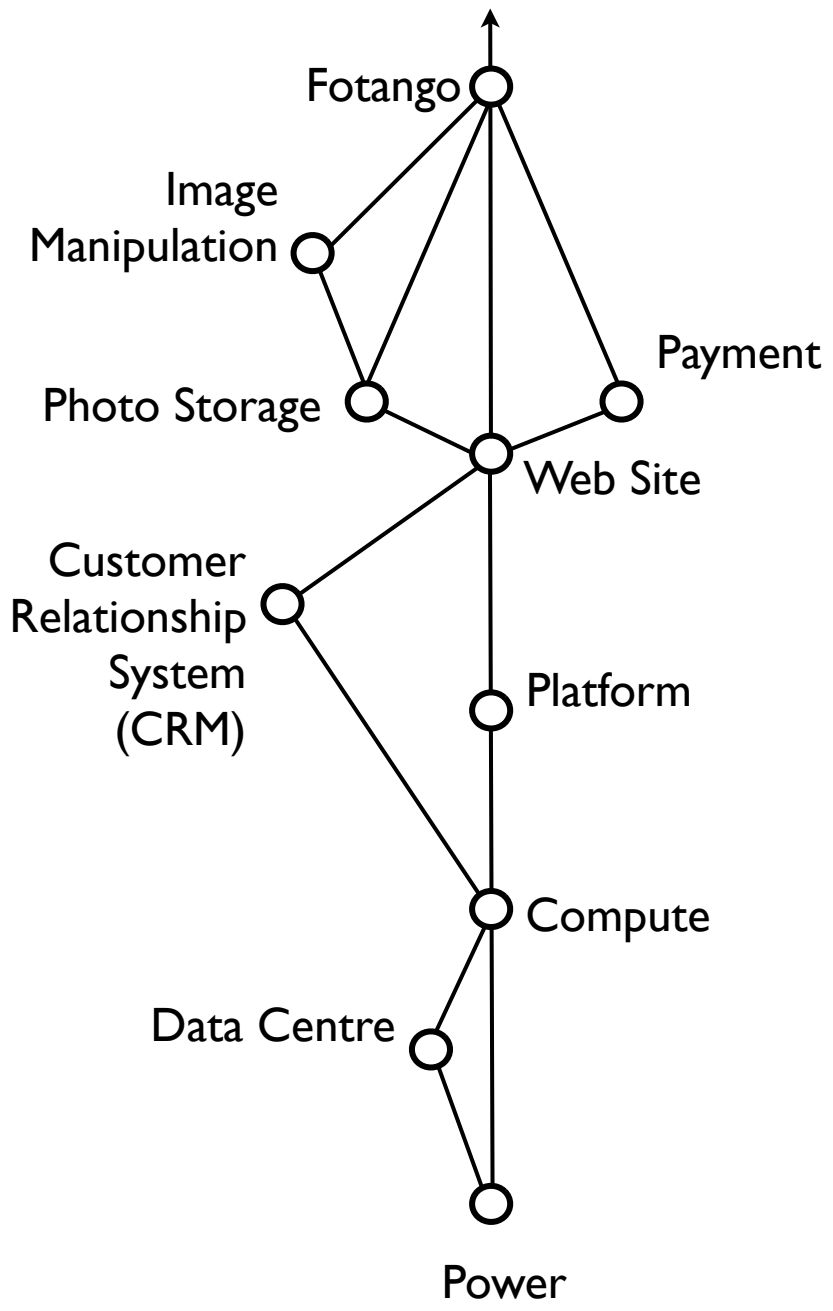
Now combine ...

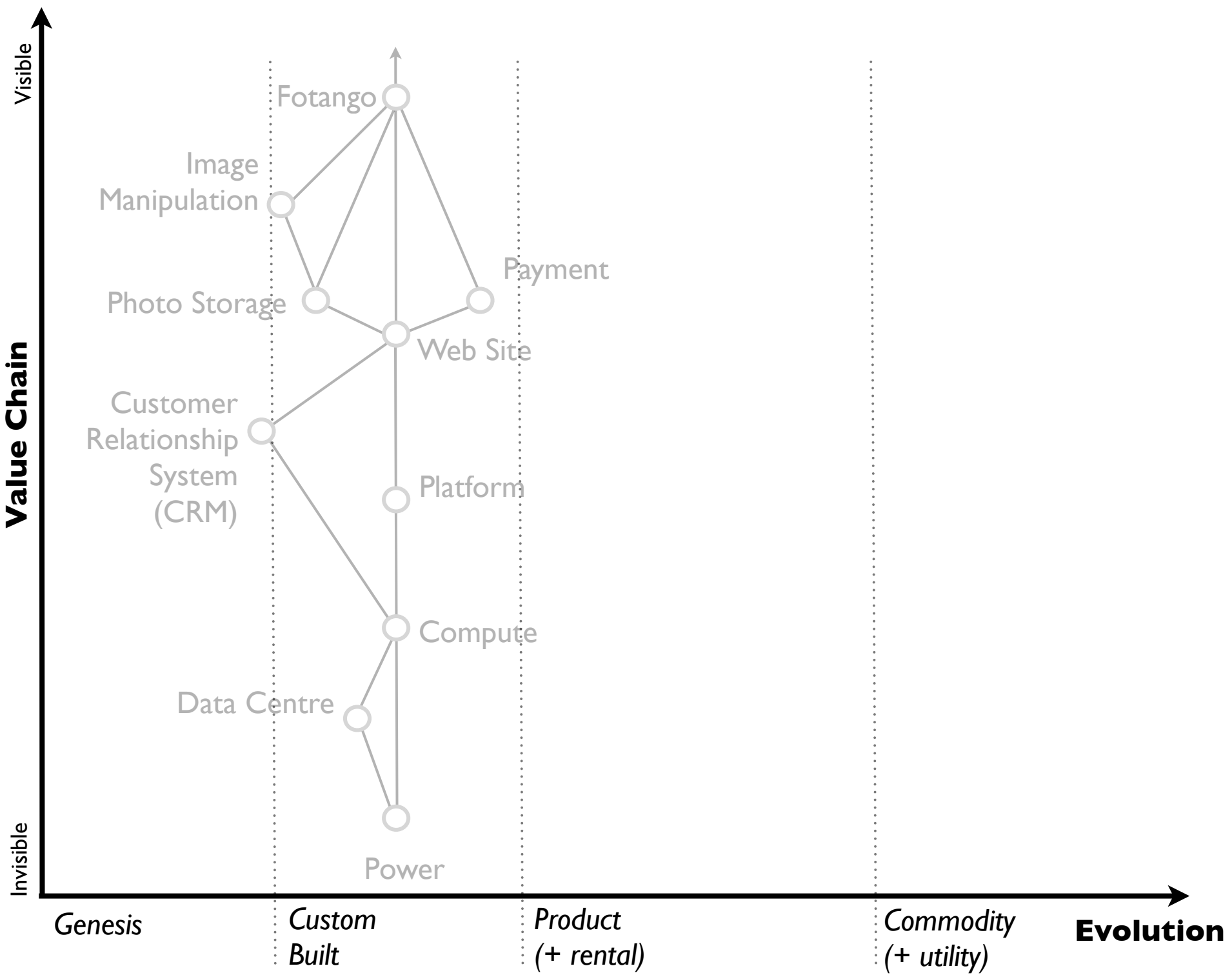
Evolution

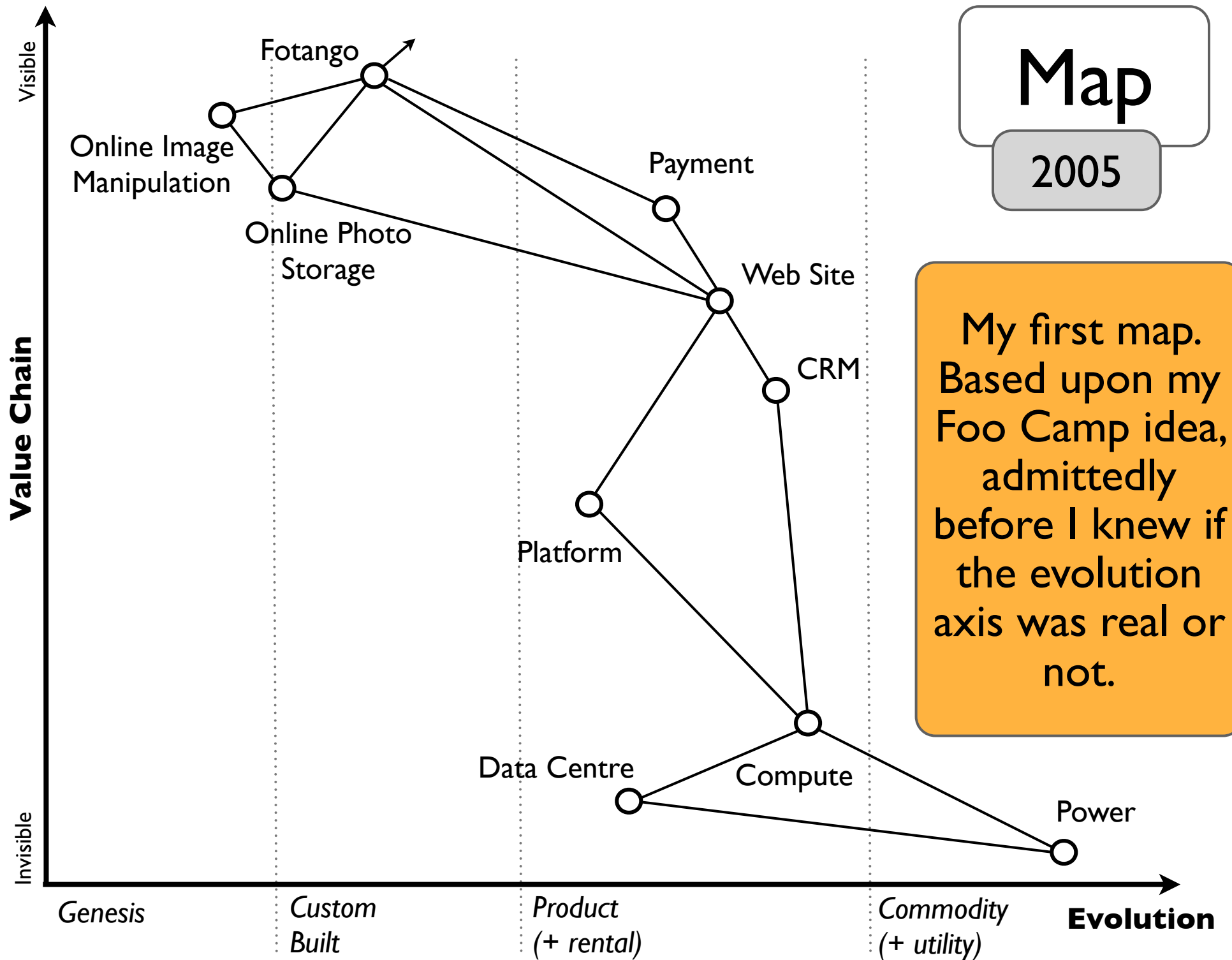
(describes change)



Visible
↑
Value Chain
↓
Invisible





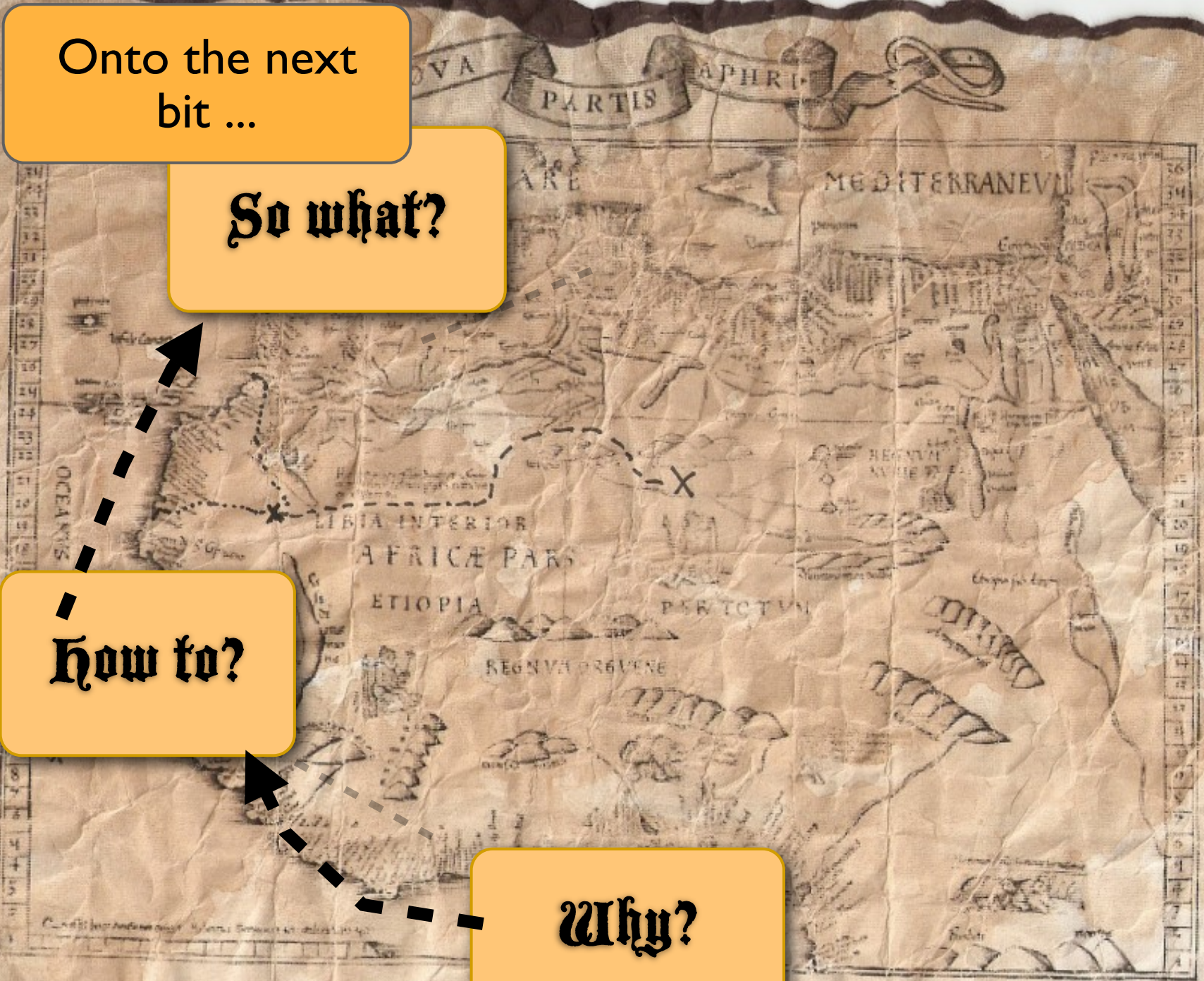


Onto the next
bit ...

So what?

How to?

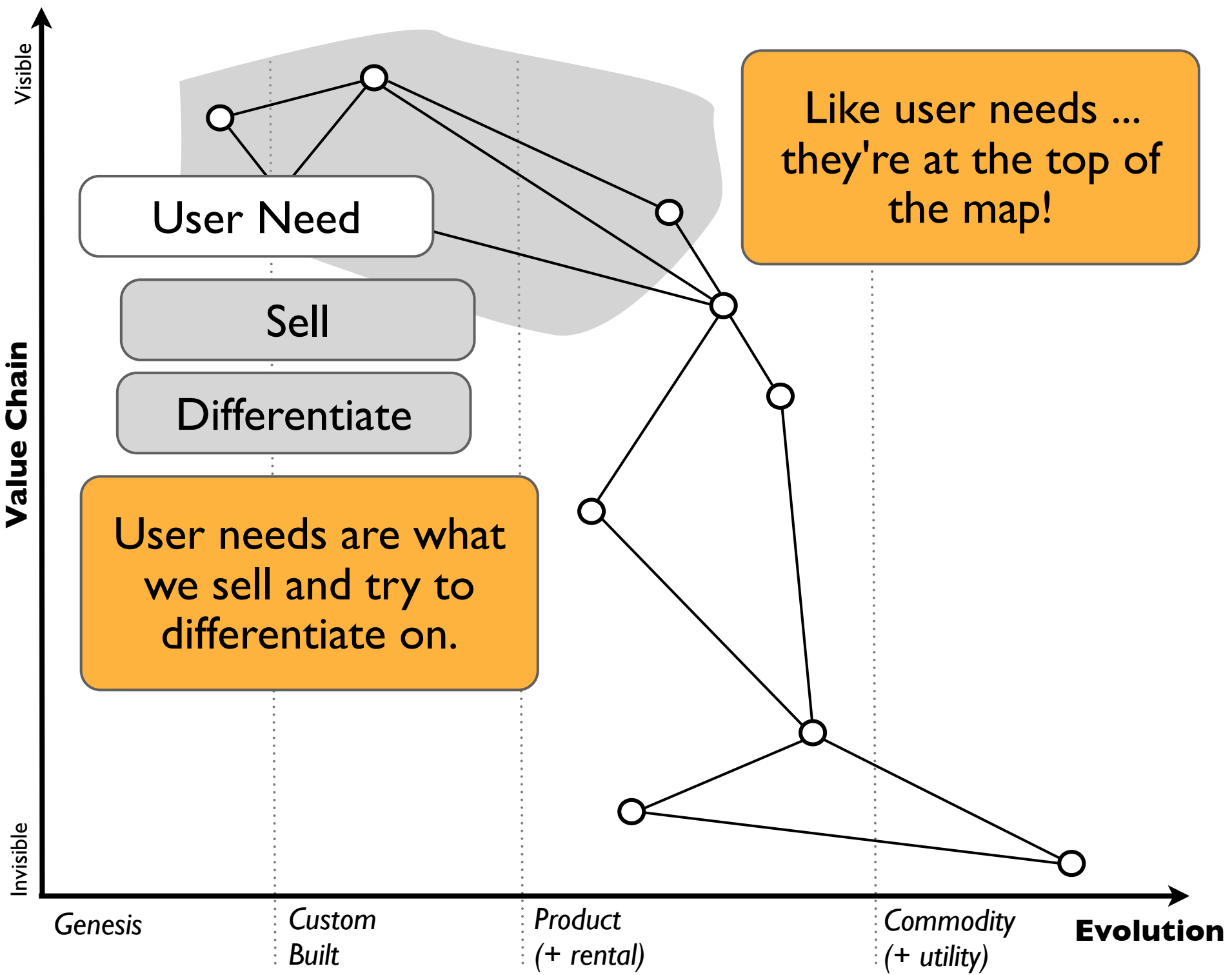
Why?

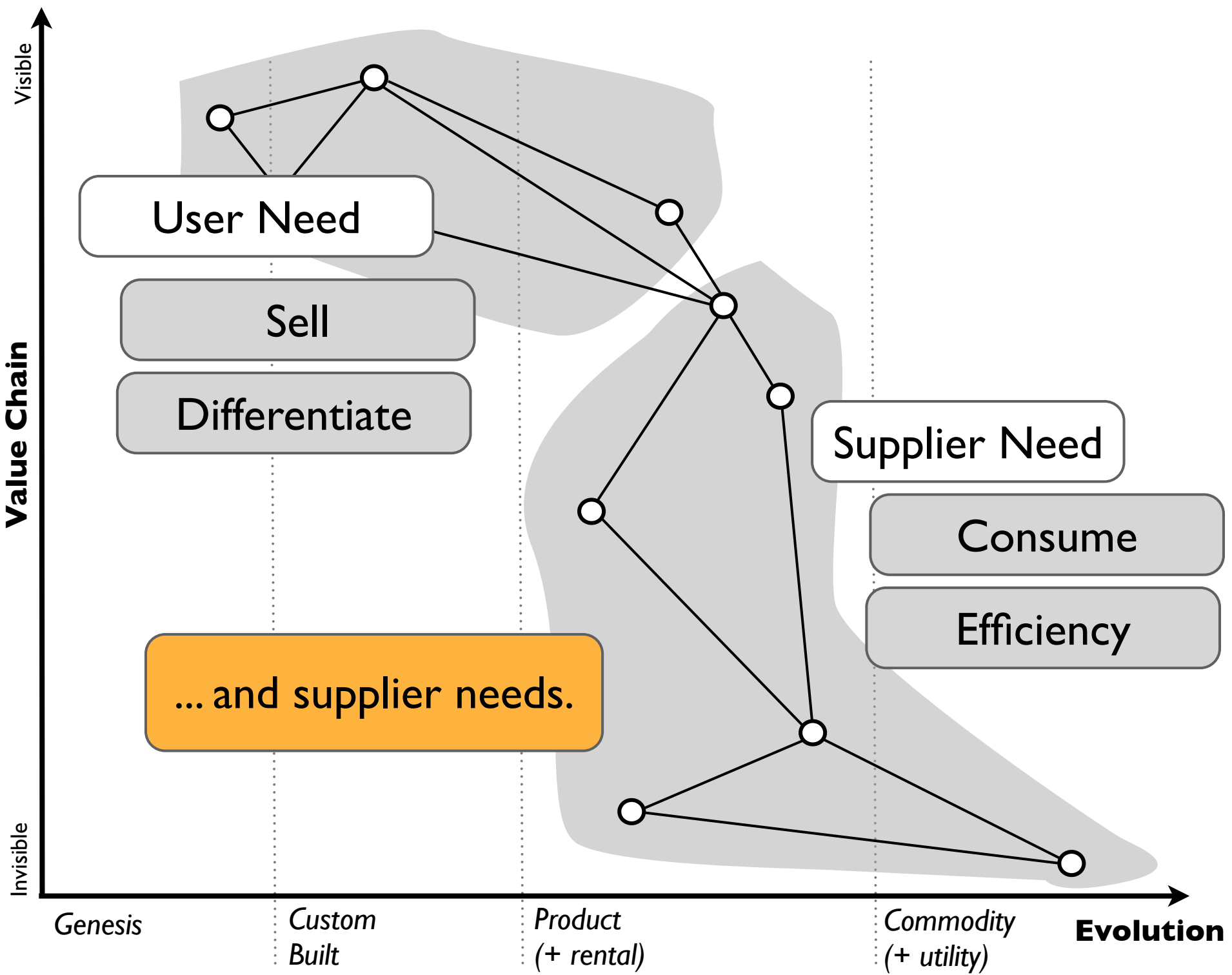


So why care ...

Turns out maps are
great for identifying ...

I) Needs







A random big - REALLY
BIG - Government
project ...

Big specification
documents and lots of
Box and Wire

Alas, no-one can clearly
articulare the user
needs ...

Spend an afternoon to create a 'Wardley' map of the entire project ...

Value Chain

Invisible

Visible

Genesis

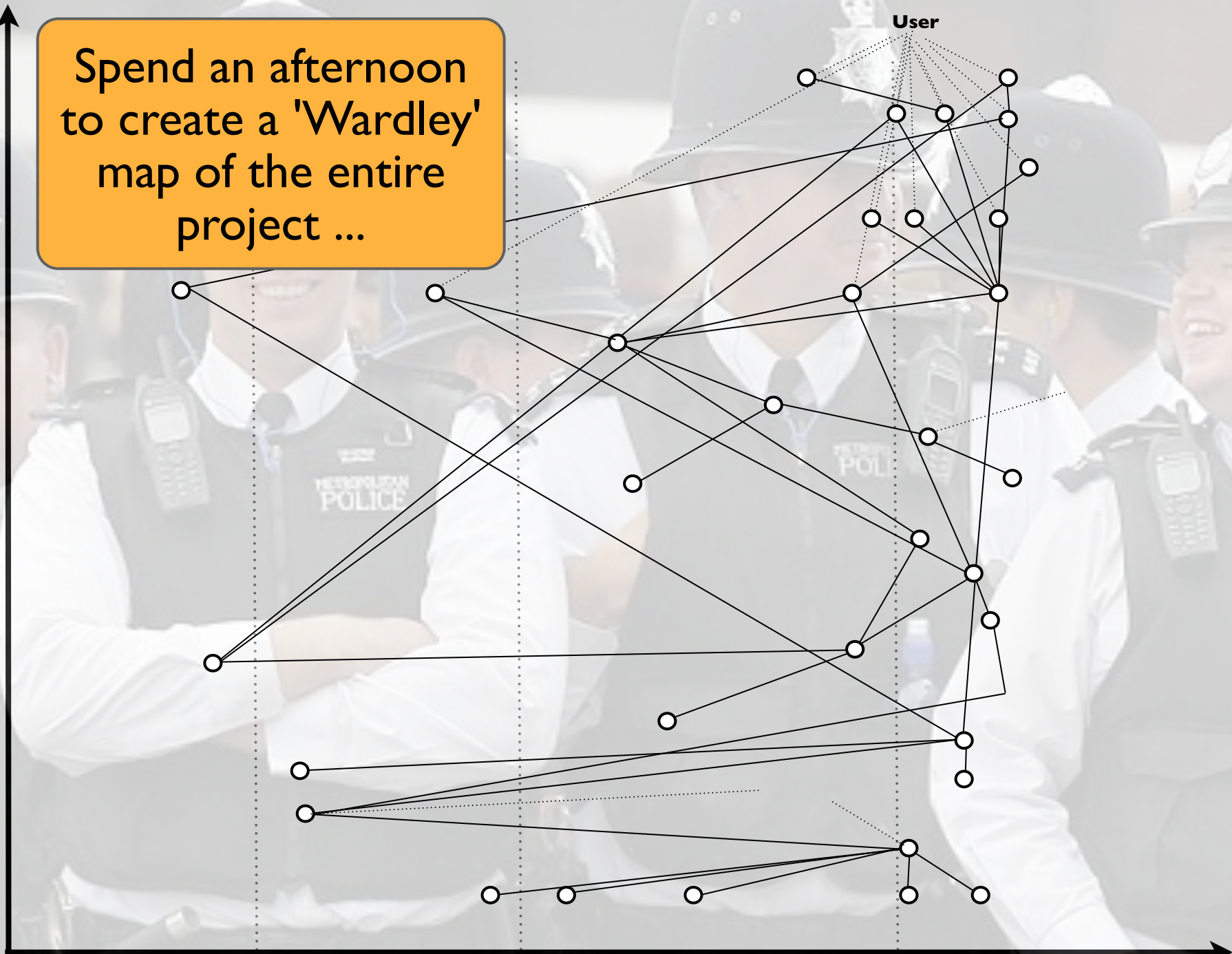
Custom
Built

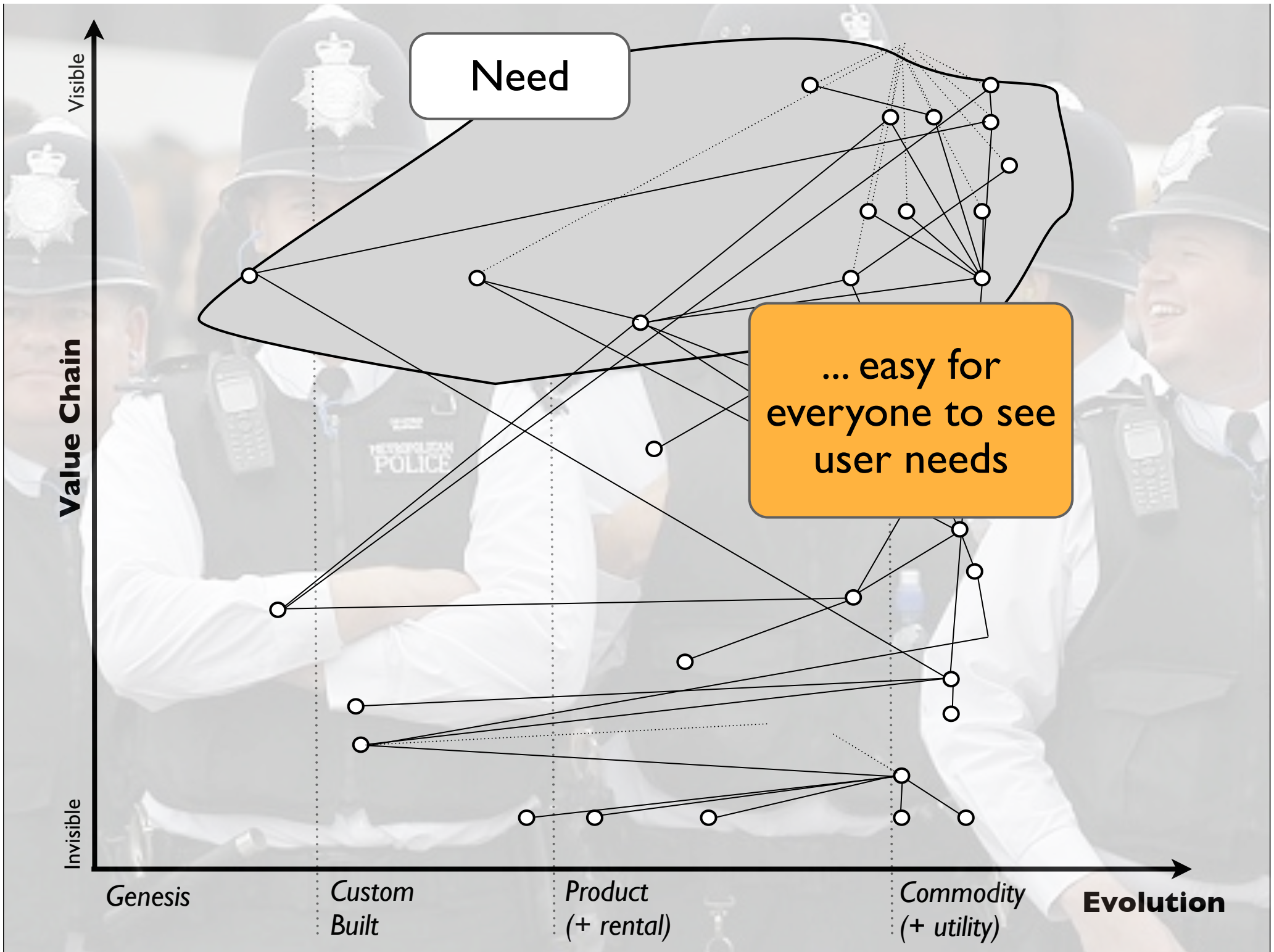
Product
(+ rental)

Commodity
(+ utility)

Evolution

User

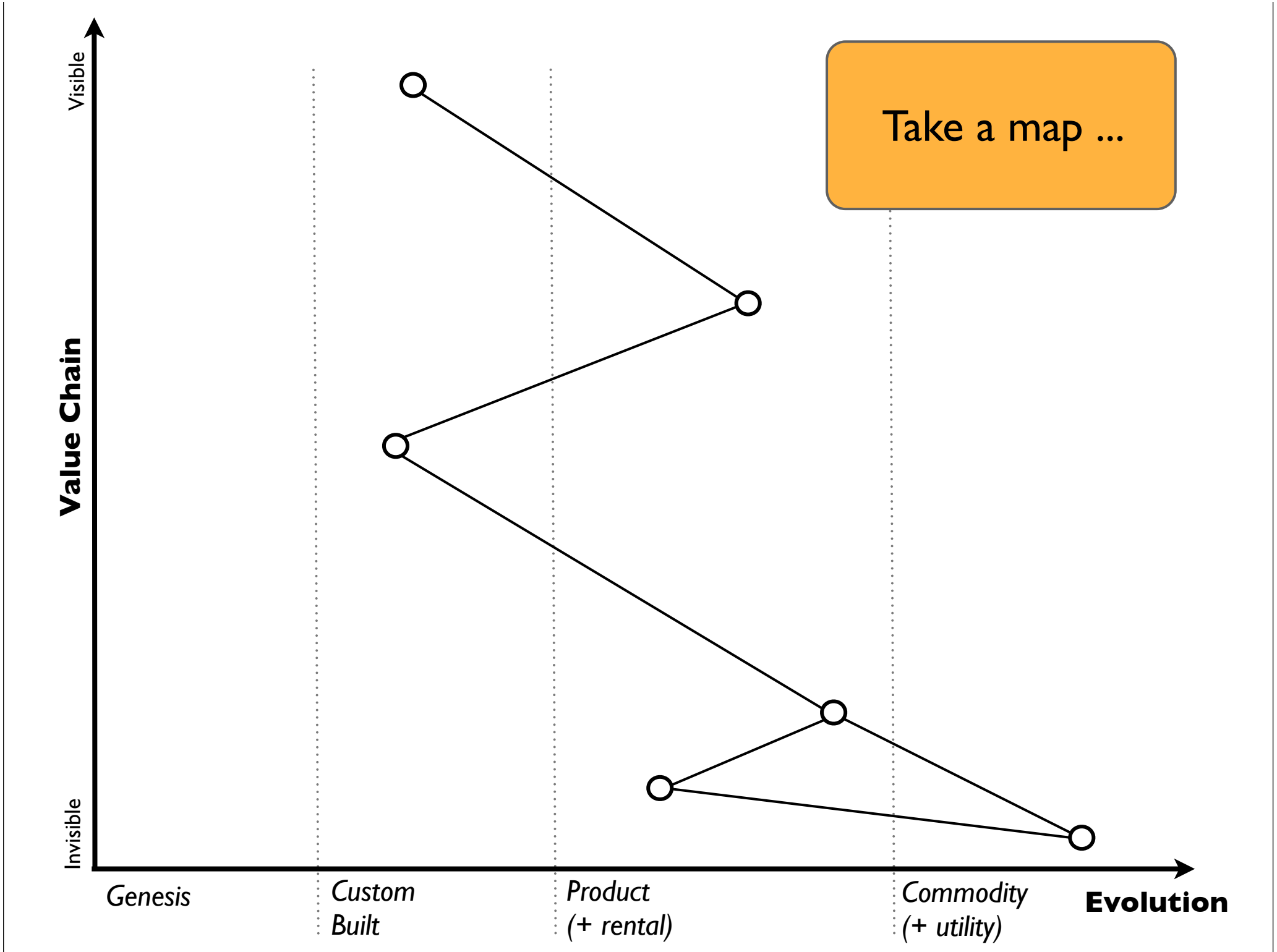


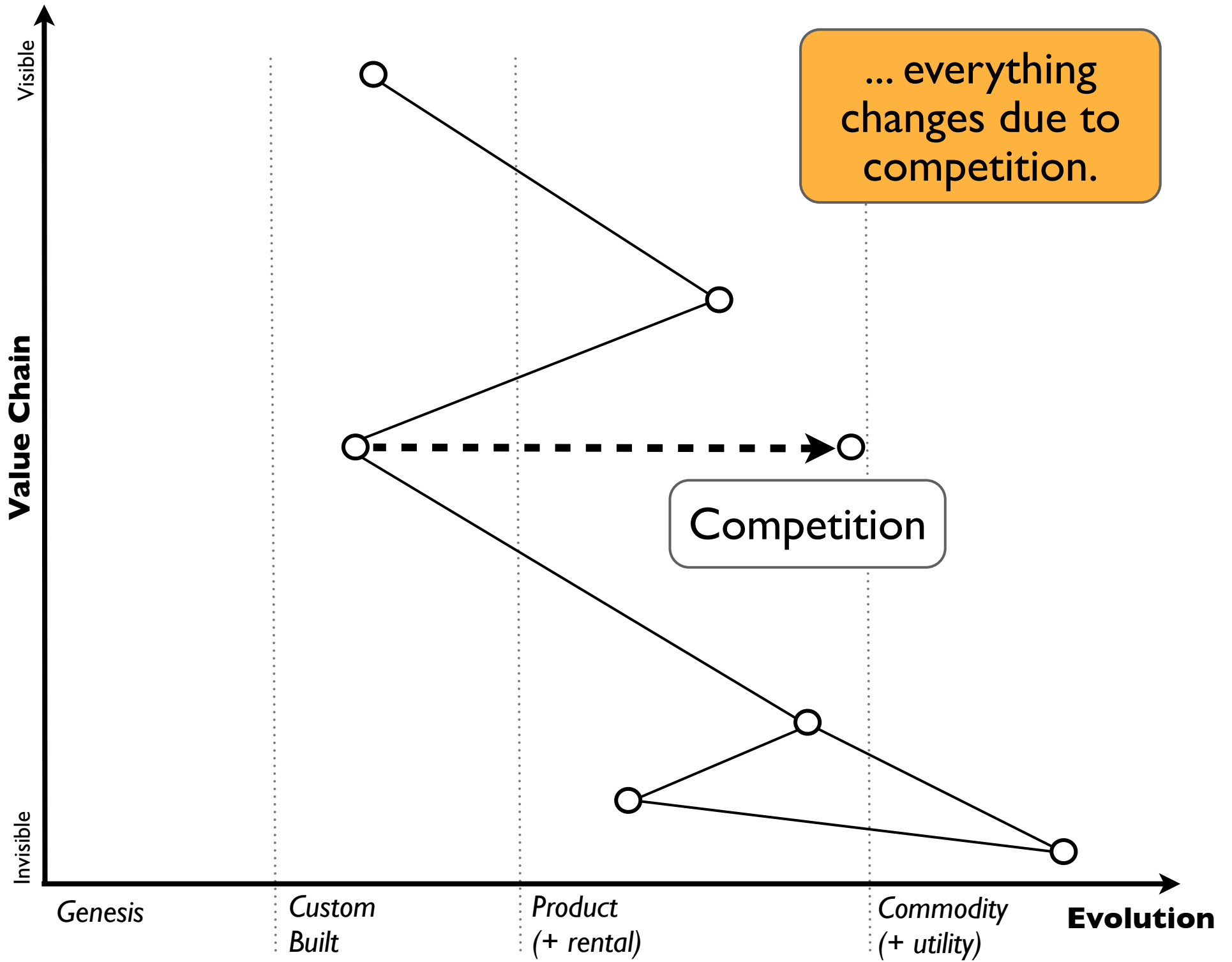


'Wardley' maps also deal with change ...

2) Change

PS. I call it Wardley maps because there are other things called Value Chain Maps / Strategy Maps / Digital Maps etc and it makes it easier for people to know who's to blame for this stuff.





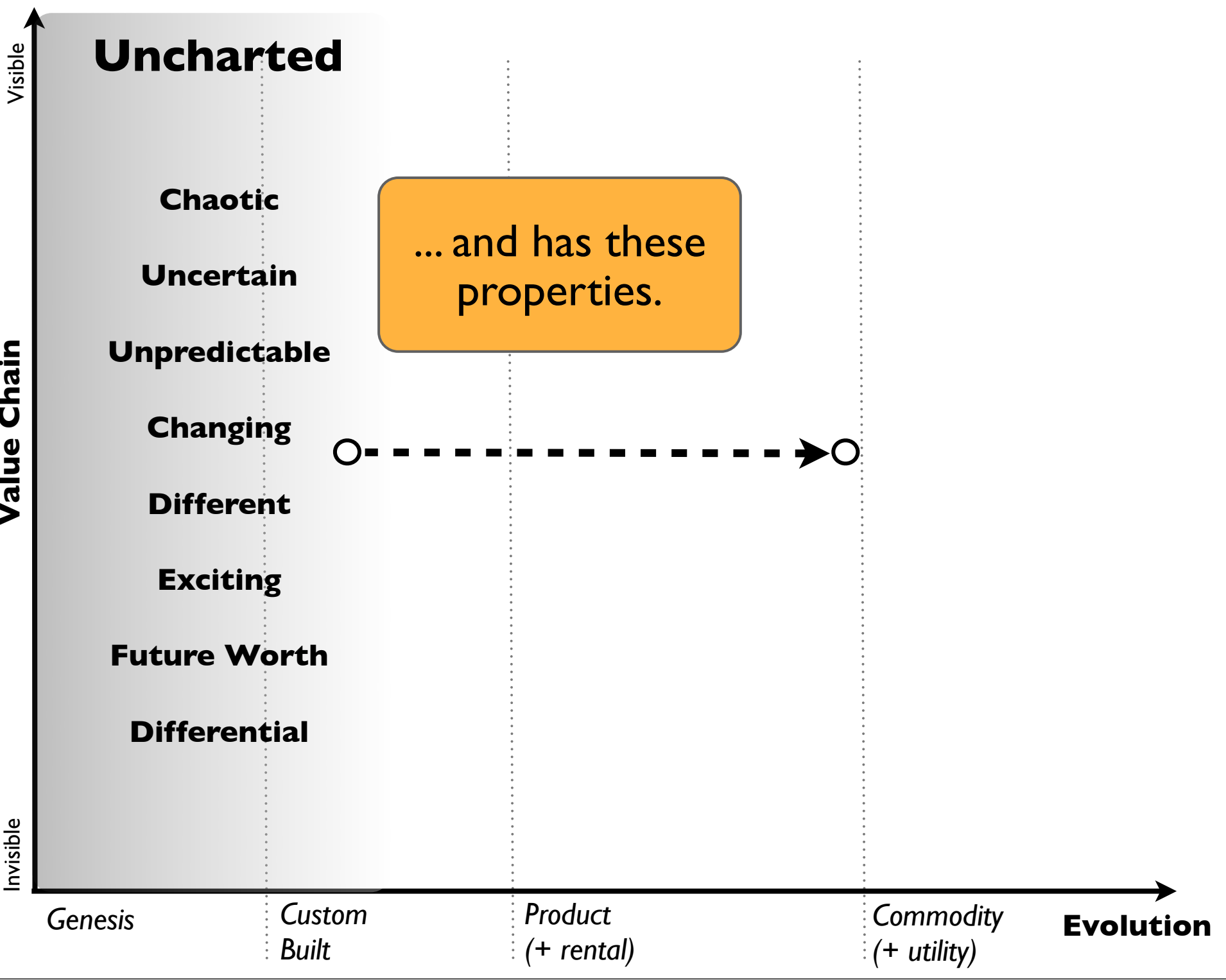
Visible
Value Chain
Invisible

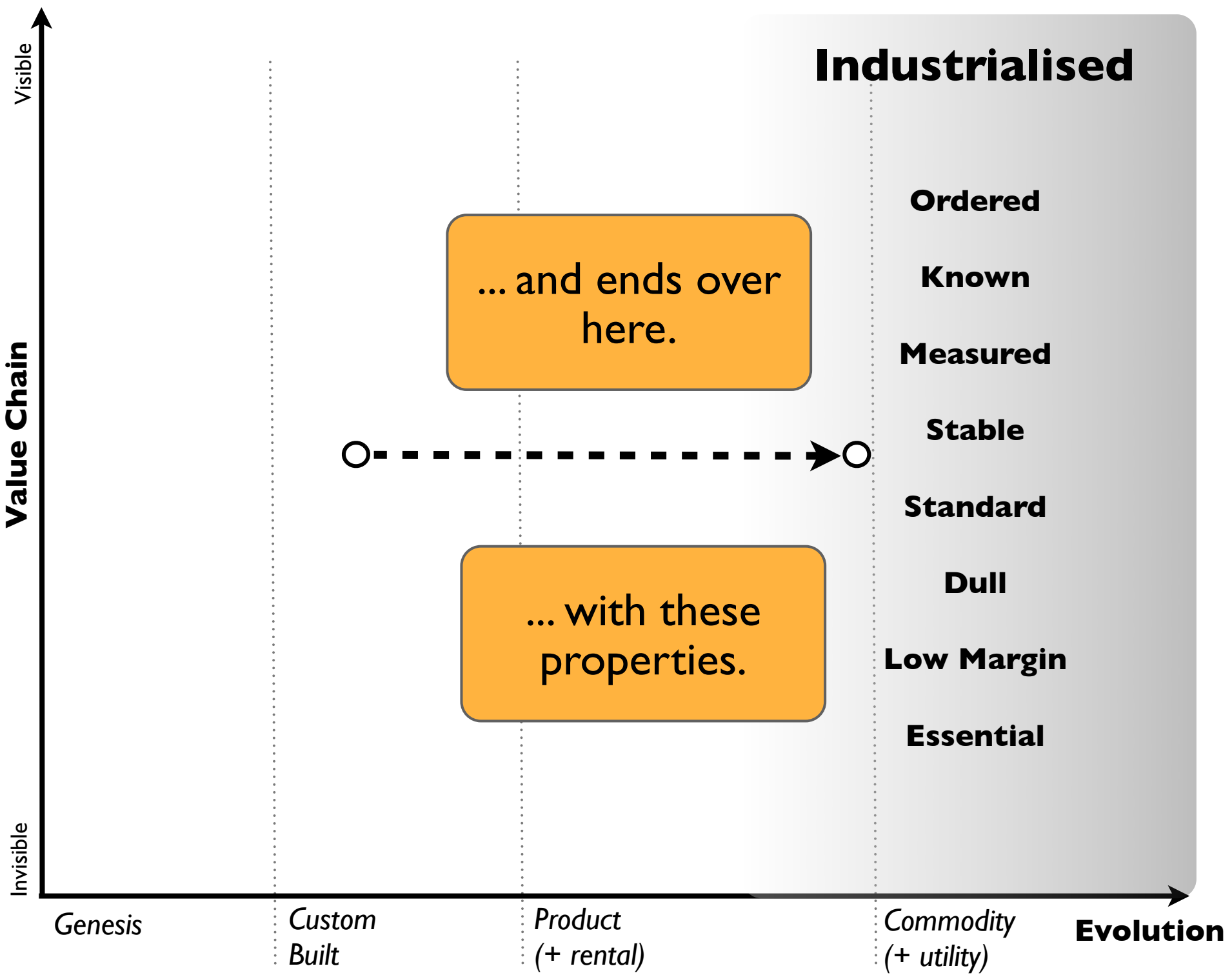
Uncharted

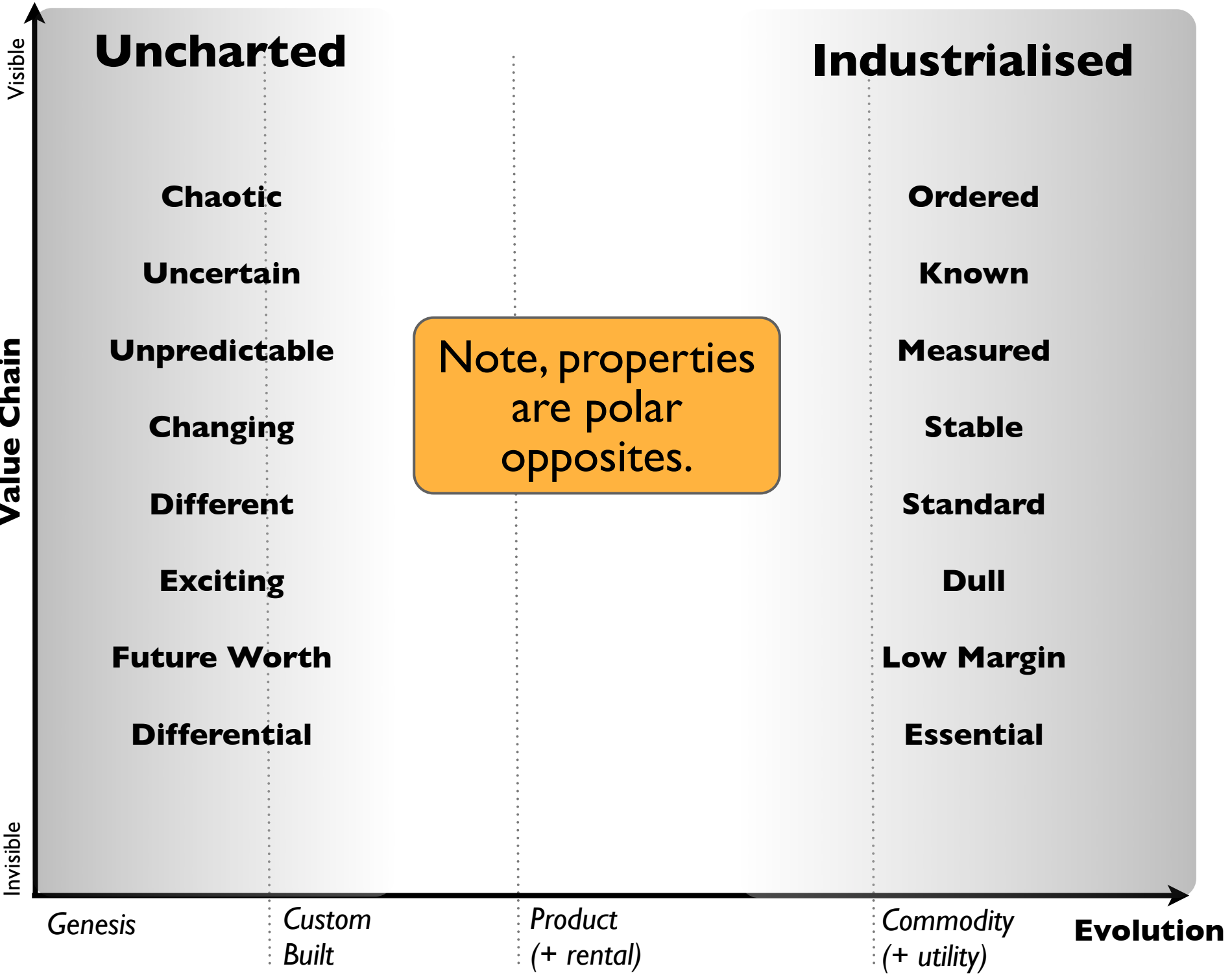
Everything starts over here ...

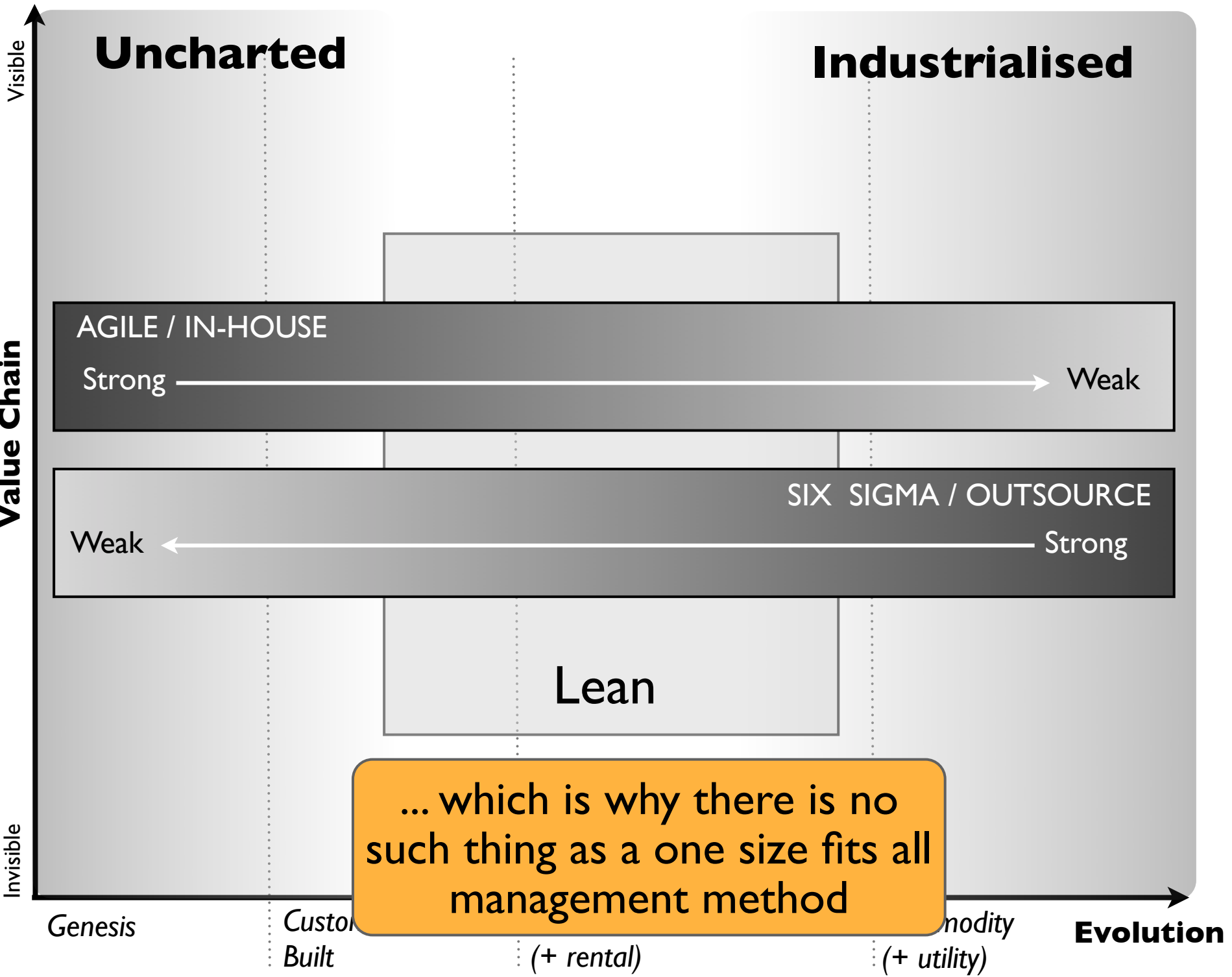


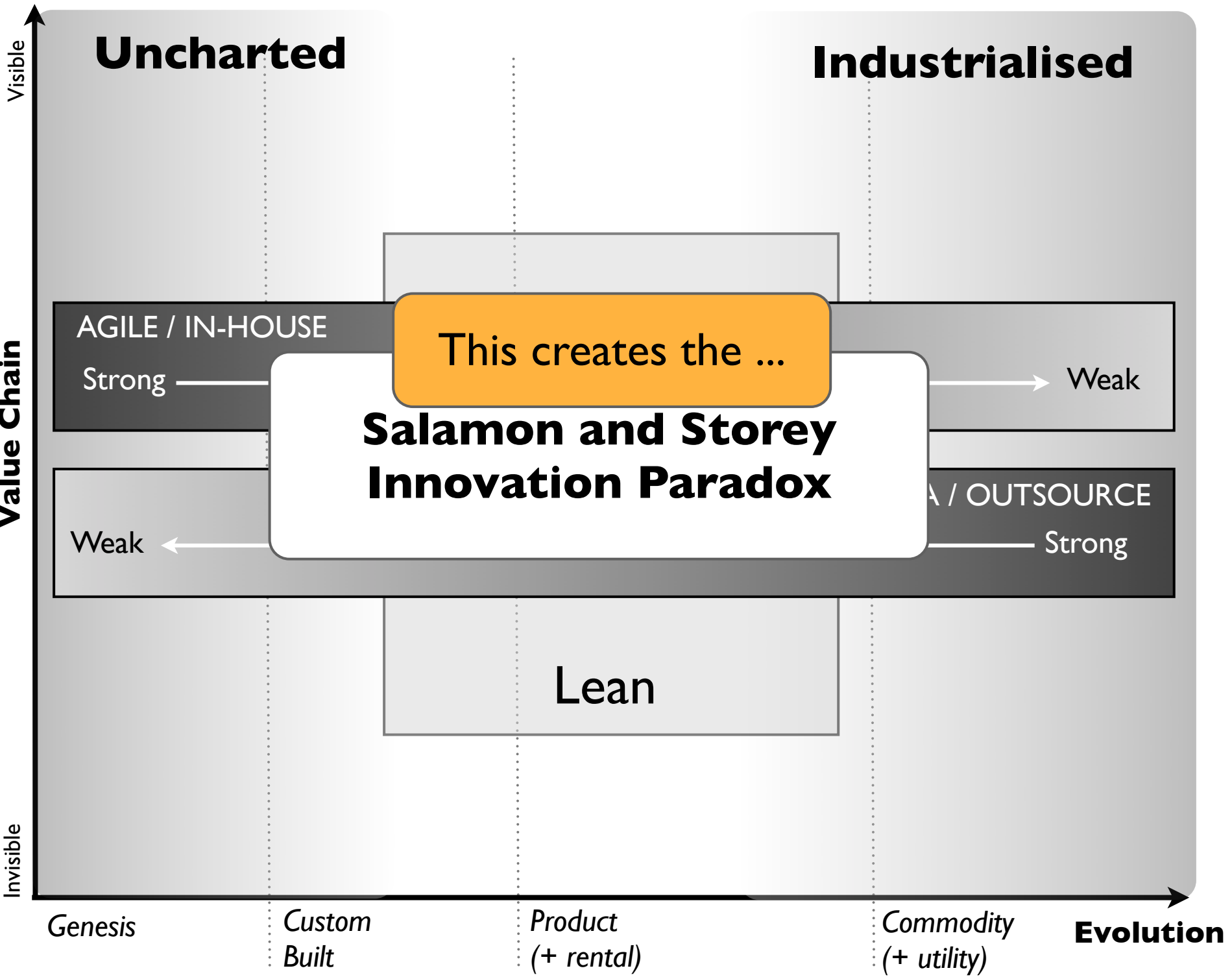
Genesis Custom Built Product (+ rental) Commodity (+ utility) **Evolution**

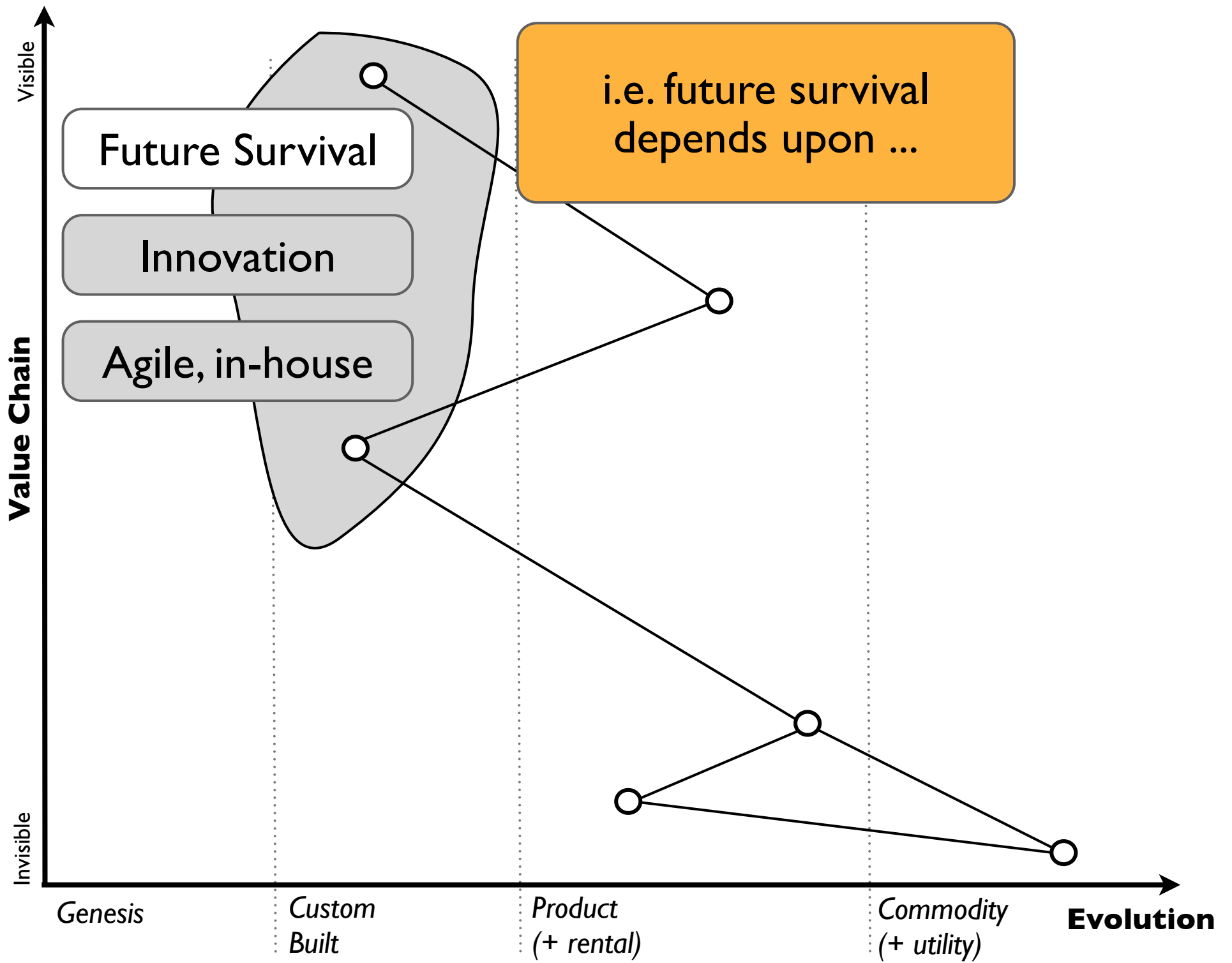


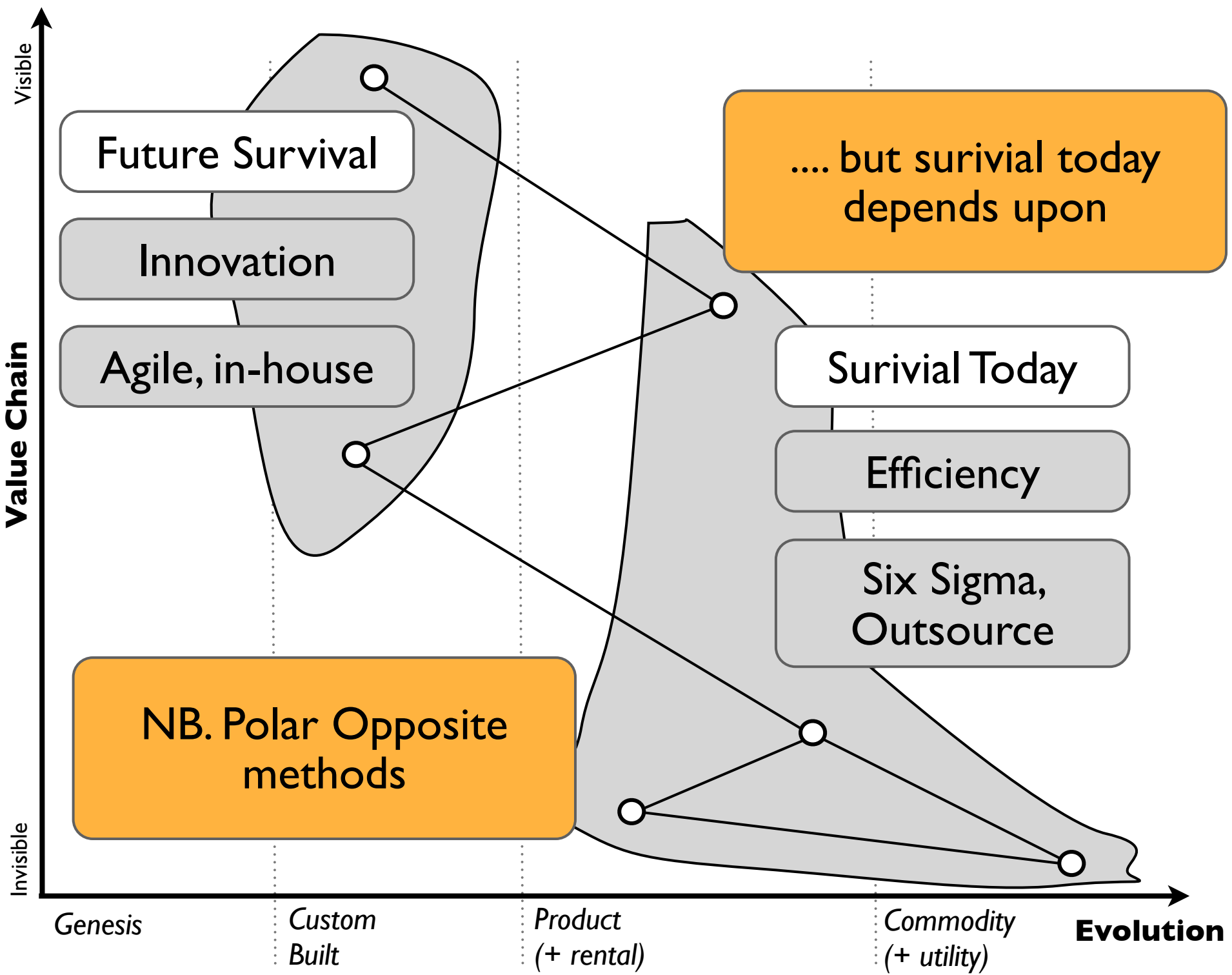












However, most
companies can't see the
landscape ...

So they tend to ...

YoYo

AGILE

Strong

Weak

OR

Weak

SIX SIGMA

Strong

"We're Agile" OR "We're Six Sigma"

Or they tend to ...

Outsource

Weak



SIX SIGMA / OUTSOURCE

Strong

Apply strong methods
because they want to
"Know" what they are
getting ...

Outsource

SIX SIGMA / OUTSOURCE

Weak ←

→ Strong

Incur excessive
change control
costs

Of course, same results
happen for complex
projects ...

Some parts will be
efficient

If you look at the underlying map you can see why ...

Incur excessive change control costs

This stuff will change

This stuff is stable

Some parts will be efficient

Chain

Invisible

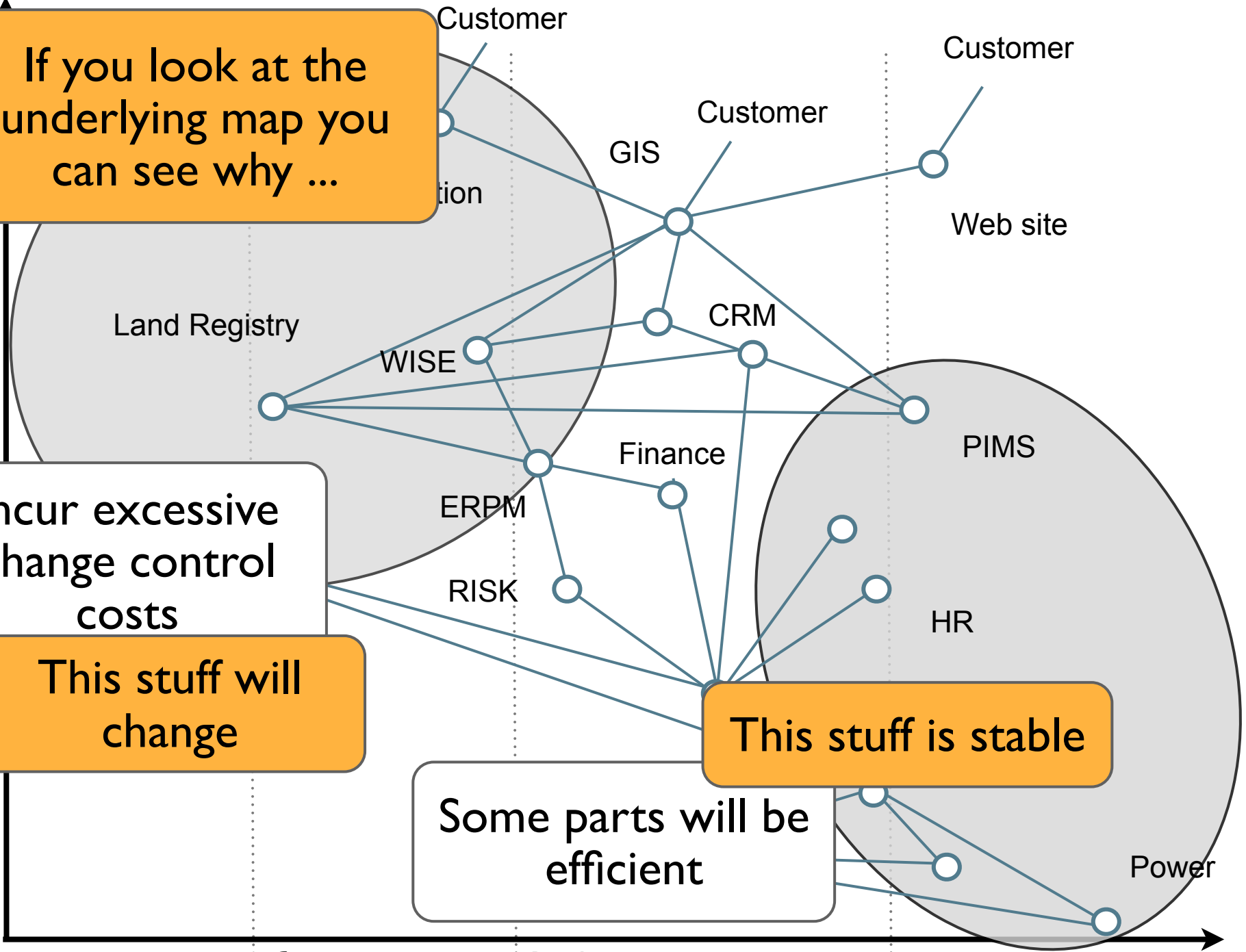
Genesis

Custom Built

Product (+ rental)

Commodity (+ utility)

Evolution

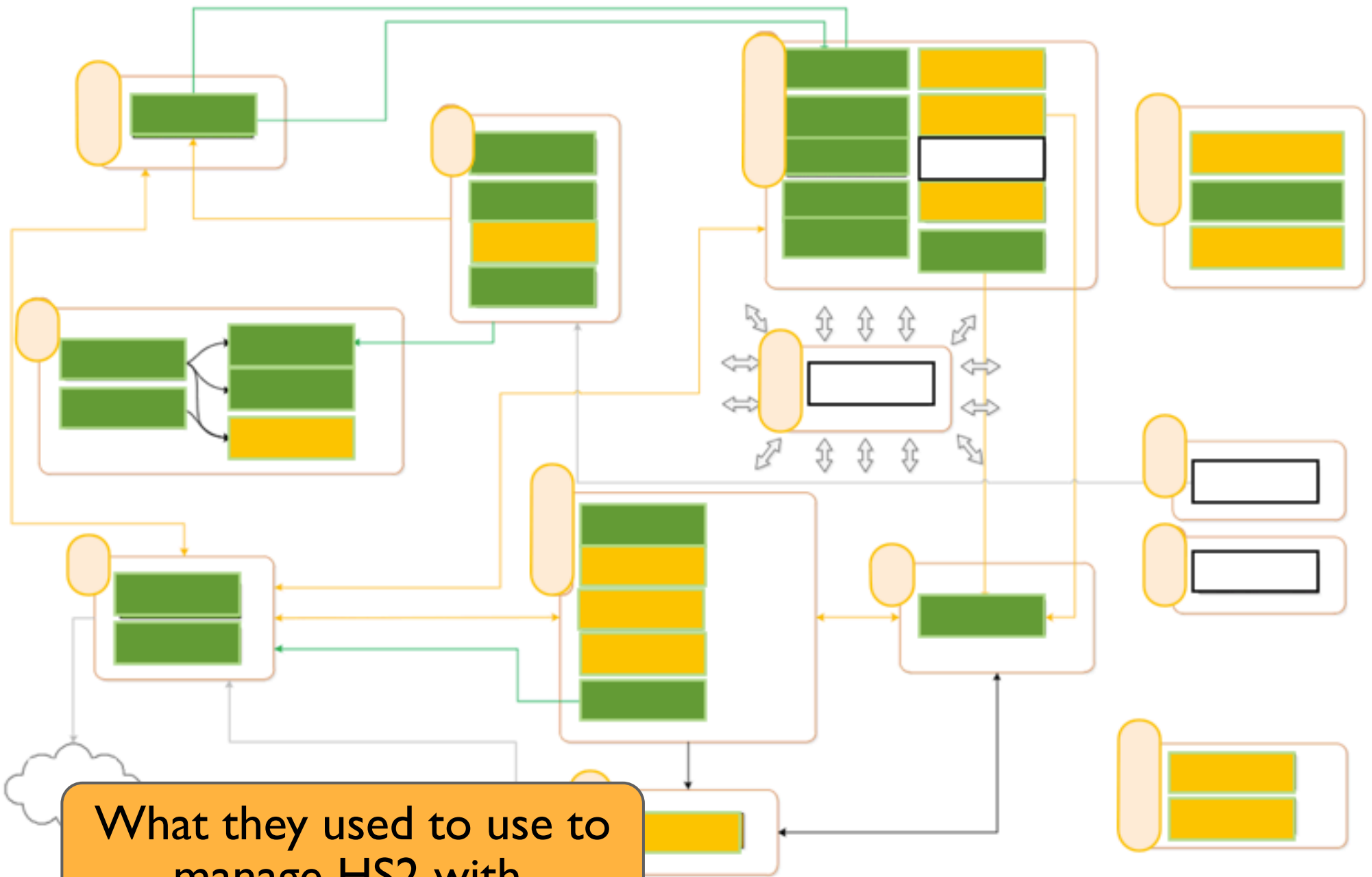


That map is from High Speed Rail 2 (HS2) ...

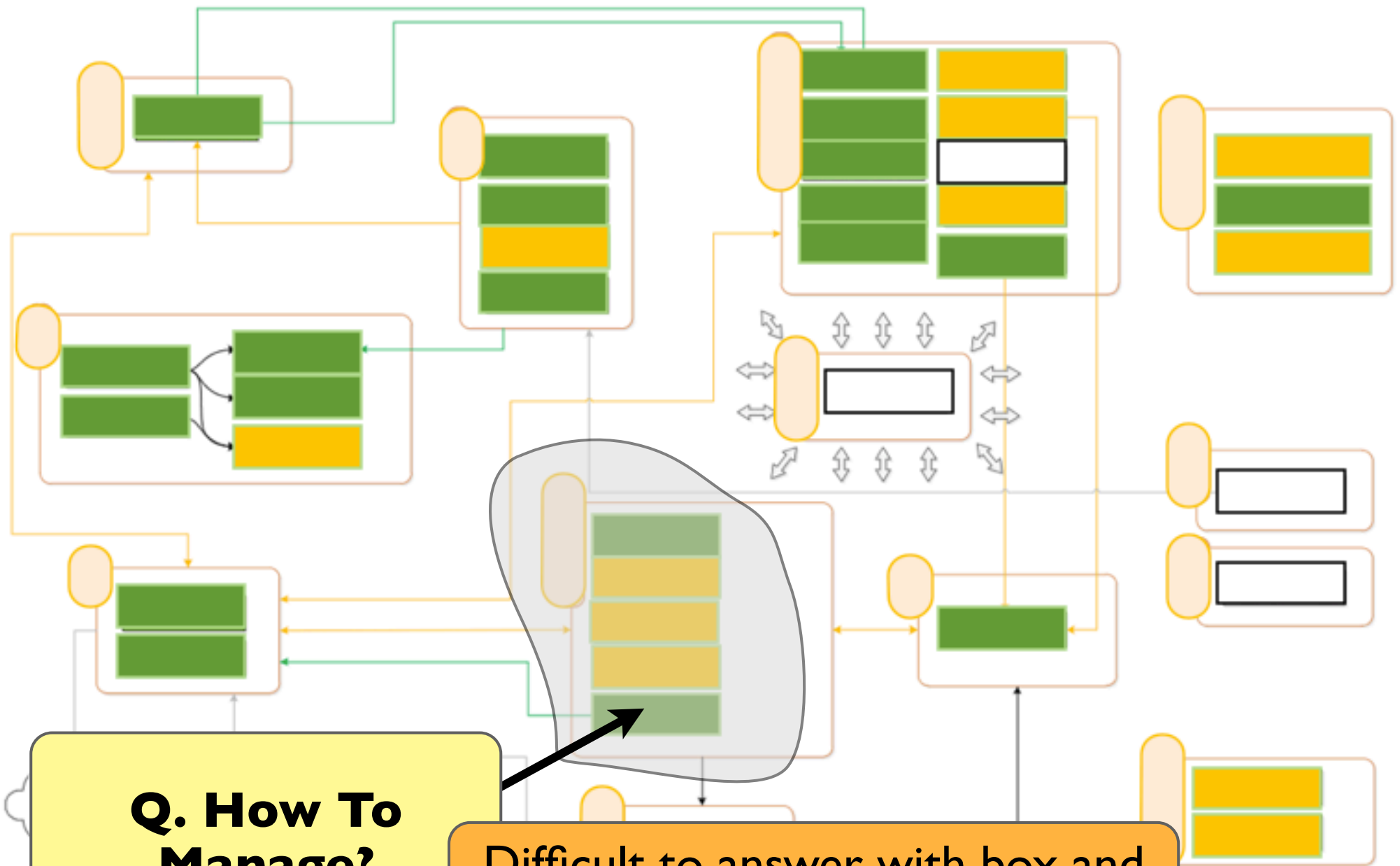


Which brings me onto ...

3) Management

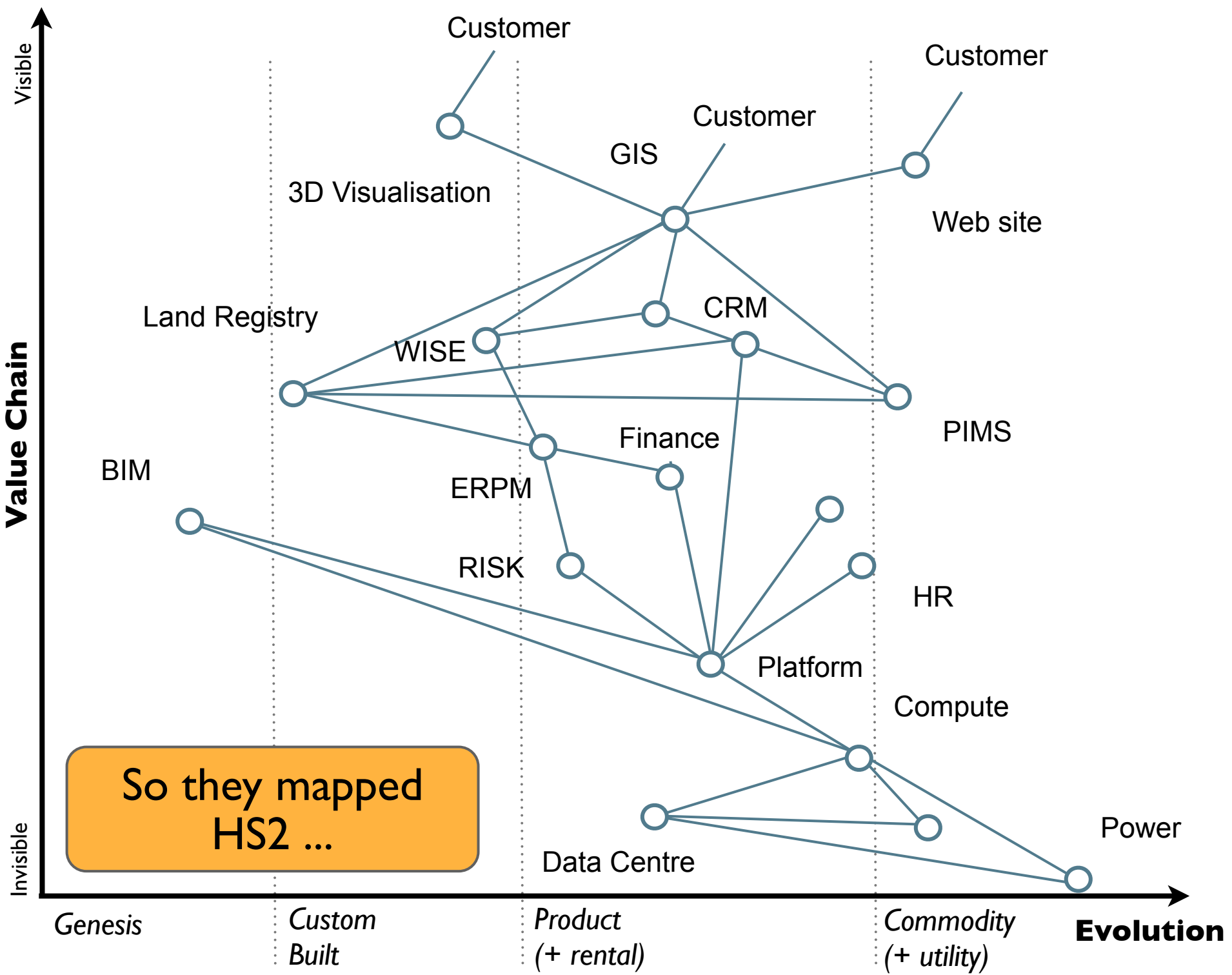


What they used to use to manage HS2 with.

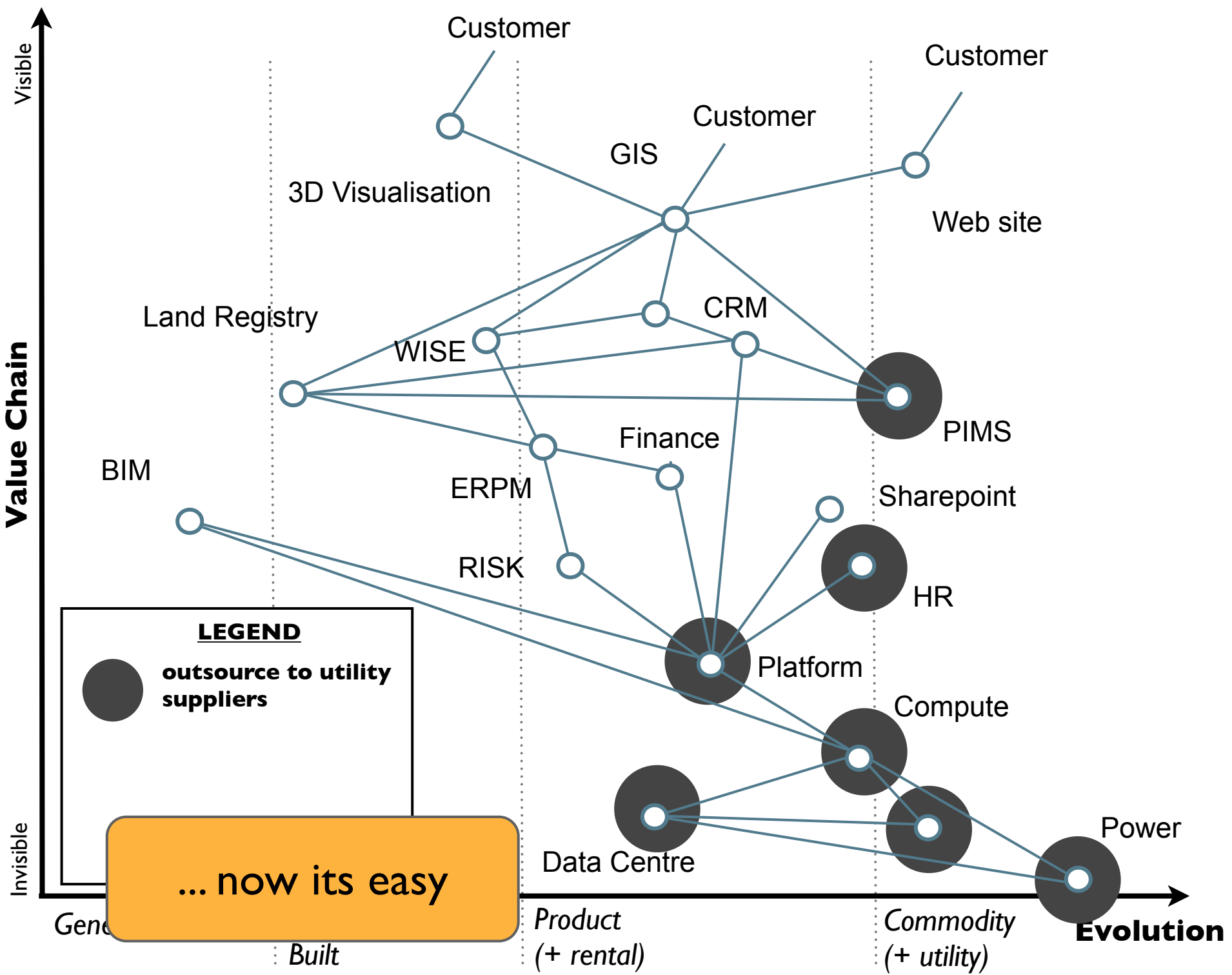


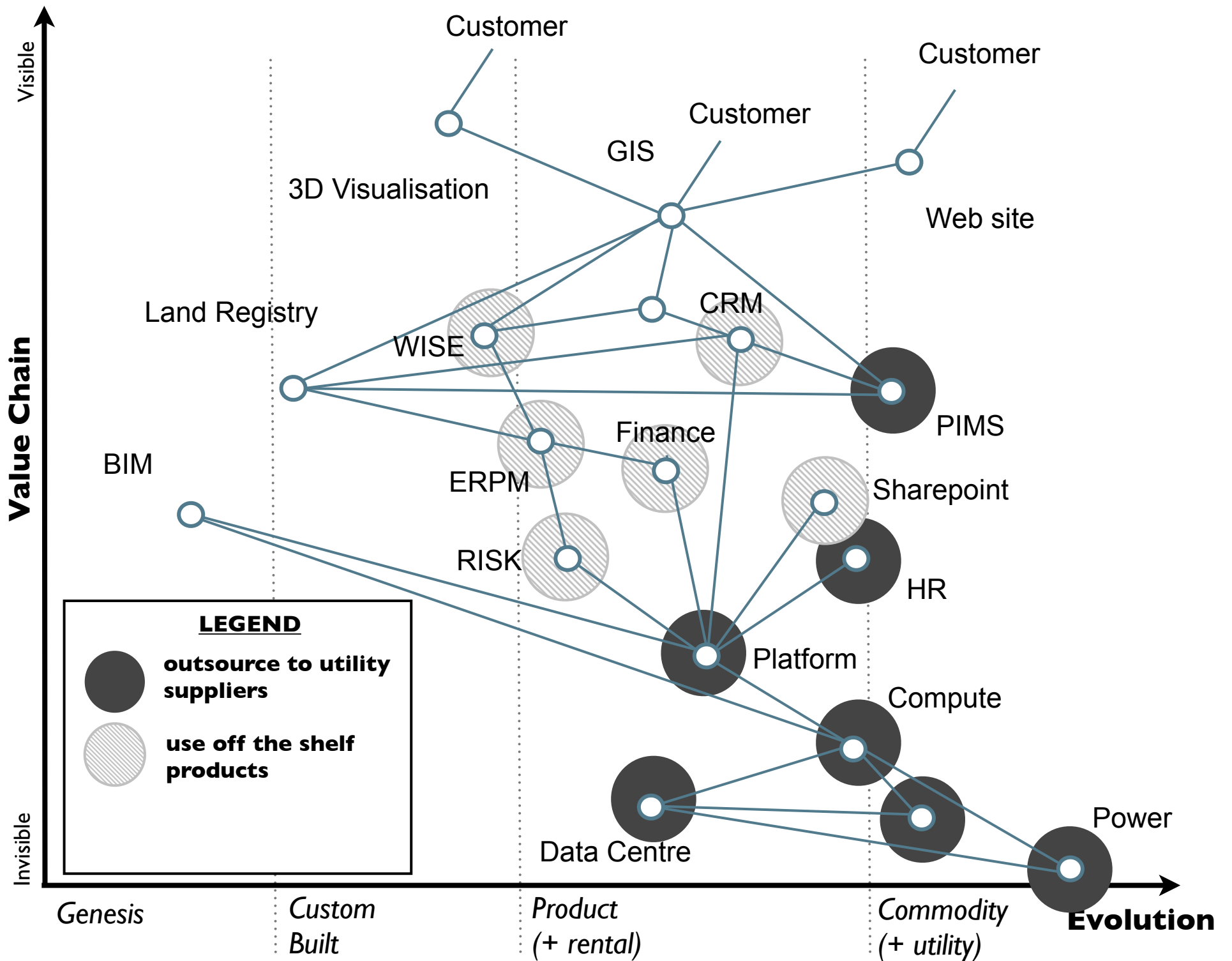
**Q. How To
Manage?**

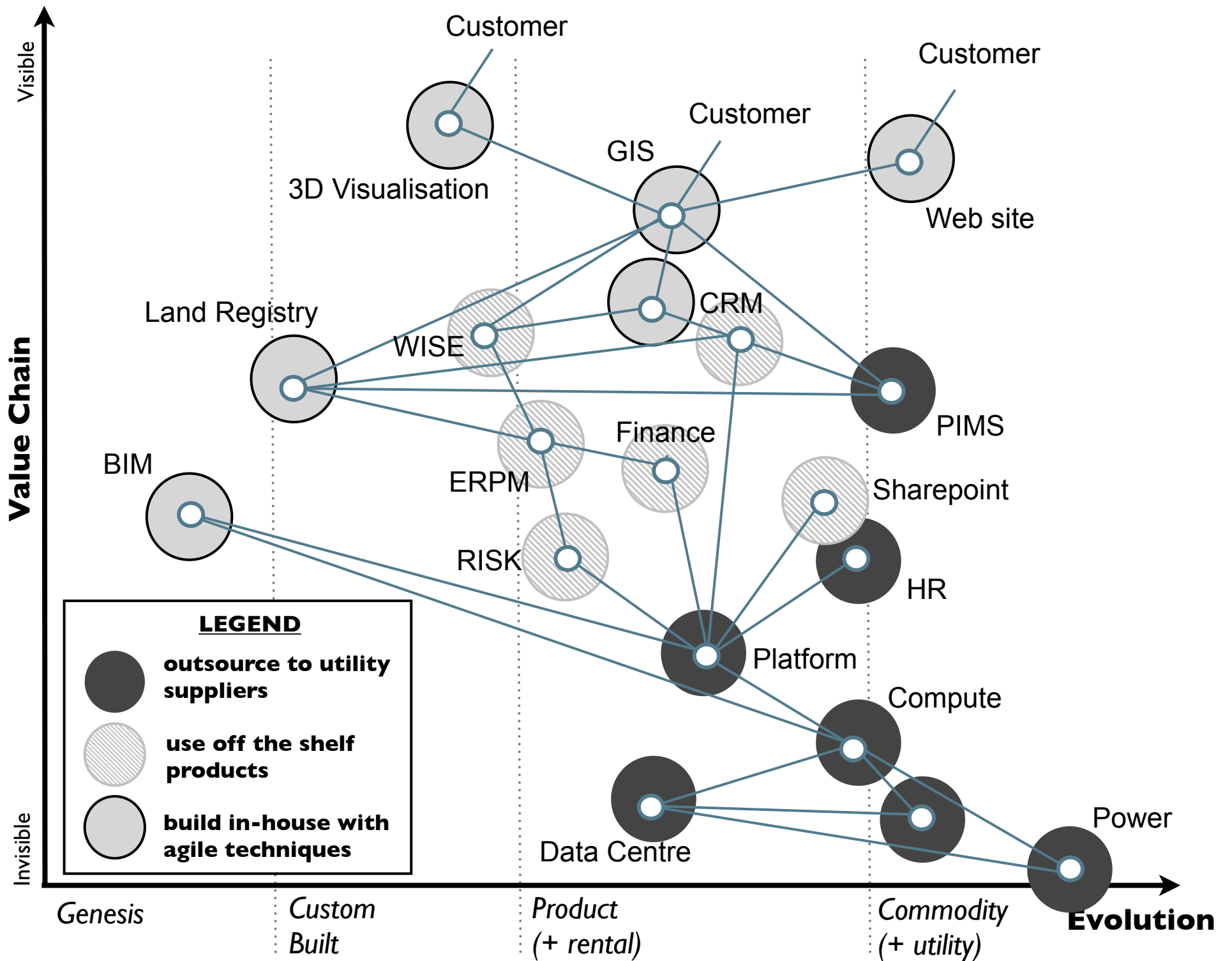
Difficult to answer with box and
wire ...



So they mapped HS2 ...



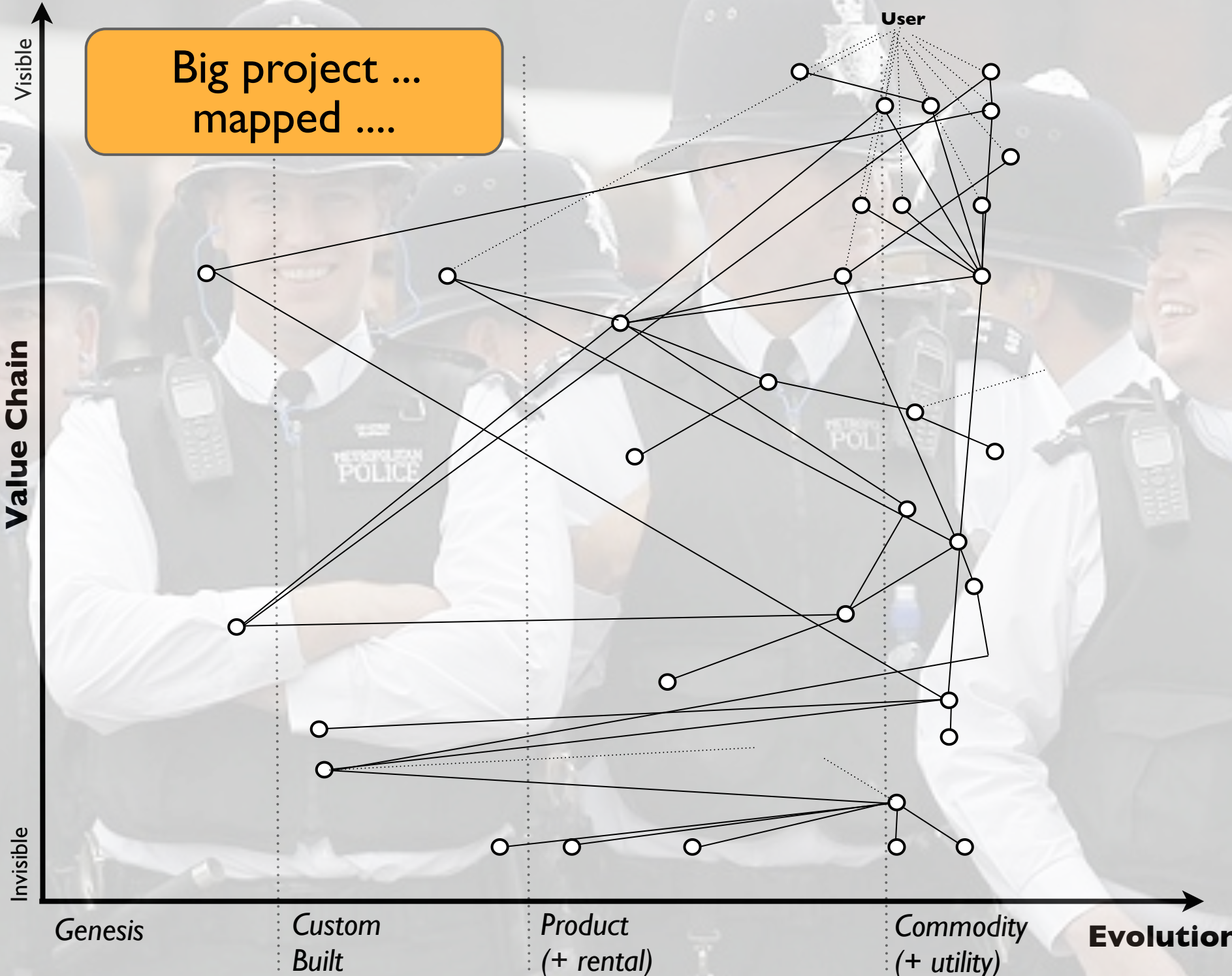


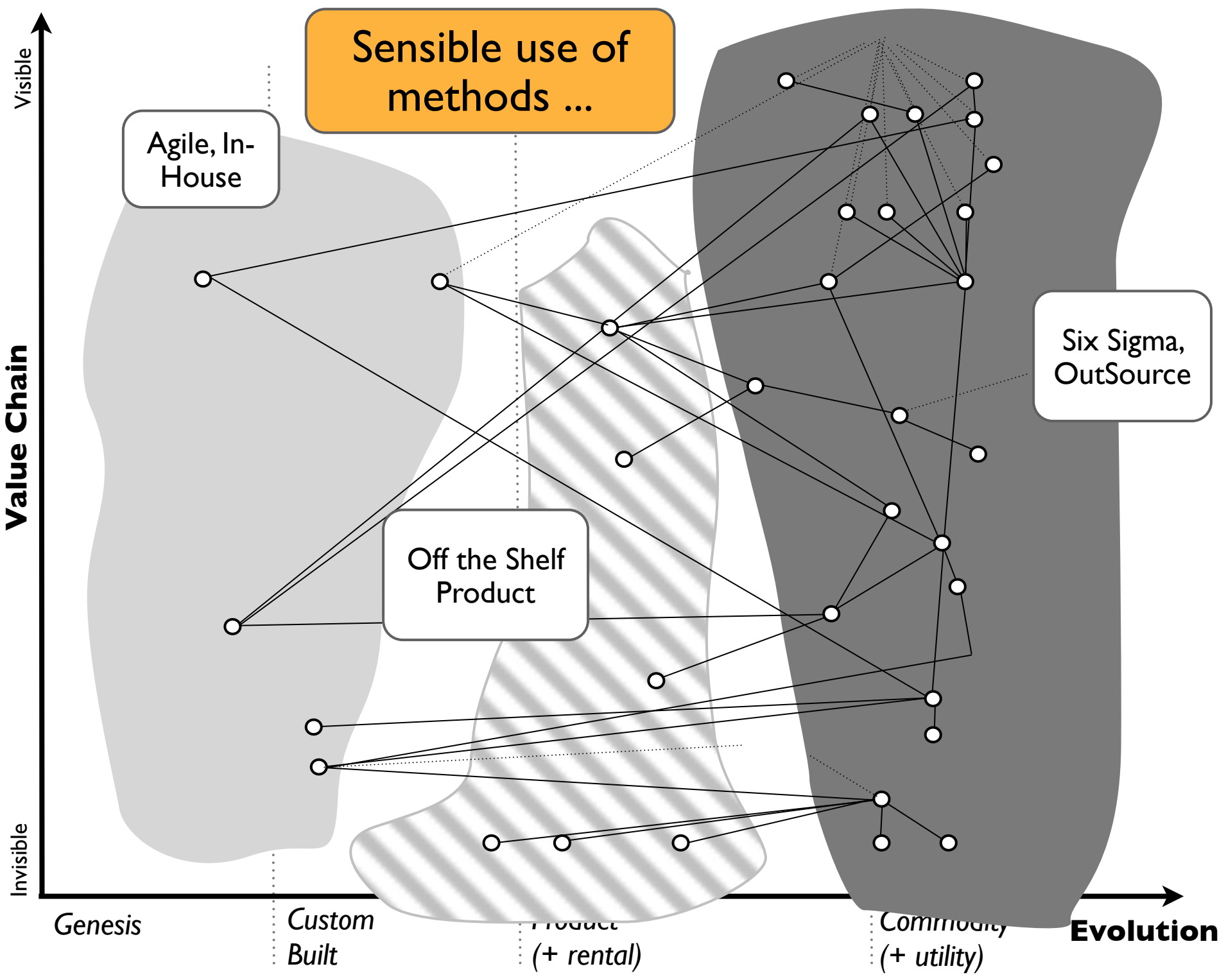


Also maps help
with ...

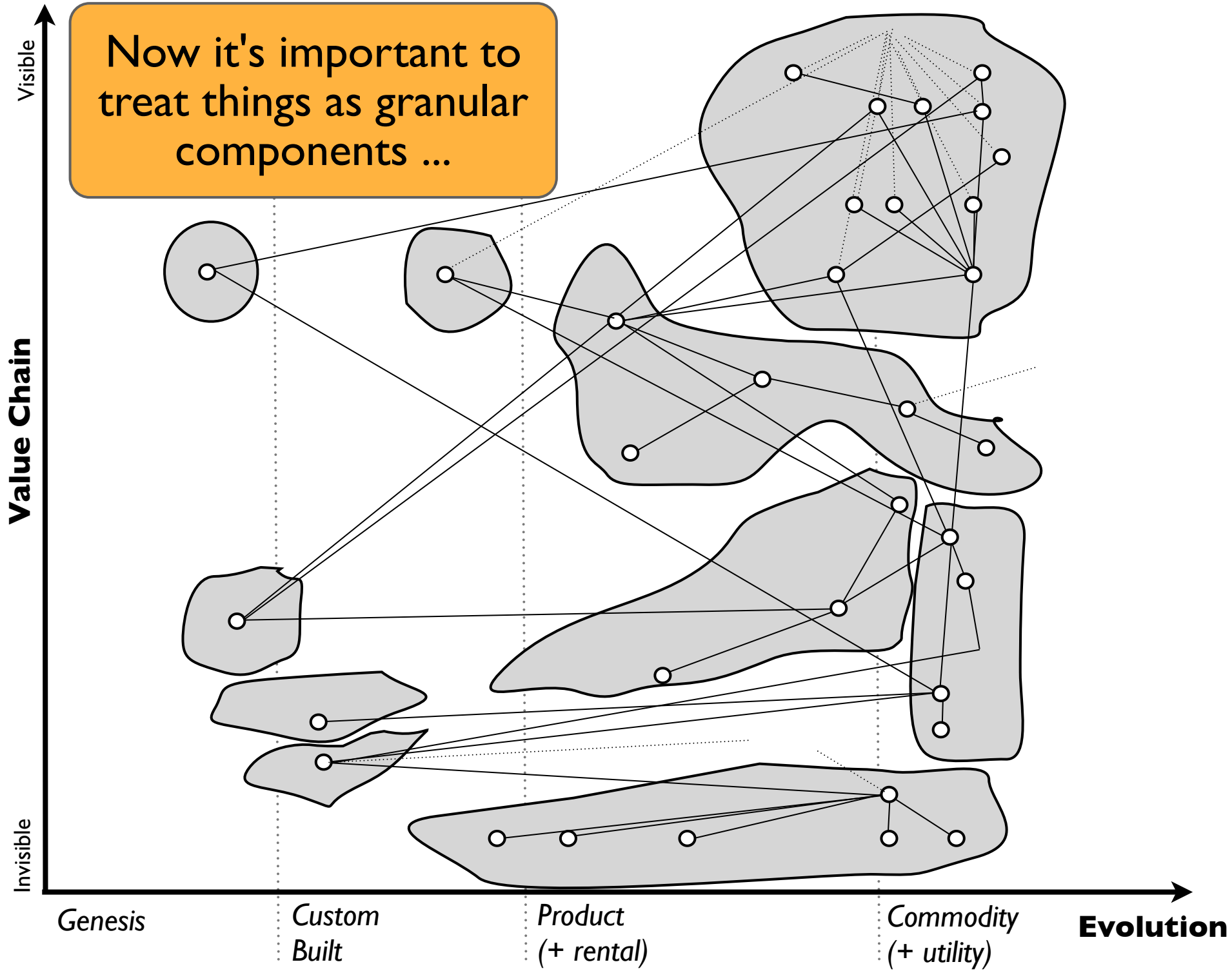
4) Risk Management

Big project ...
mapped





Now it's important to treat things as granular components ...



FAST, INEXPENSIVE, SIMPLE, TINY



Why? See ...

FIST at 5

Looking Back, Looking Ahead

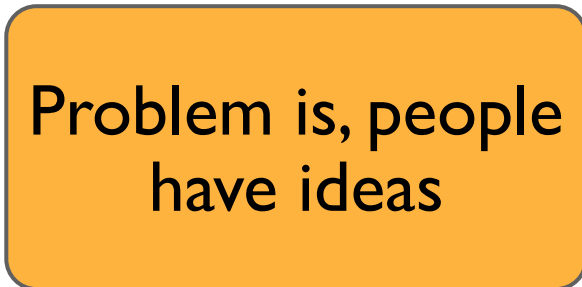
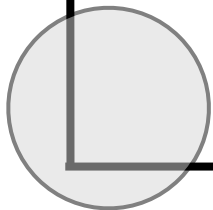
Lt. Col. Dan Ward, USAF

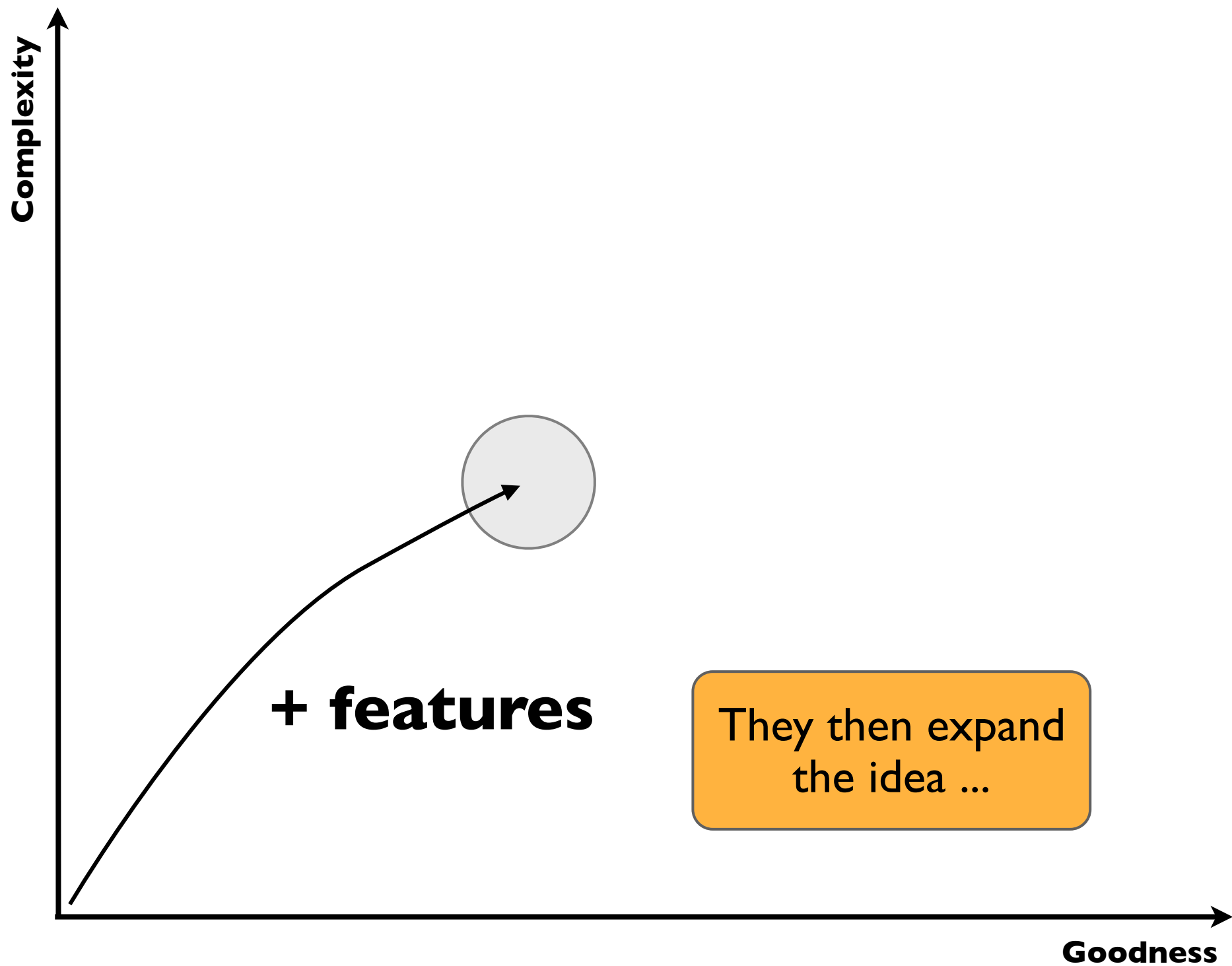
Complexity

Idea

Problem is, people
have ideas

Goodness



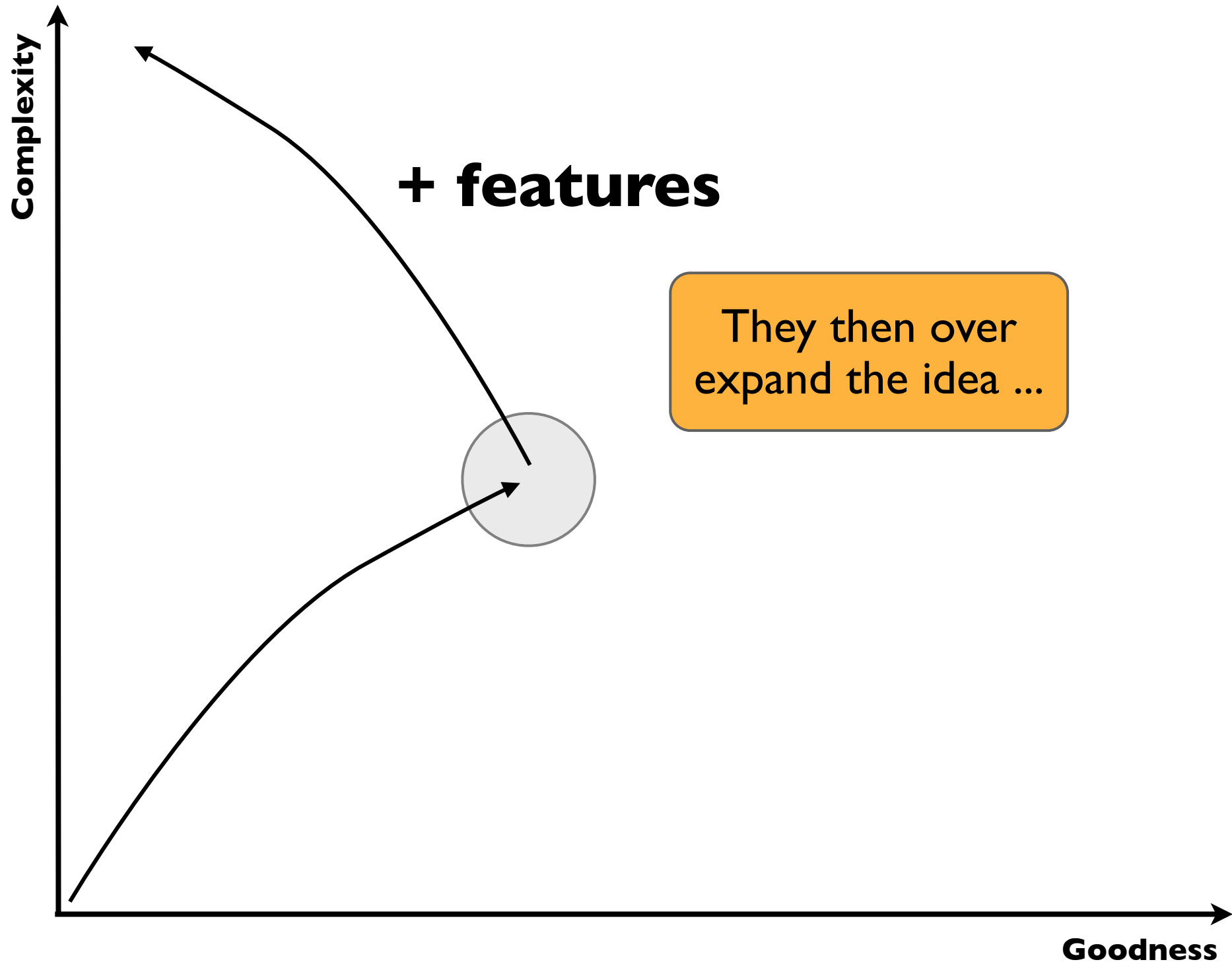


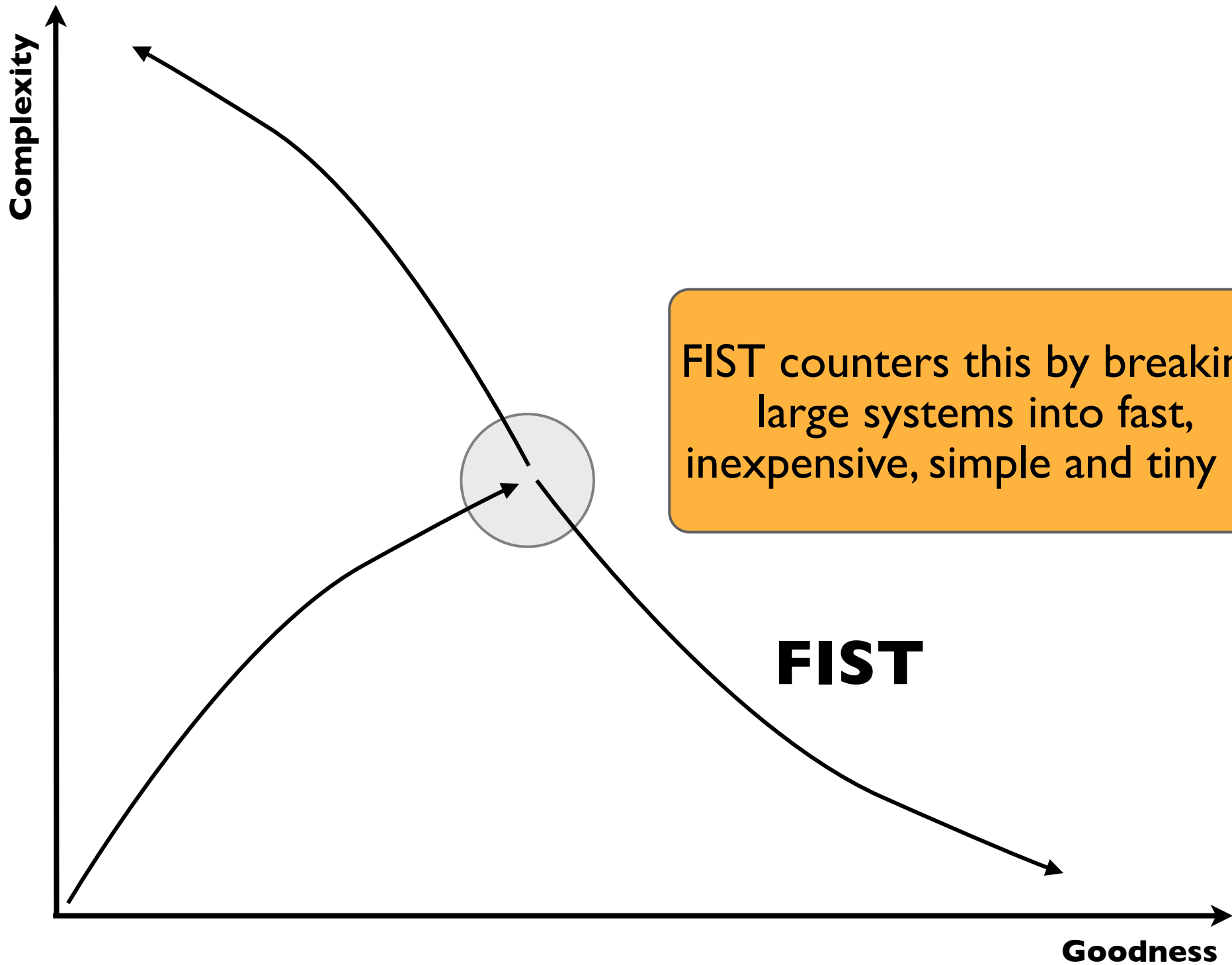
Complexity

Goodness

+ features

They then expand
the idea ...







e.g. want to build a super
computer ...

Condor Cluster



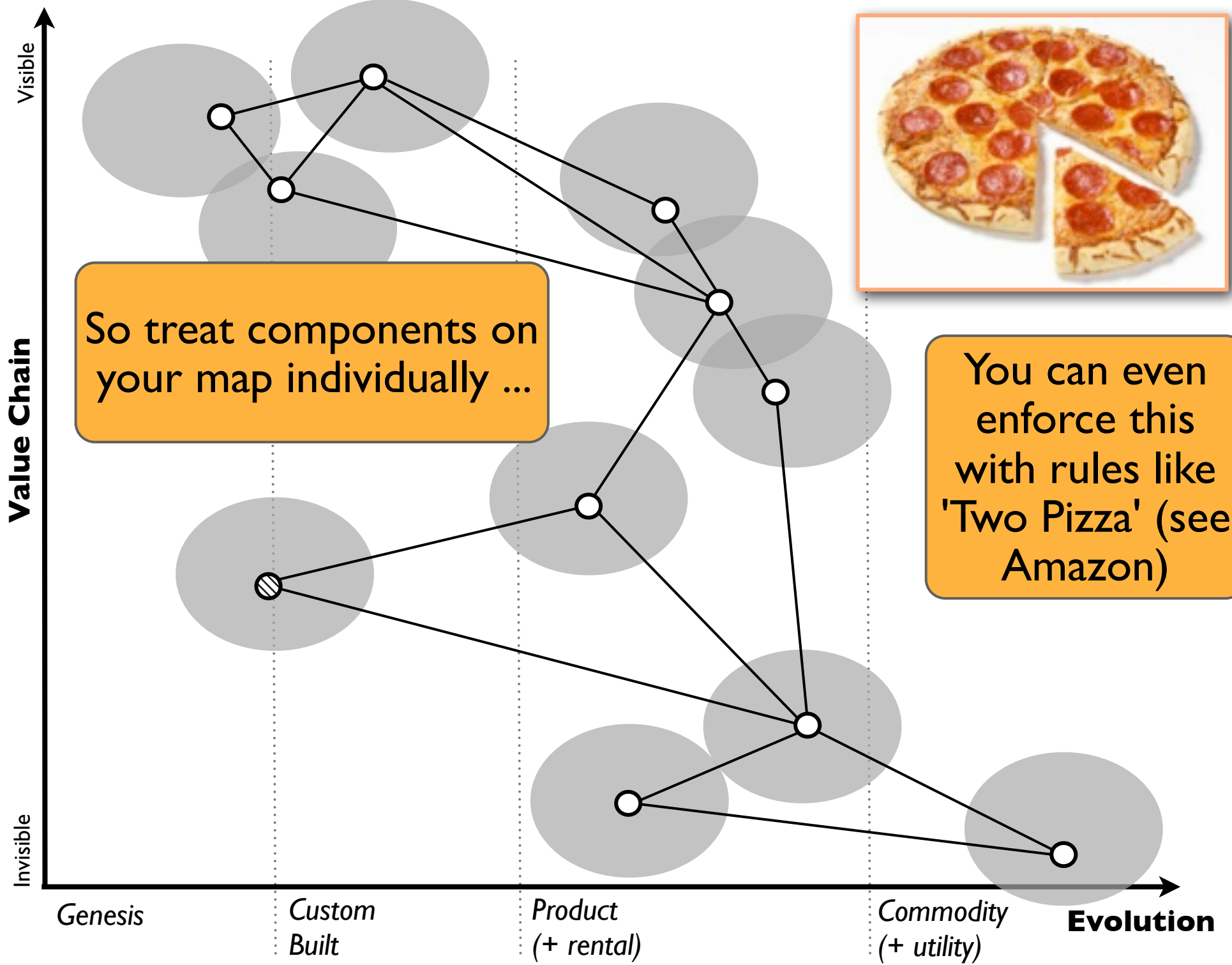
1,753 PlayStation 3s

... build it with these.

FIST has been used in many places ...

Harvest Hawk,
idea to combat
operations in 18
months



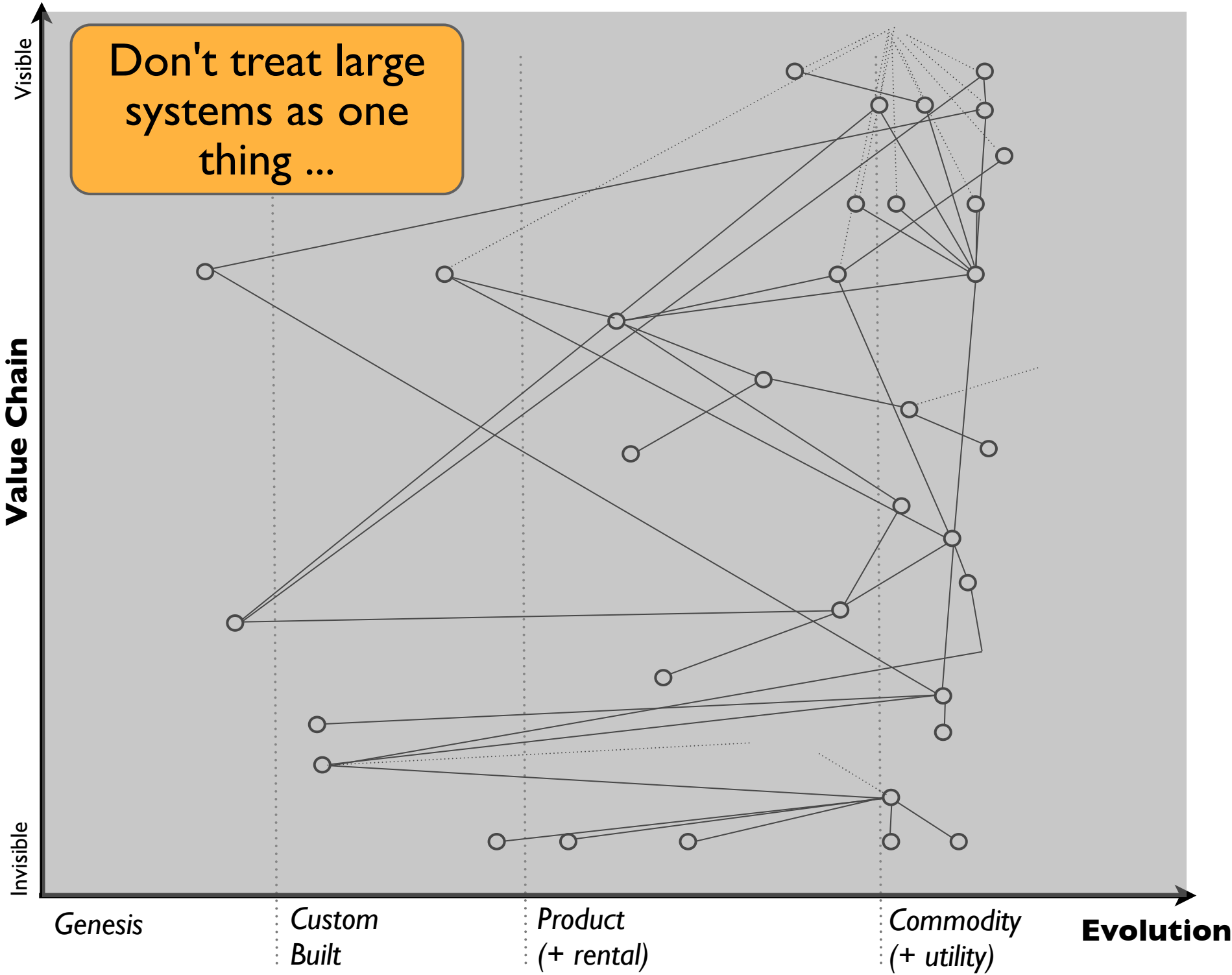


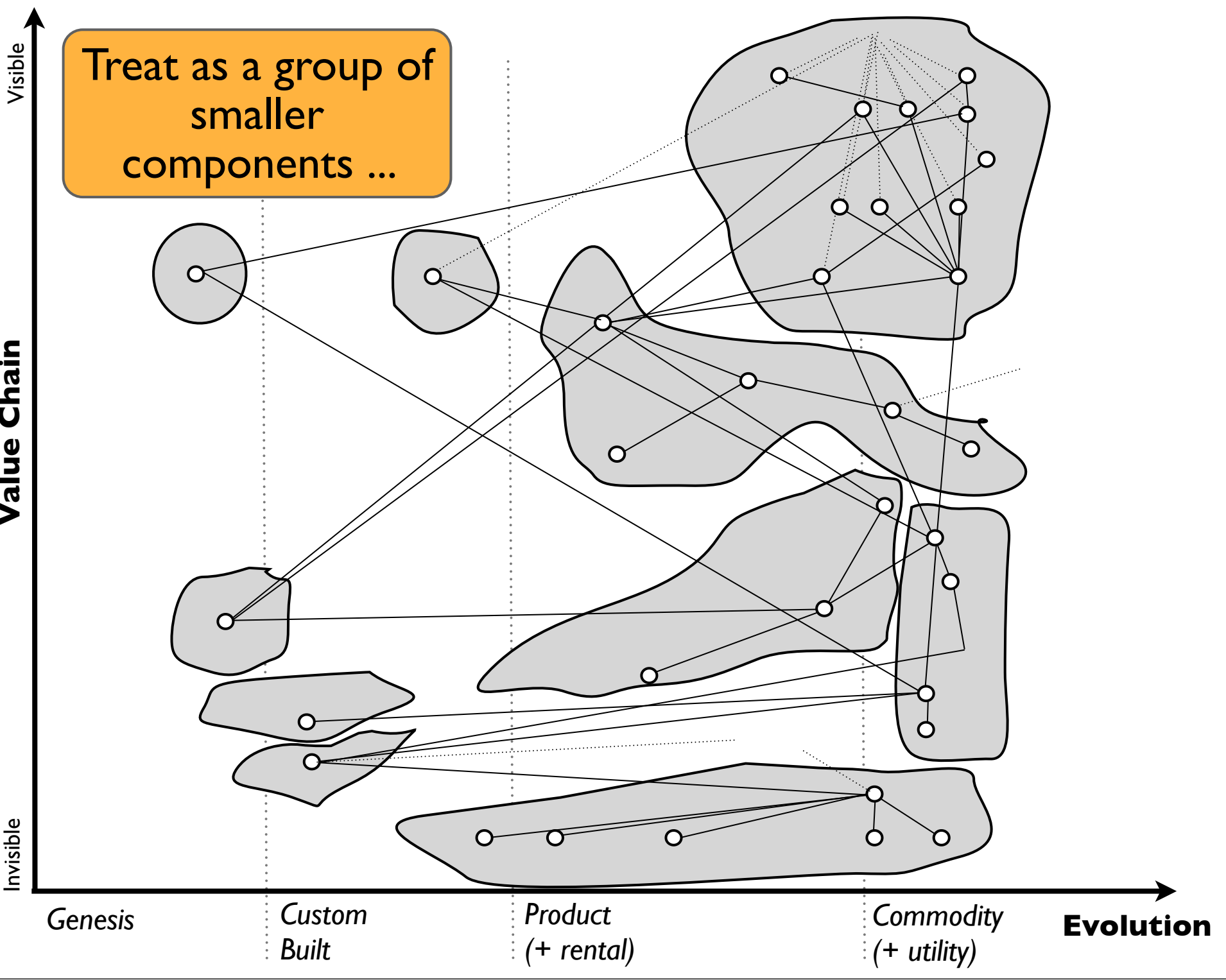
So treat components on your map individually ...

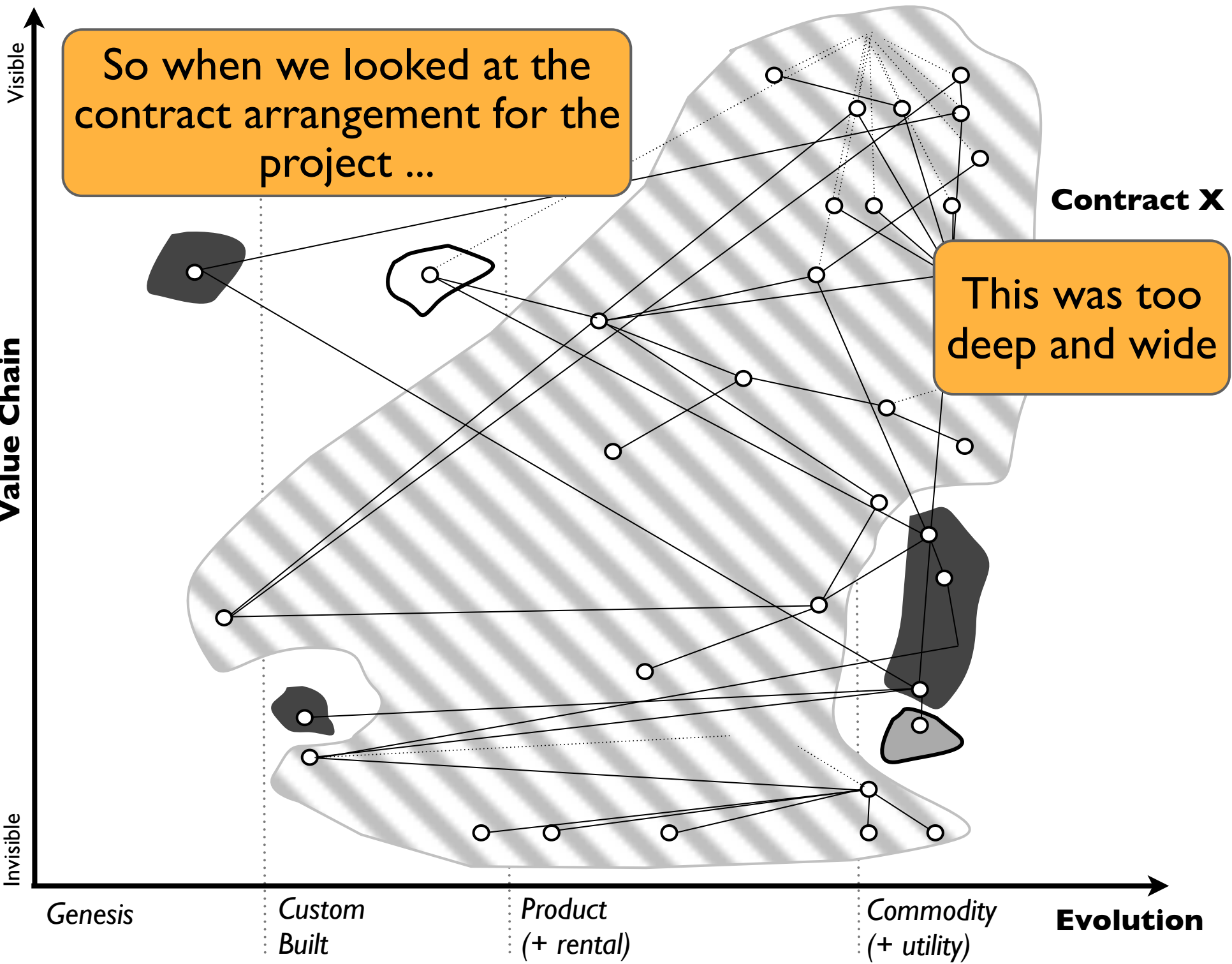
You can even enforce this with rules like 'Two Pizza' (see Amazon)



Don't treat large systems as one thing ...



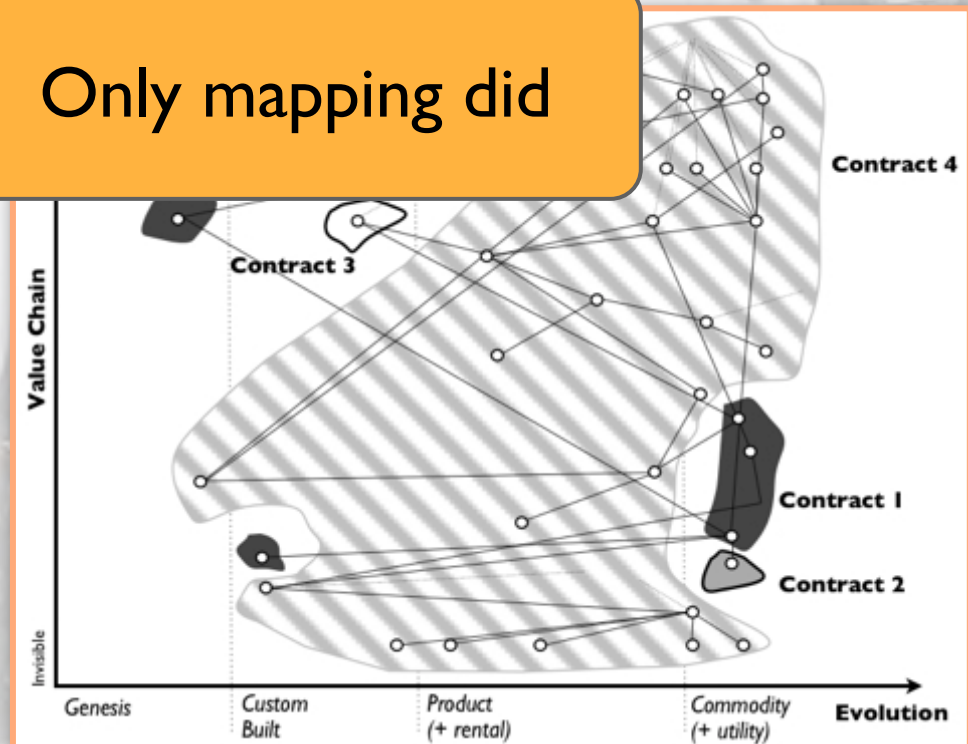




But ... specifications
and box and wire
wouldn't have
shown this

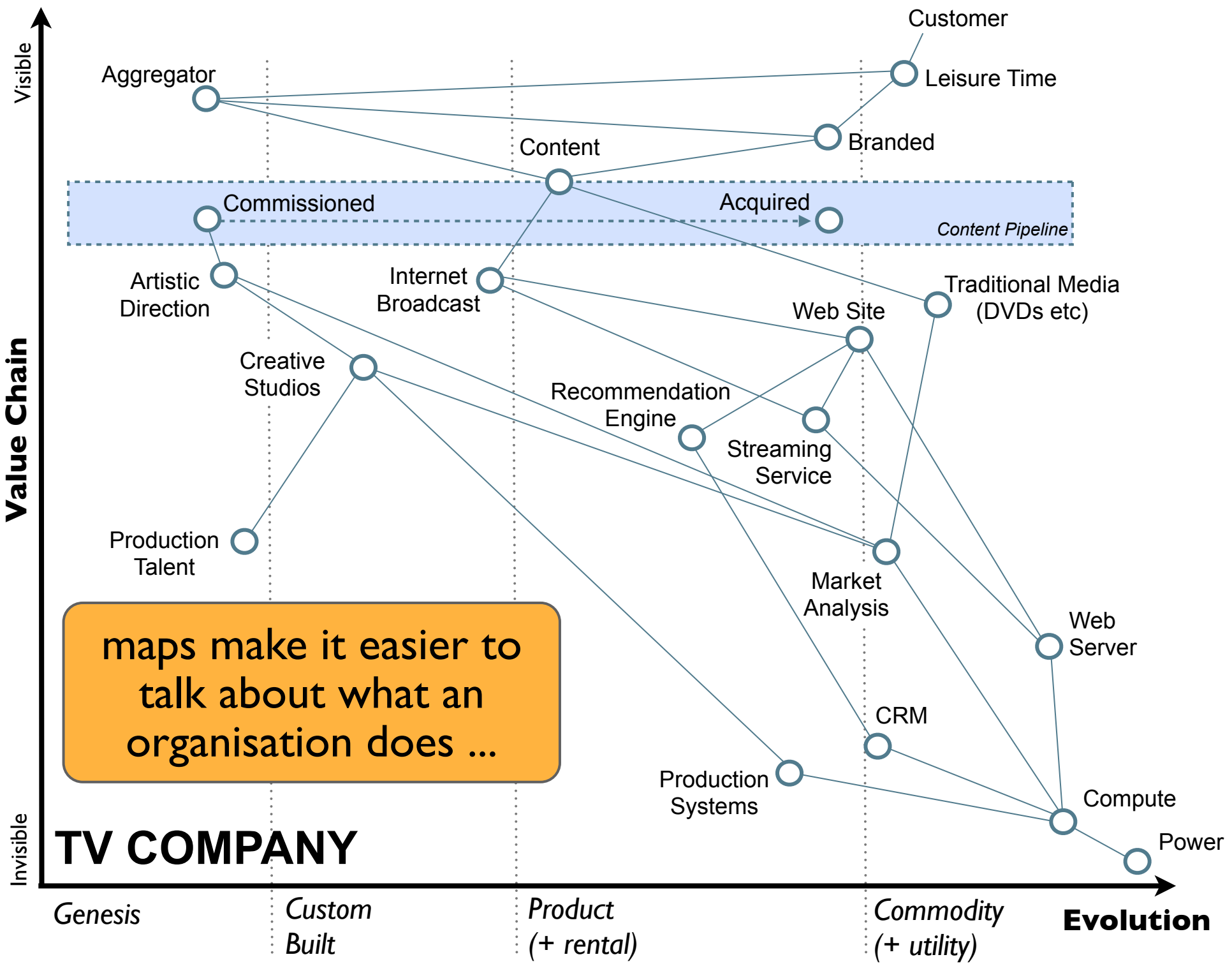


Only mapping did



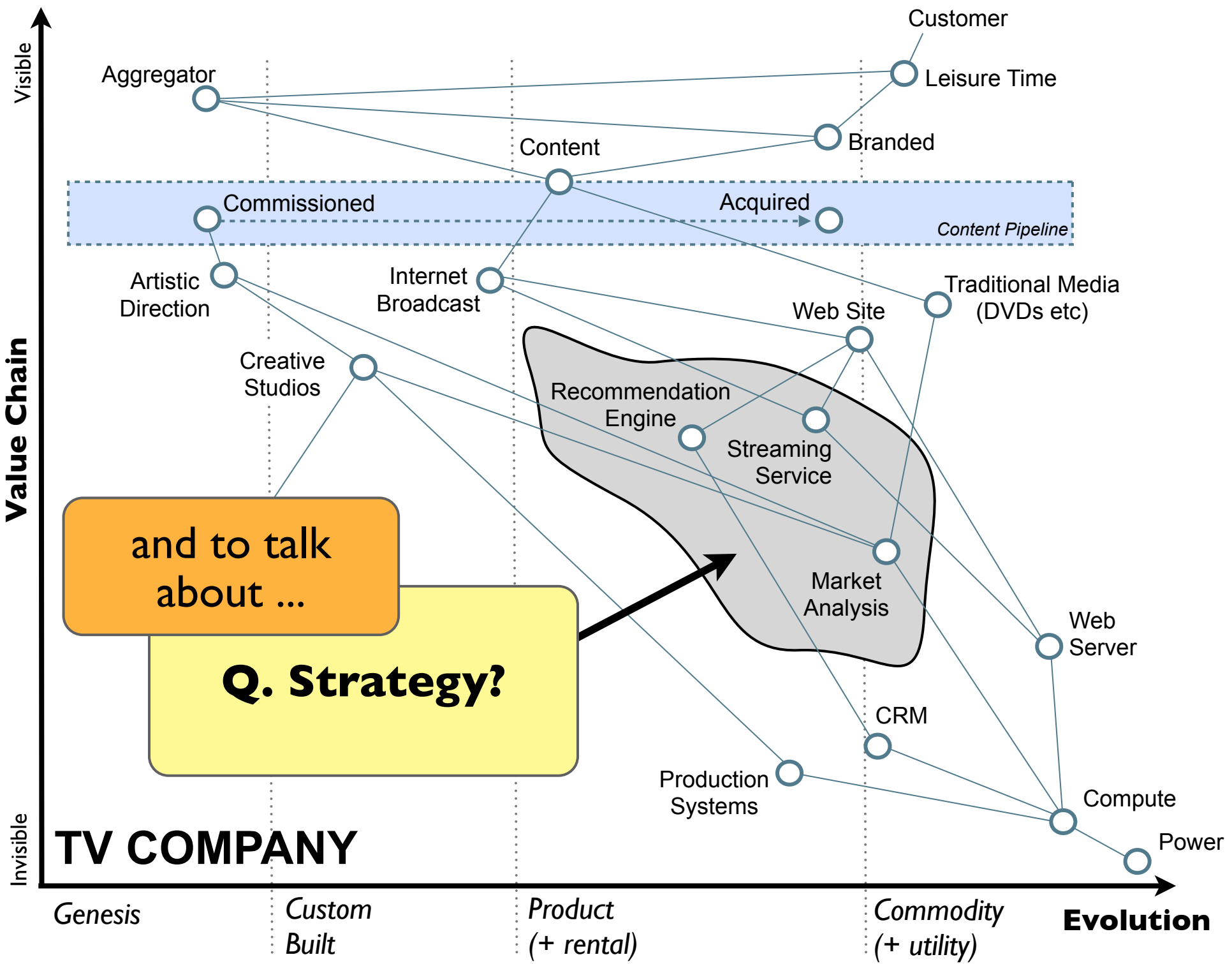
Maps are also good
for ...

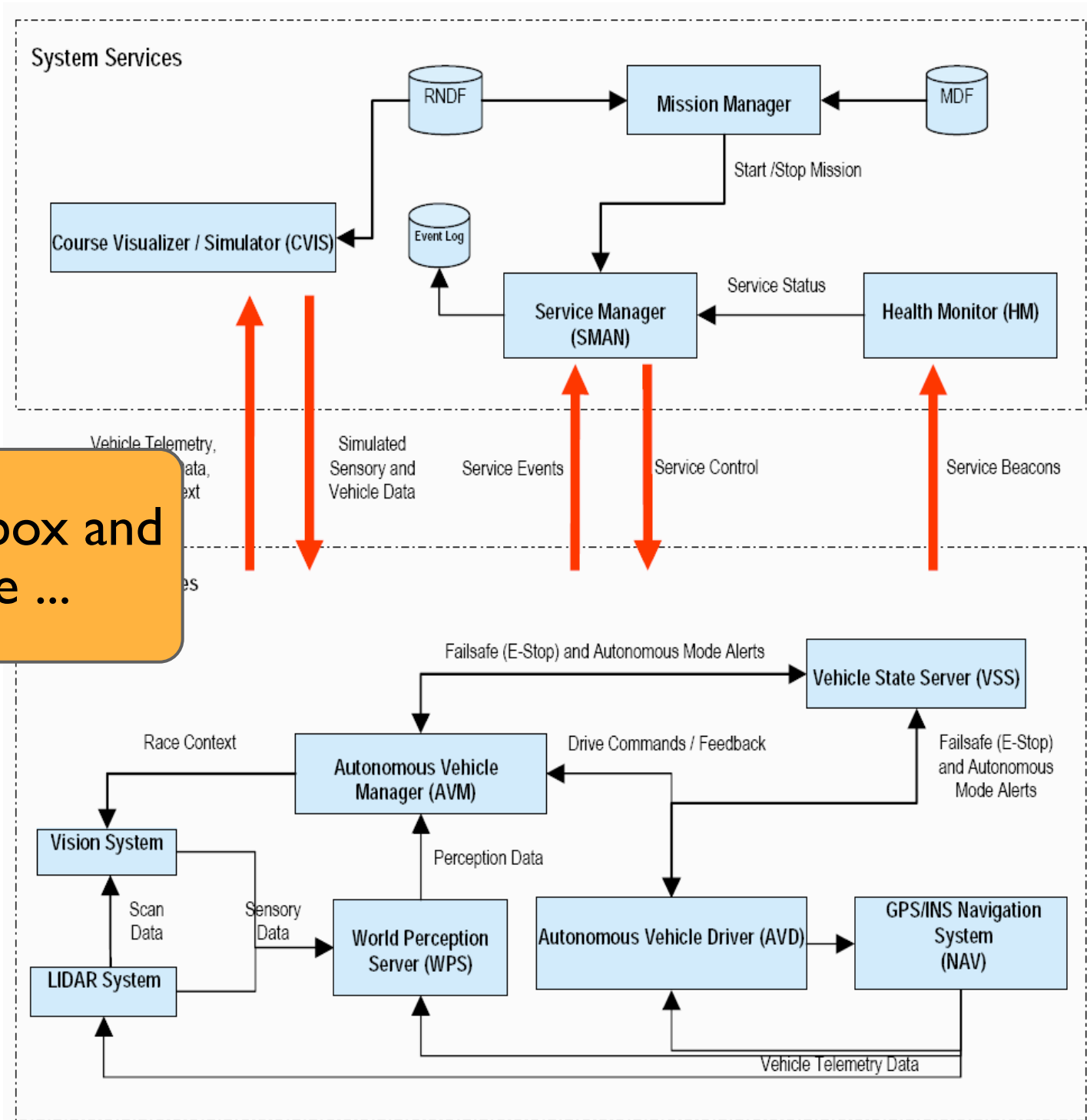
5) Communication



maps make it easier to talk about what an organisation does ...

TV COMPANY

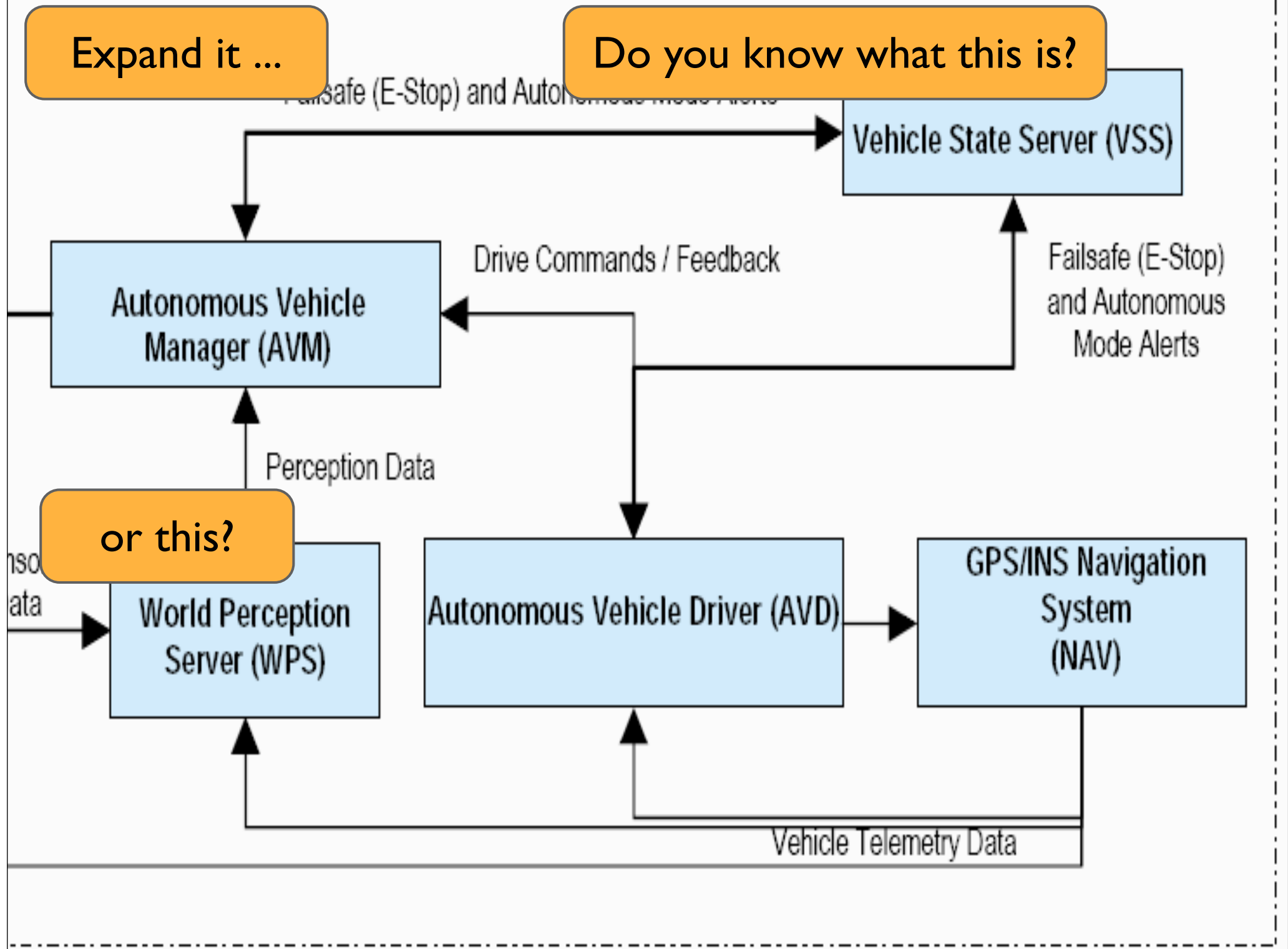




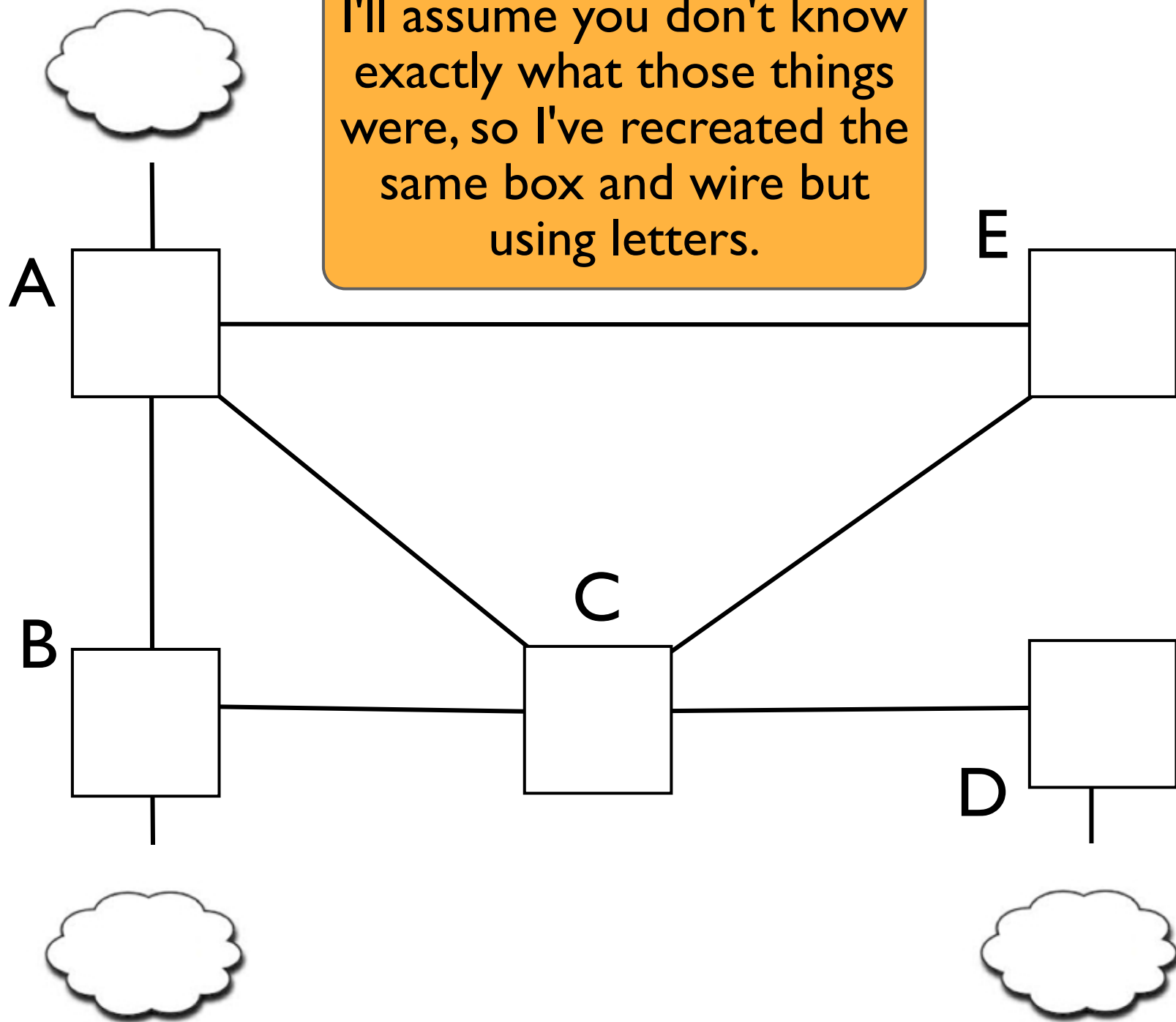
Take a box and wire ...

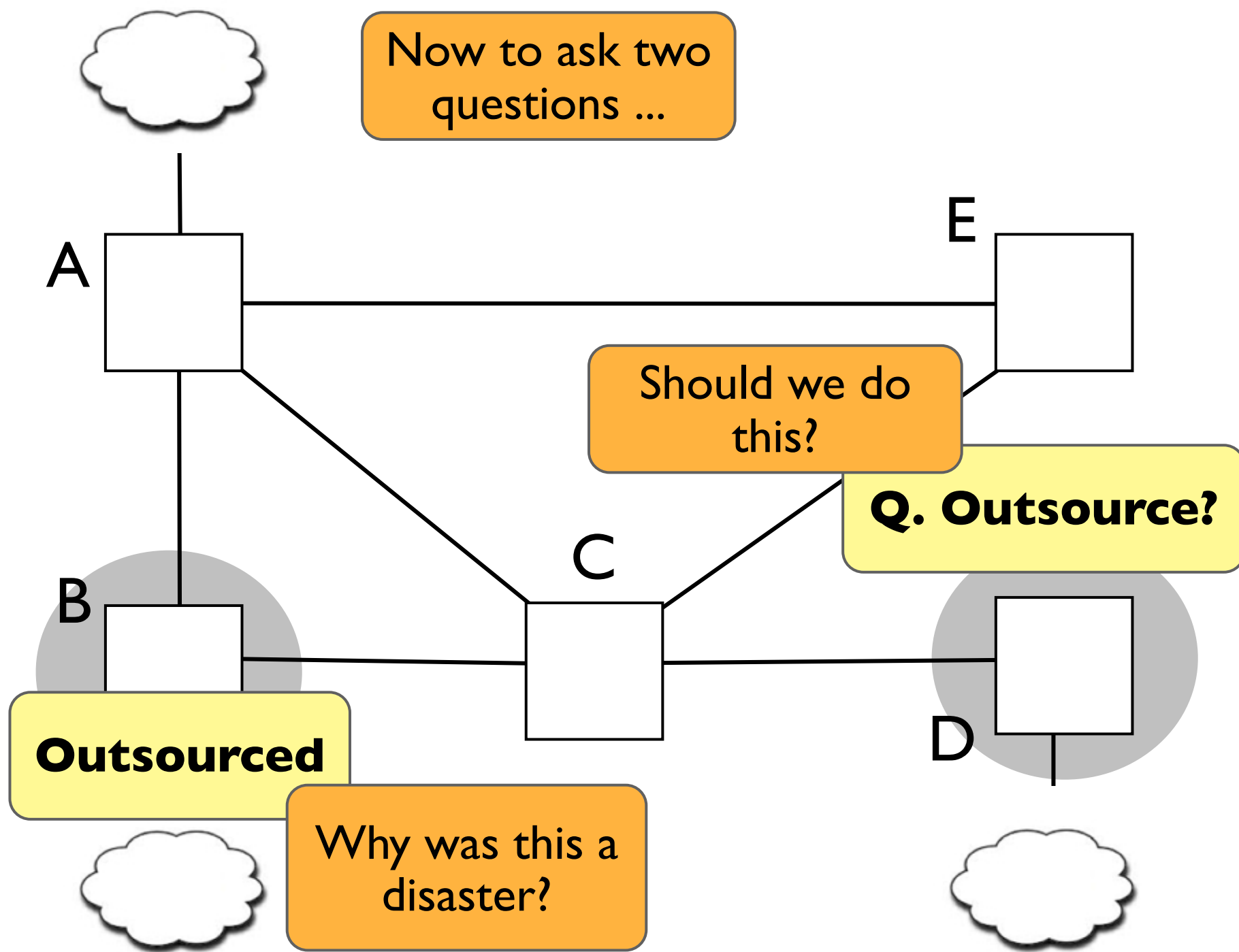
Expand it ...

Do you know what this is?



I'll assume you don't know exactly what those things were, so I've recreated the same box and wire but using letters.





Now to ask two questions ...

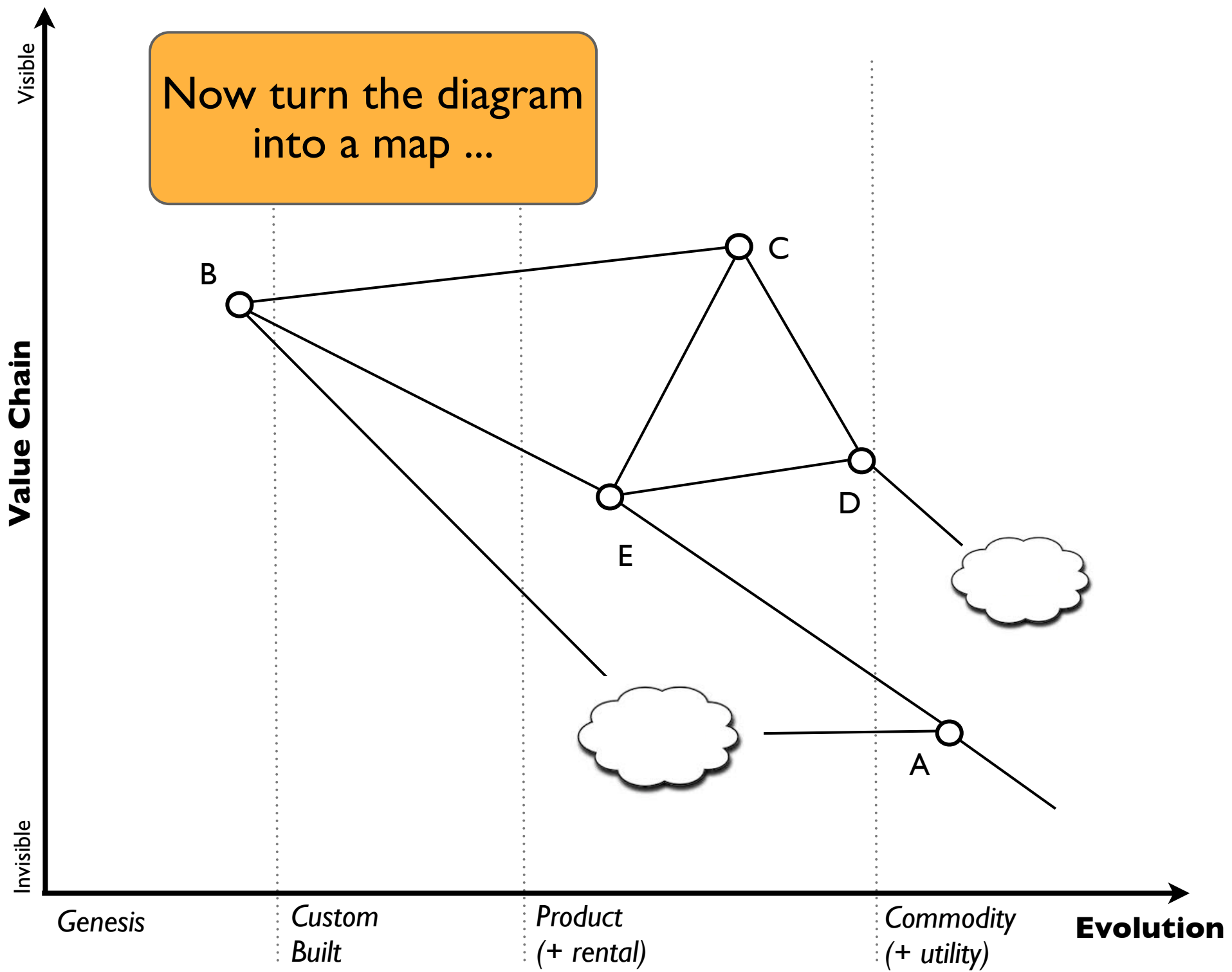
Should we do this?

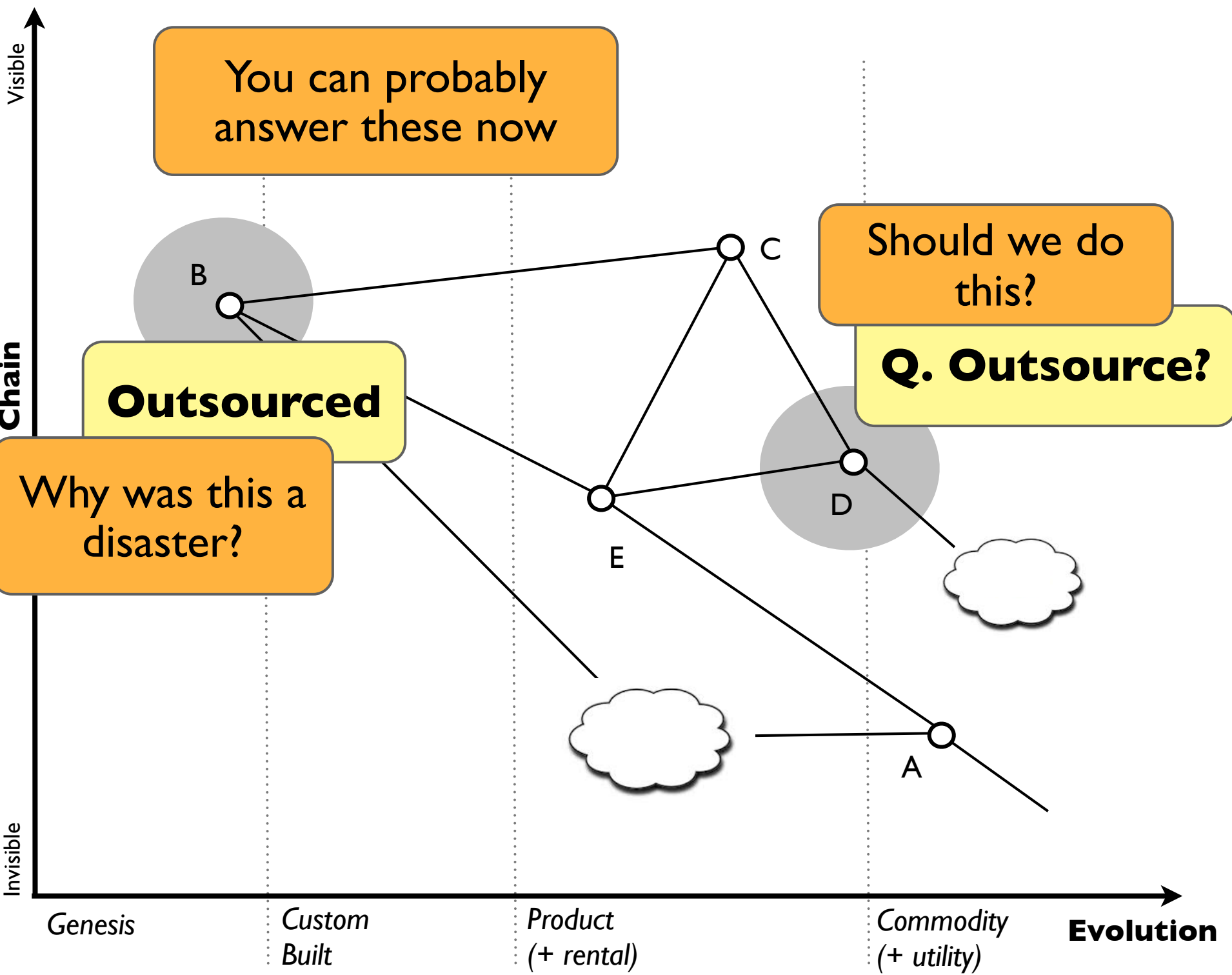
Q. Outsource?

Outsourced

Why was this a disaster?

Now turn the diagram into a map ...





You can probably answer these now

Outsourced

Why was this a disaster?

Should we do this?

Q. Outsource?

Visible

Chain

Invisible

Genesis

Custom Built

Product (+ rental)

Commodity (+ utility)

Evolution

B

C

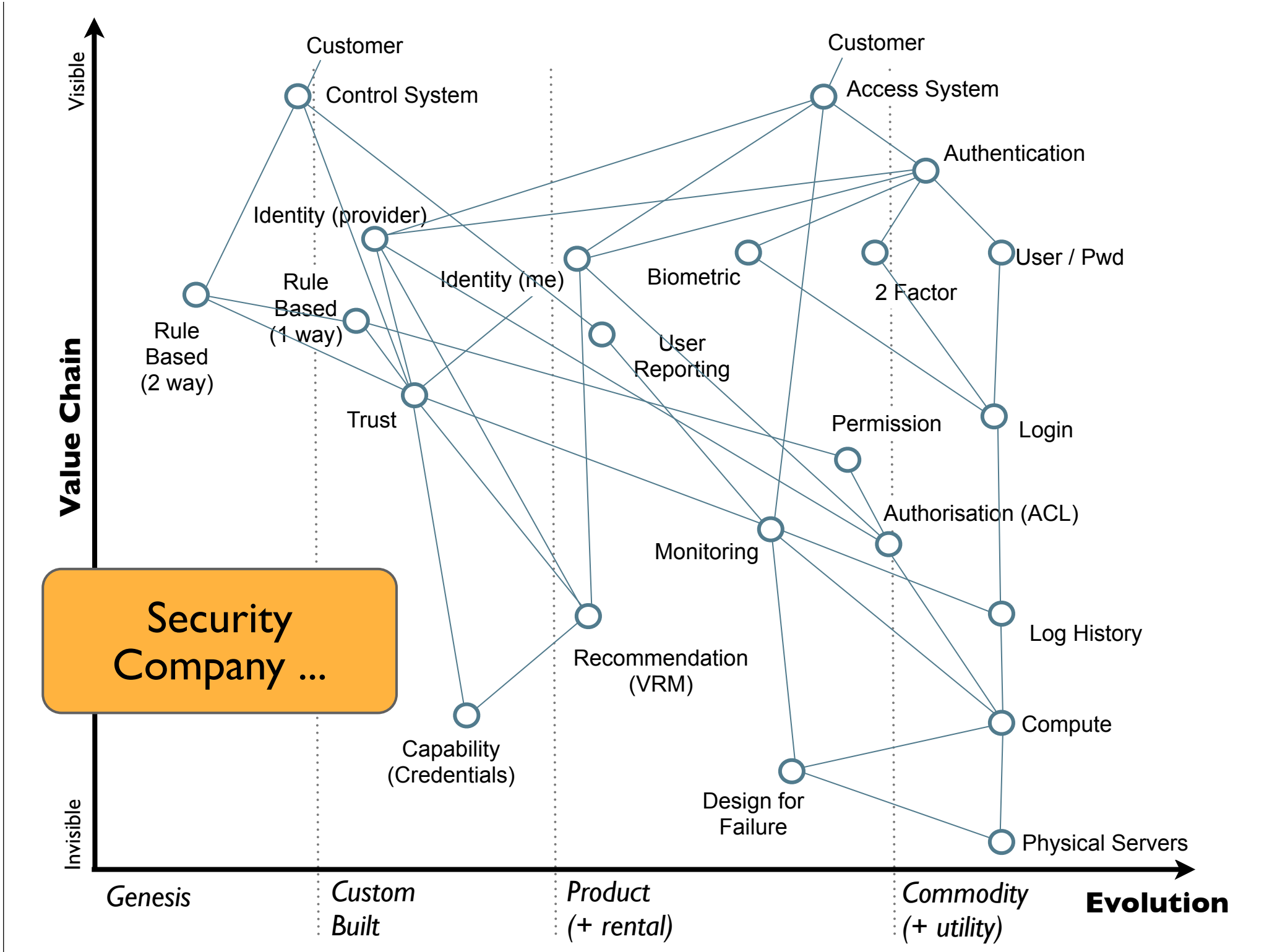
D

E

A

Maps are also
good for ...

6) Scenario Planning



Visible

Value Chain

Invisible

Genesis

Custom Built

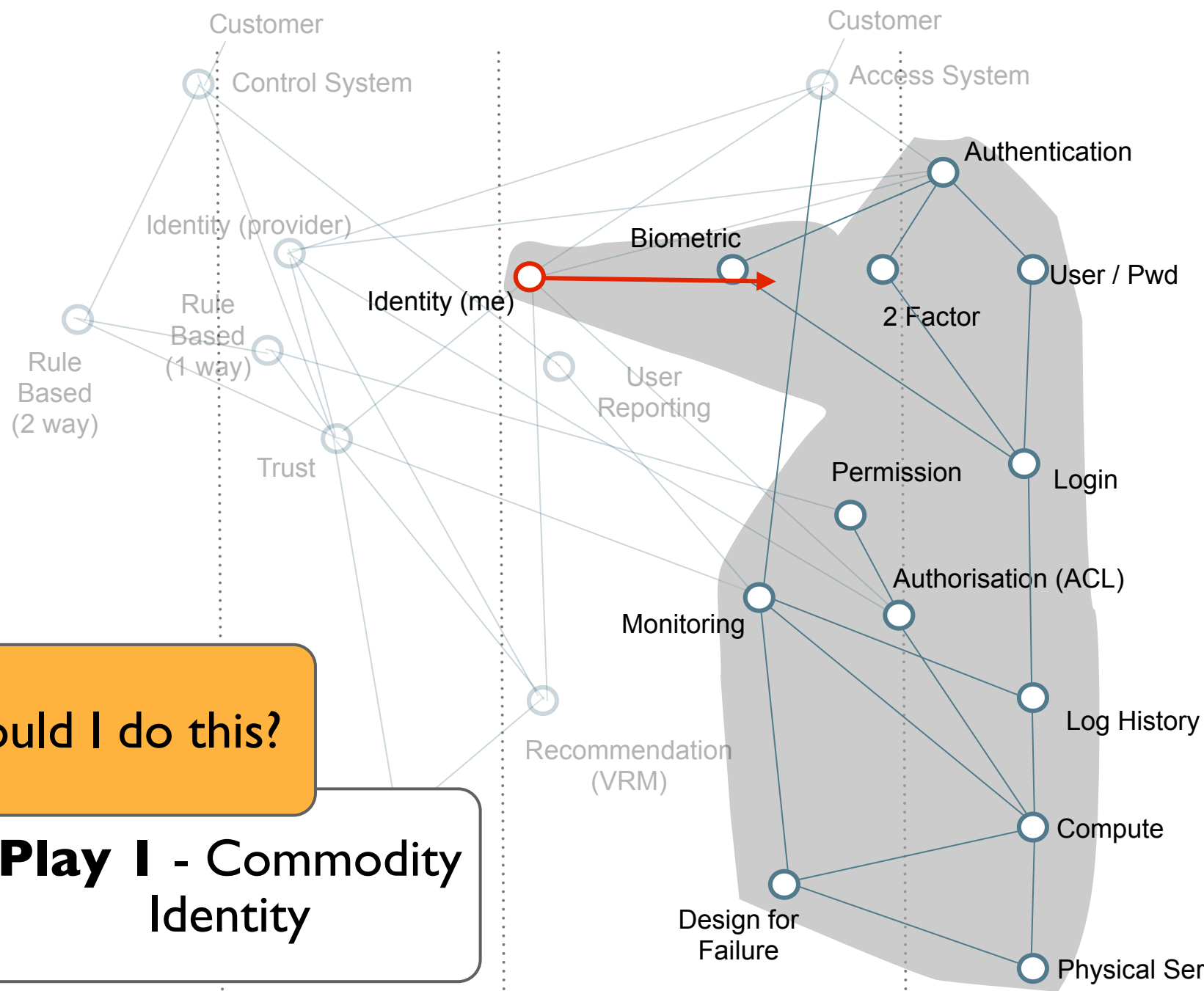
Product (+ rental)

Commodity (+ utility)

Evolution

Should I do this?

Play I - Commodity Identity



Customer

Control System

Customer

Access System

Identity (provider)

Biometric

Authentication

Rule Based (2 way)

Rule Based (1 way)

Identity (me)

2 Factor

User / Pwd

Trust

User Reporting

Permission

Login

Recommendation (VRM)

Monitoring

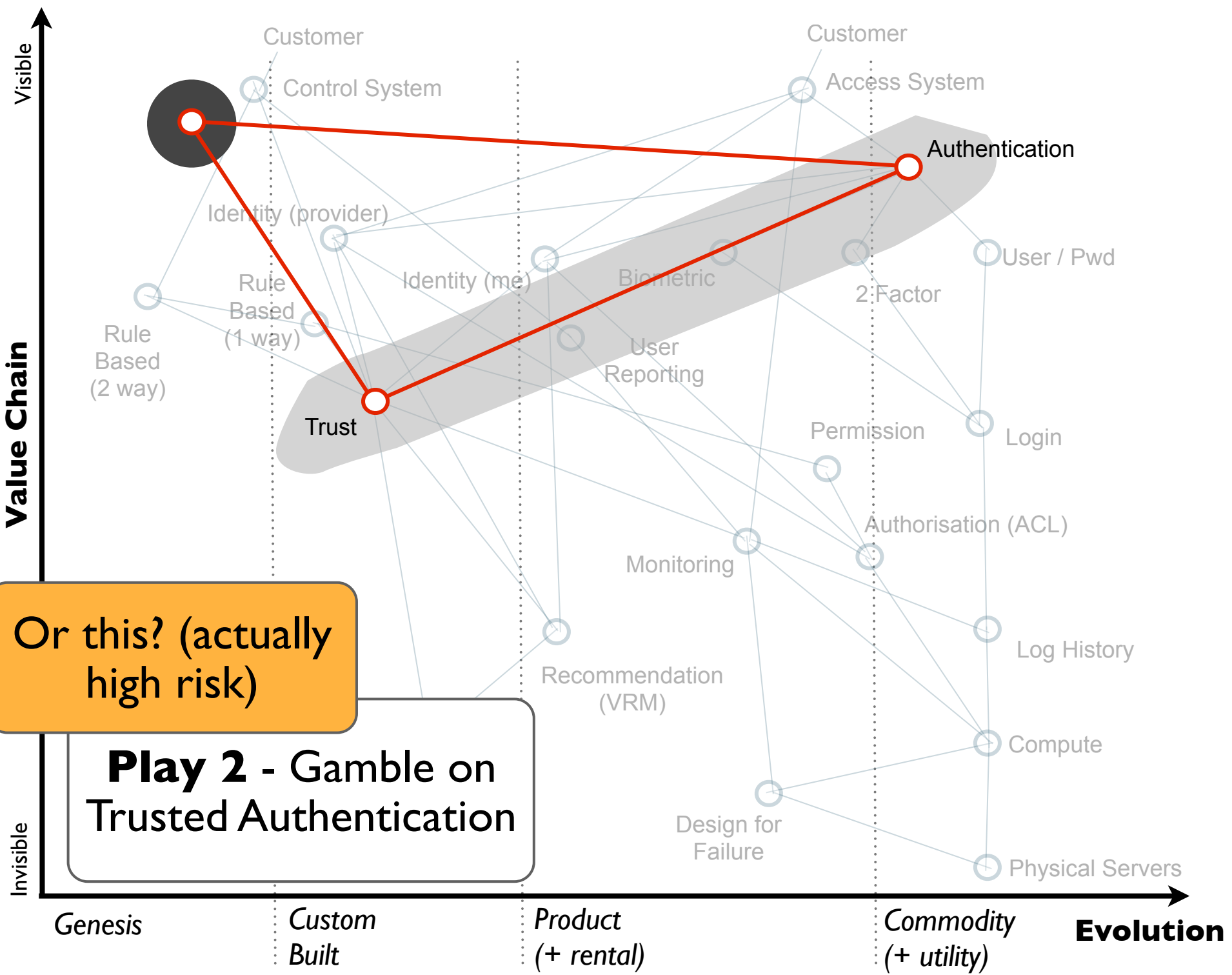
Authorisation (ACL)

Log History

Design for Failure

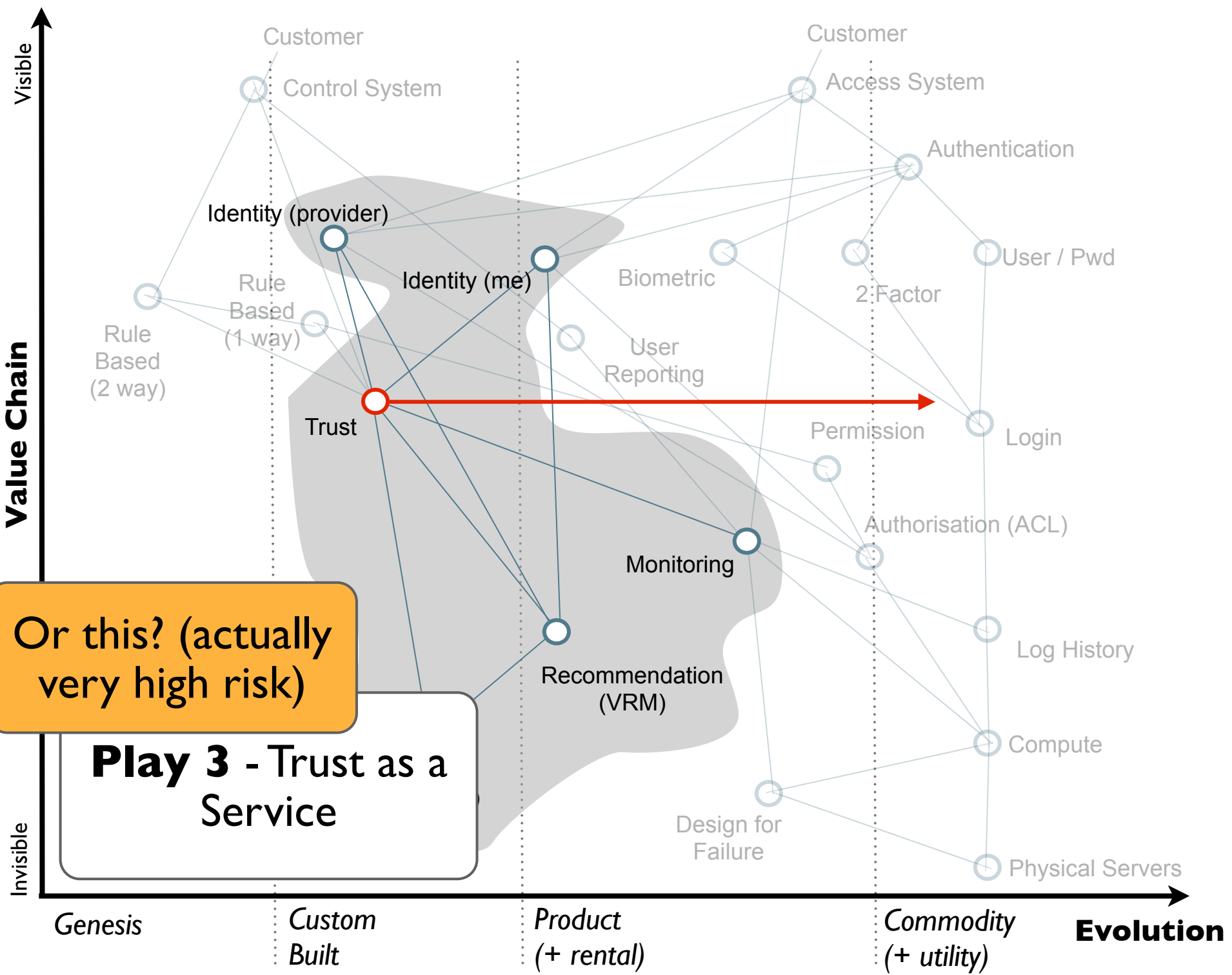
Compute

Physical Servers



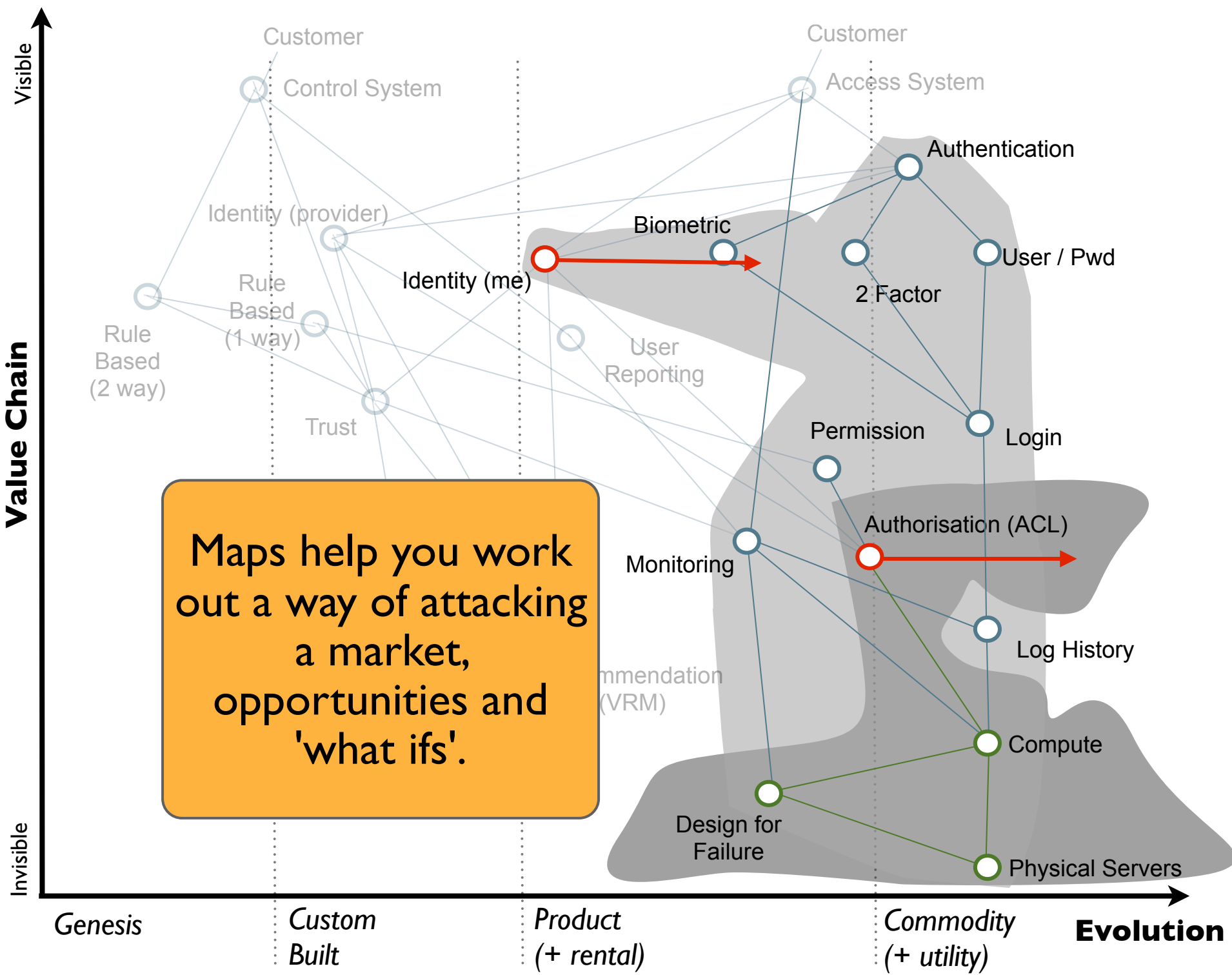
Or this? (actually high risk)

Play 2 - Gamble on Trusted Authentication



Or this? (actually very high risk)

Play 3 - Trust as a Service



Maps help you work out a way of attacking a market, opportunities and 'what ifs'.

Maps are also
good for ...

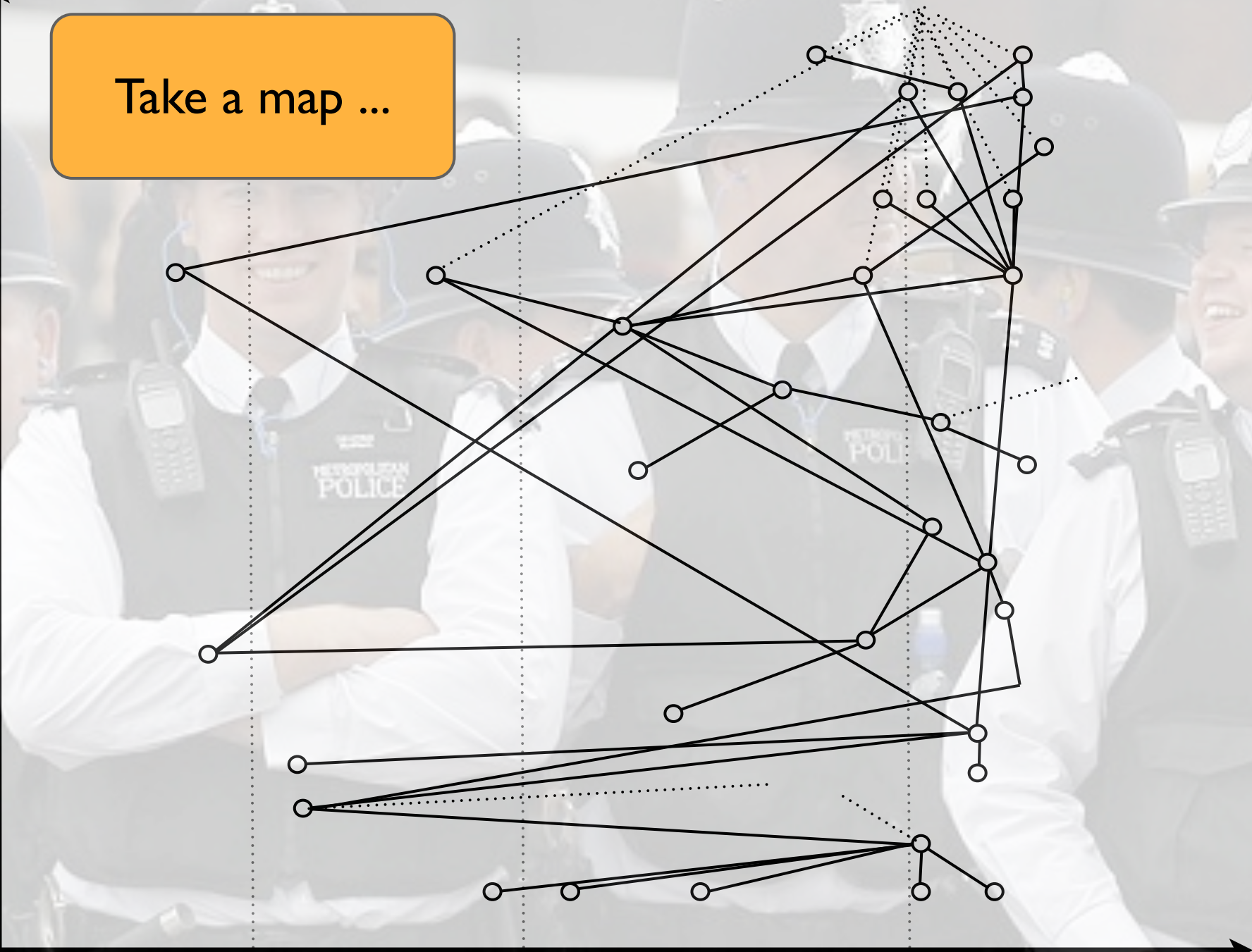
7) Comparison

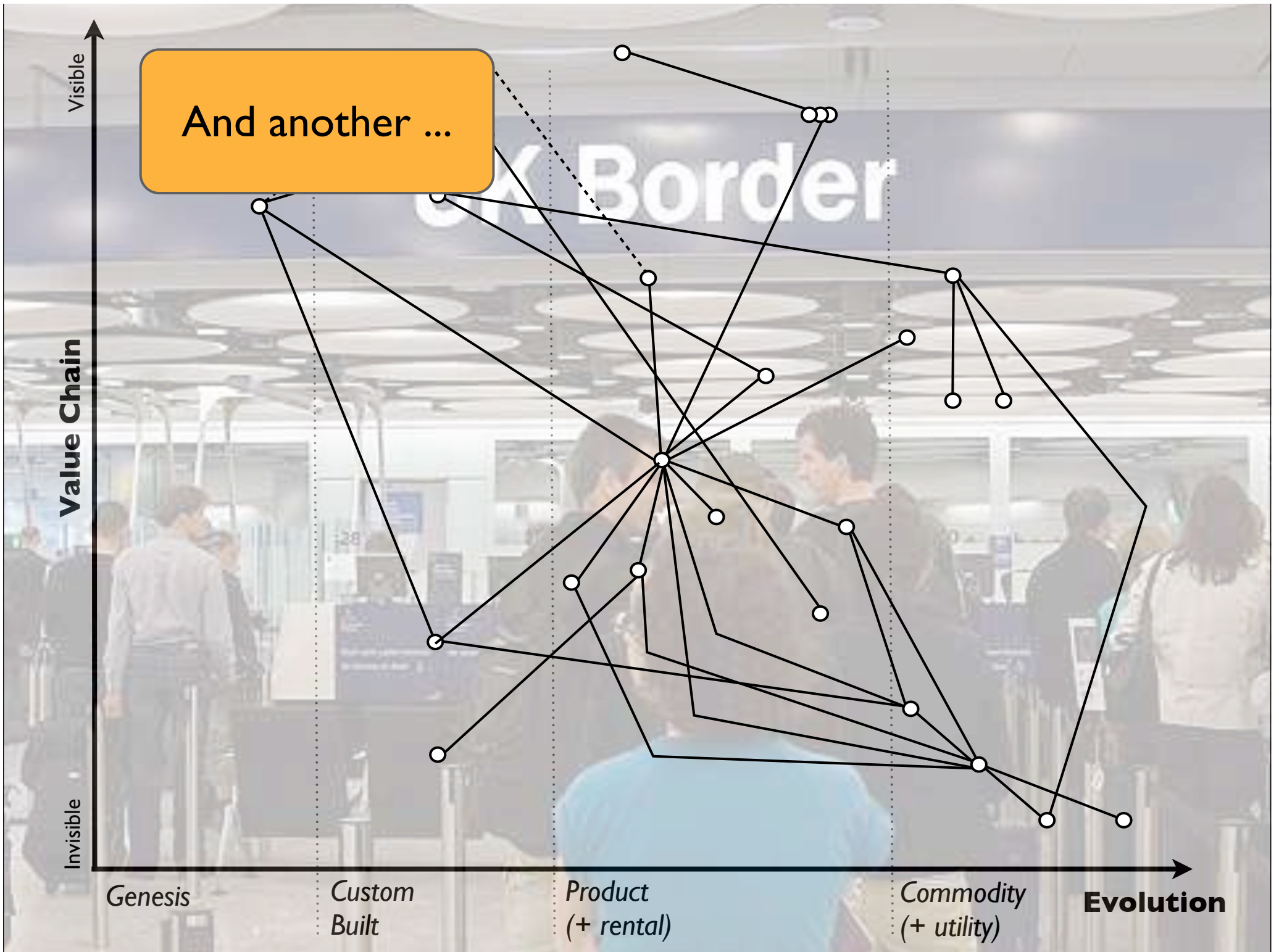
Take a map ...

Value Chain

Visible
Invisible

Genesis Custom Built Product (+ rental) Commodity (+ utility) Evolution





Visible

And another ...

Value Chain

Invisible

you can find opportunities between them

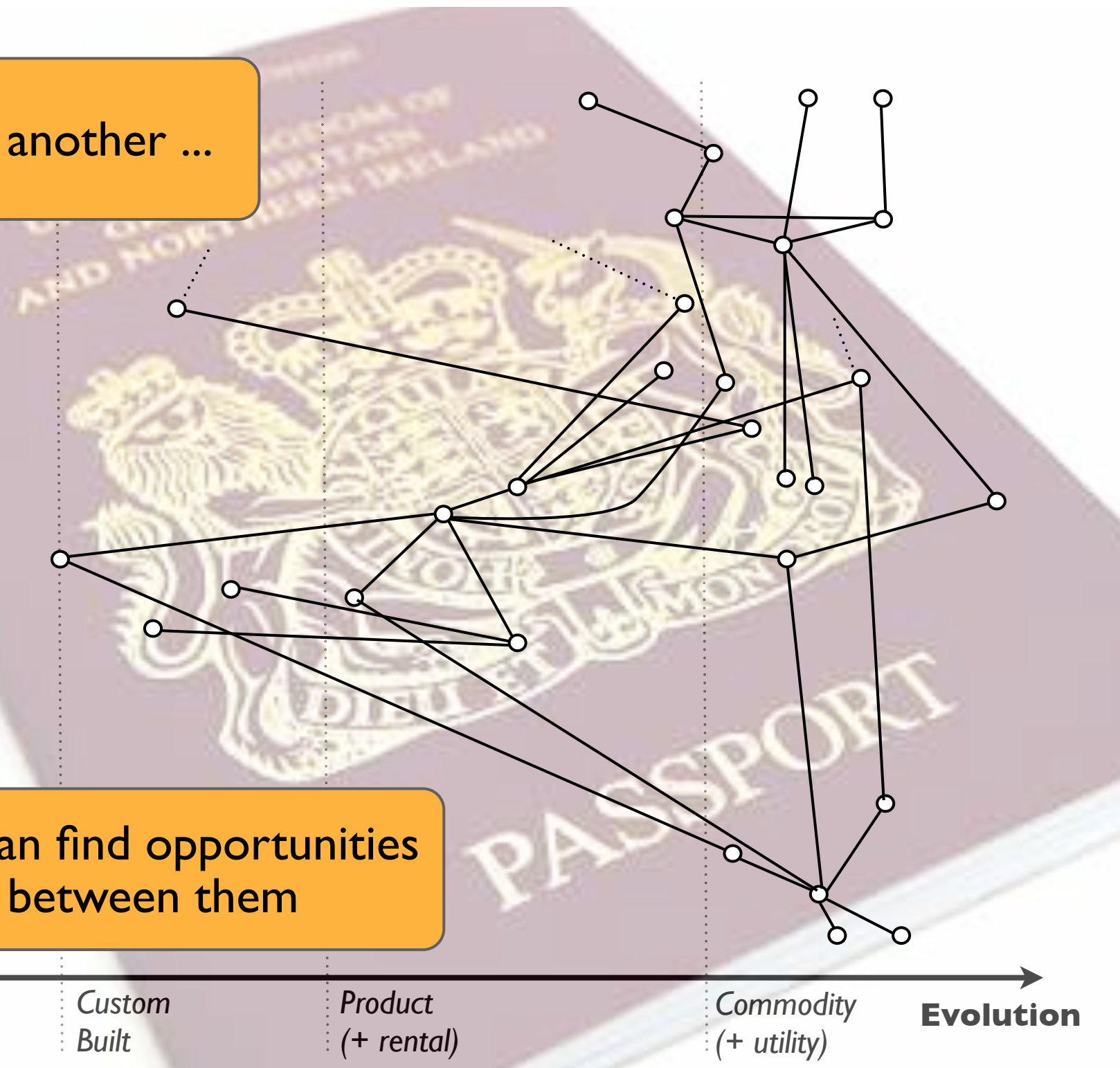
Genesis

Custom
Built

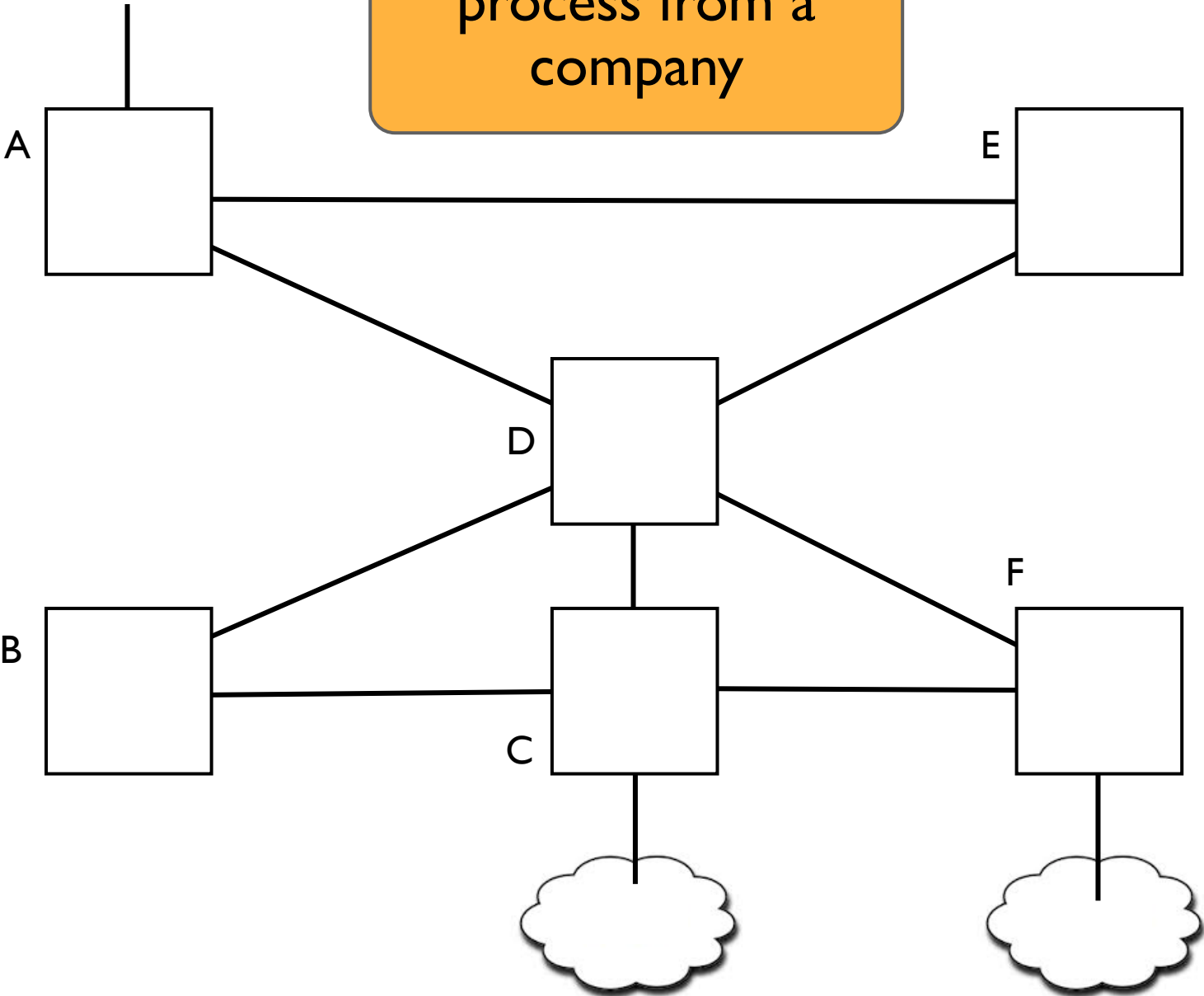
Product
(+ rental)

Commodity
(+ utility)

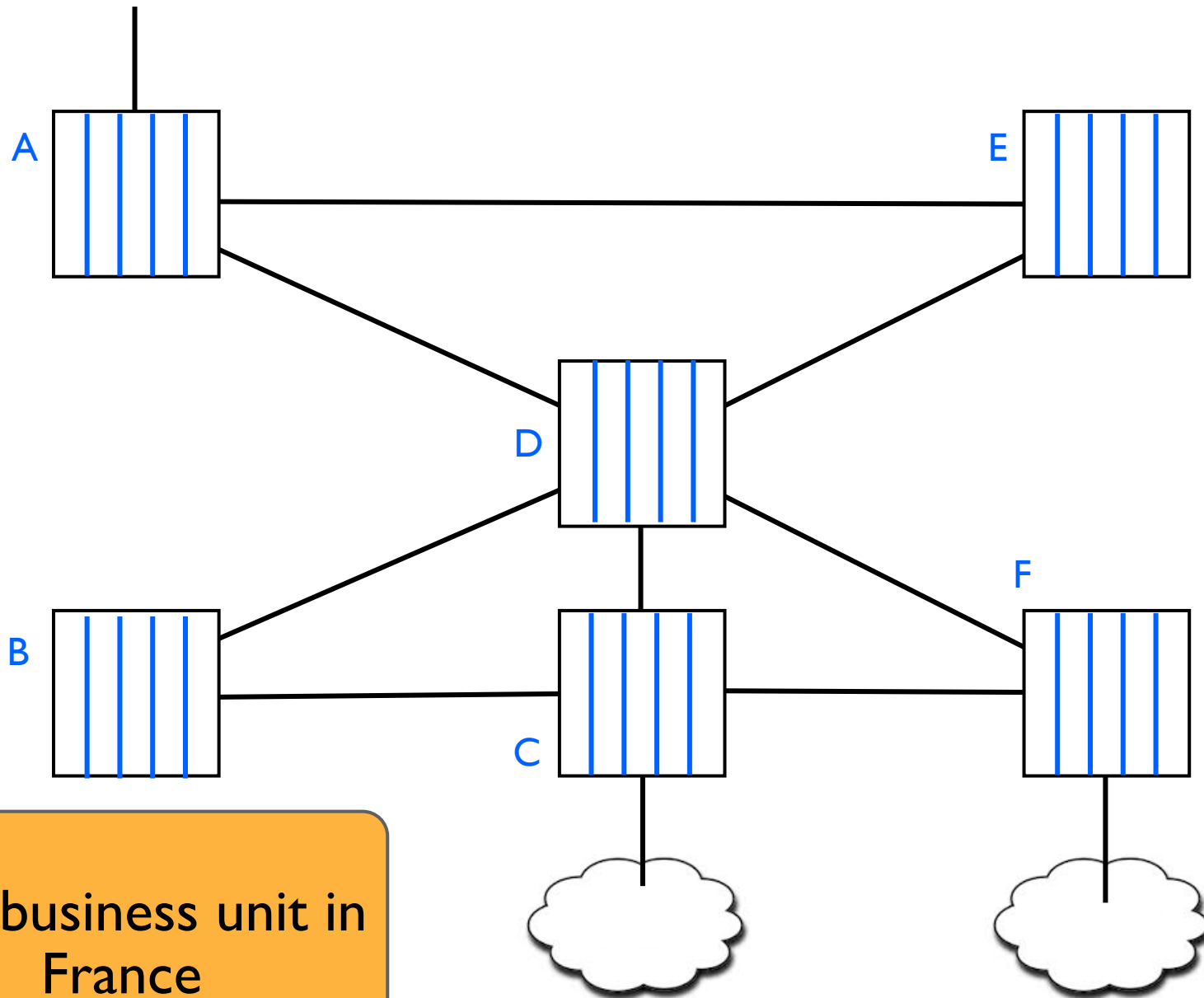
Evolution



For example - a process from a company

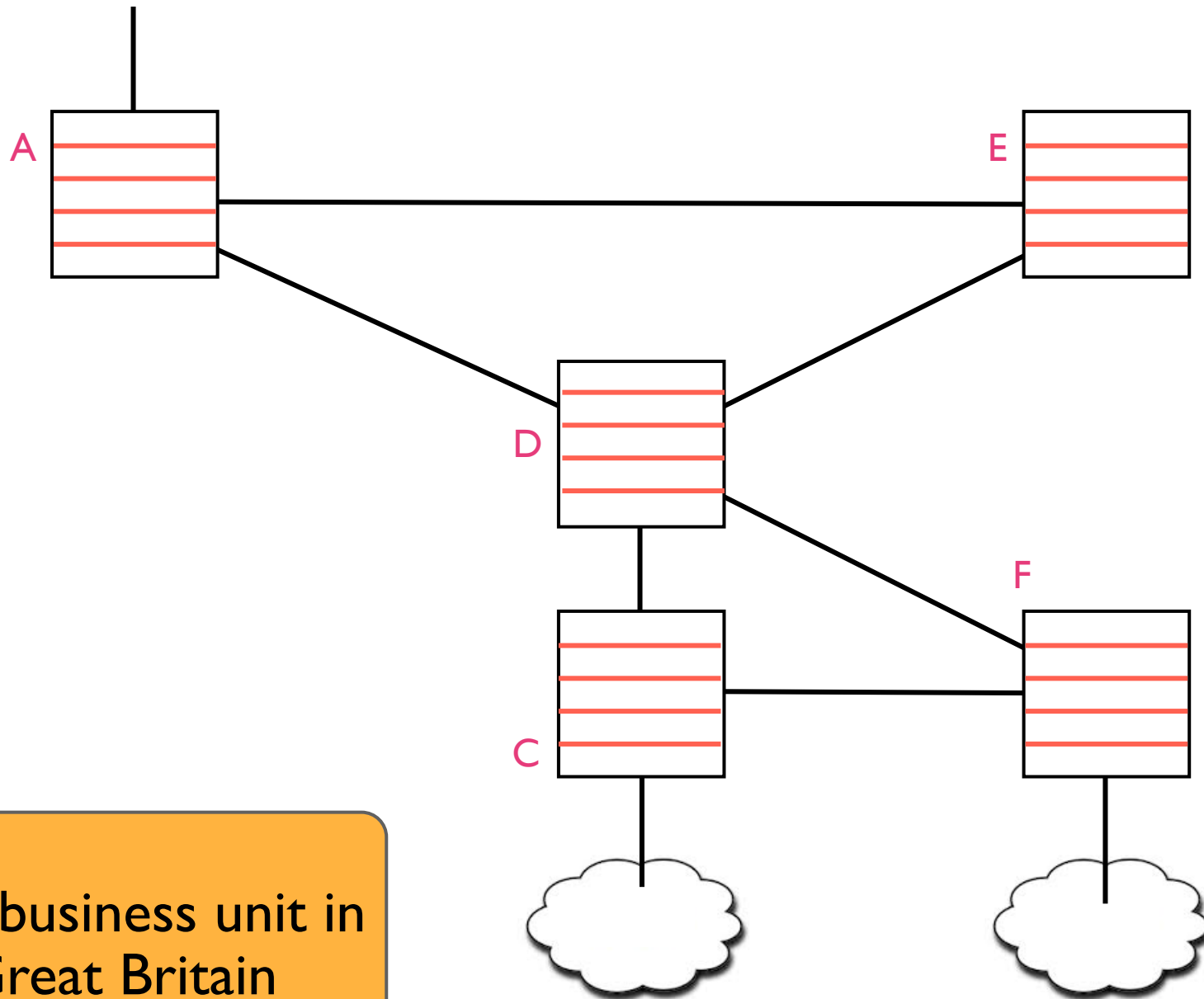


Business Unit **FR**



One business unit in
France

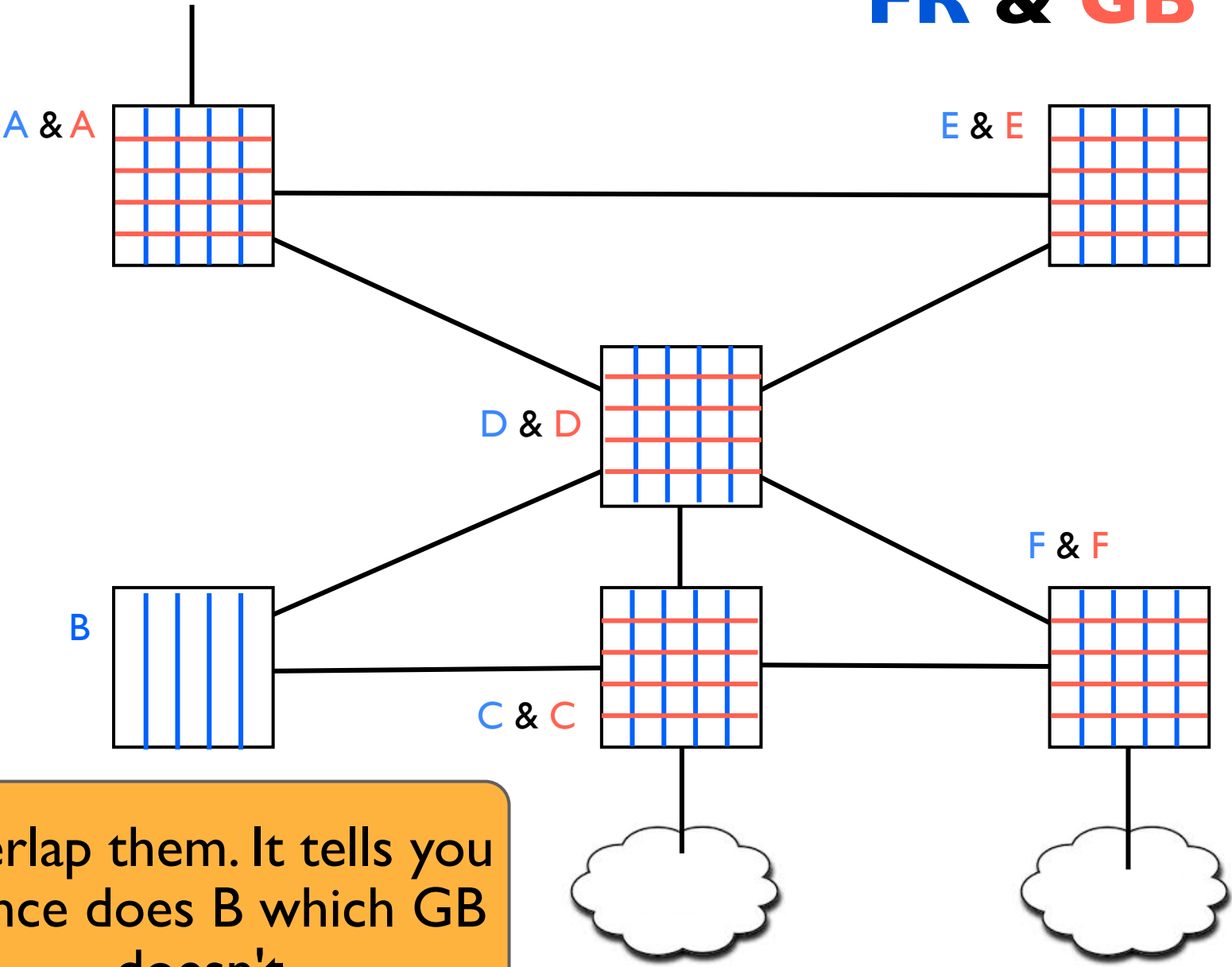
Business Unit GB



One business unit in
Great Britain

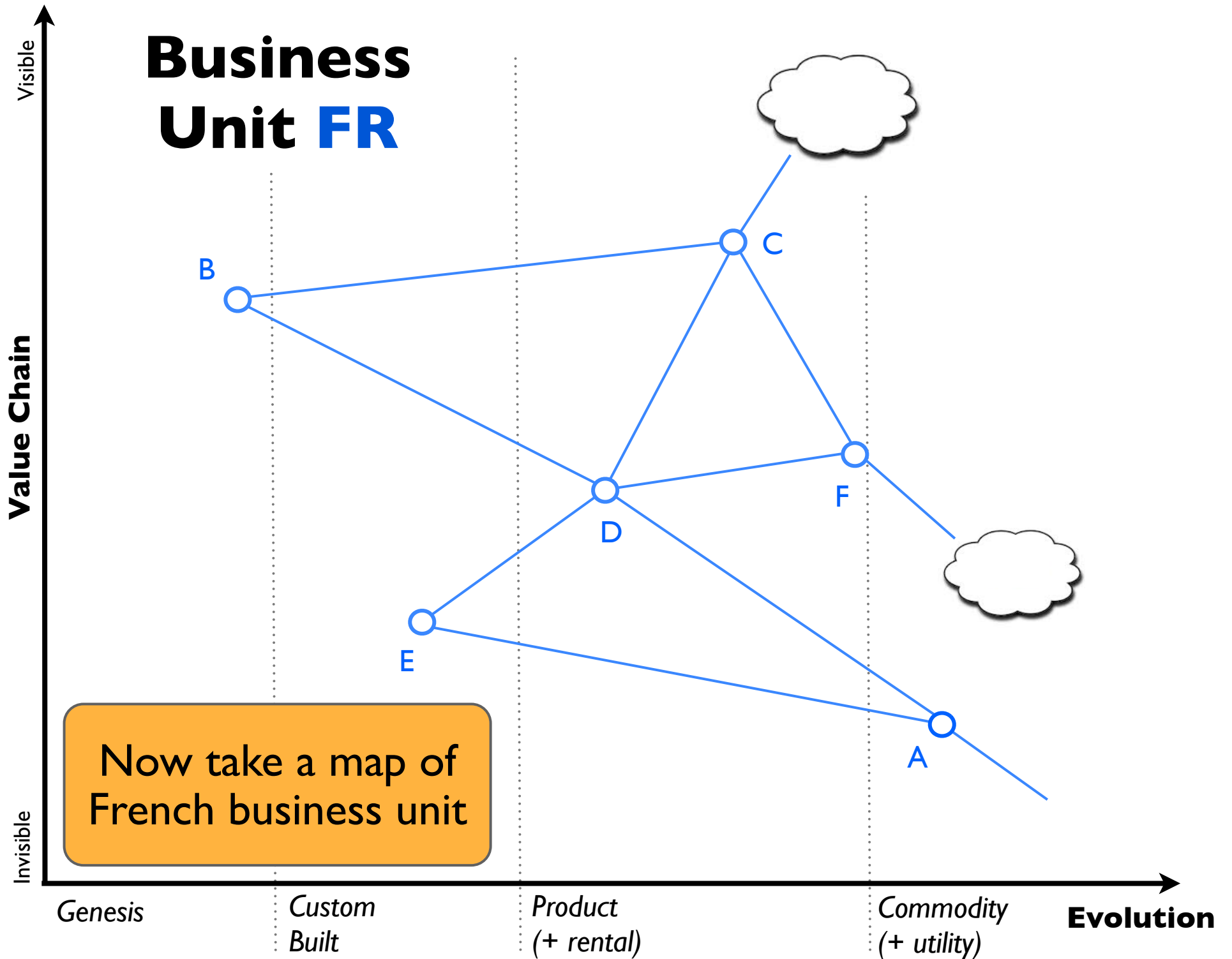
Business Unit

FR & GB

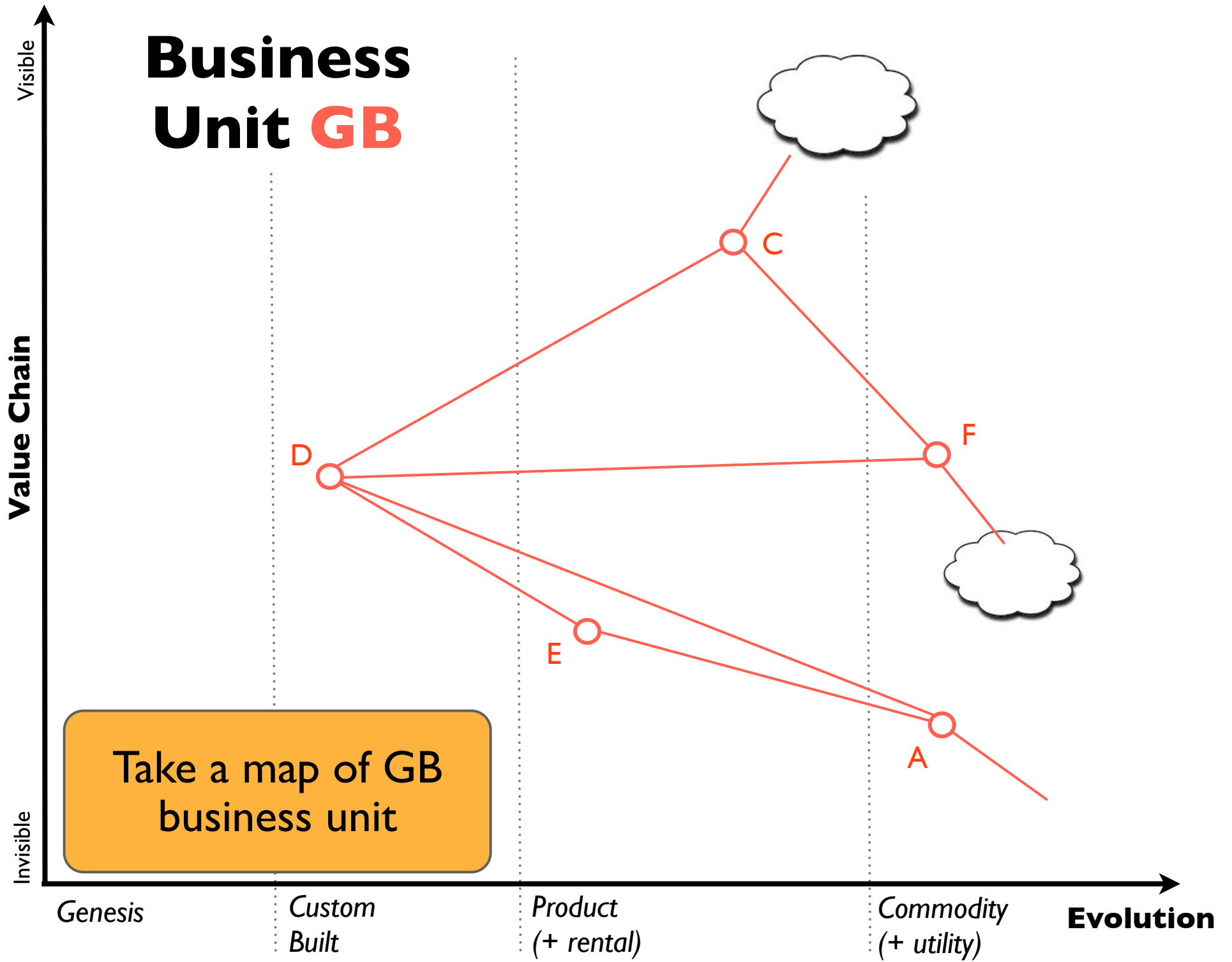


Overlap them. It tells you France does B which GB doesn't

Business Unit FR

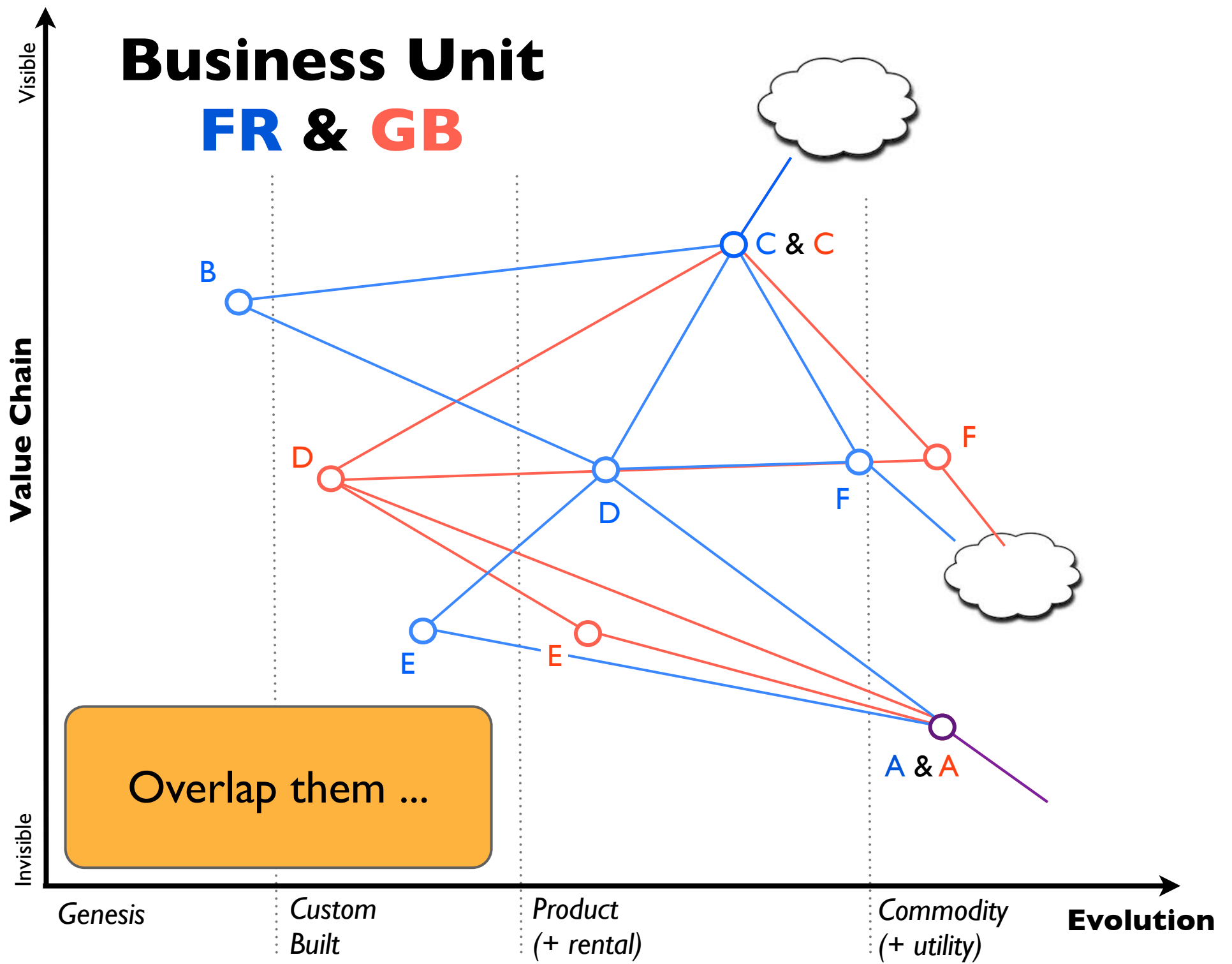


Business Unit GB



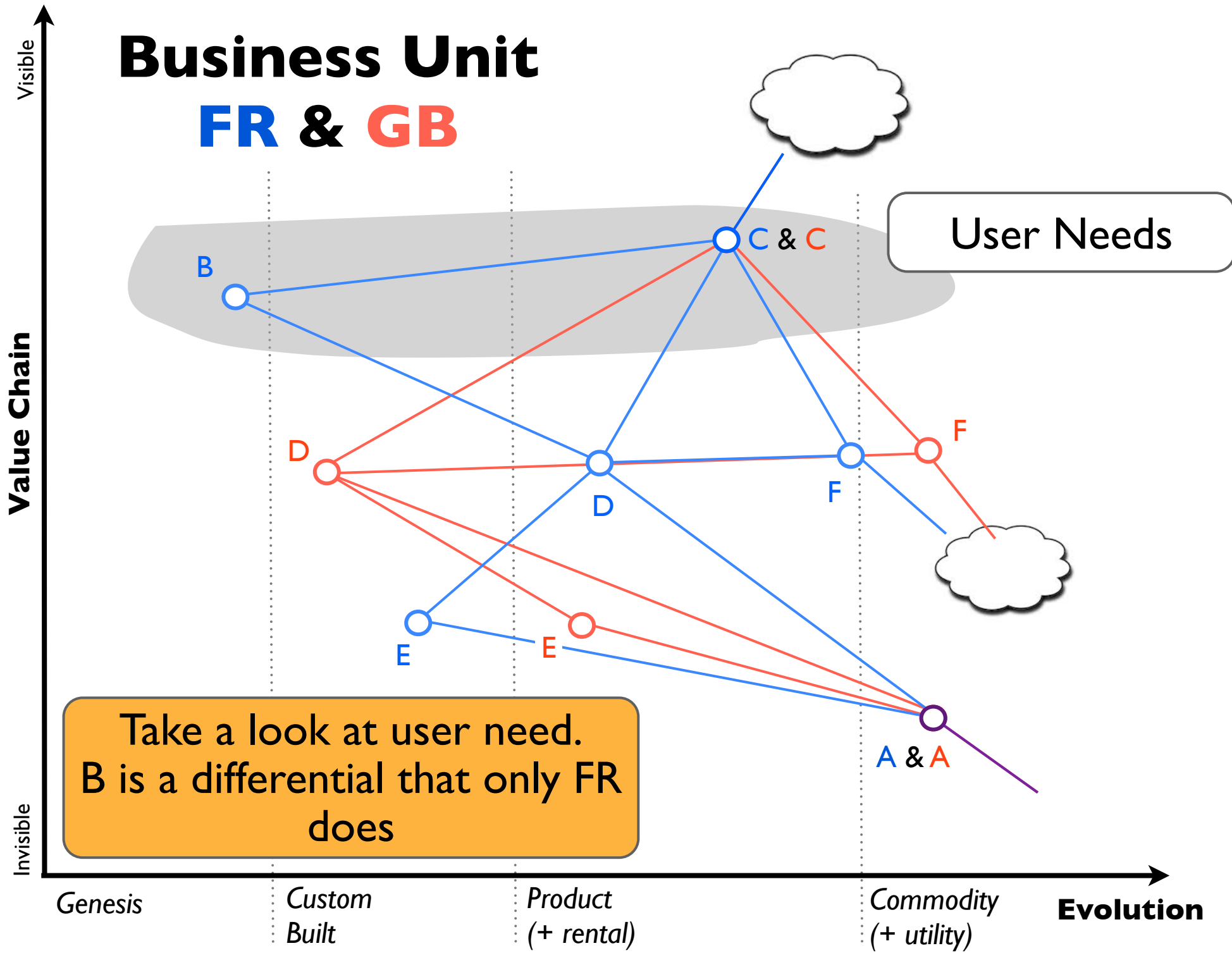
Business Unit

FR & GB



Business Unit

FR & GB



Business Unit

FR & GB

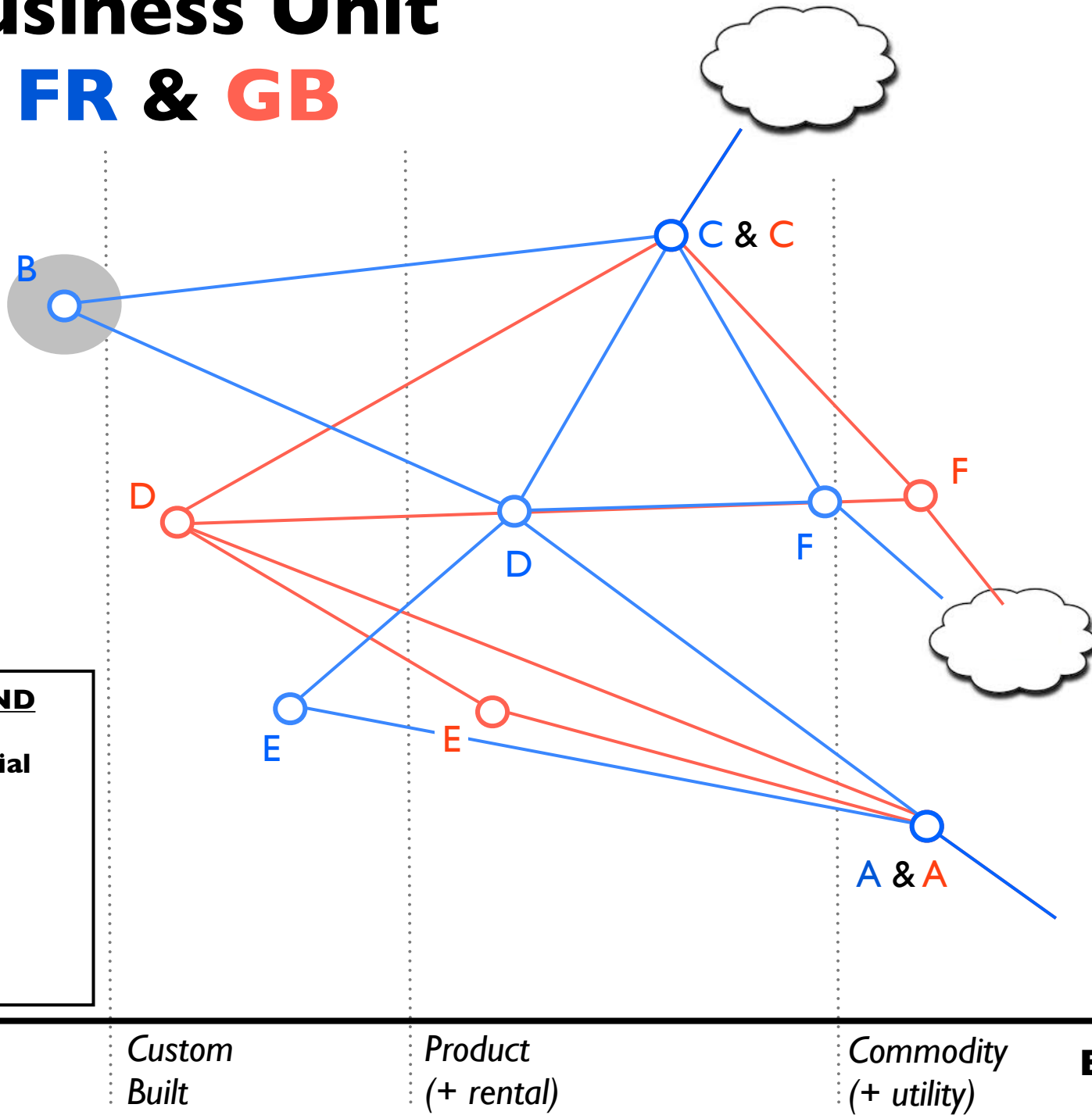
Visible

Value Chain

LEGEND

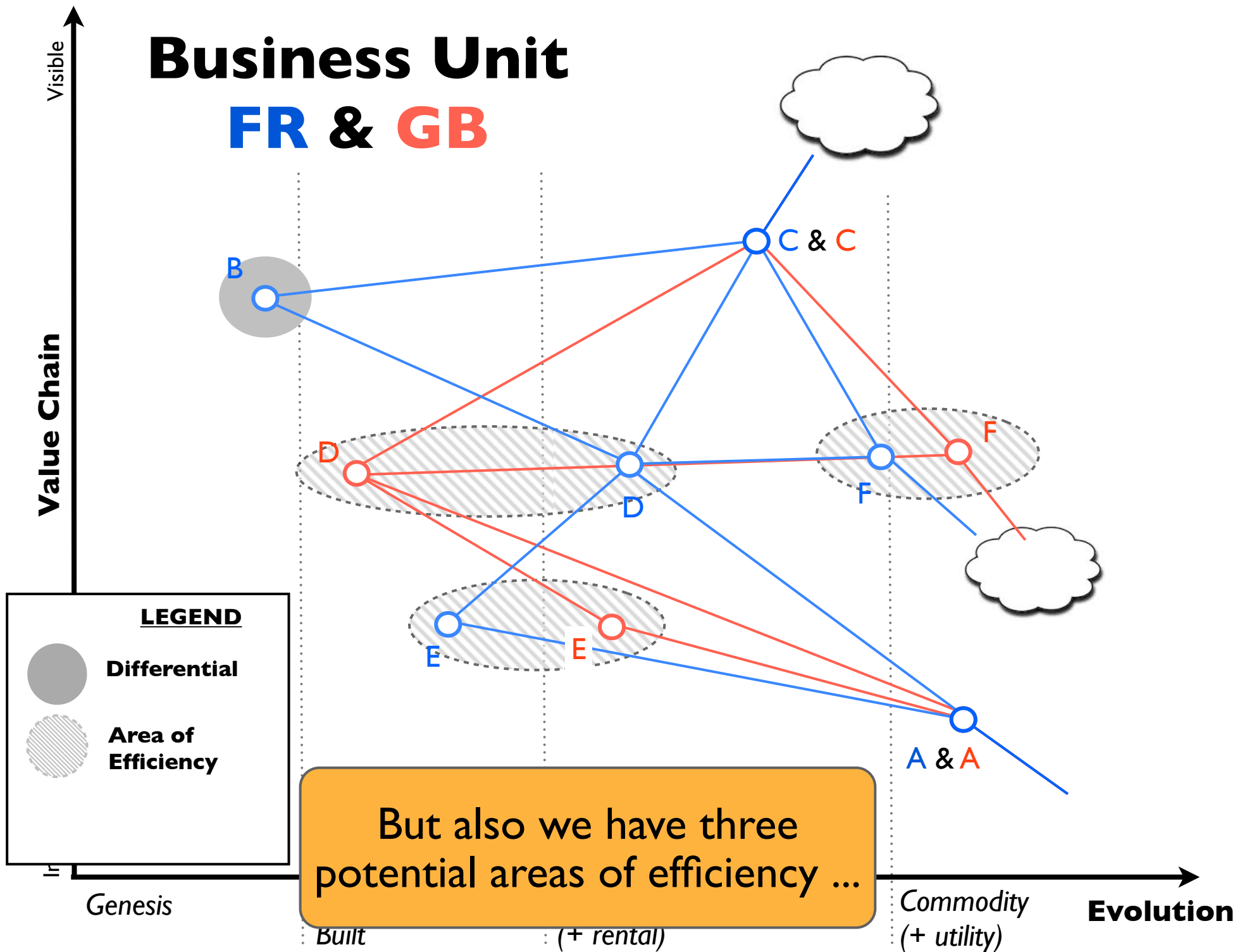


Differential



Business Unit

FR & GB






Business Unit

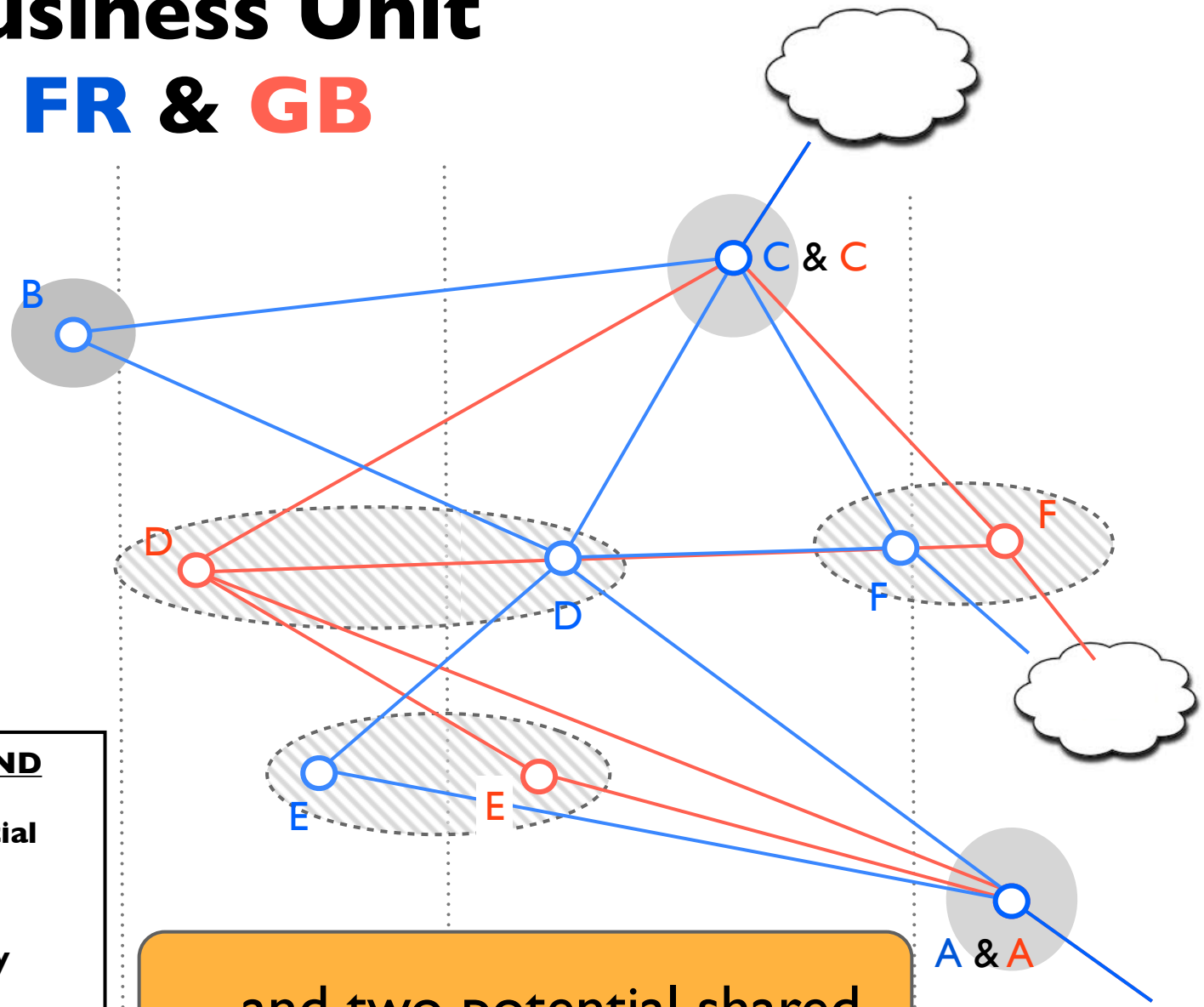
FR & GB

Visible

Value Chain

LEGEND

-  **Differential**
-  **Area of Efficiency**
-  **Common / Shared**



... and two potential shared services.

Genesis

Custom Built

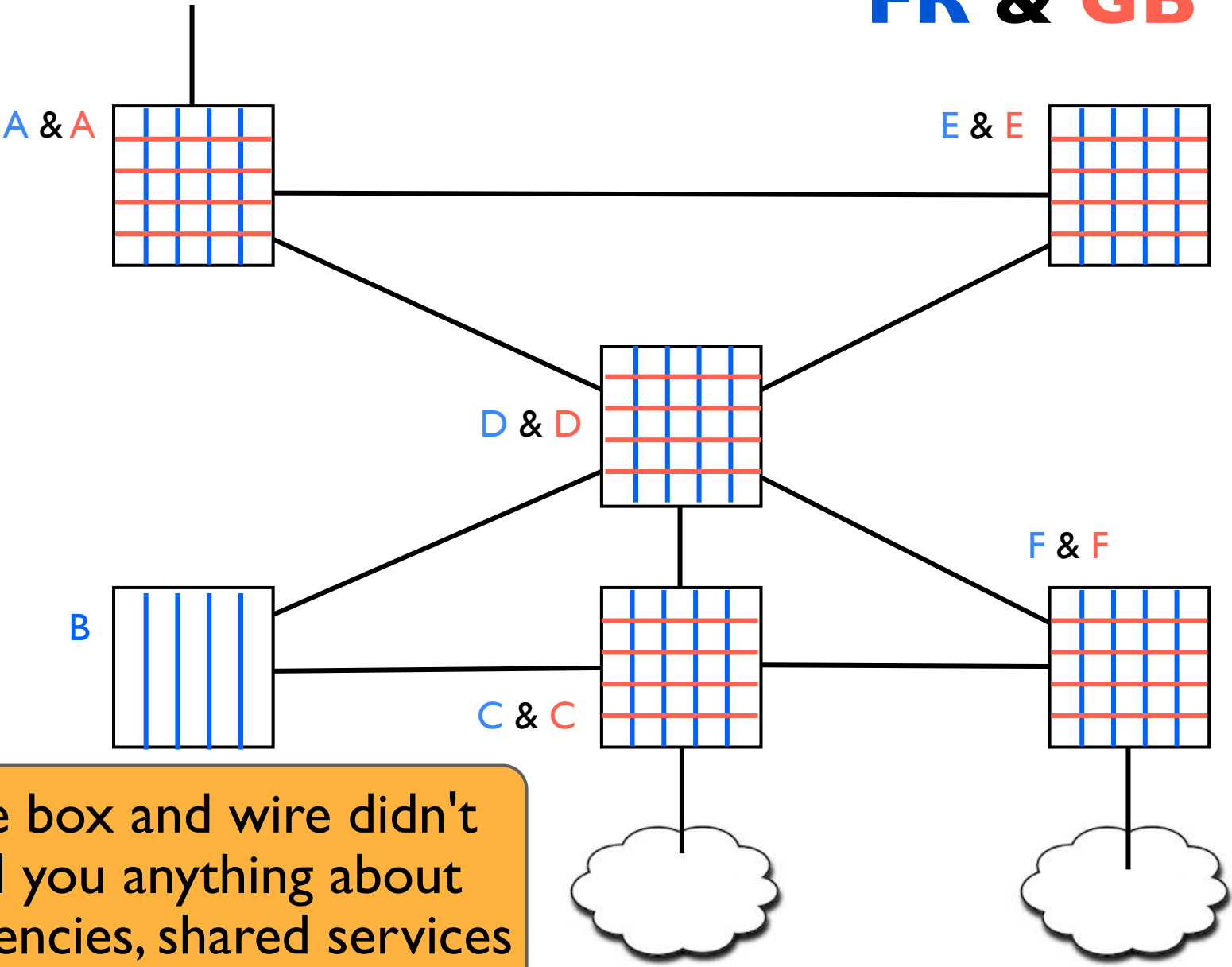
Product (+ rental)

Commodity (+ utility)

Evolution

Business Unit

FR & GB



The box and wire didn't tell you anything about efficiencies, shared services or what B was.

TABV. NOVA PARTIS AFRICAE

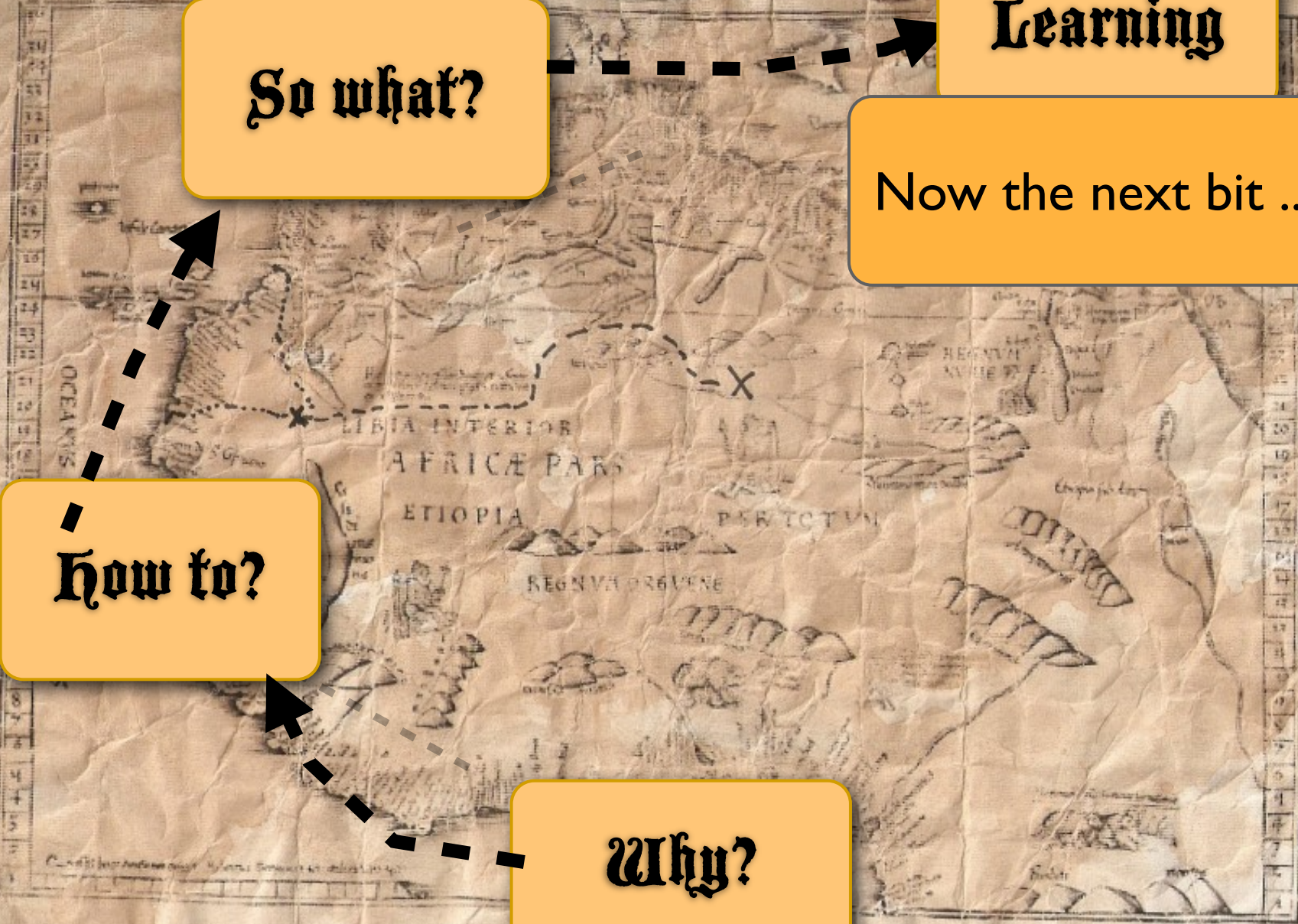
So what?

Learning

Now the next bit ...

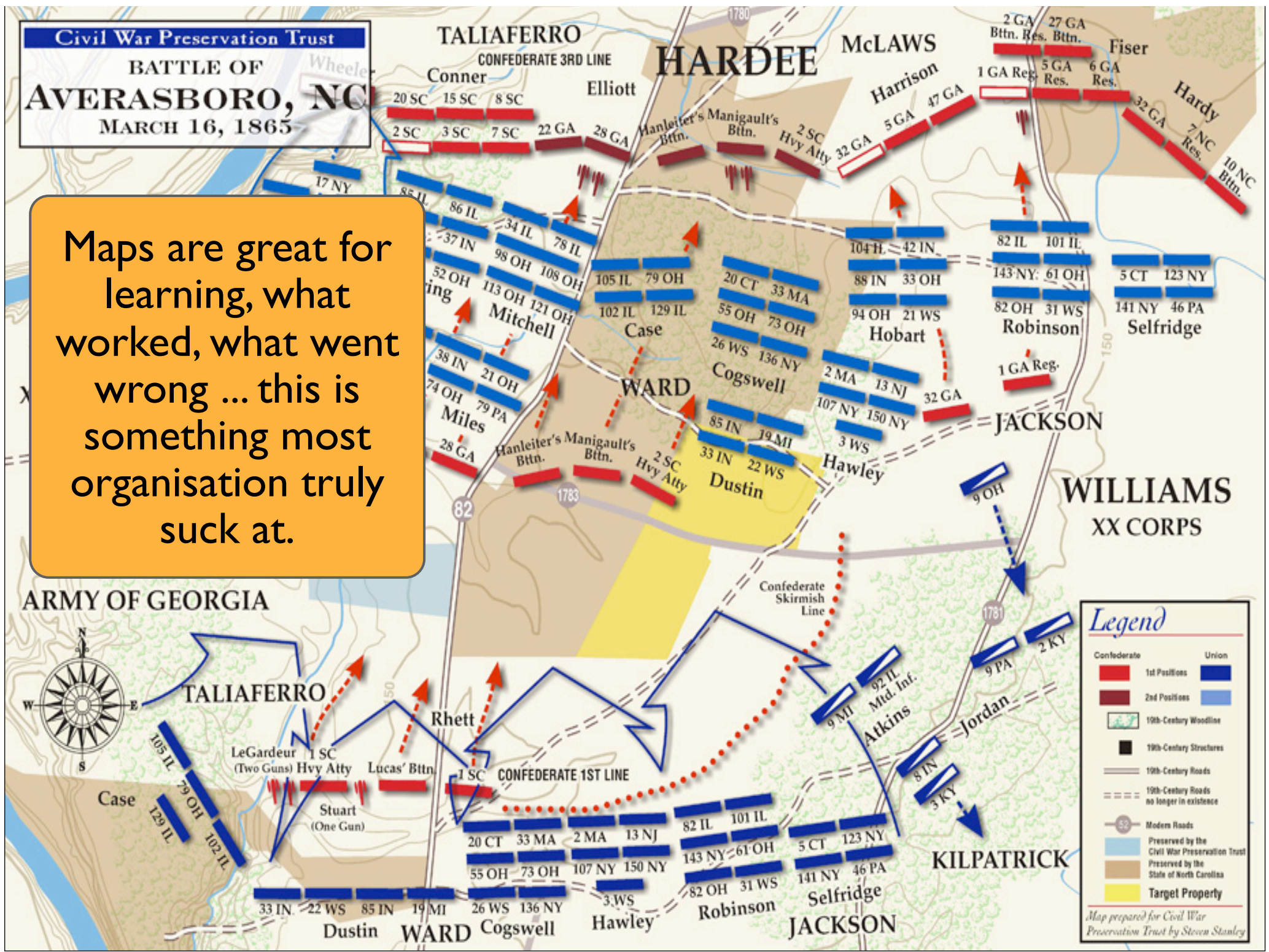
How to?

Why?



Civil War Preservation Trust
**BATTLE OF
 AVERASBORO, NC**
 MARCH 16, 1865

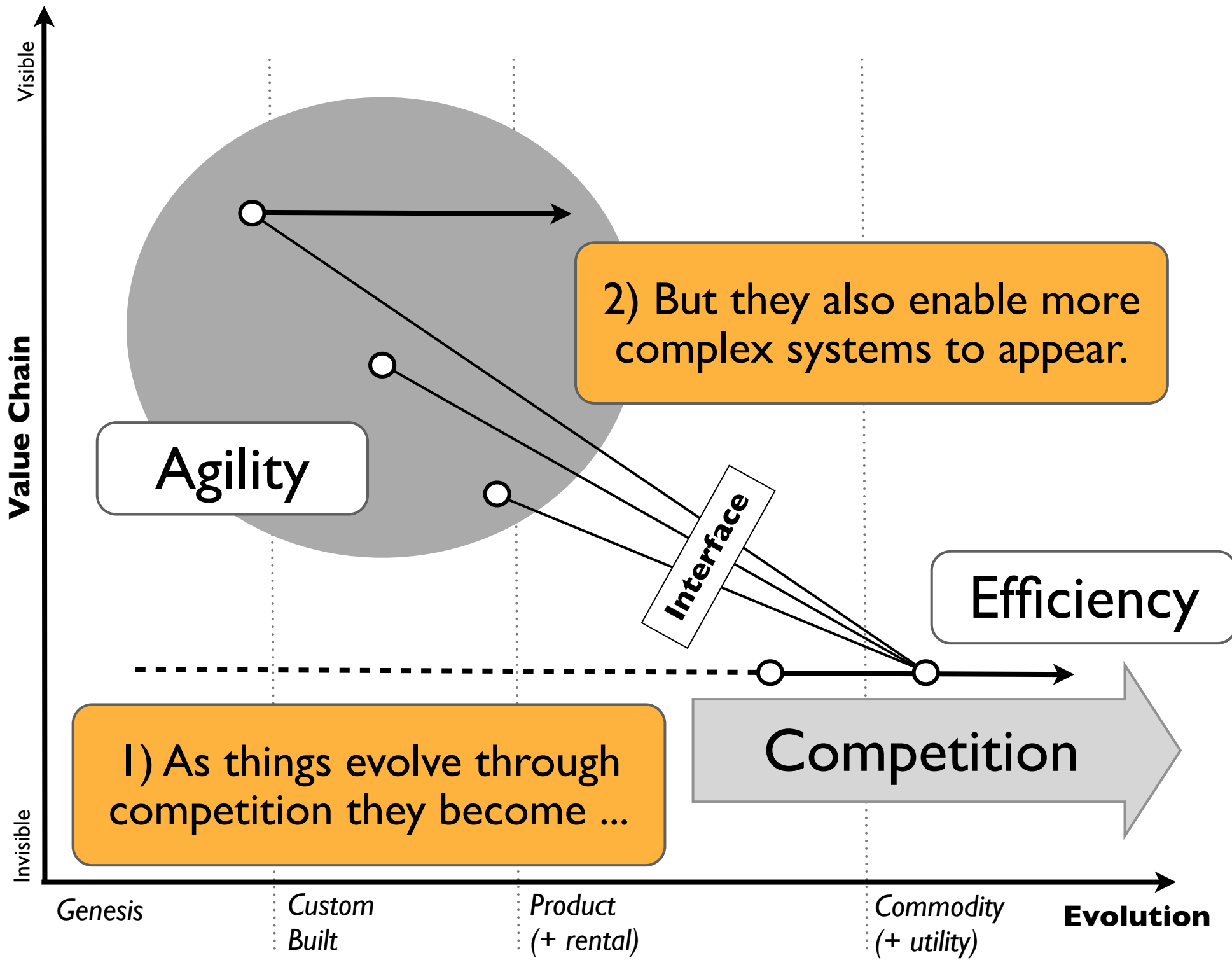
Maps are great for learning, what worked, what went wrong ... this is something most organisation truly suck at.

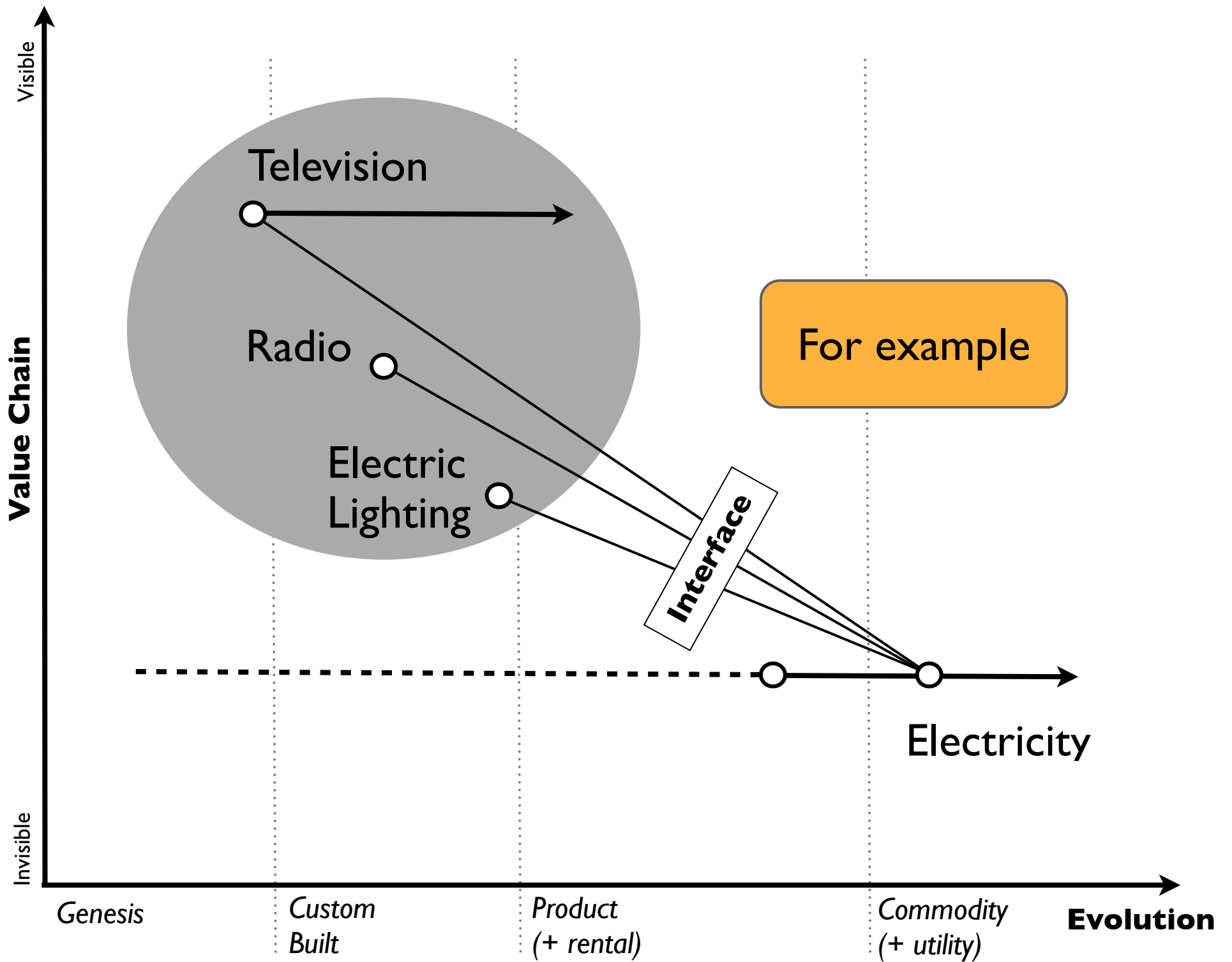


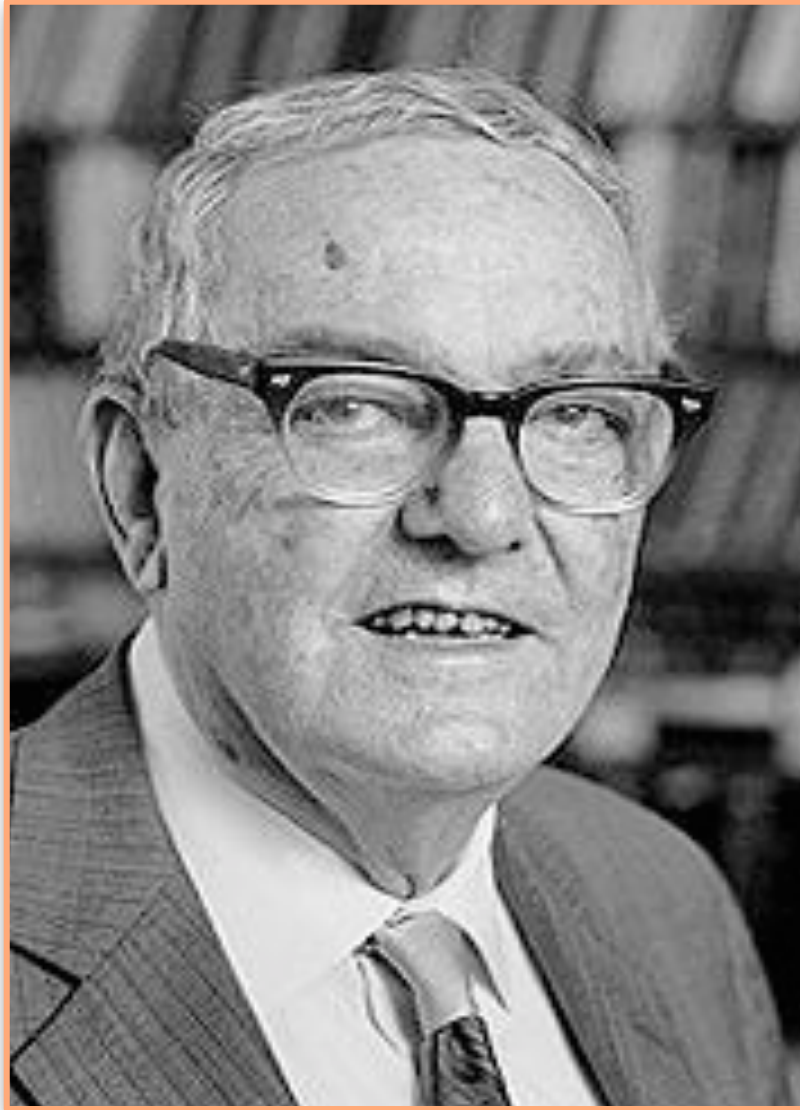
You can use maps to
learning basic economic
lessons and patterns ...

Pattern I

Efficiency enables Innovation

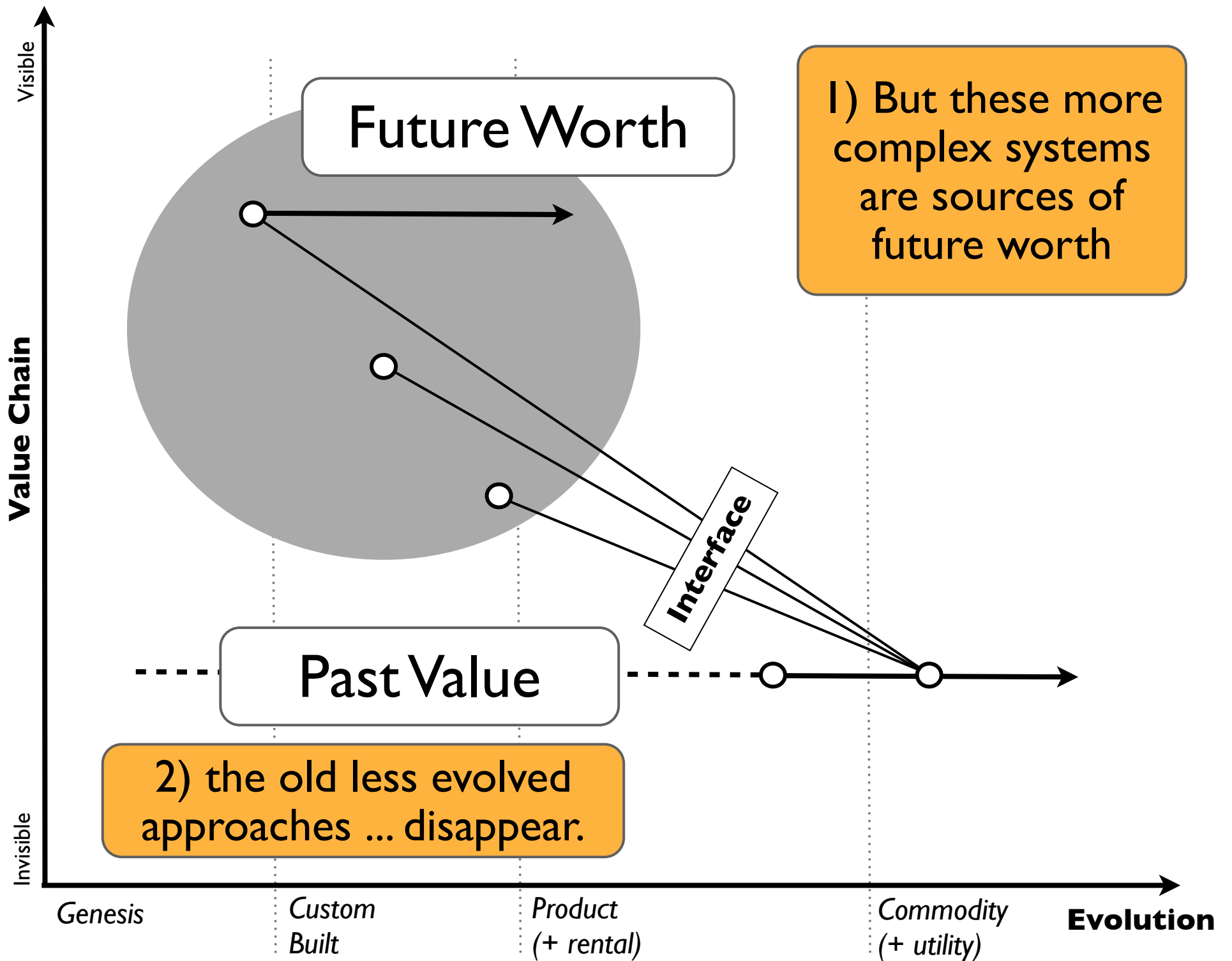






This effect is
known as ...

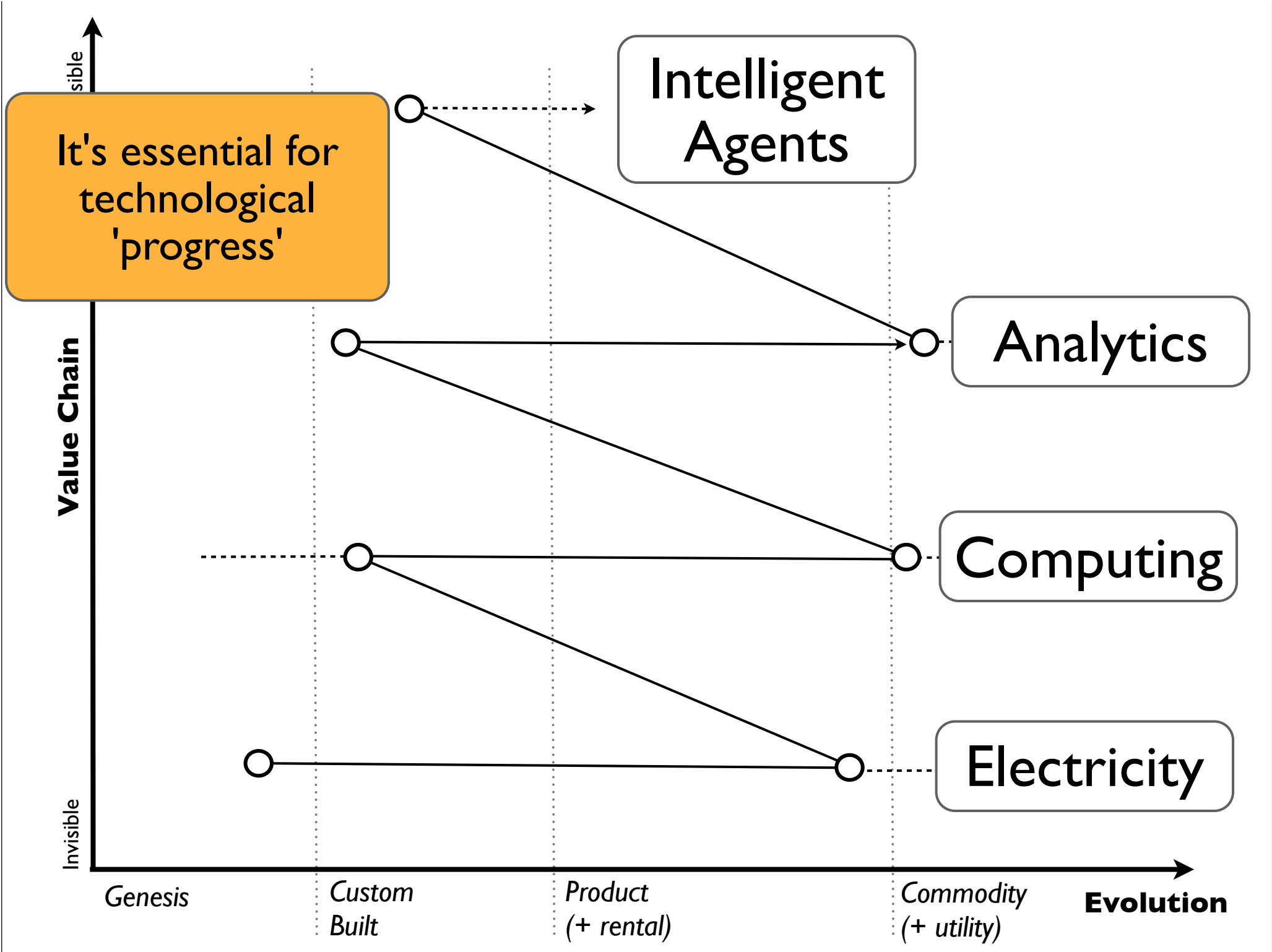
Componentisation Herbert Simon





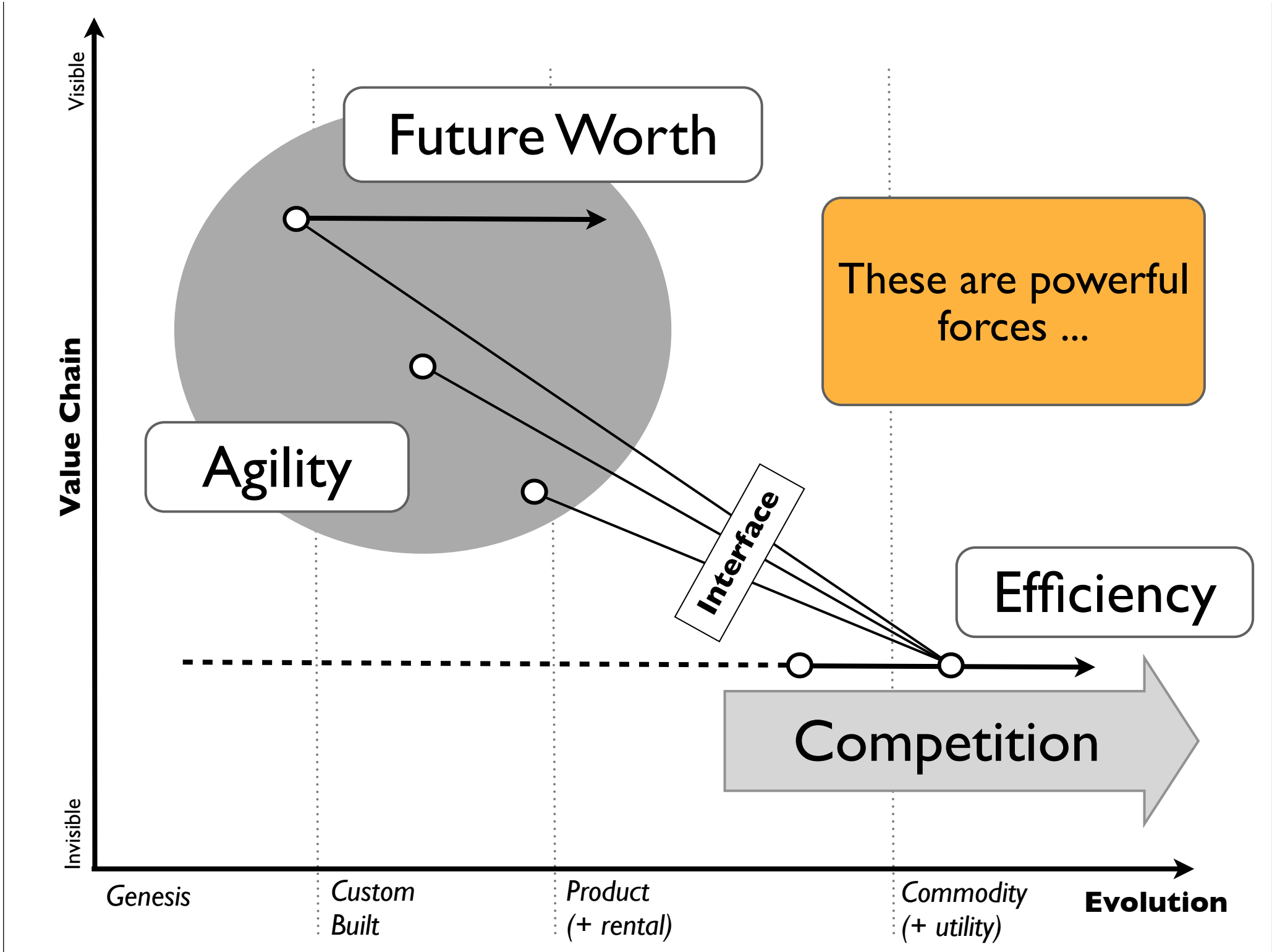
This destruction of past and
creation of new future
sources of value is called ...

Creative Destruction Joseph Schumpeter

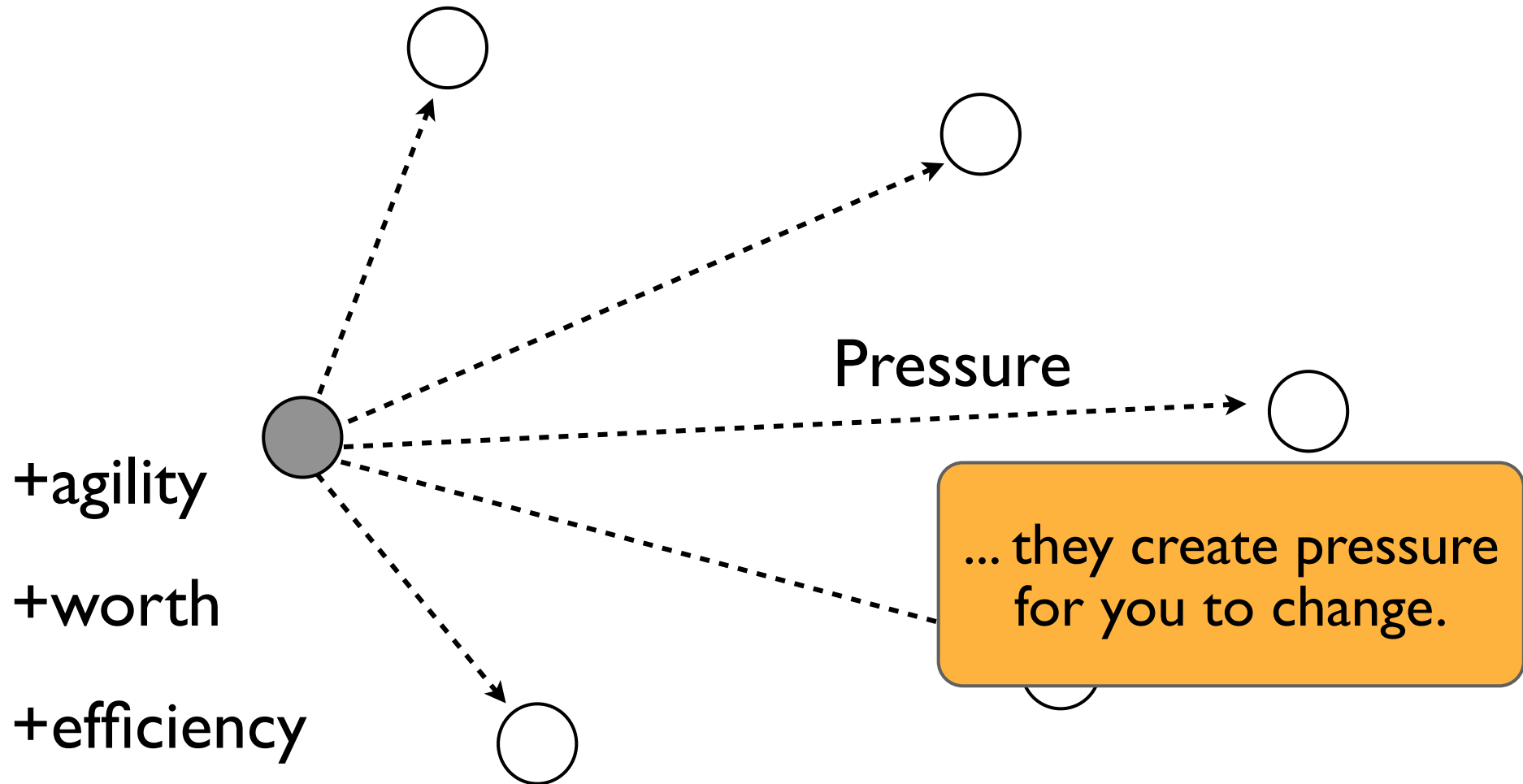


Pattern 2

Choice is an illusion

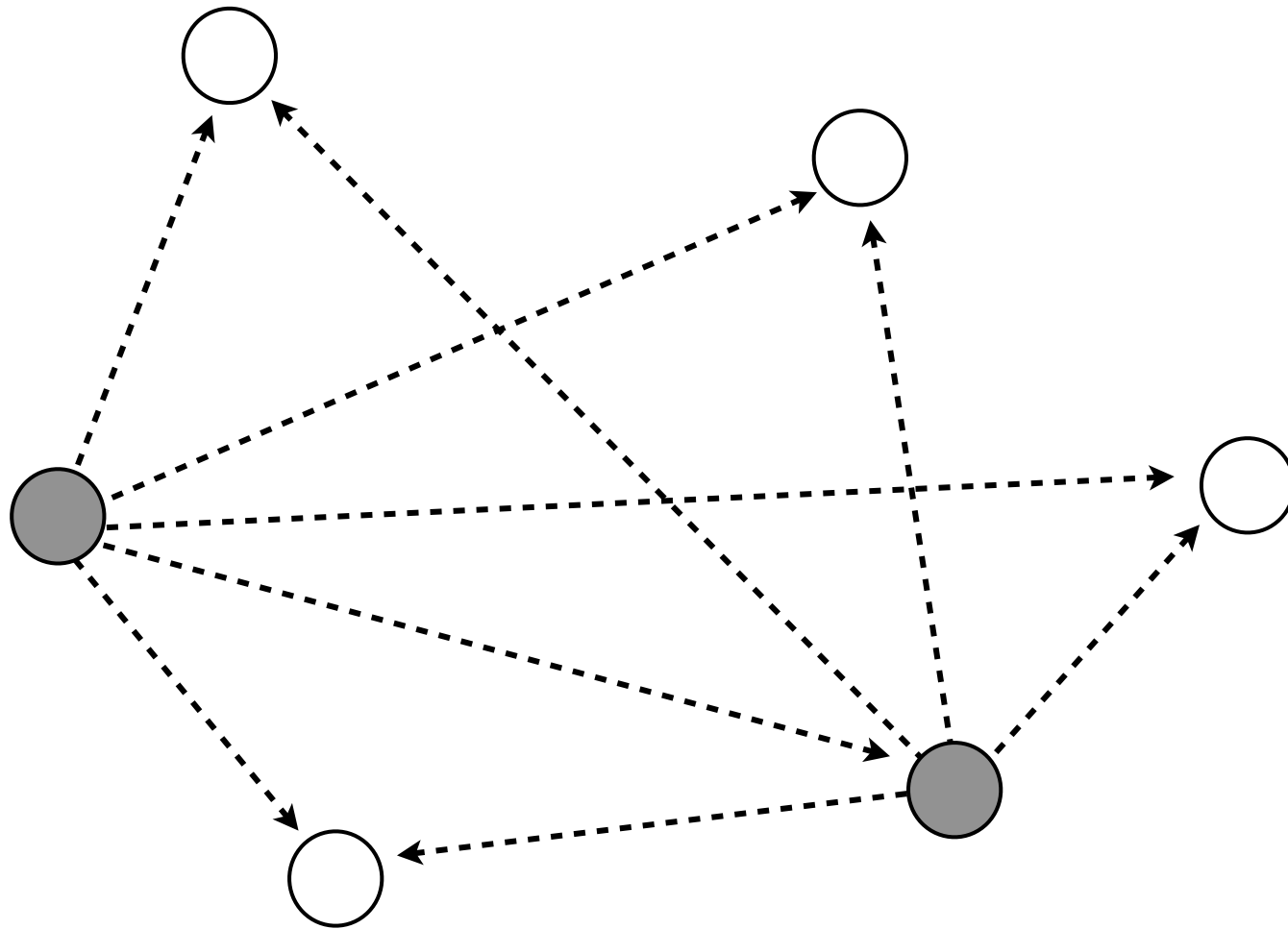


If you're competing against someone more efficient, agile and able to create worth ...

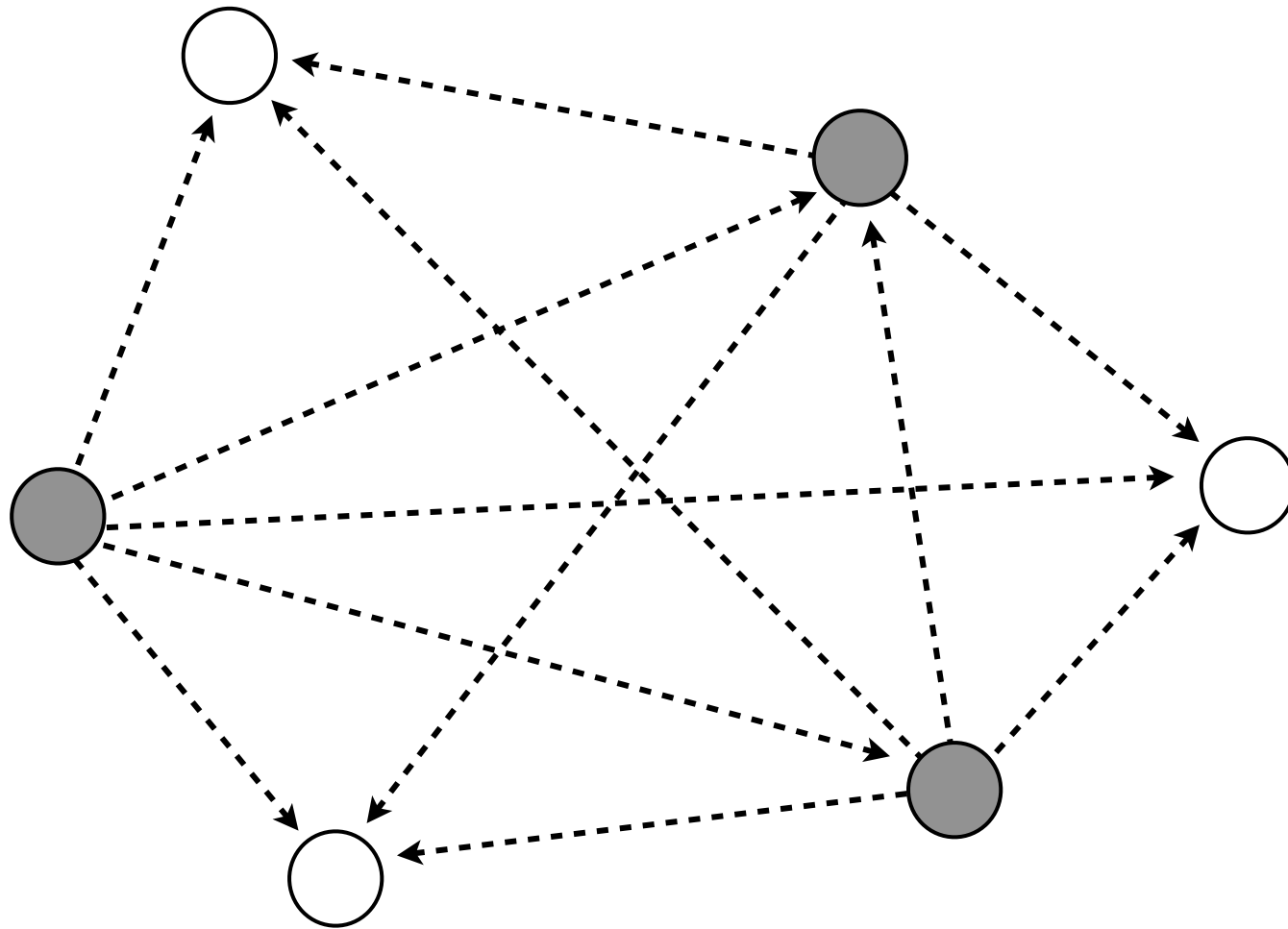


Alas, this pressure...

Trickle ...



Quickly mounts up as more adapt



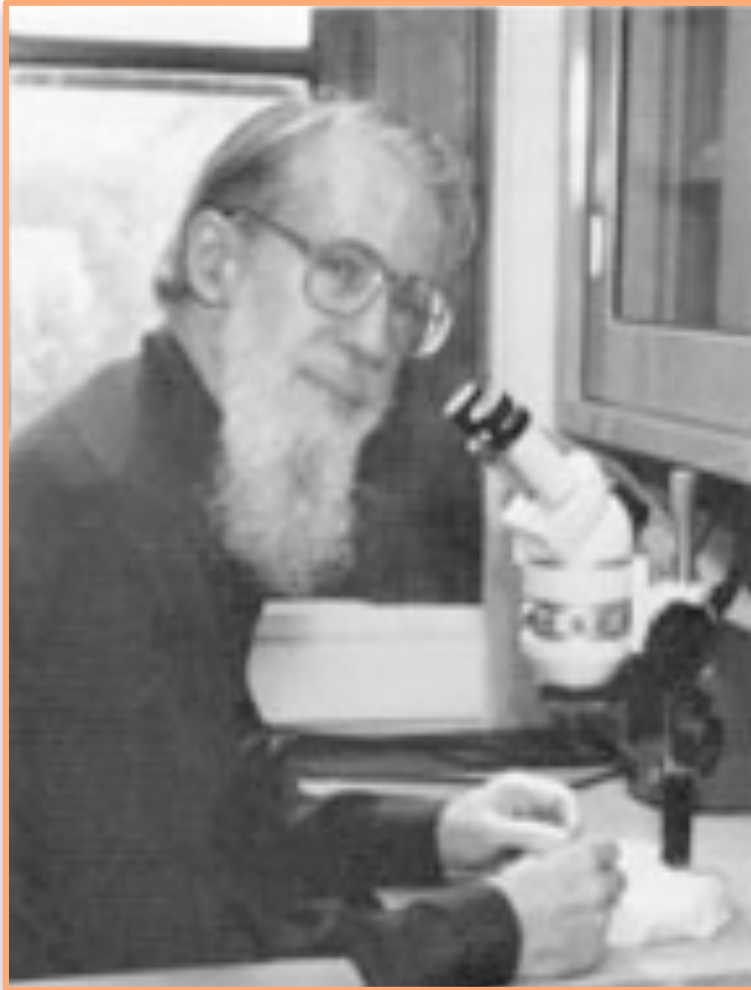
Becoming a

... Flood

This is known as ...

“Red Queen”

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



Prof. Van Valen

Million

\$30,000

Take Cloud - Yuk.

Look at AWS end quarter estimates and then x4 ... annual forward run rate.

NB. Ben Black proposed the idea for EC2 to Bezos in 2003

+8 yrs

\$7,500

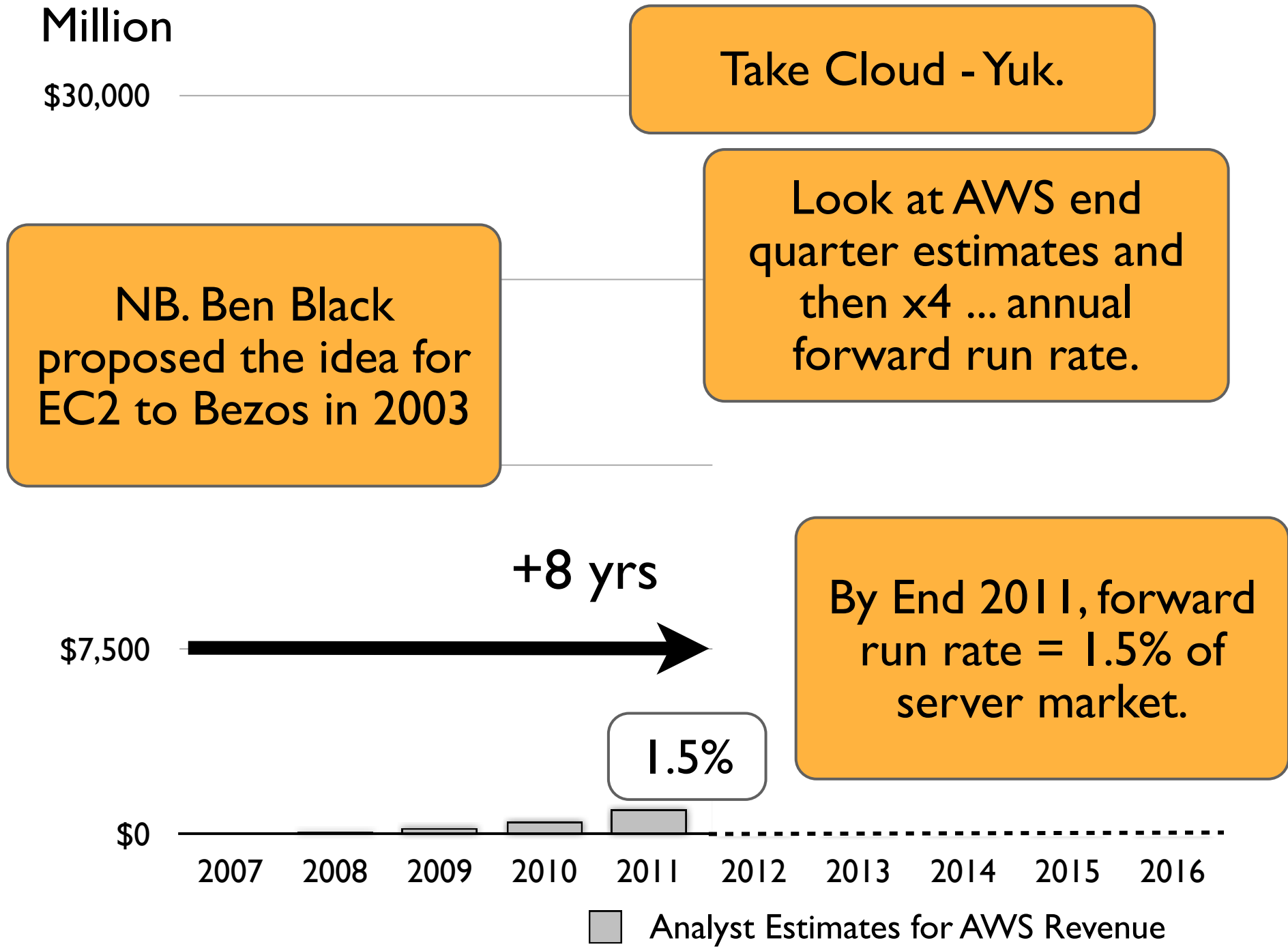
By End 2011, forward run rate = 1.5% of server market.

1.5%

\$0

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Analyst Estimates for AWS Revenue



Million

\$30,000

\$22,500

\$15,000

\$7,500

\$0

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

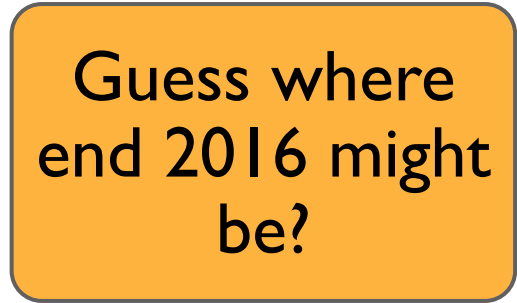
■ Analyst Estimates for AWS Revenue

By End 2013, forward run rate = 6% of server market.

+10 yrs

6%

Guess where end 2016 might be?



Million

\$30,000

\$22,500

\$

\$7,500

\$0

2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

■ Analyst Estimates for AWS Revenue

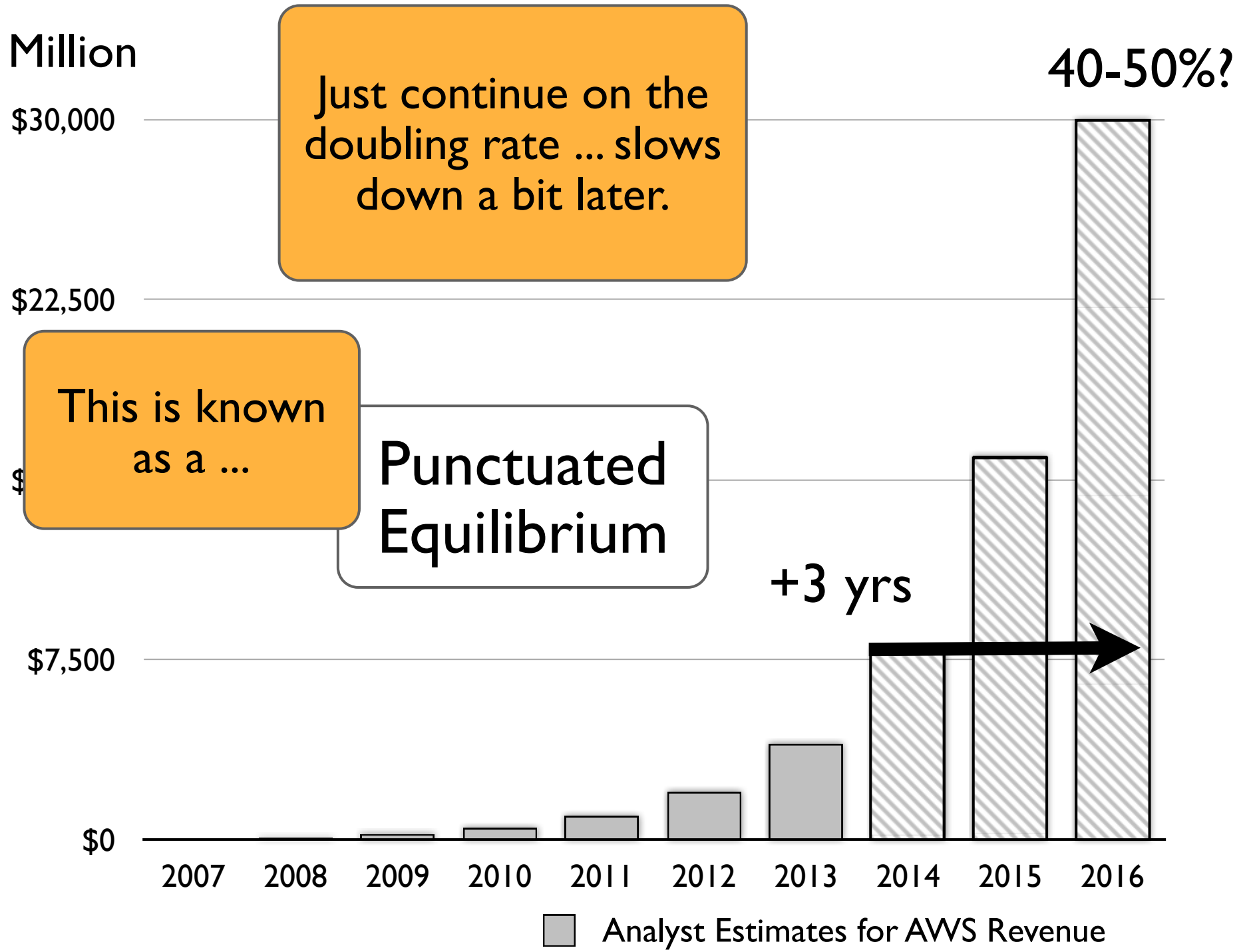
Just continue on the doubling rate ... slows down a bit later.

This is known as a ...

Punctuated Equilibrium

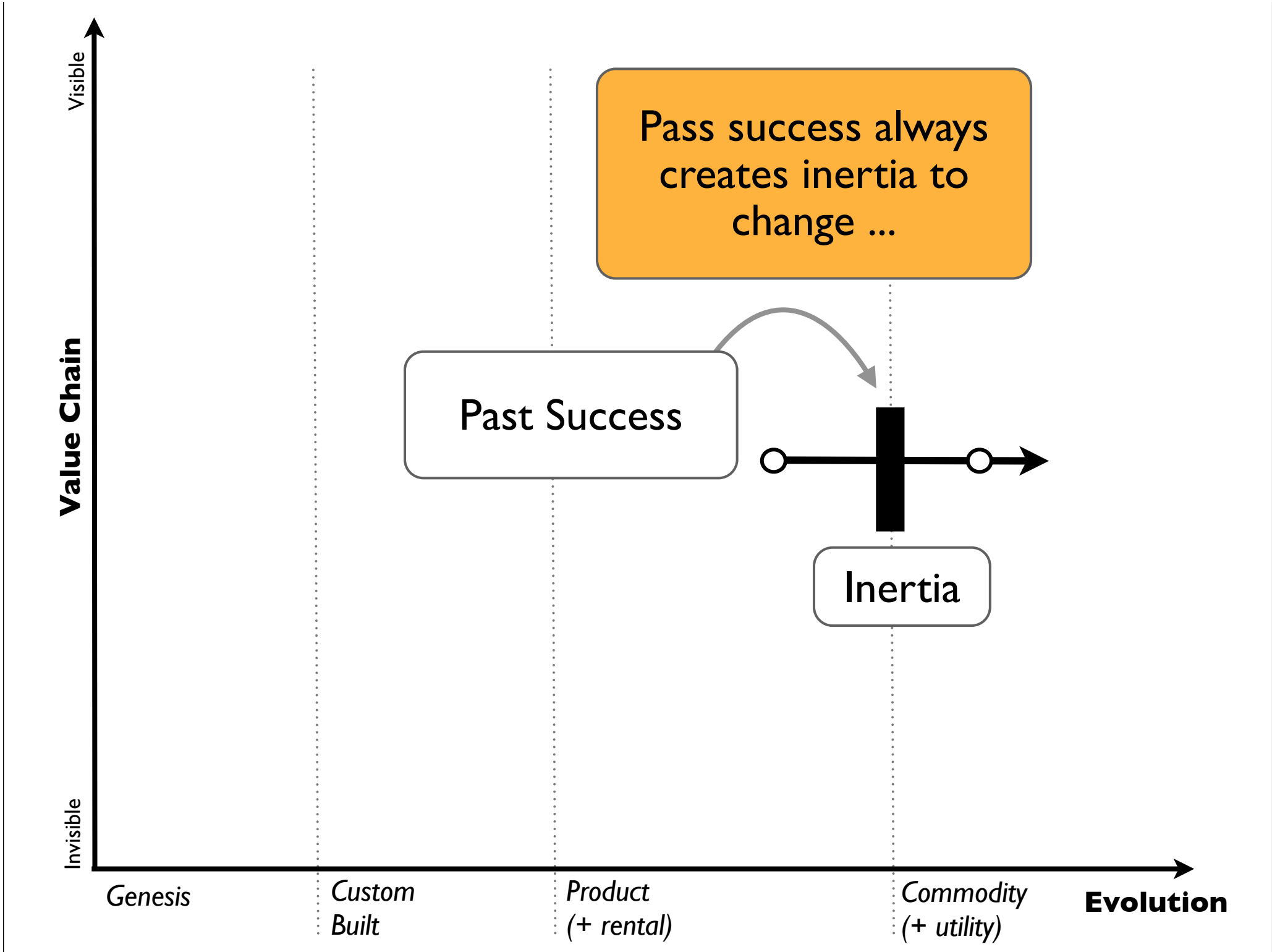
+3 yrs

40-50%?



Pattern 3

We have Inertia



+Inertia

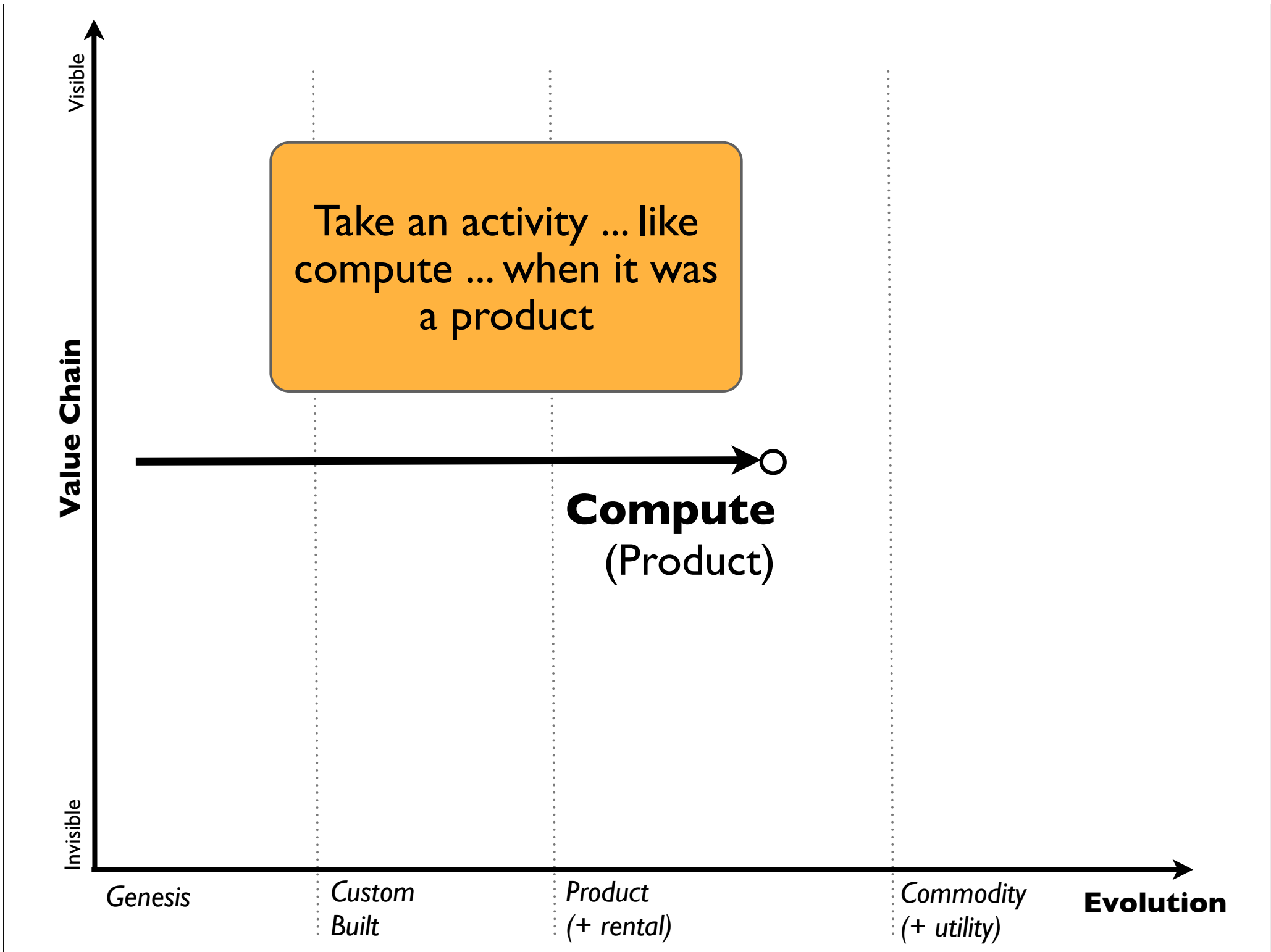
Disruption of Past Norms	Transition to the New	Agency of the New	Business Model
Change of business relationship (loss of social capital)	Investment in knowledge capital	Suita	
Loss of existing financial or physical capital	cost of acquiring new skillsets	Lack of sourcing options	counteracts
Loss of political capital	Investment in new business relationships	Lack of pricing competition	Resistance from rewards and culture
Threat to barriers to entry	Changes to governance, management and practices	Loss of strategic control	External financial markets reinforce existing models

Lots of different types of inertia - bit of research I did back in 2010.

+Inertia

Disruption of Past Norms	Transition to the New	Agency of the New	Business Model
Change of business relationship (loss of social capital)	Investment in knowledge capital	Suitability	Declining unit value
Loss of existing financial or physical capital	cost of acquiring new skillsets	Lack of second sourcing options	Data for Past Success counteracts
Loss of political capital	Investment in new business relationships	Lack of pricing	Resistance from wards and culture
Threat to barriers to entry	Changes to governance, management and practices	Loss of strategic control	external financial markets reinforce existing models

Lets look at this one



I'm going to ignore the value chain bit for a moment, to make my diagram easier



Compute
(Product)

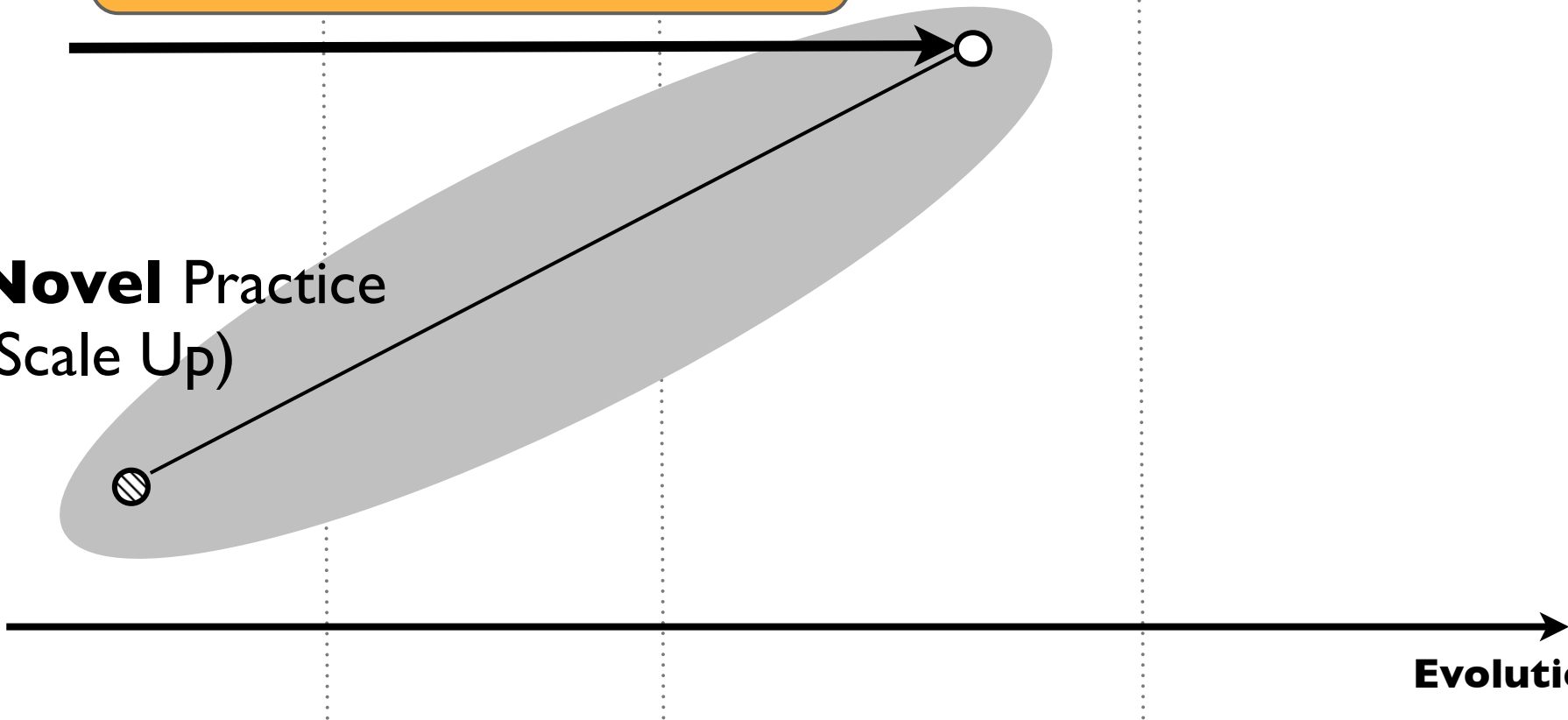


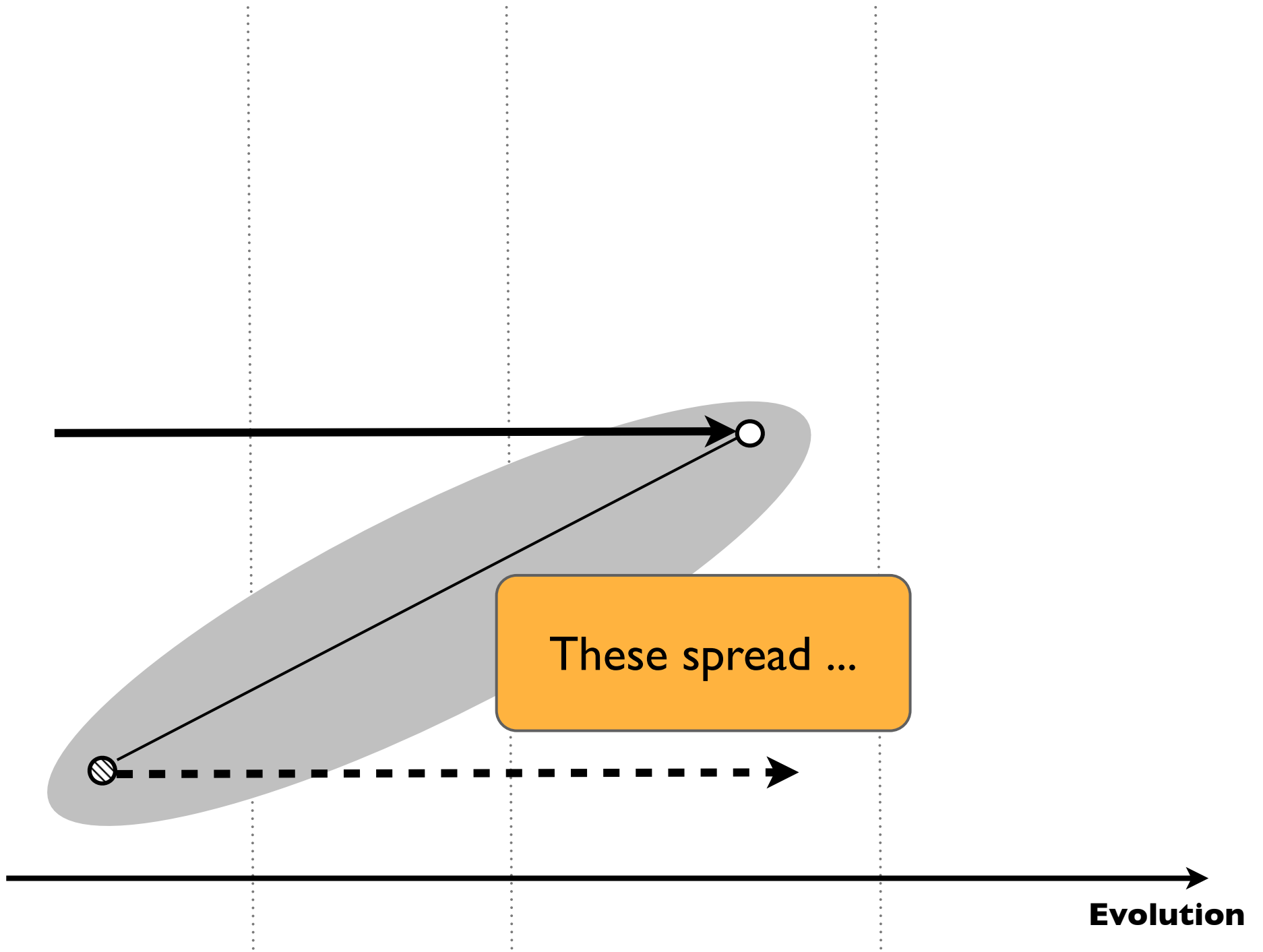
Evolution

When compute was a product we developed novel architectural PRACTICES e.g scale-up for capacity, N + I for resilience and disaster recovery tests for failure testing

Novel Practice
(Scale Up)

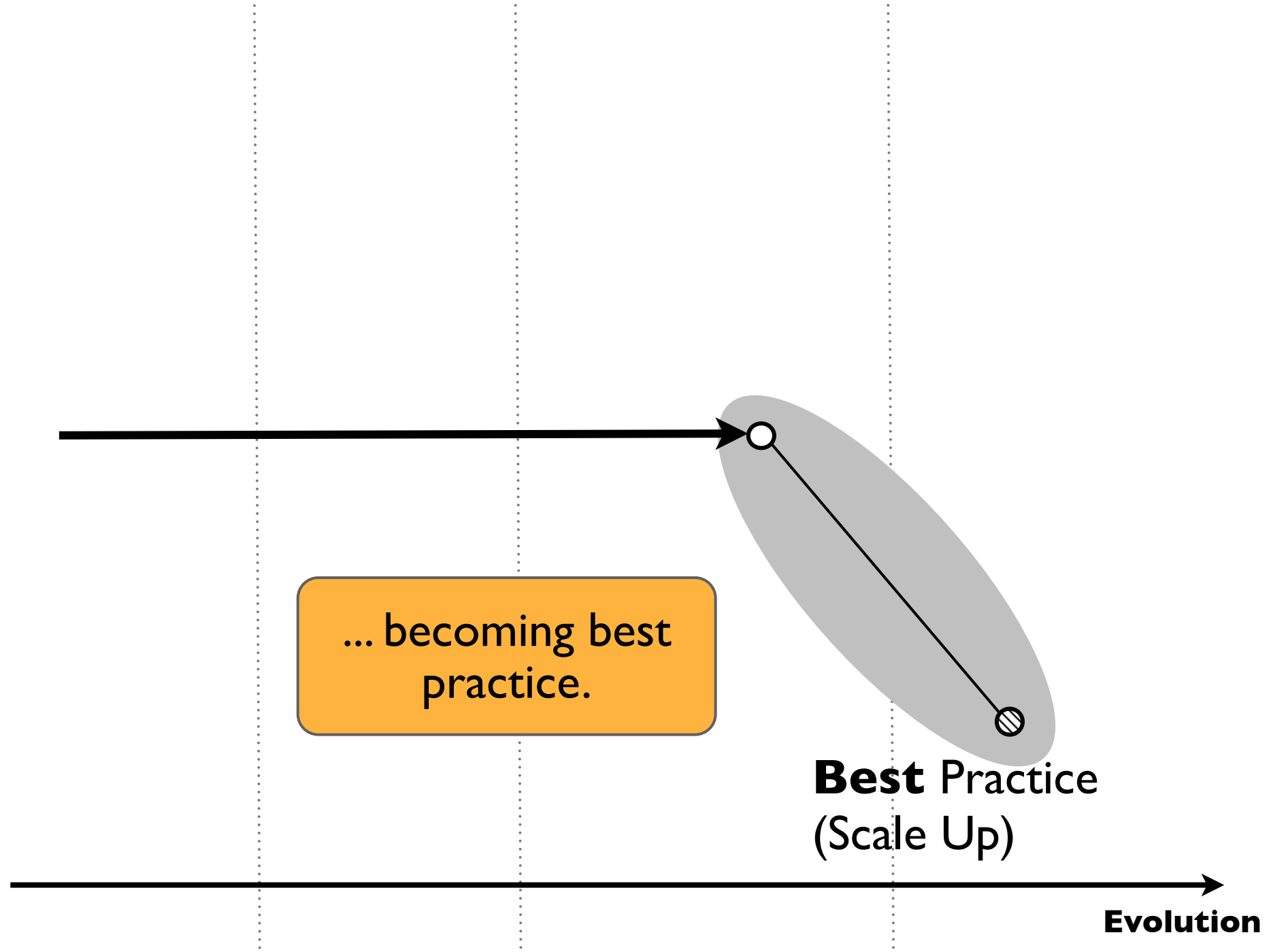
Evolution





These spread ...

Evolution



BUT the act of computing evolved becoming more of a commodity and eventually provided as a utility ...

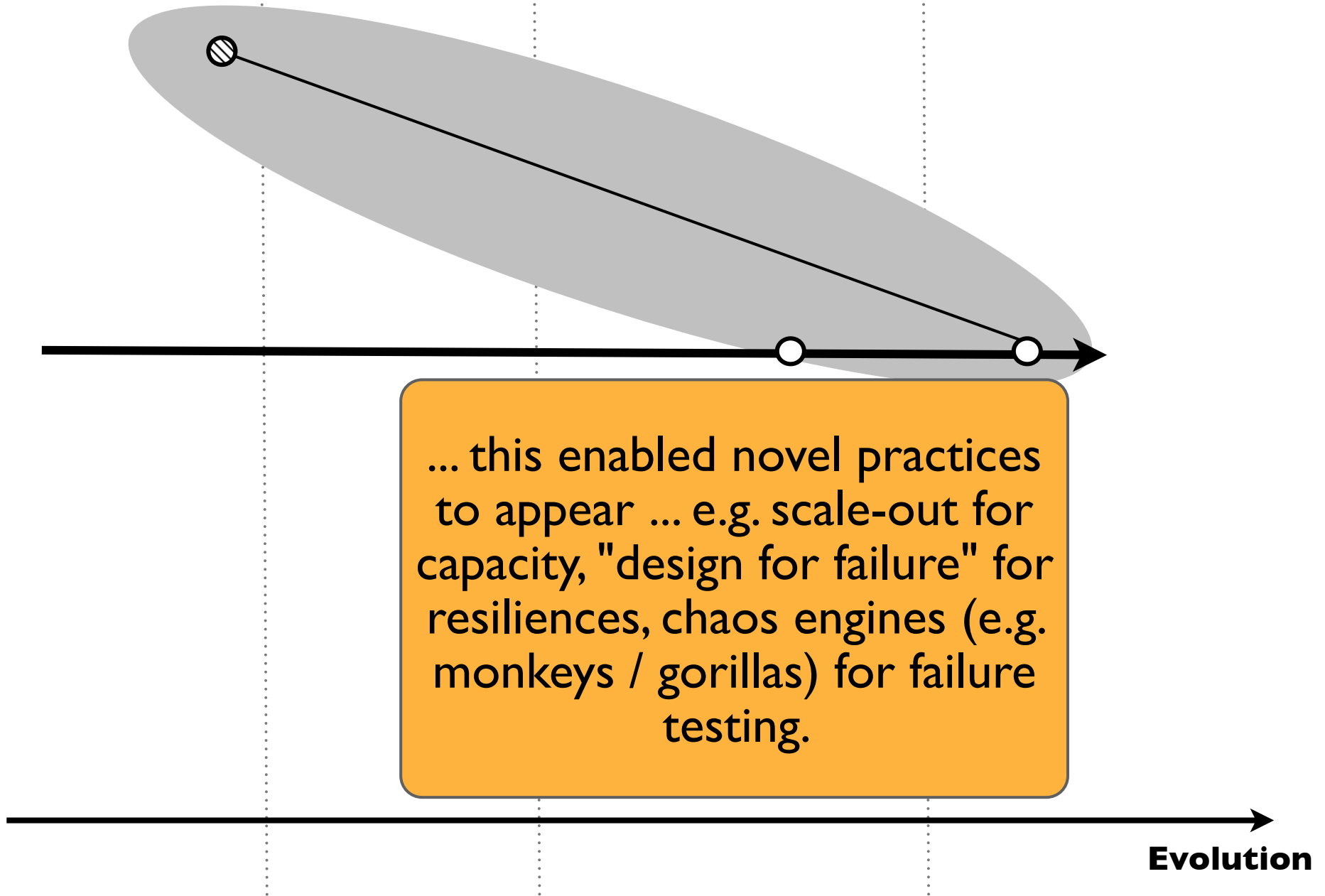


**Compute
(Utility)**

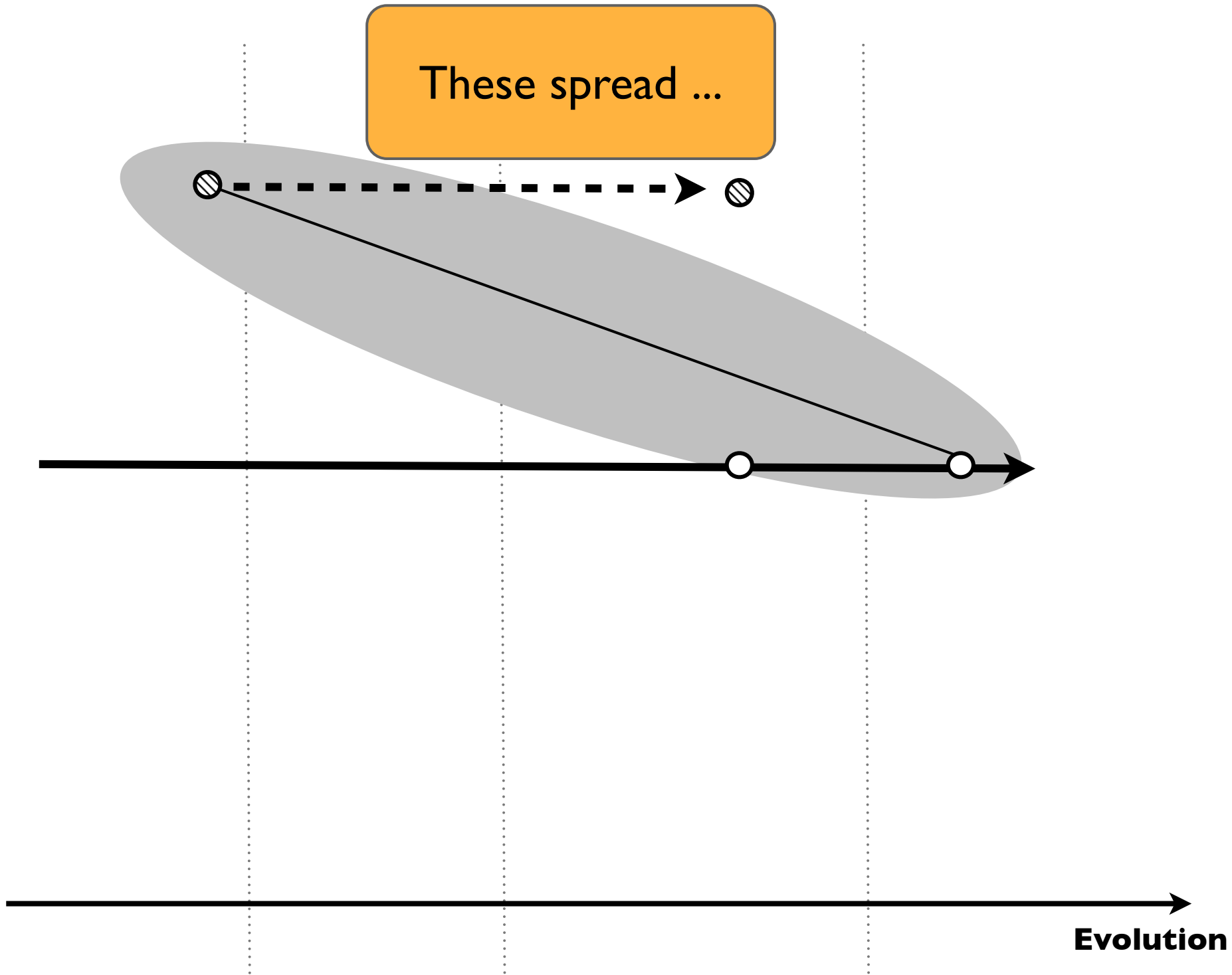


Evolution

Novel Practice (Scale Out)



These spread ...



... becoming best practice.

Co-Evolution

NB Practices often co-evolve with the activity

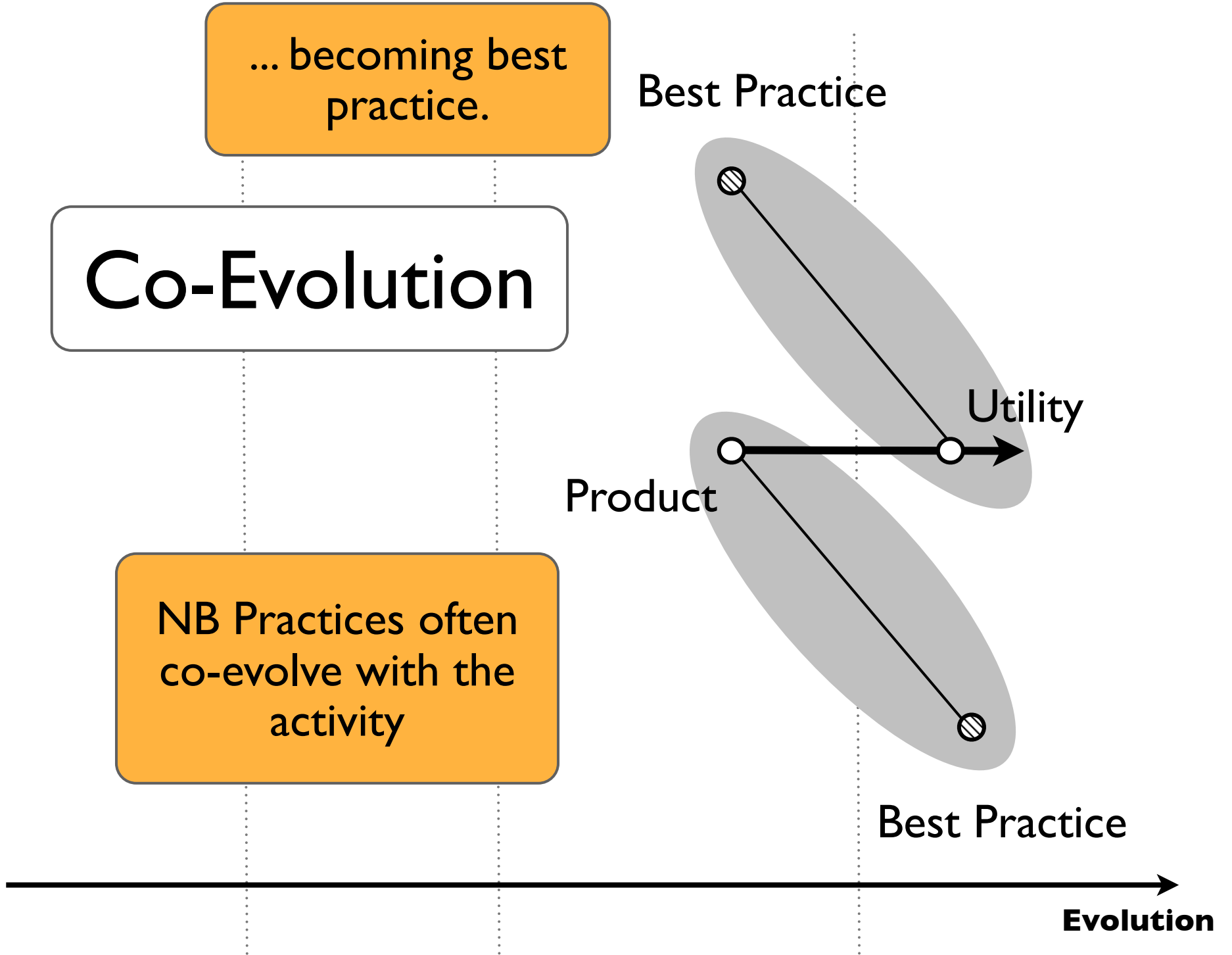
Best Practice

Utility

Product

Best Practice

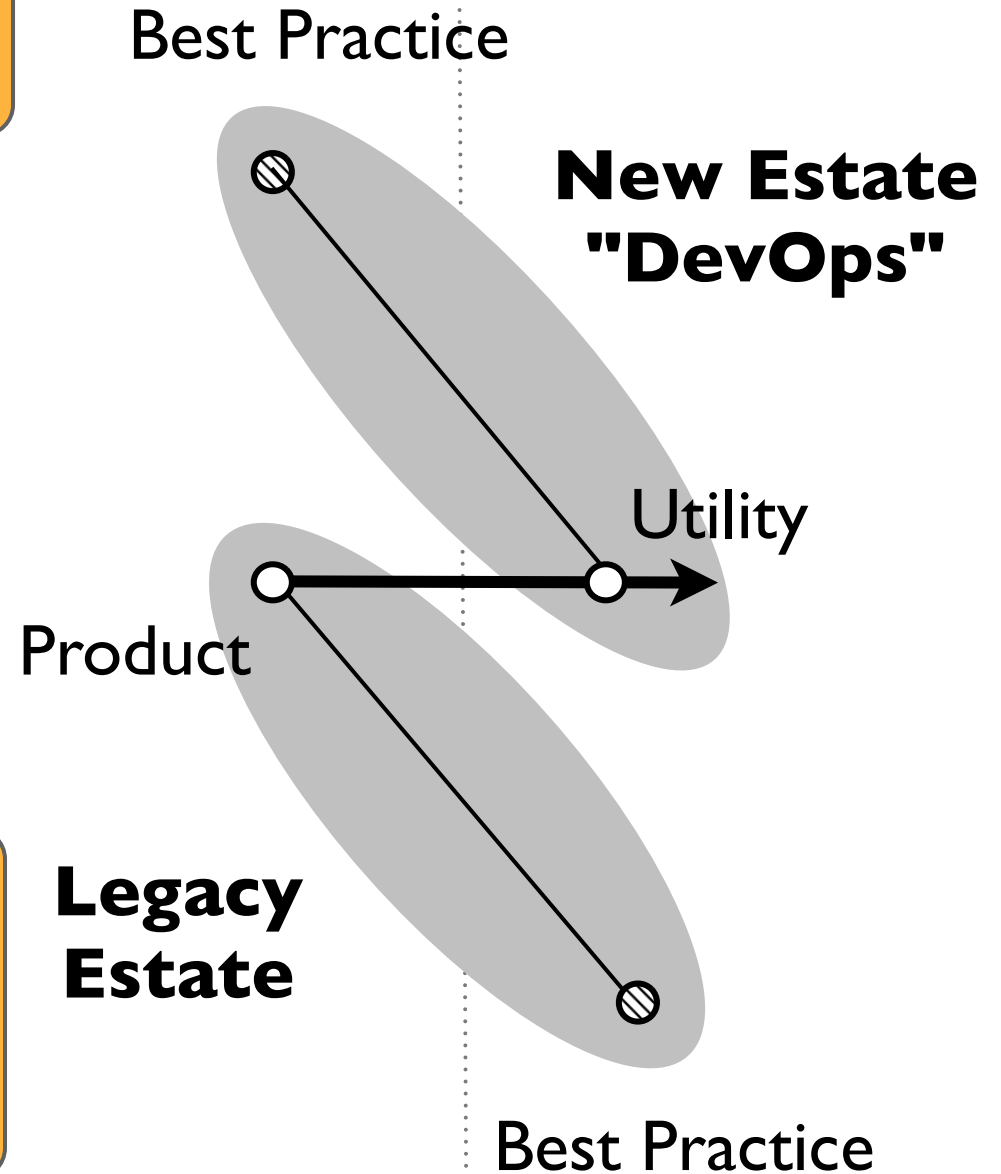
Evolution



We gave this a name
'DEVOPS'

New Estate means
application built with
best practice for a
UTILITY WORLD

Legacy means
application built with
best practice for a
PRODUCT WORLD



Evolution

We want the benefits of the new world ... efficiency, agility, new sources of worth ...

But there is a 'cost' of re-architecting.

Cost

Best Practice

**New Estate
"DevOps"**

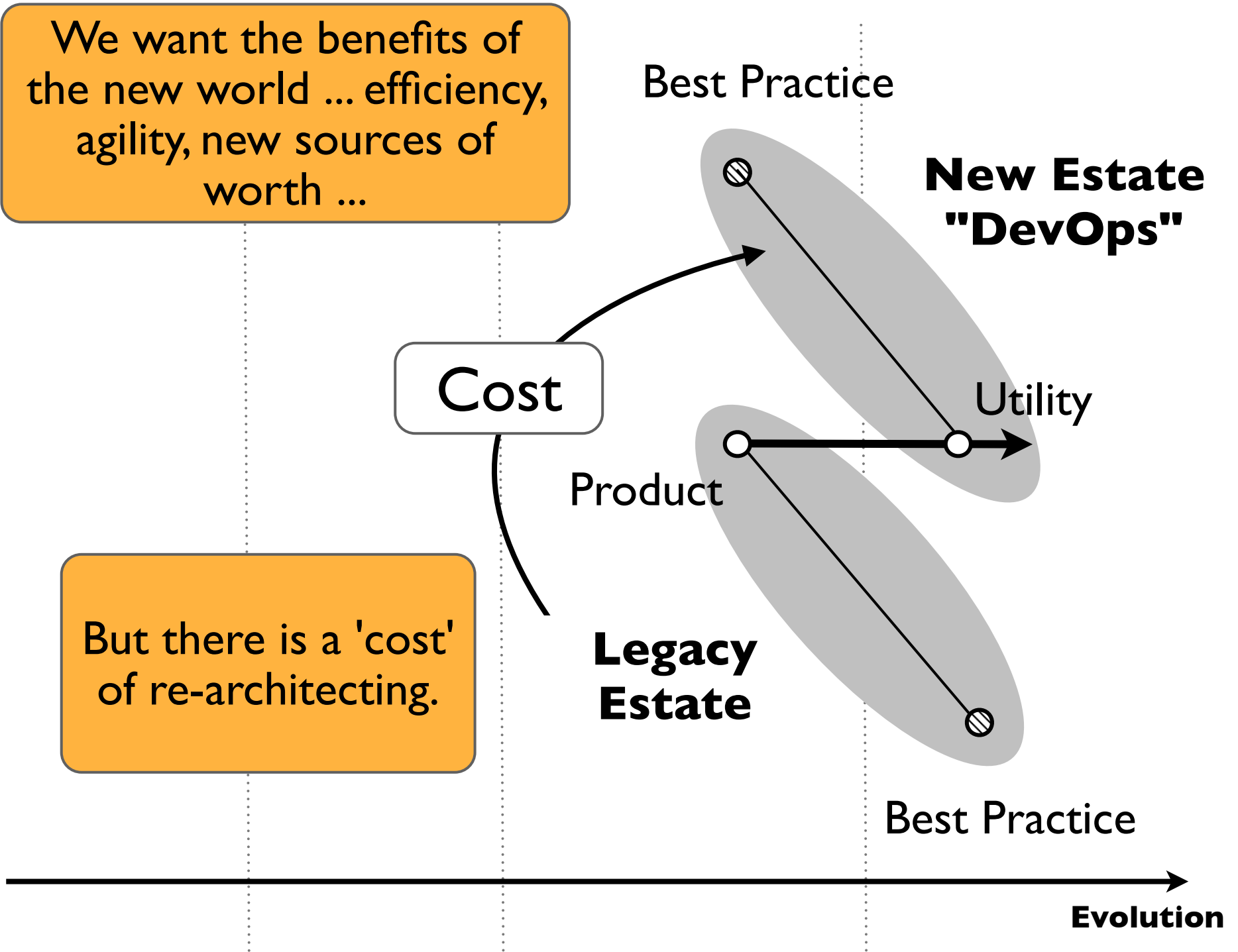
Utility

Product

**Legacy
Estate**

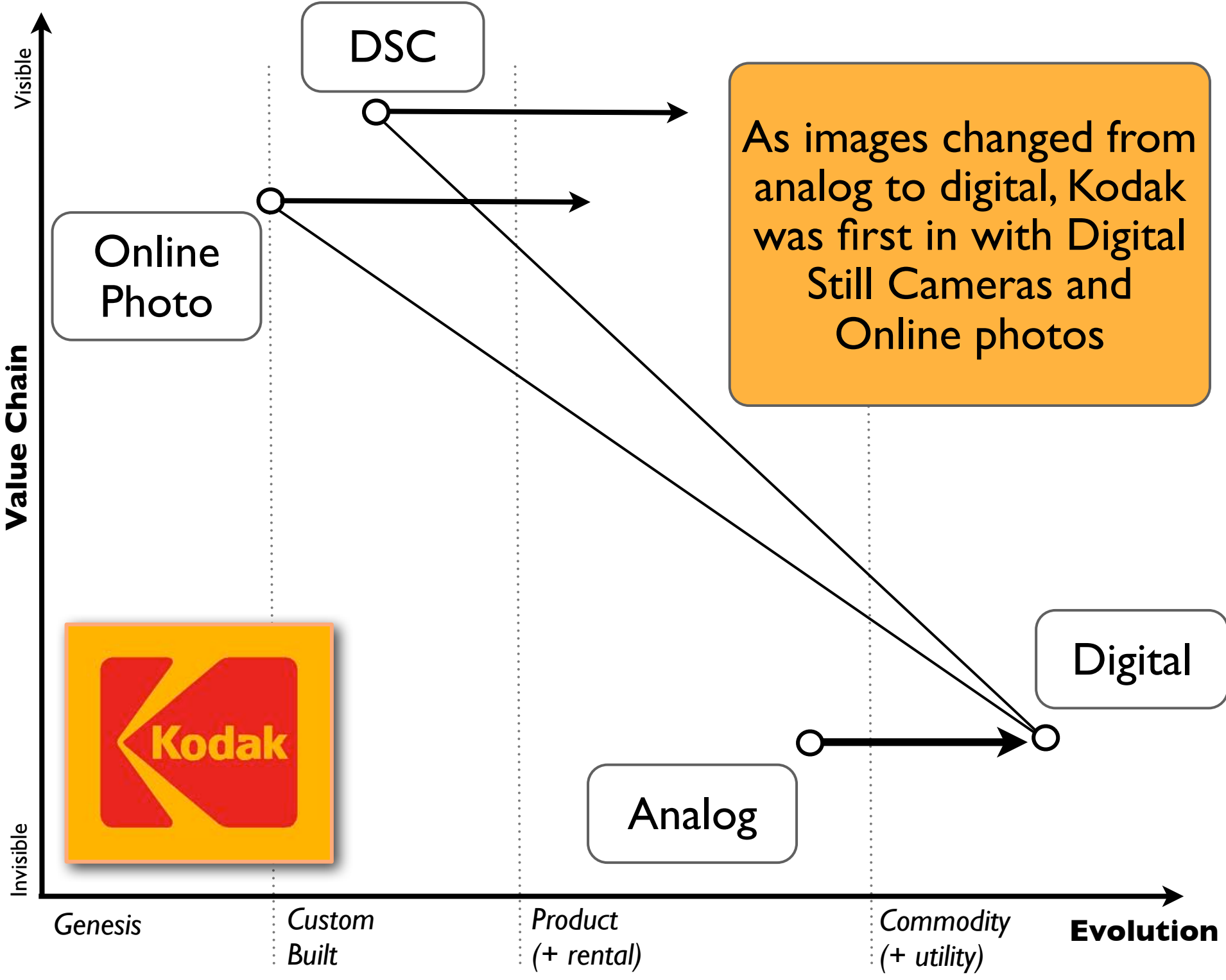
Best Practice

Evolution



Pattern 4

Inertia Kills



Visible

Value Chain

Invisible

Genesis

Custom Built

Product (+ rental)

Commodity (+ utility)

Evolution

Online Photo

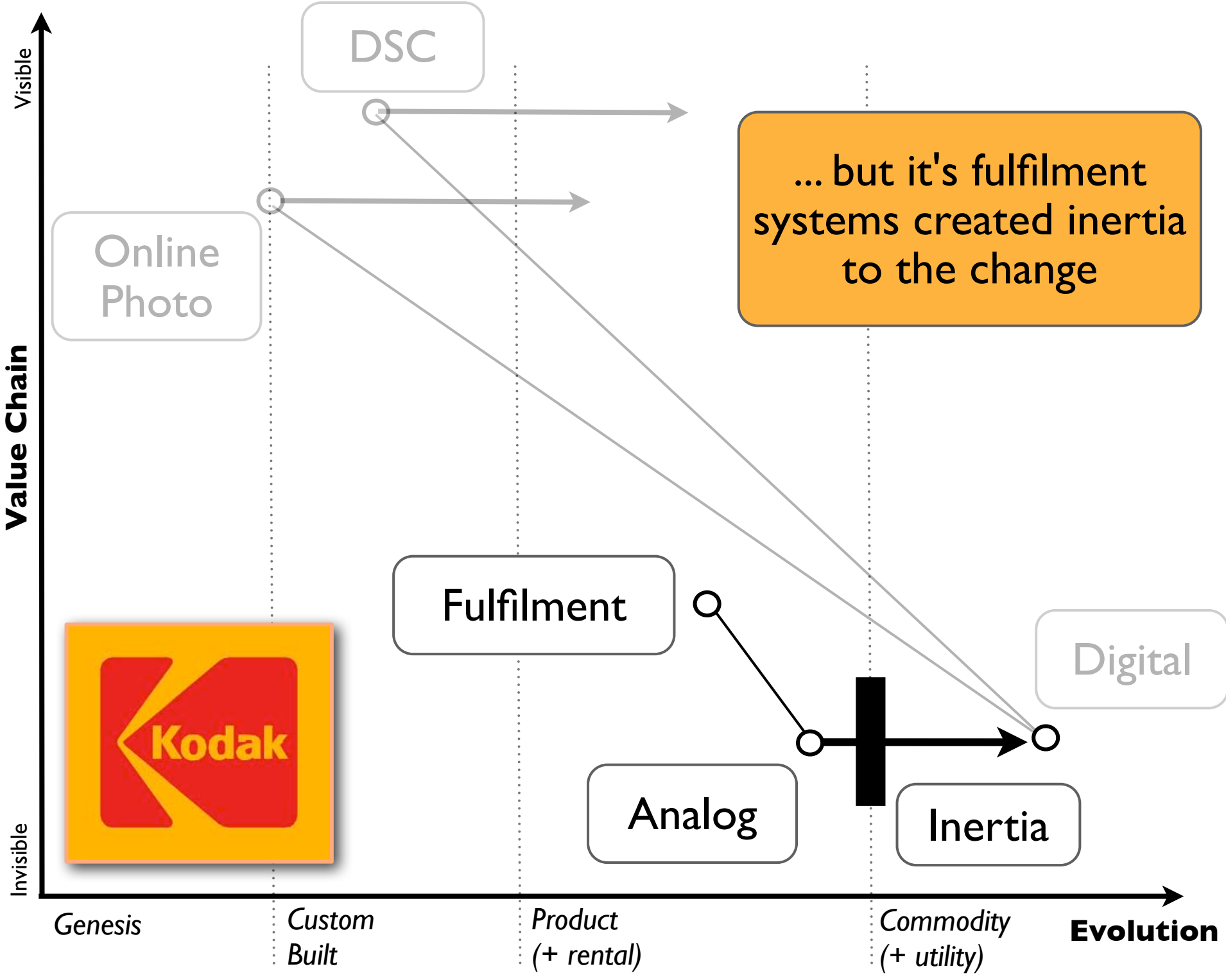
DSC

Analog

Digital

As images changed from analog to digital, Kodak was first in with Digital Still Cameras and Online photos





DSC

Online Photo

... but it's fulfilment systems created inertia to the change

Fulfilment



Digital

Analog

Inertia

Genesis

Custom Built

Product (+ rental)

Commodity (+ utility)

Evolution

Visible

Value Chain

Invisible

Visible

Value Chain

Invisible



Guess who was first with video on demand online and guess who had shops! Guess who failed to deal with this.



Genesis

Custom
Built

Product
(+ rental)

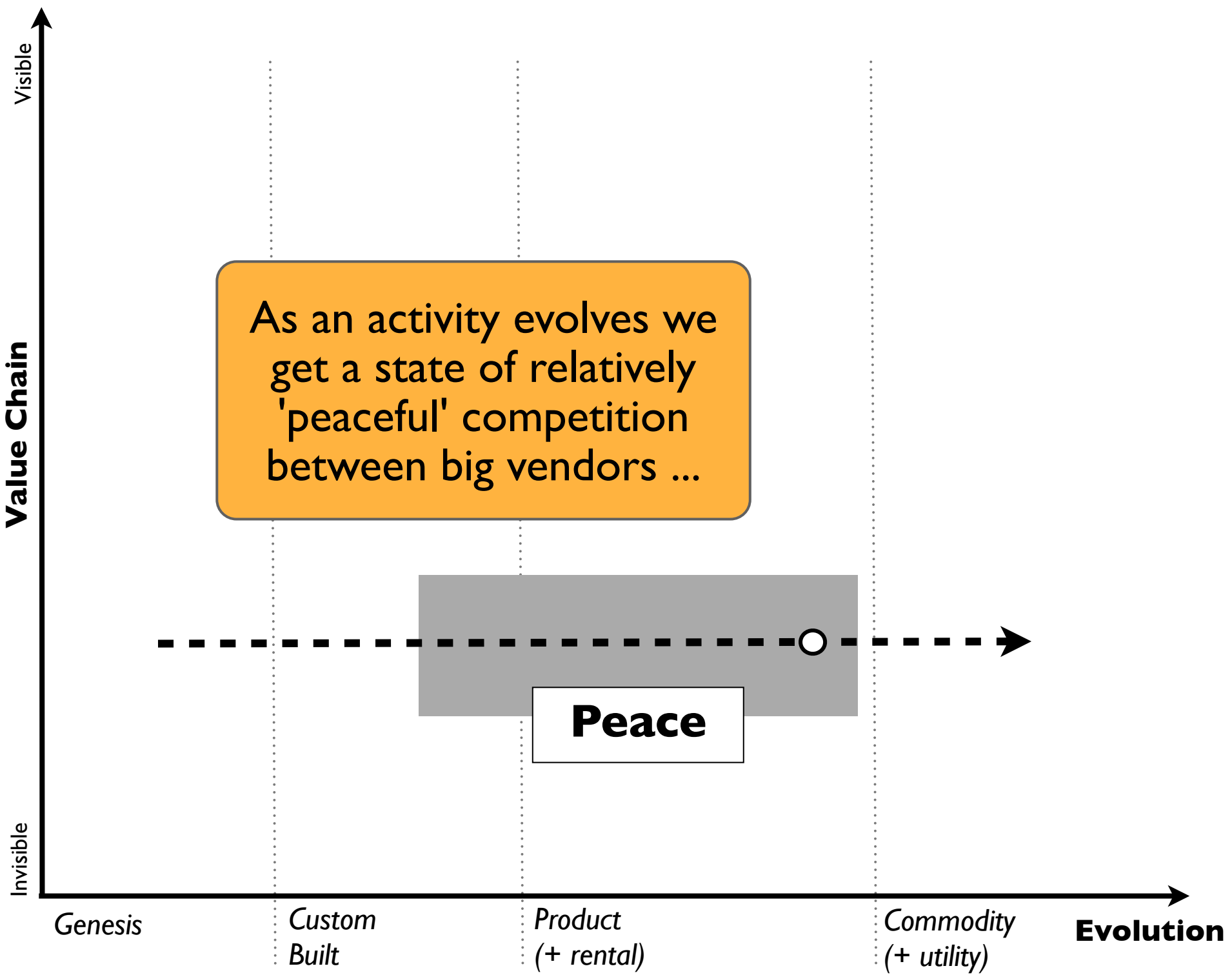
Commodity
(+ utility)

Evolution

The economy has ...

Pattern 5

Cycles



Visible

Value Chain

Invisible

As an activity evolves we get a state of relatively 'peaceful' competition between big vendors ...

Peace

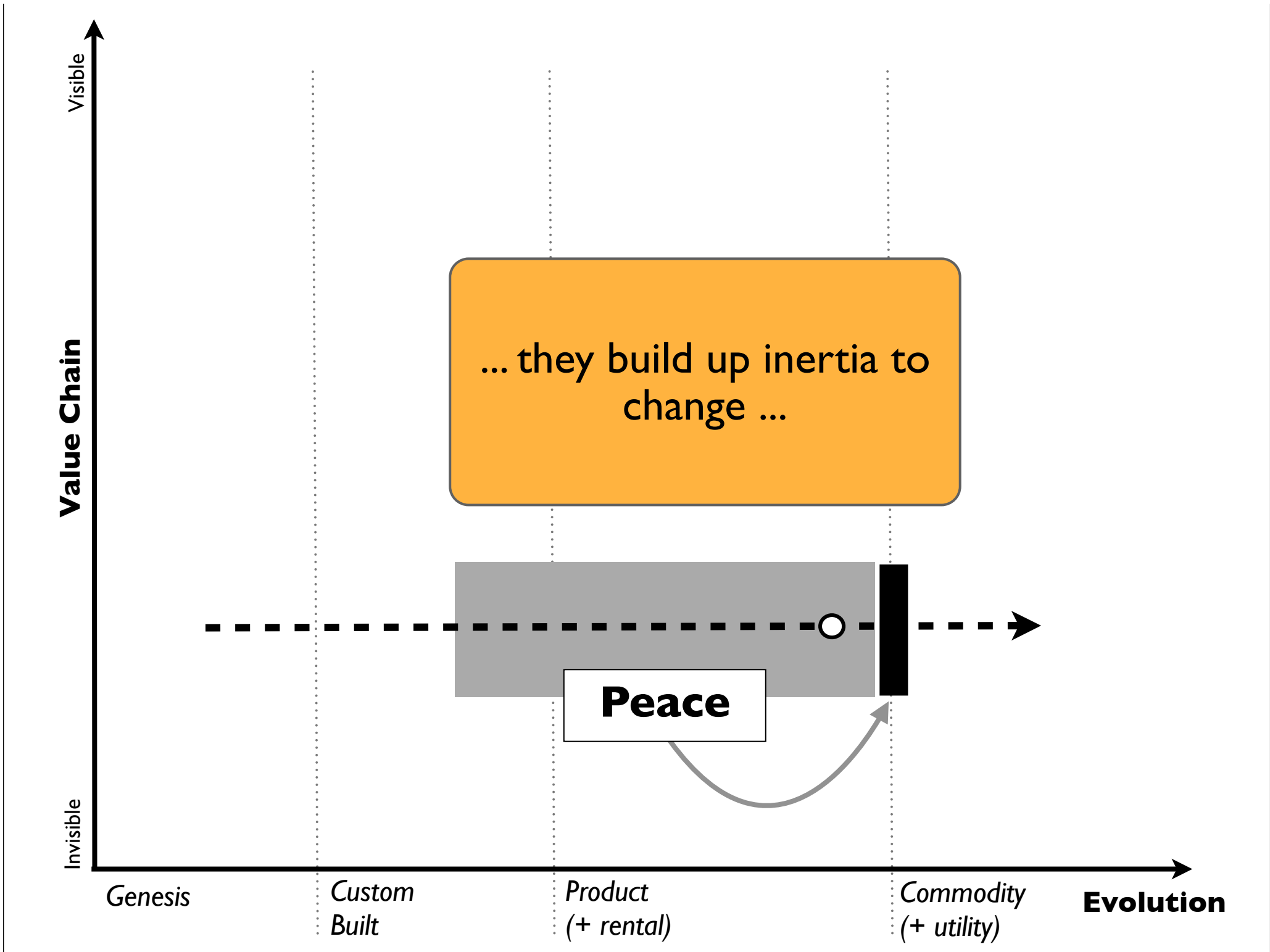
Genesis

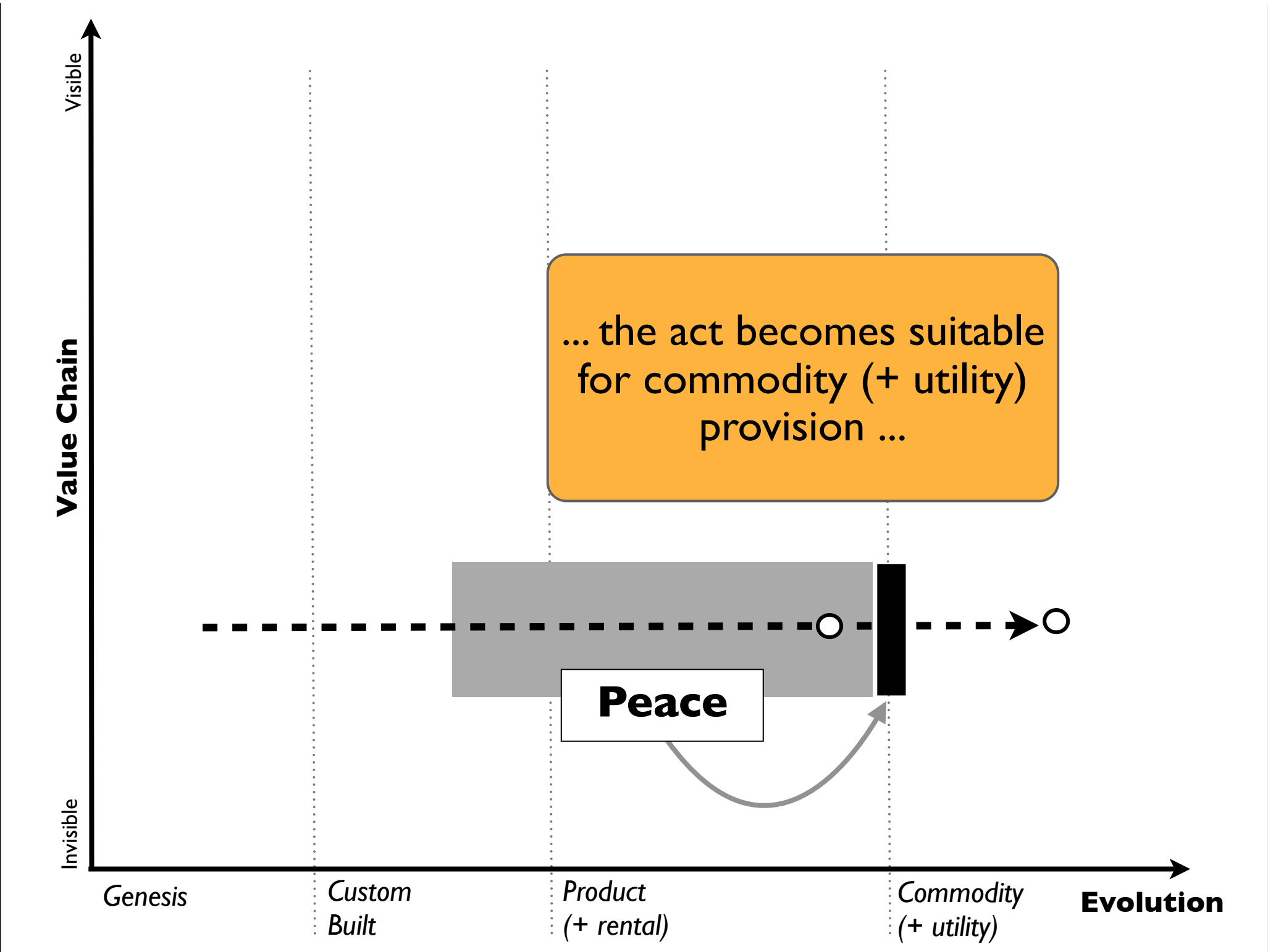
Custom Built

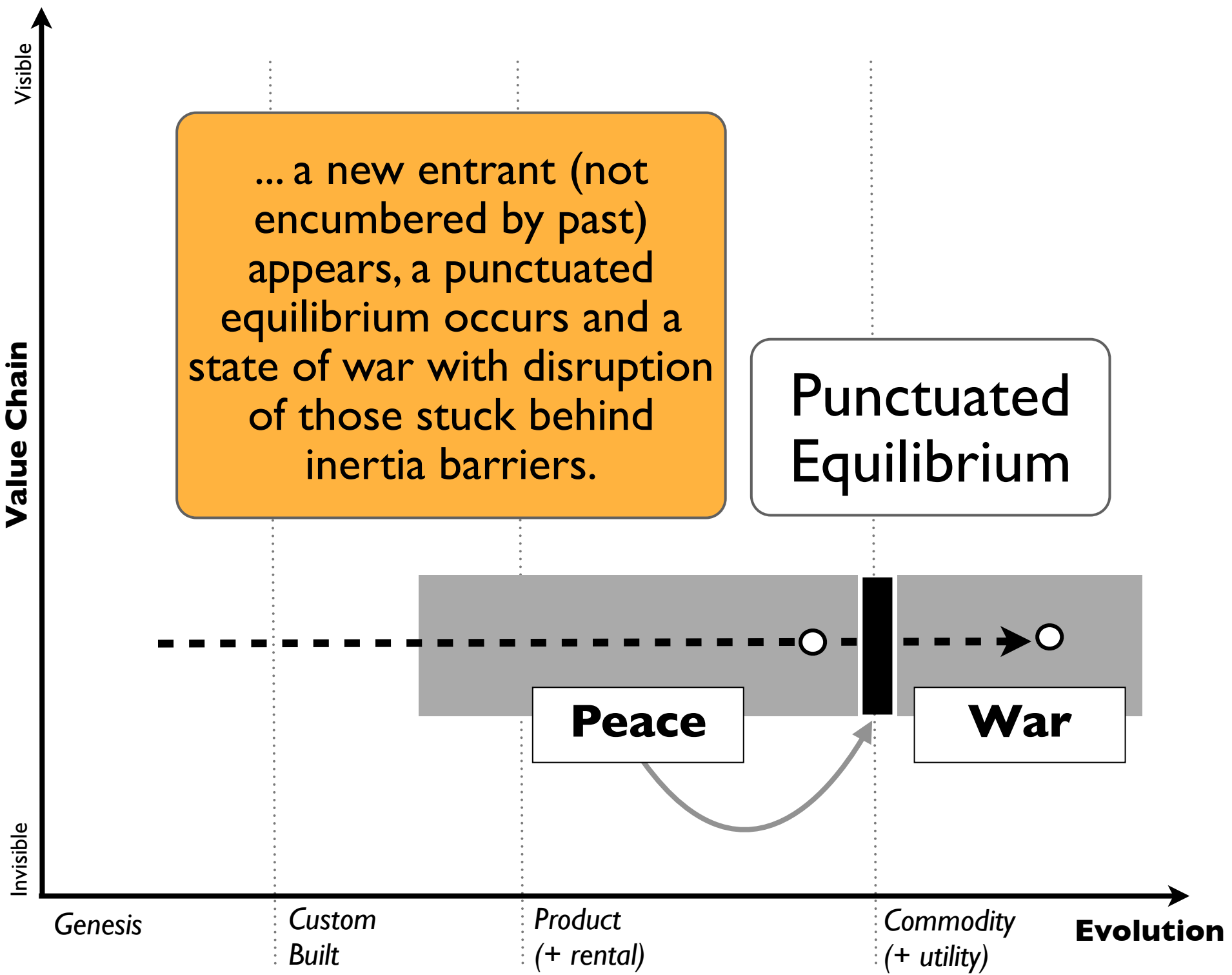
Product (+ rental)

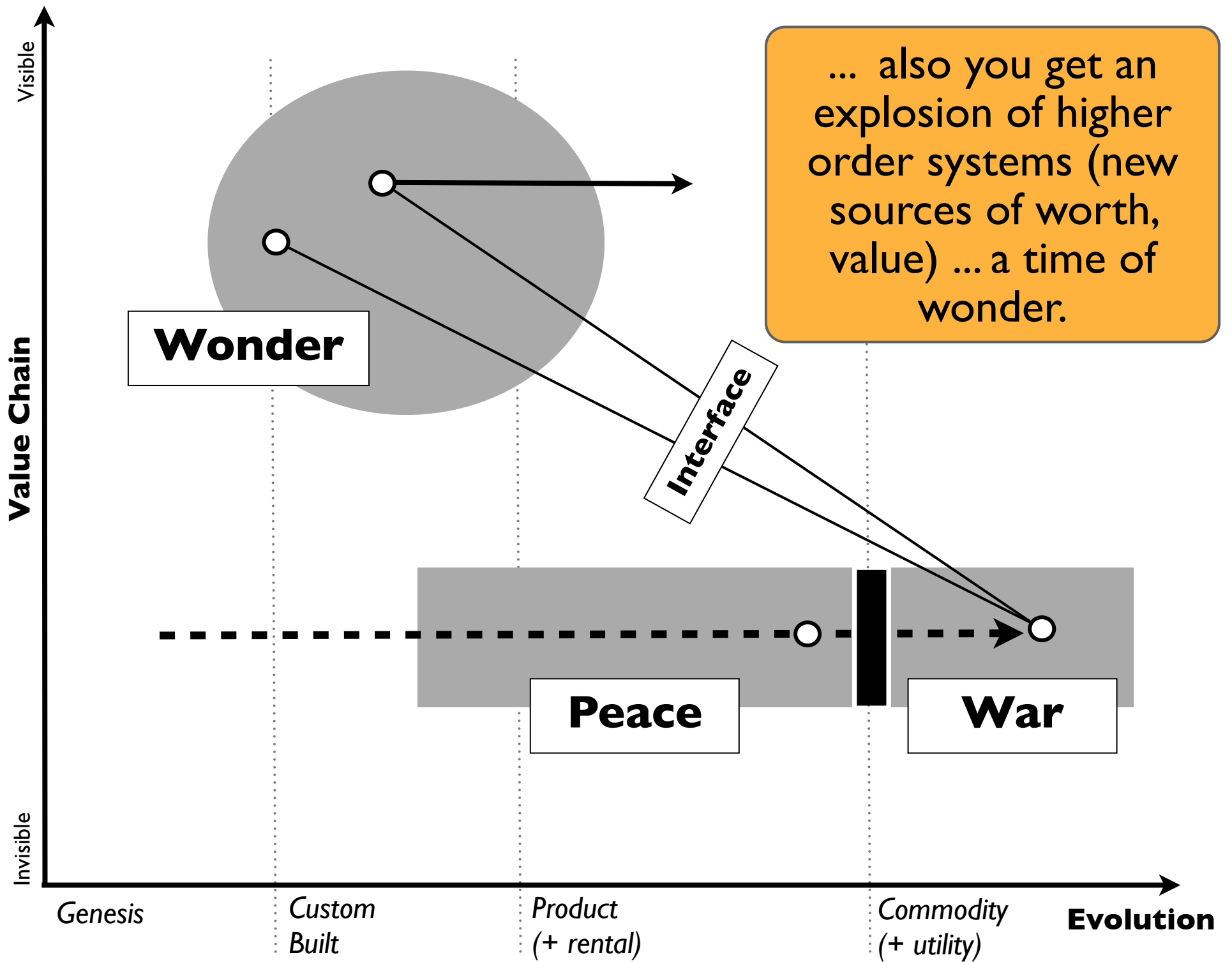
Commodity (+ utility)

Evolution



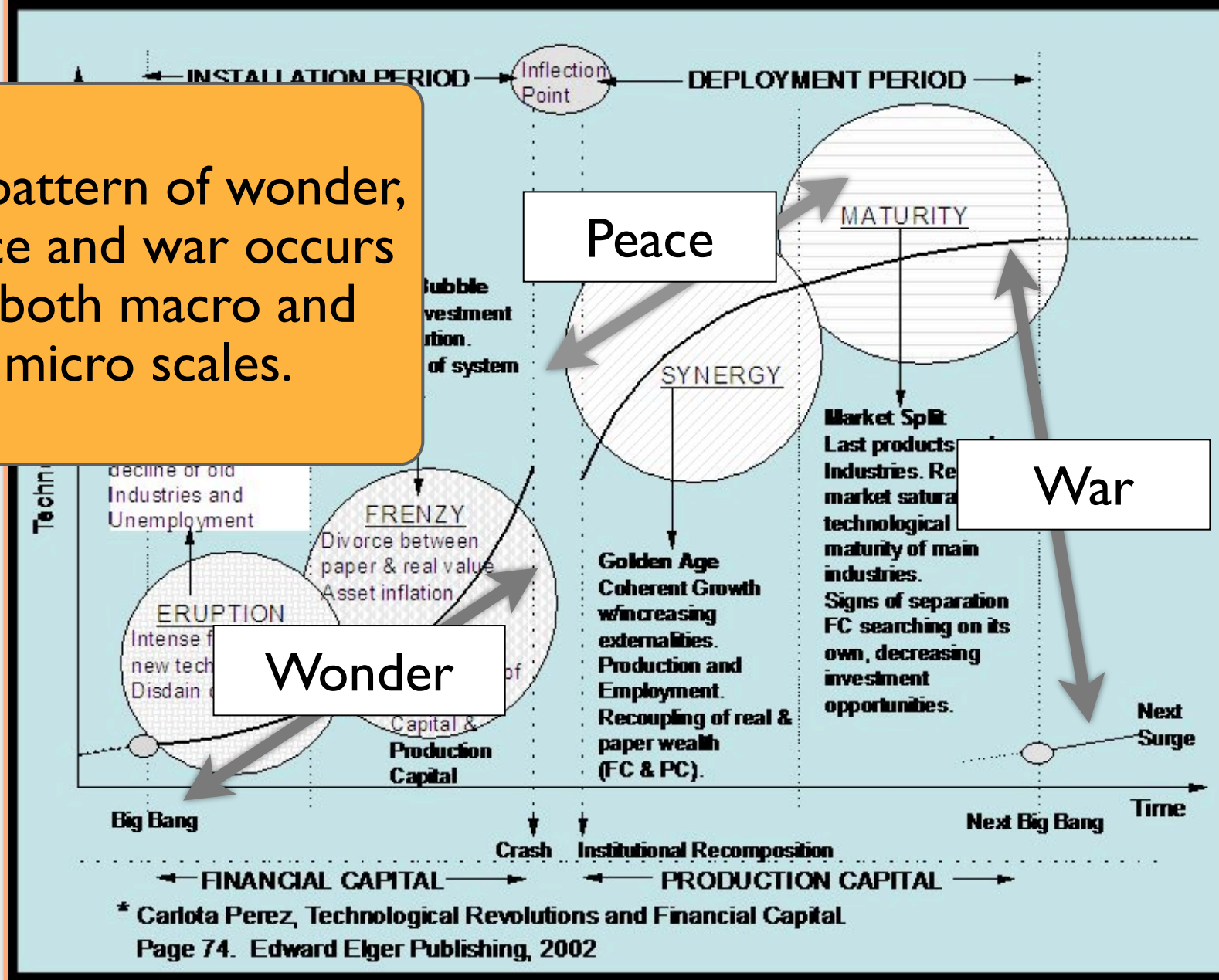






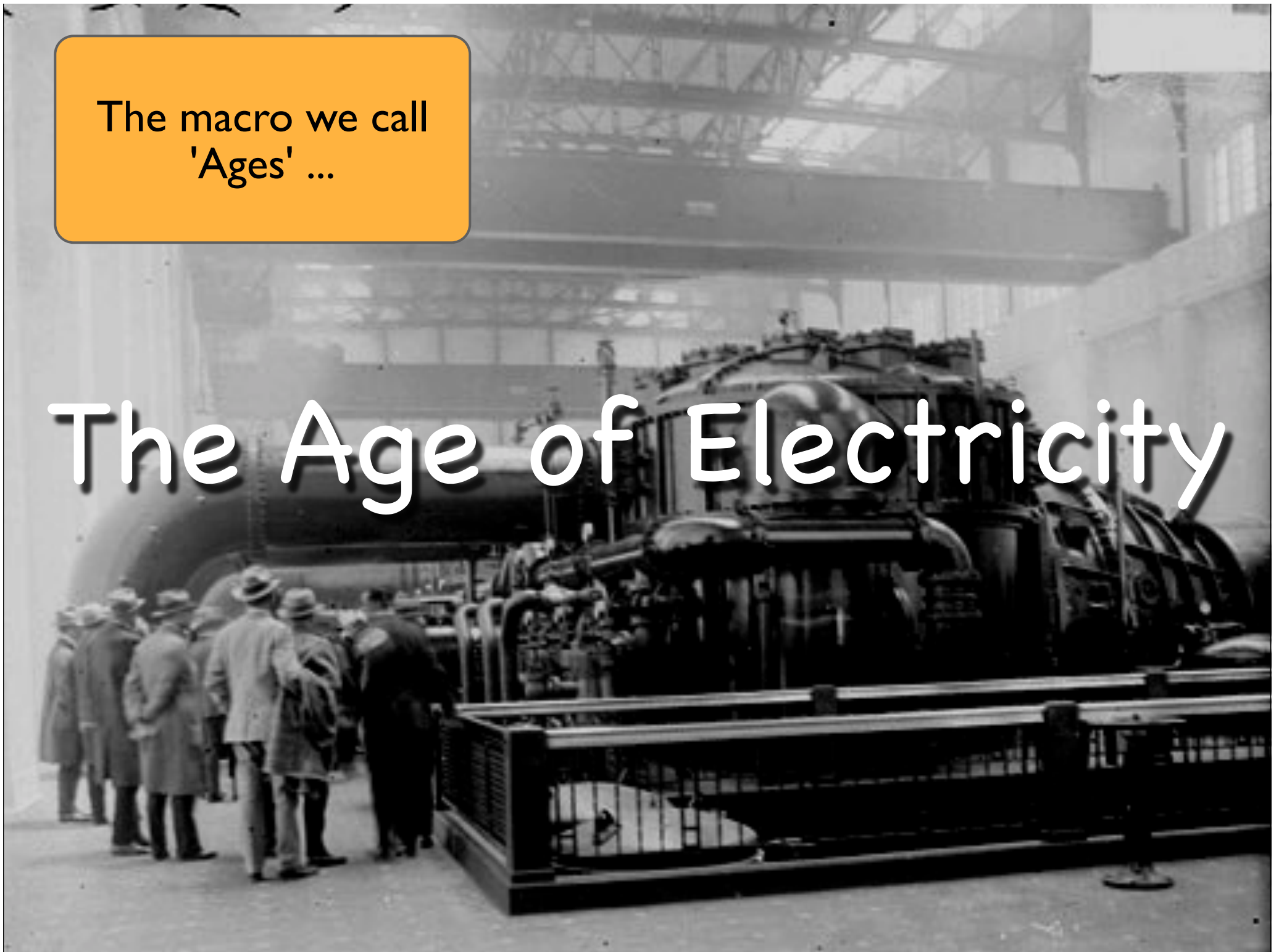
Long Waves or K-Waves

the pattern of wonder, peace and war occurs at both macro and micro scales.

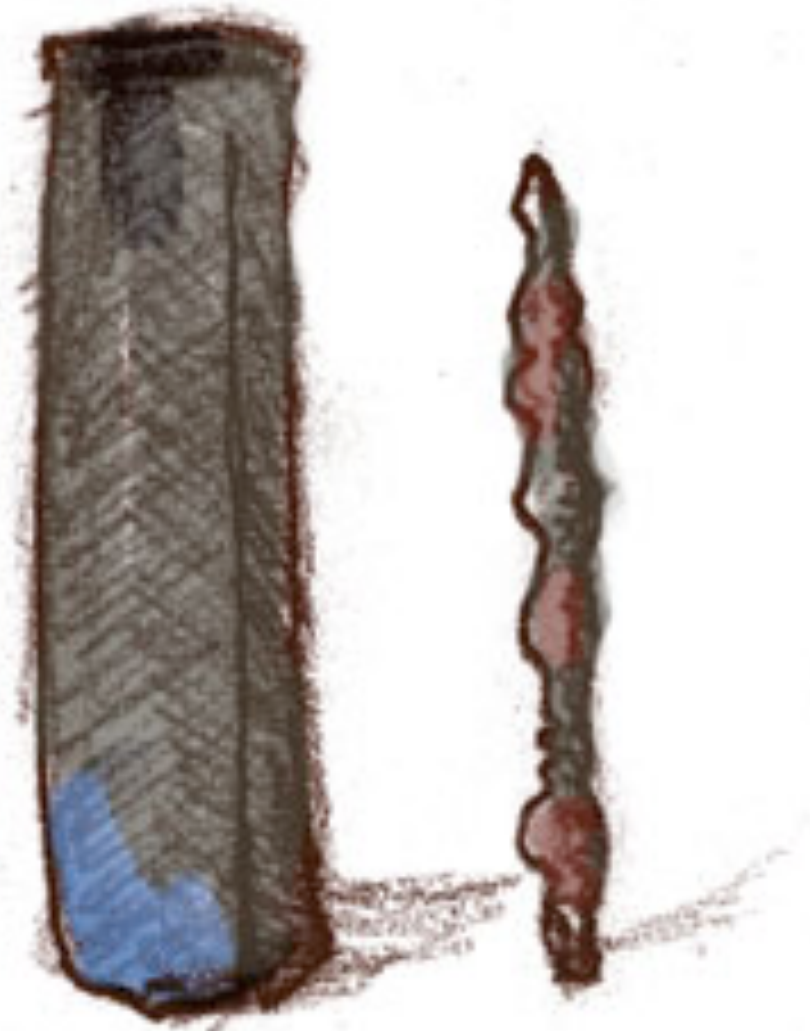


The macro we call
'Ages' ...

The Age of Electricity




... these don't start with 'innovation' but ...



A black and white portrait of George Westinghouse, an elderly man with a full white beard and mustache, wearing a dark suit jacket, a white shirt, and a dark bow tie. The background is dark. In the top right corner, there is a yellow rounded rectangle containing text. In the bottom right corner, there is white text.

... commoditisation of
a pre-existing act.

**G. Westinghouse,
1886**



Causing an explosion
of higher order
systems ...

NEW
CATECHISM
OF
ELECTRICITY,
A Practical Treatise,

BY
N. HAWKINS, M. E.,

*Author of Hand Book of Calculations for Engineers; Maxim
and Instructions for the Boiler Room; Aids to Engineers'
Examinations with Questions and Answers; Steam
Engineering Miscellany, Etc., Etc.*



RELATING TO THE DYNAMO AND MOTOR; WIRING; THE
ELECTRIC RAILWAY; ELECTRIC BELL FITTING; ELECTRIC
LAMPS; ELECTRIC ELEVATORS; ELECTRIC LIGHTING;
ELECTRO PLATING; THE TELEGRAPH AND TELE-
PHONE; ELECTRIC ELEVATOR, TABLES
AND MEASUREMENTS.

THEO. AUDEL & COMPANY, PUBLISHERS,
68 FIFTH AVENUE, COR. 13TH STREET, NEW YORK.

1898.

Creating a time of
wonder ...

Dreams of
magic, a time
of wonder

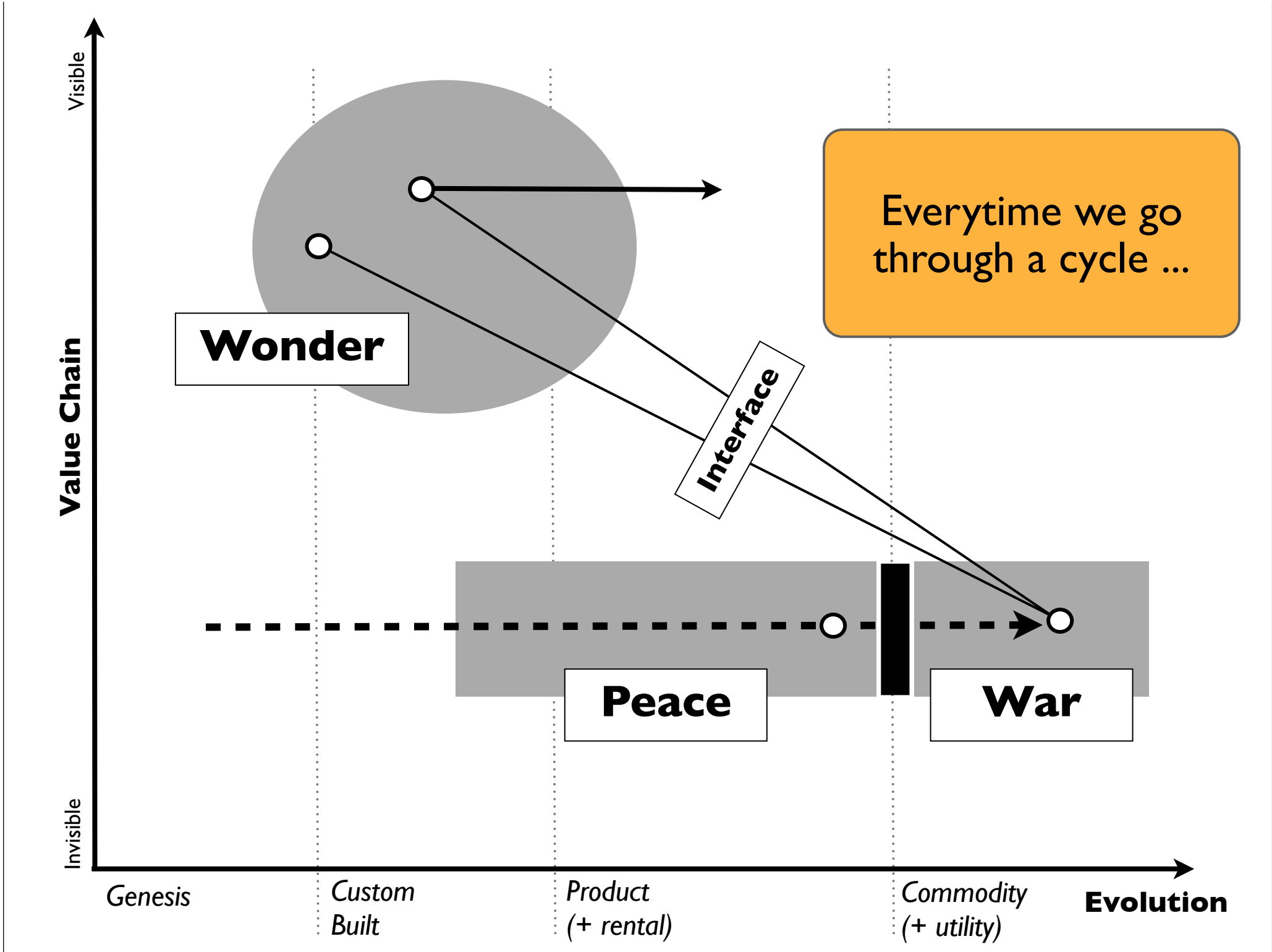


Unless you're in the
'old' industry.

It's not just activities,
practices and data
that evolve ...

Pattern 6

Organisations Evolve



Co-Evolution

We have co-evolution
of practice ...

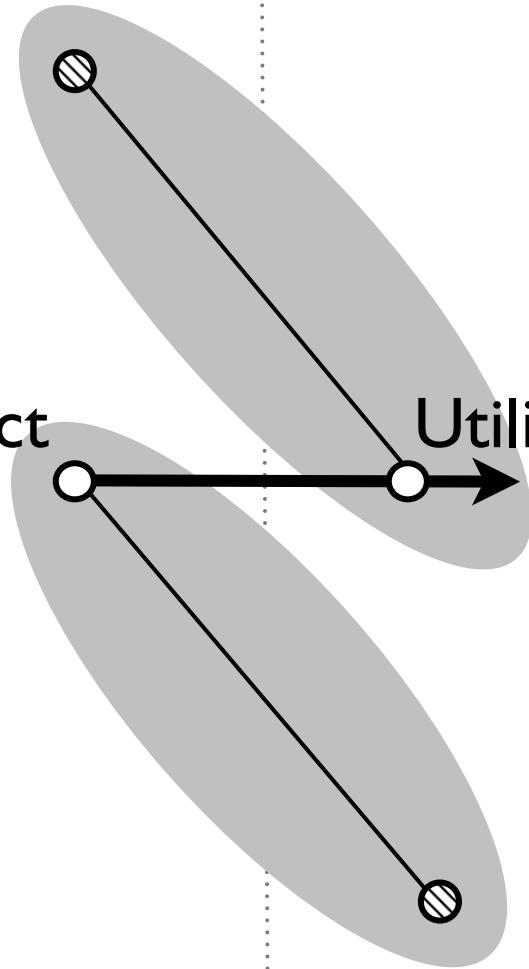
Best Practice

Product

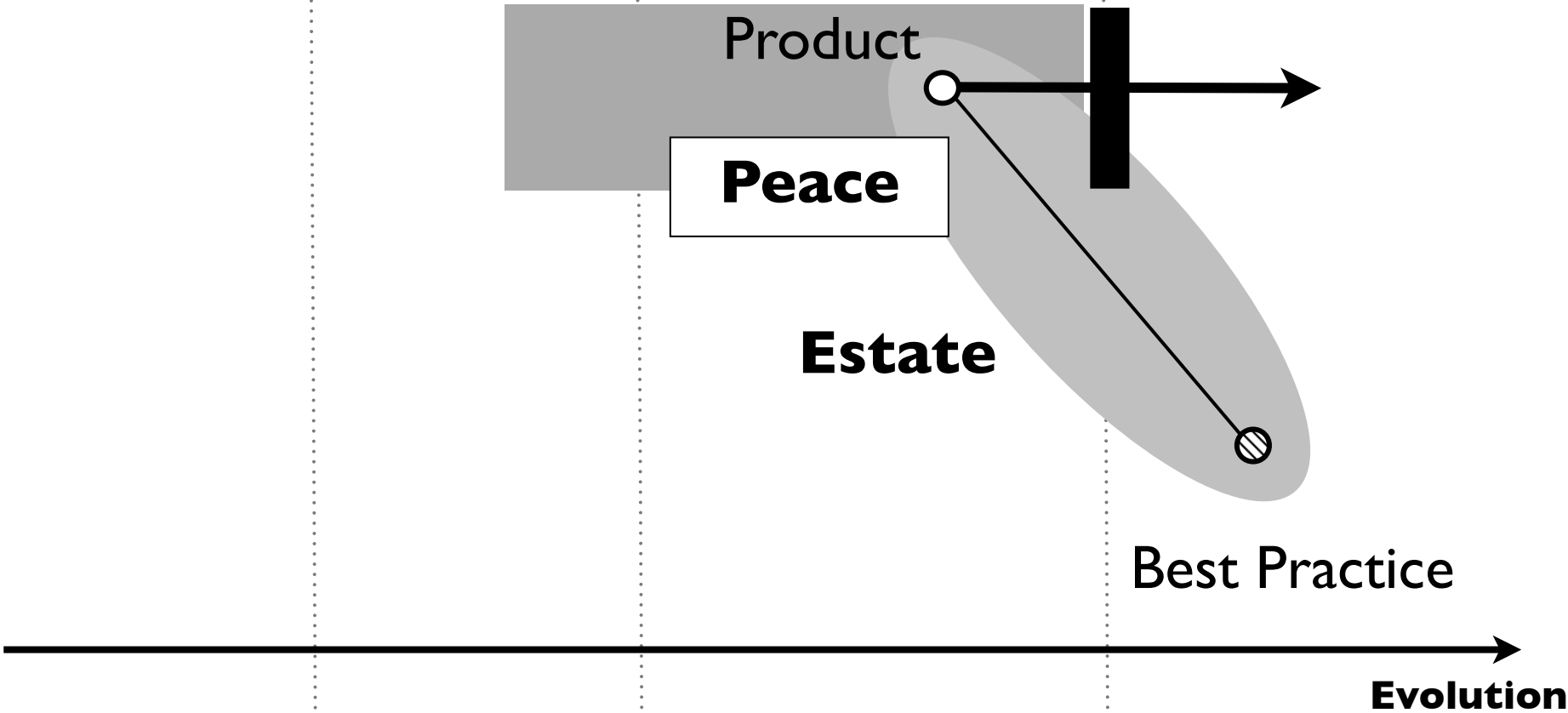
Utility

Best Practice

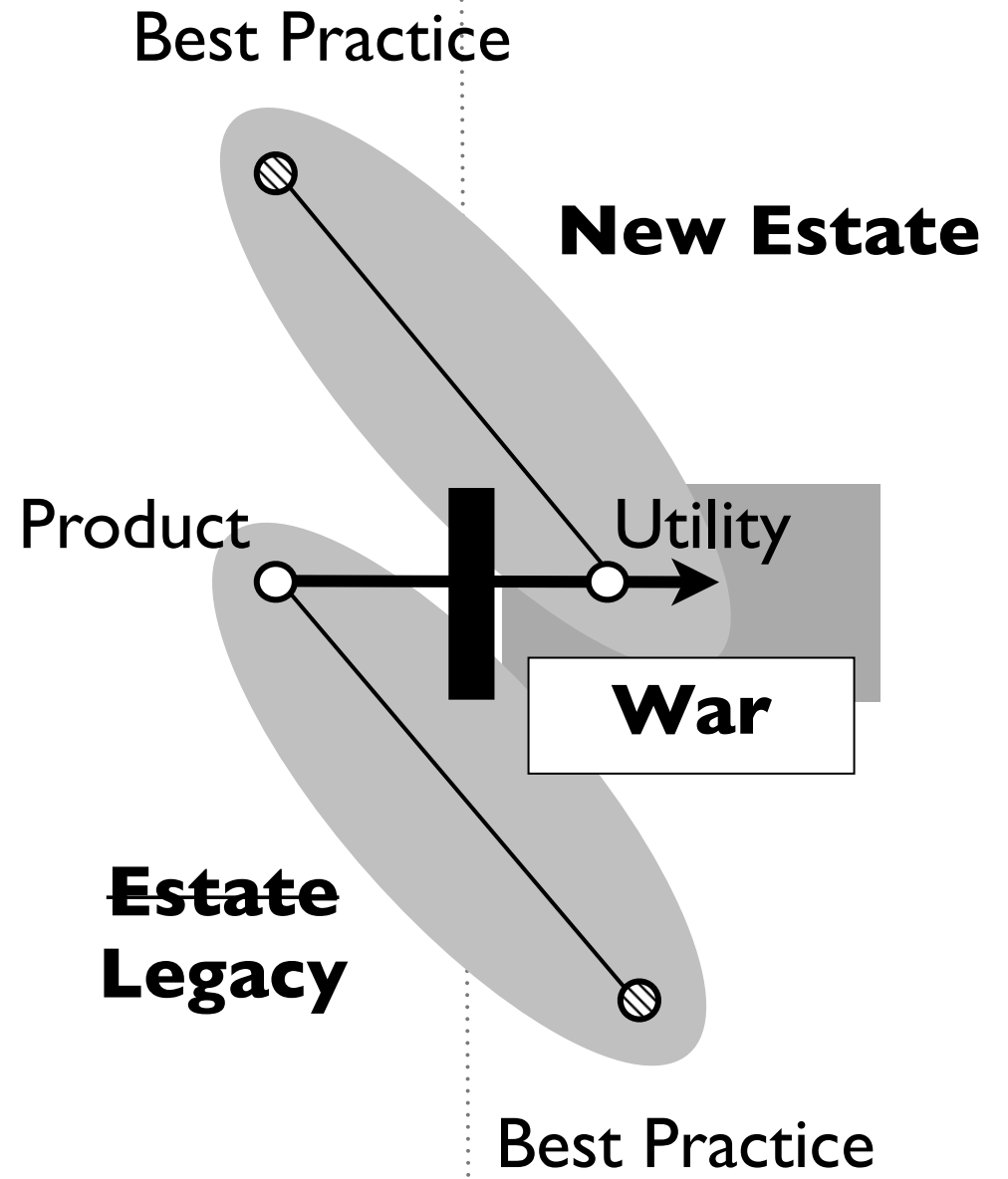
Evolution



... which means we have the old world with the old estate ...



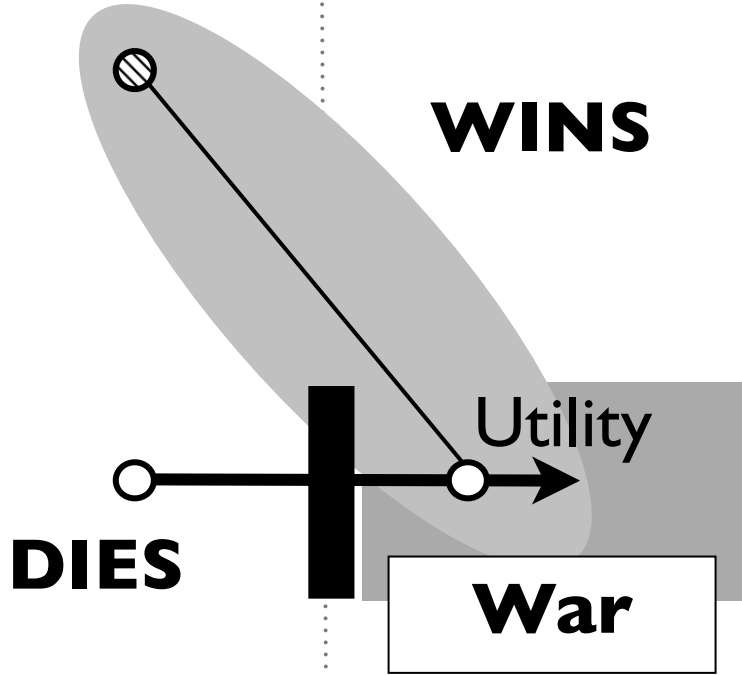
... that becomes legacy whilst a new estate is formed.



Evolution

The old world then dies,
the new world wins ...
which means the new
practices / methods
become dominant.

Best Practice



WINS

Utility

DIES

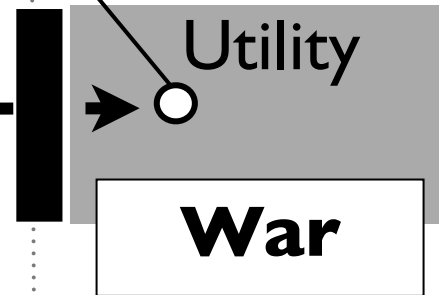
War

Evolution



Fordism

Electricity



Hence every cycle leads to a new form of organisation.

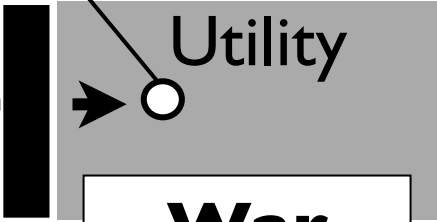
Evolution



Next
Generation



Compute



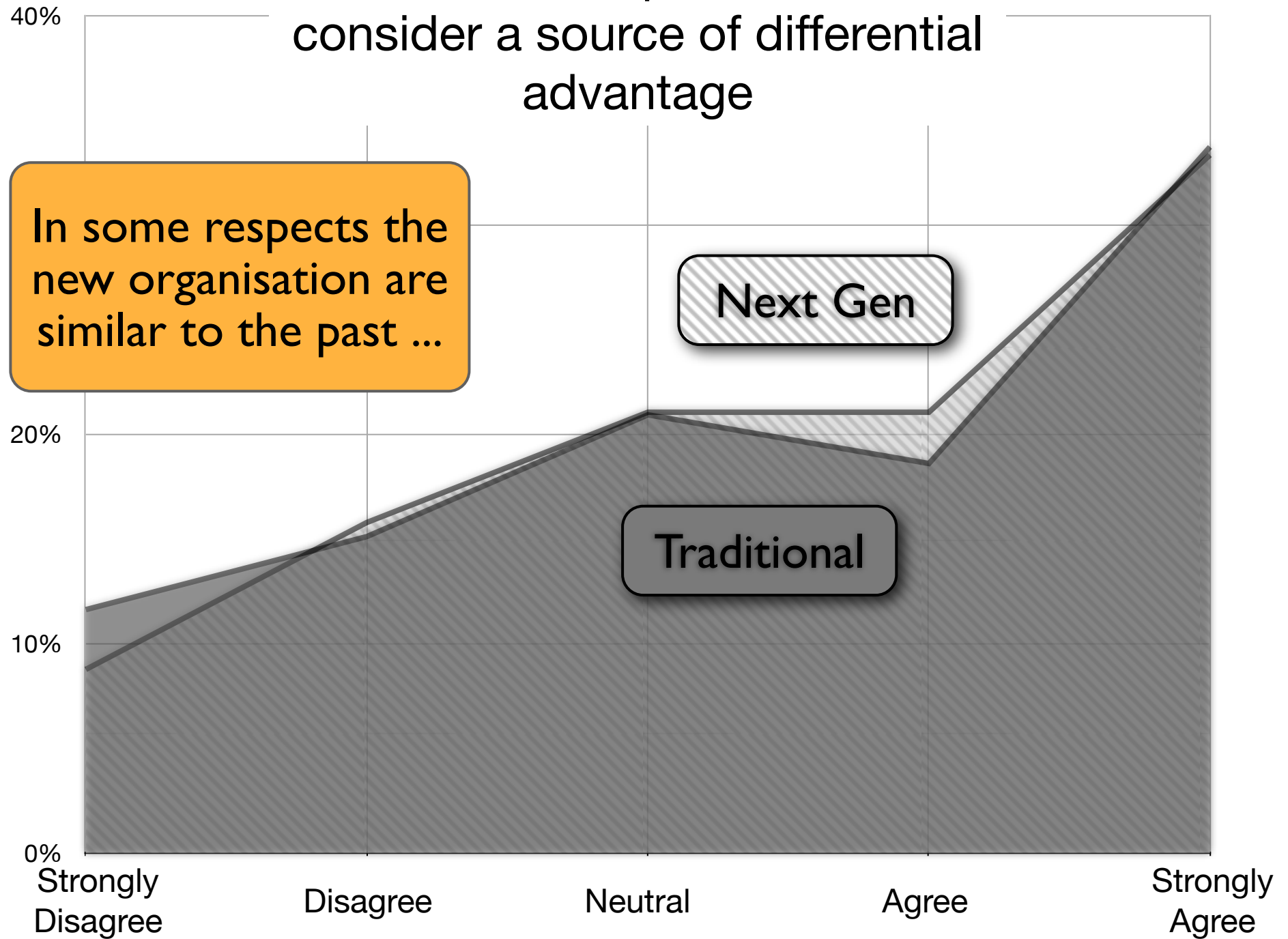
Even today.



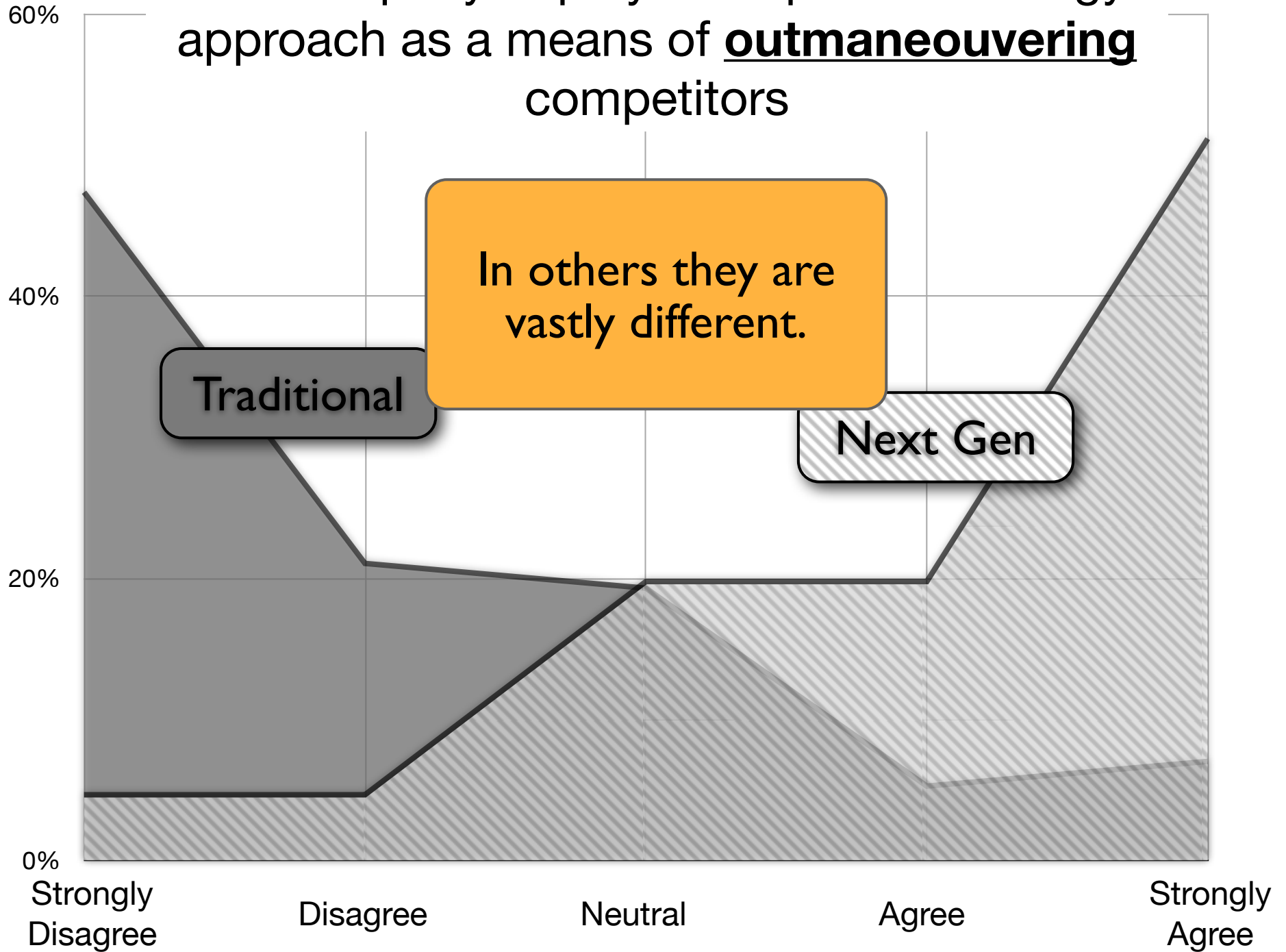
Evolution

We do not open that we consider a source of differential advantage

In some respects the new organisation are similar to the past ...



Our company deploys an open technology approach as a means of **outmaneuvering** competitors



This is the phenotype

Type		Traditional	Next Generation
Structure	Organisation	Departmental	Service / Cell
Culture		Inertia	Fluid / Gameable
Corporate Focus		Profit	Disruption
Open source	Strategy / Tactical	Cost Reduction	Weapon
Learning		Analysts	Ecosystem
"Big" Data		Used	Driven By
Resilience	Practice	N+1	Design For Failure
Failure Testing		Disaster Recovery	Chaos Engines
Capacity		Scale Up	Scale-out
Technique		Single	Mixed
Deployment	Activity	Change Control	Continuous
Infrastructure		Enterprise Class	Commodity

TABV. NOVA PARTIS AFRIC.

So what?

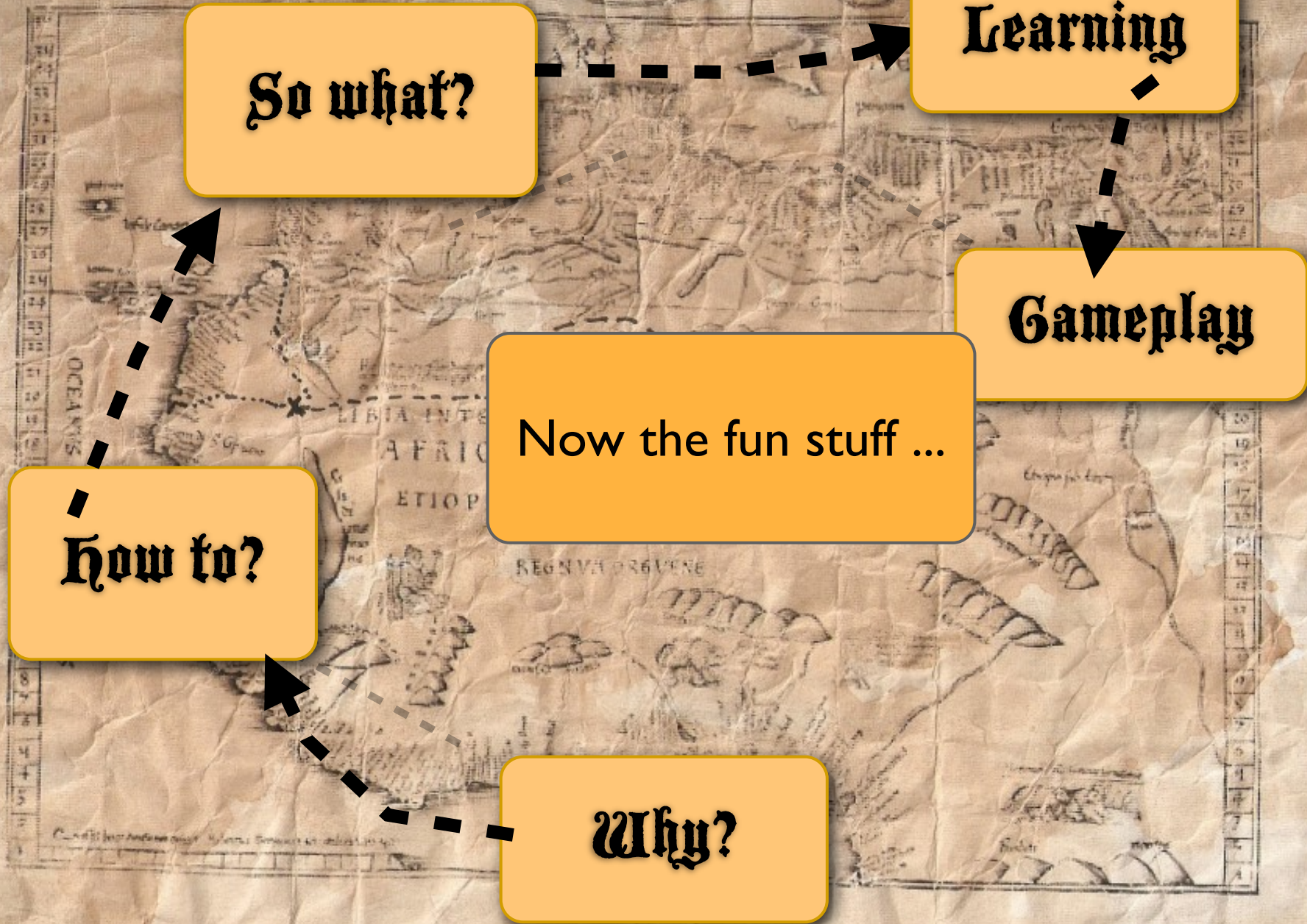
Learning

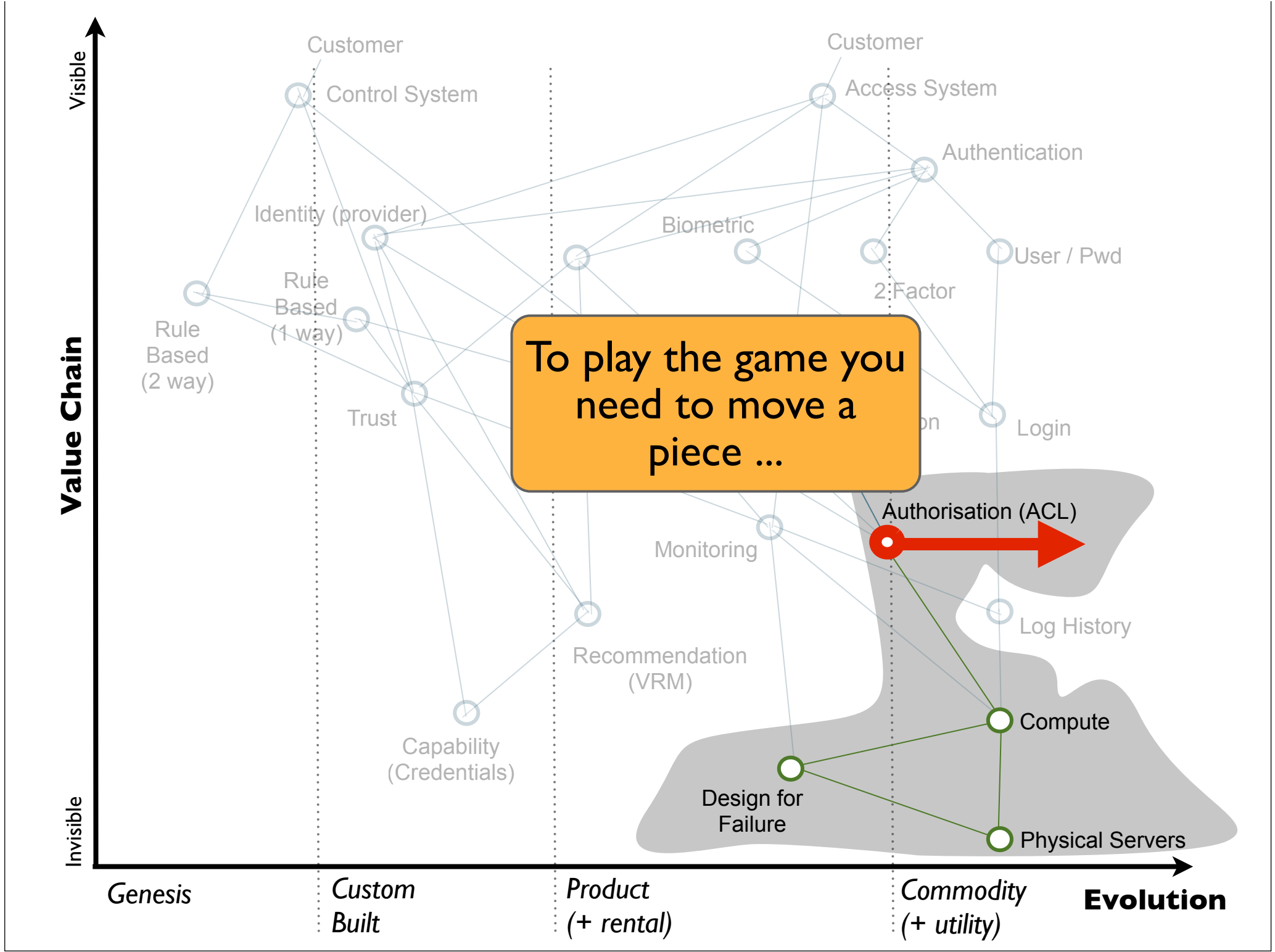
Gameplay

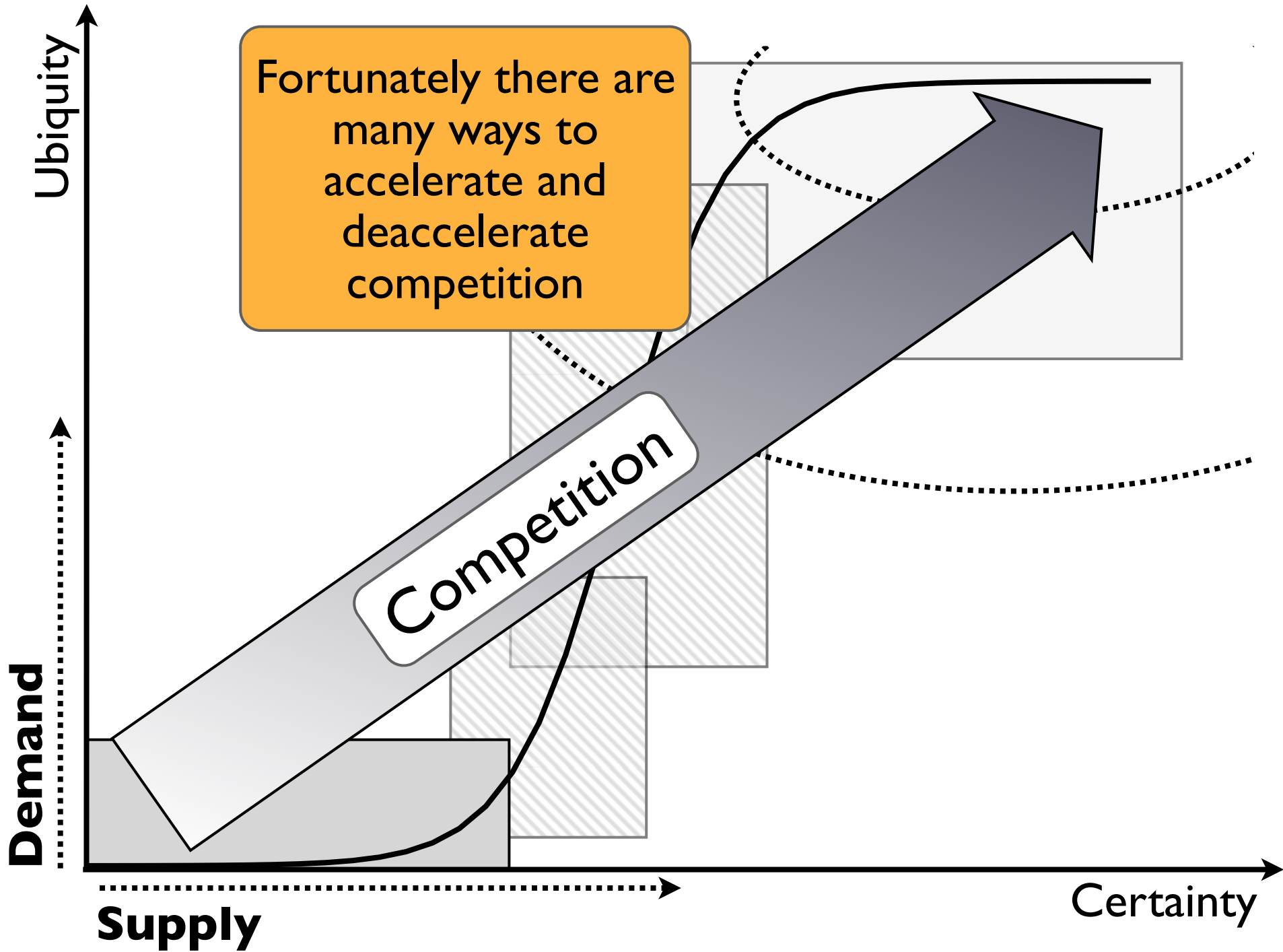
Now the fun stuff ...

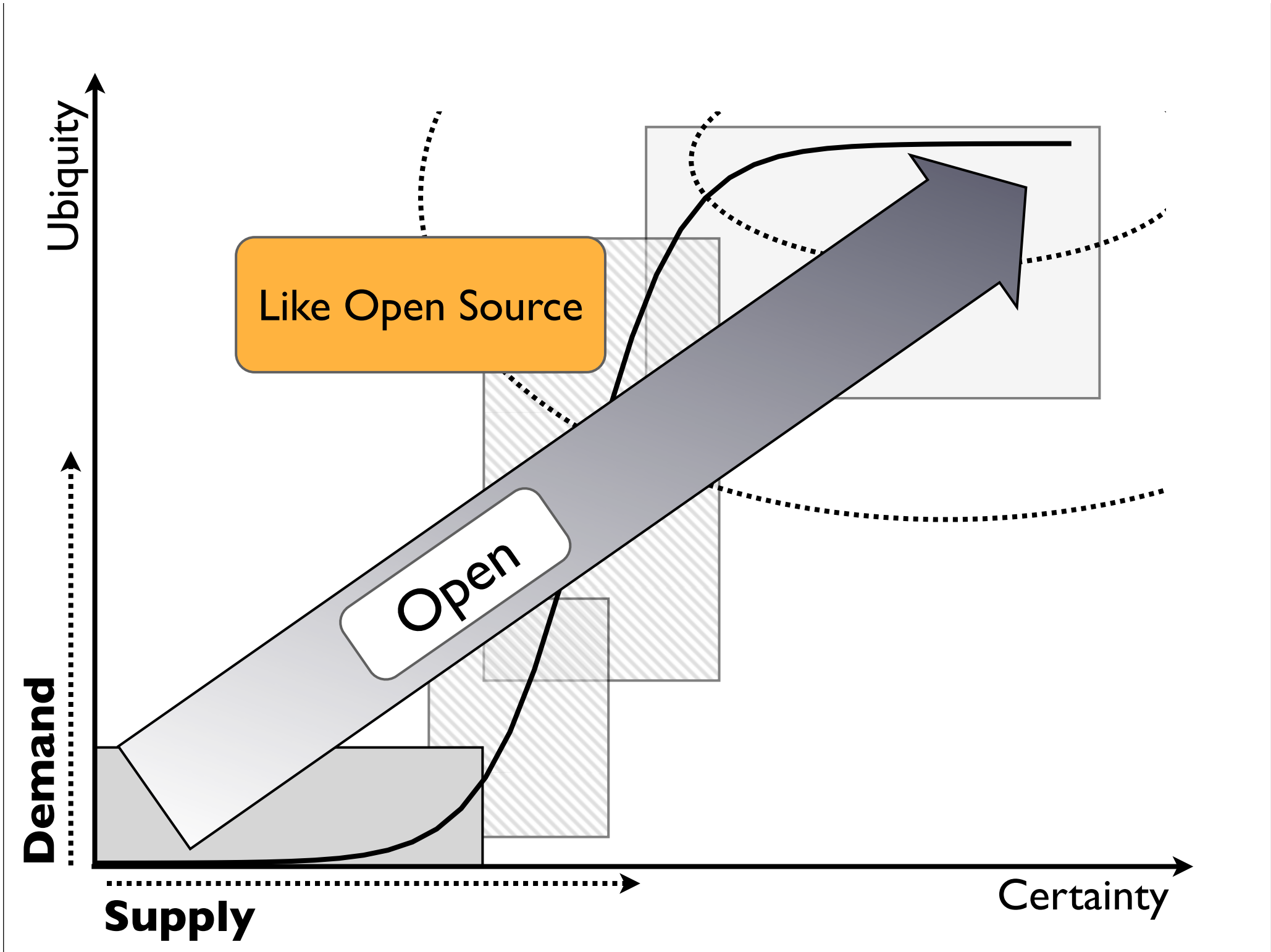
How to?

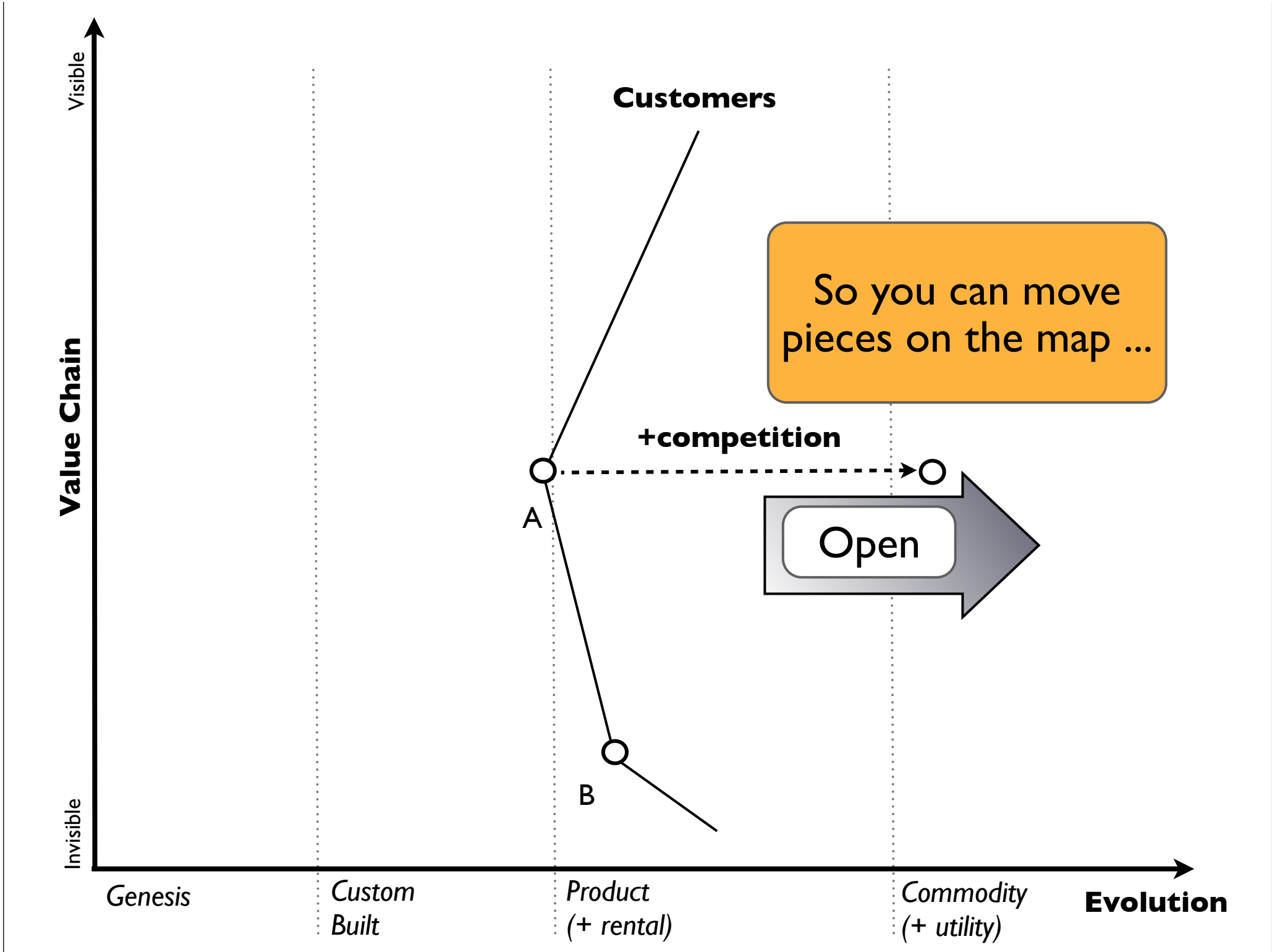
Why?

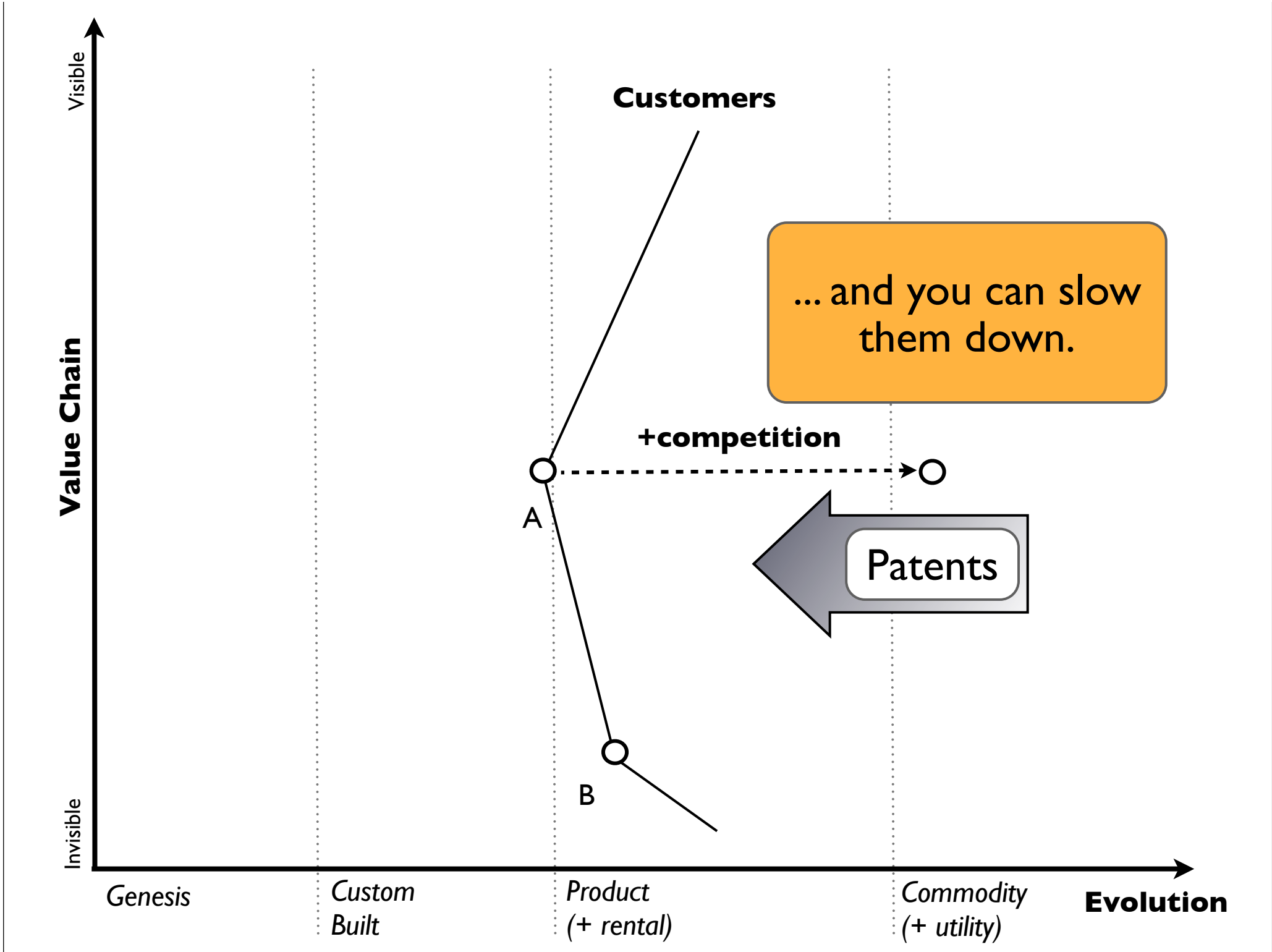


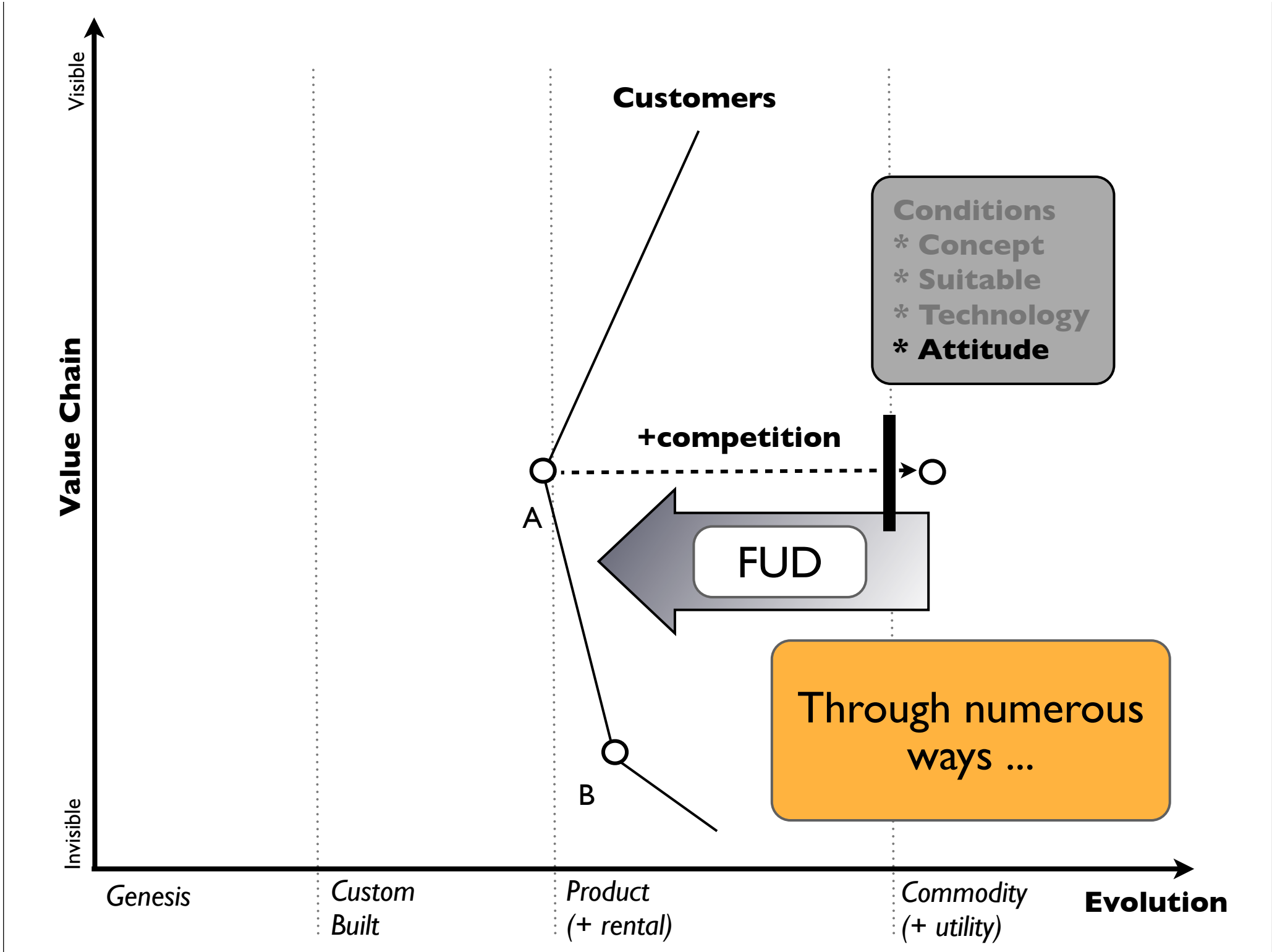


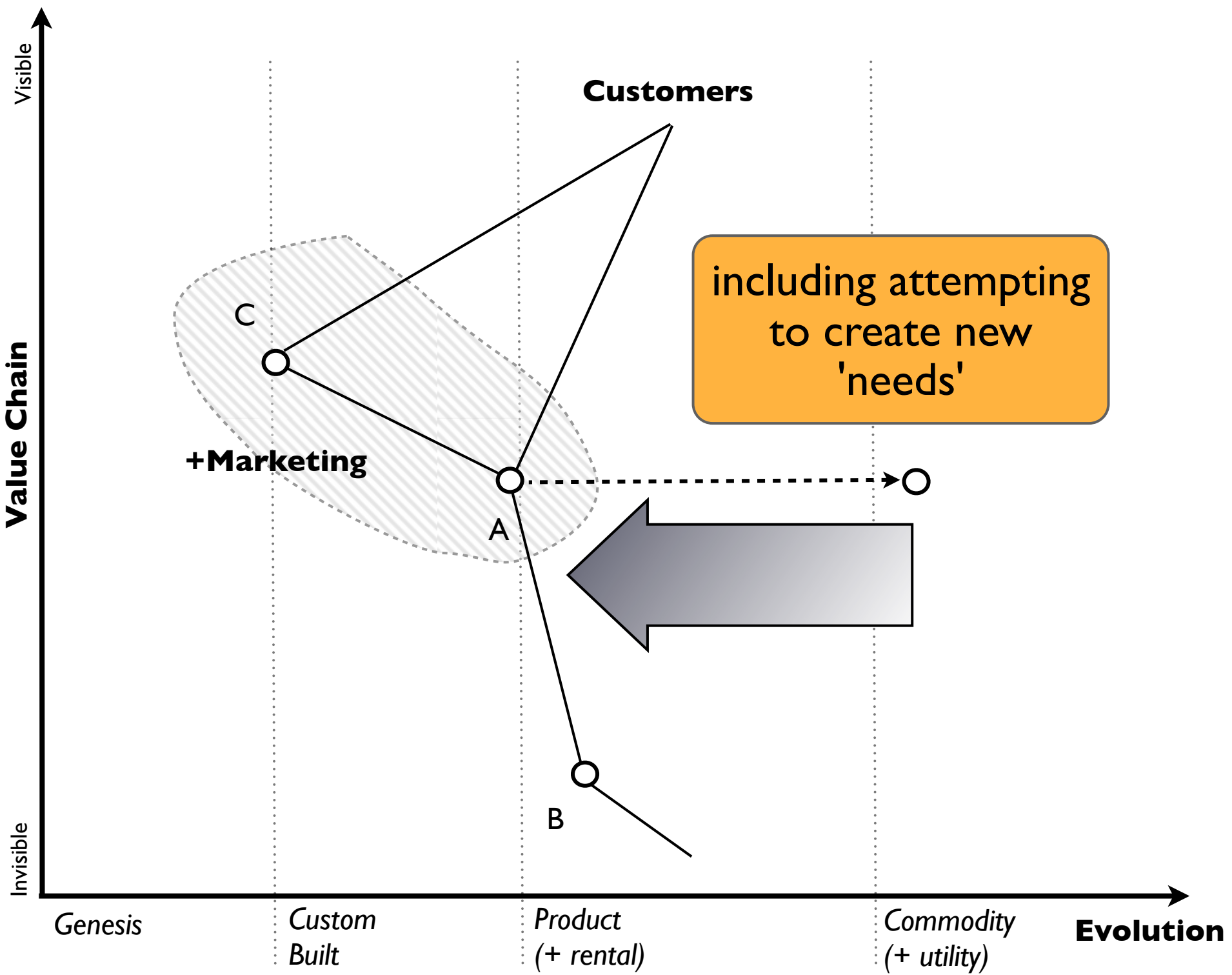


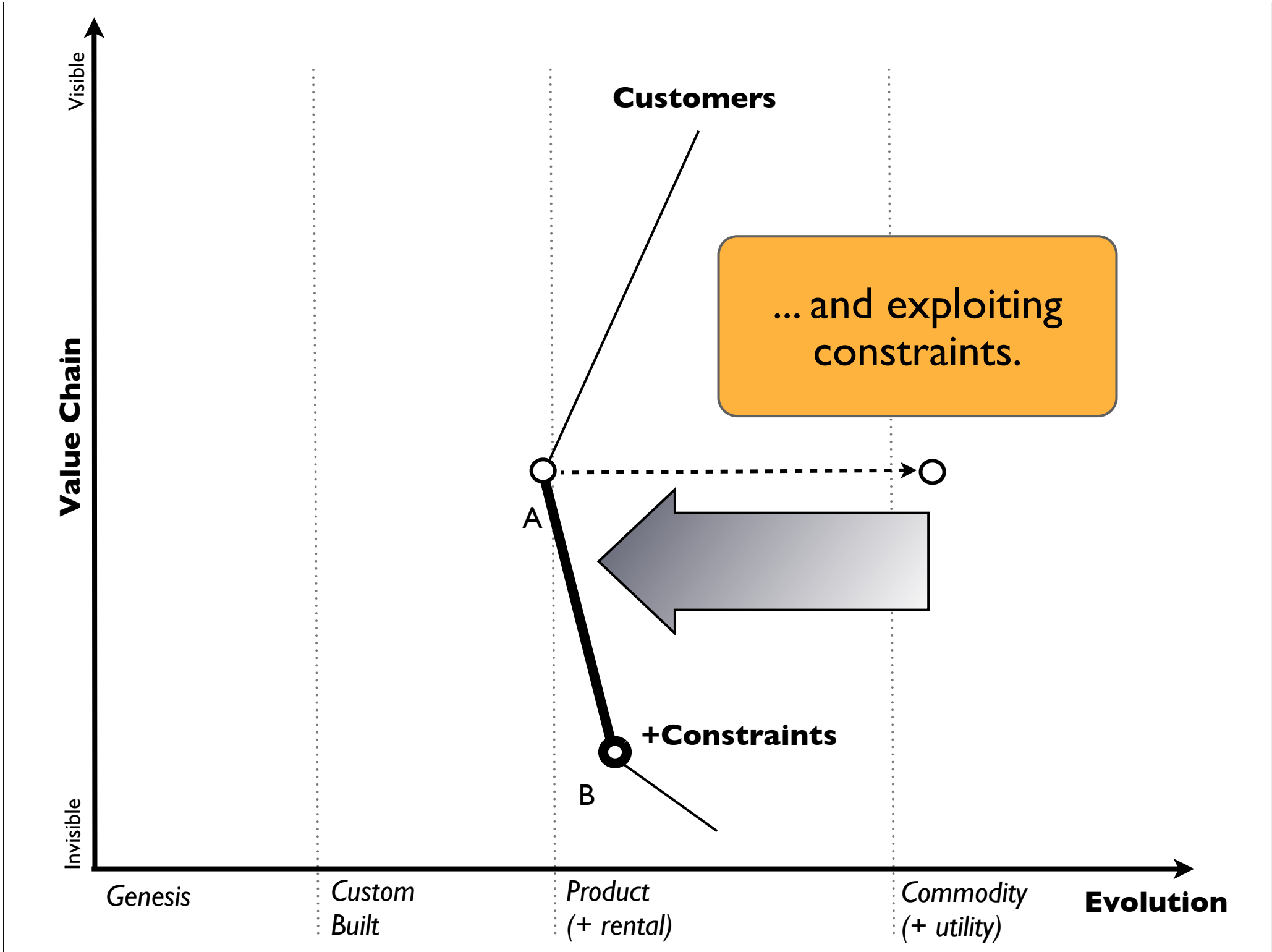




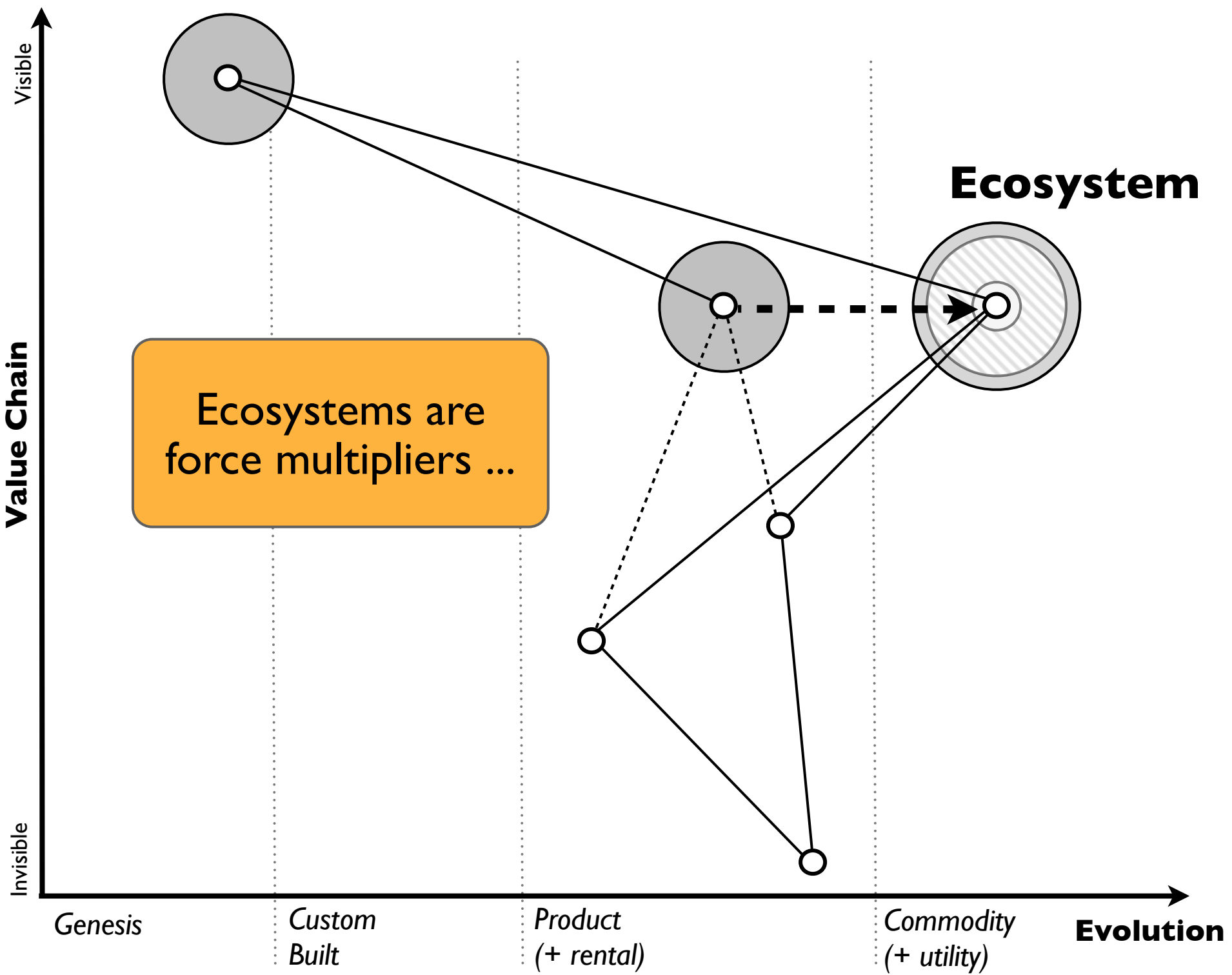


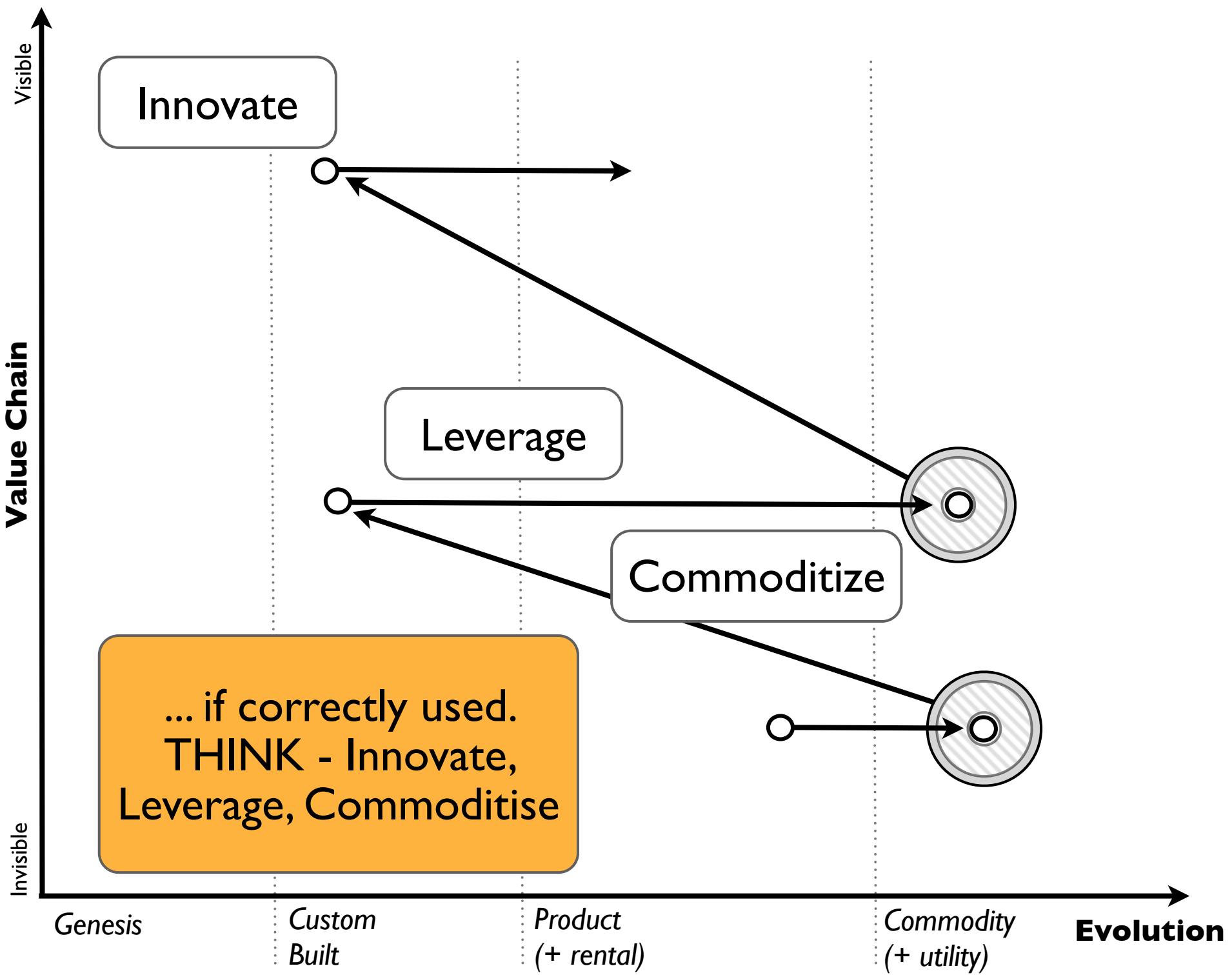






The rest of this presentation was examples of this and how to exploit the situation. For those who attended one of the workshops, a couple of diagrams for reminders ...

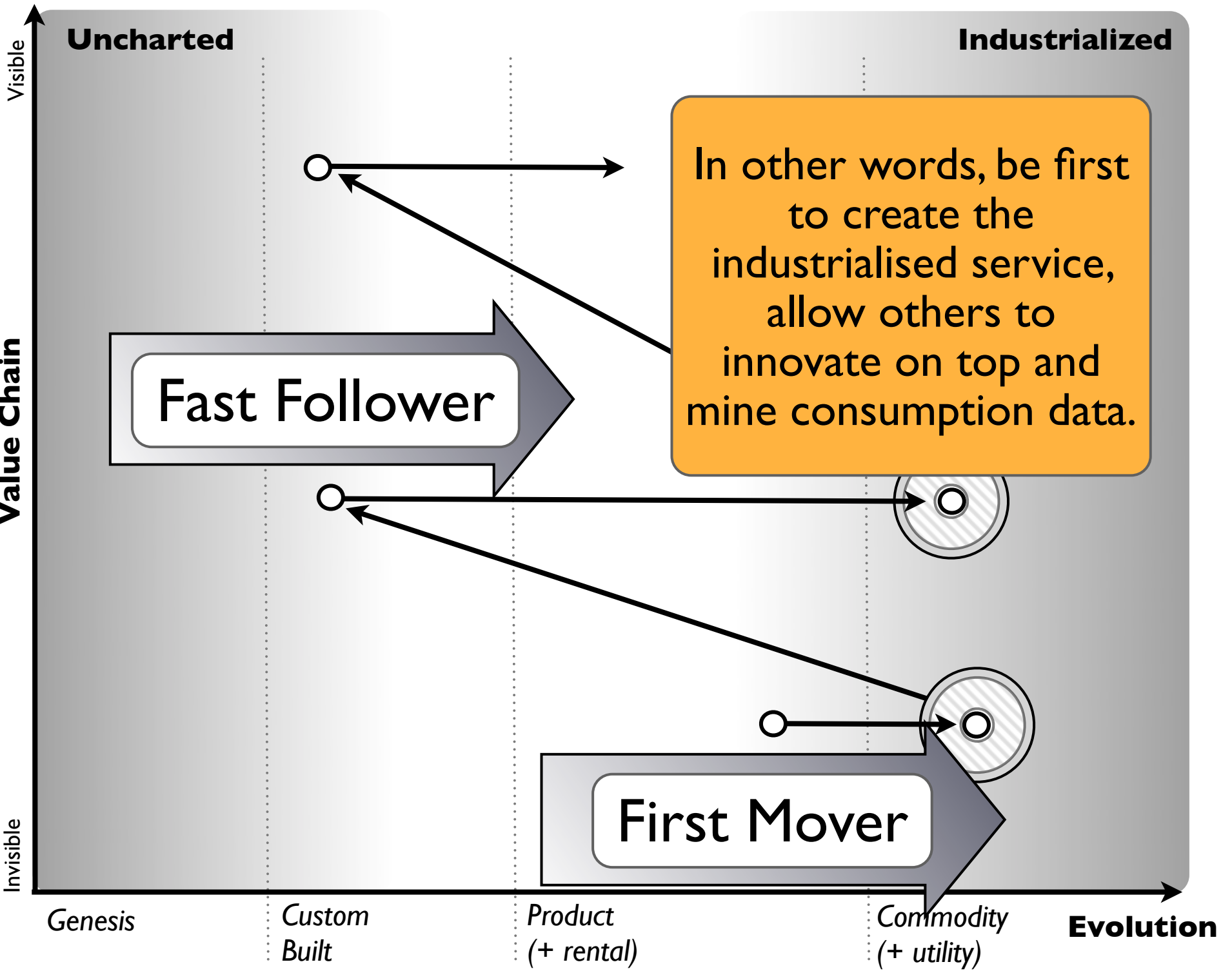




Worth noting

Ecosystems if effectively used are
future sensing engines.

*Be first to industrialise
but follow innovation*



Uncharted

Industrialized

Visible

Value Chain

Invisible

Genesis

Custom
Built

Product
(+ rental)

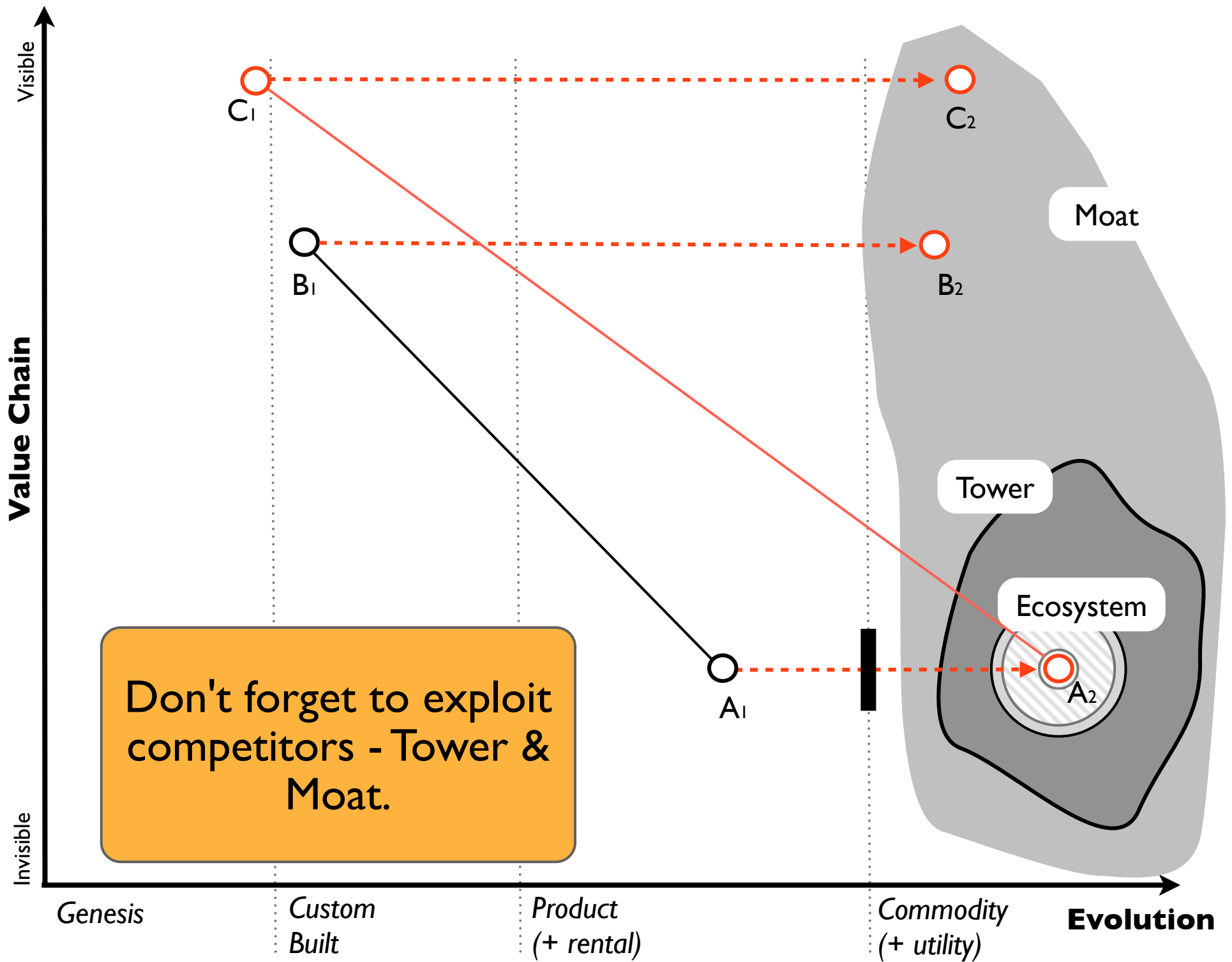
Commodity
(+ utility)

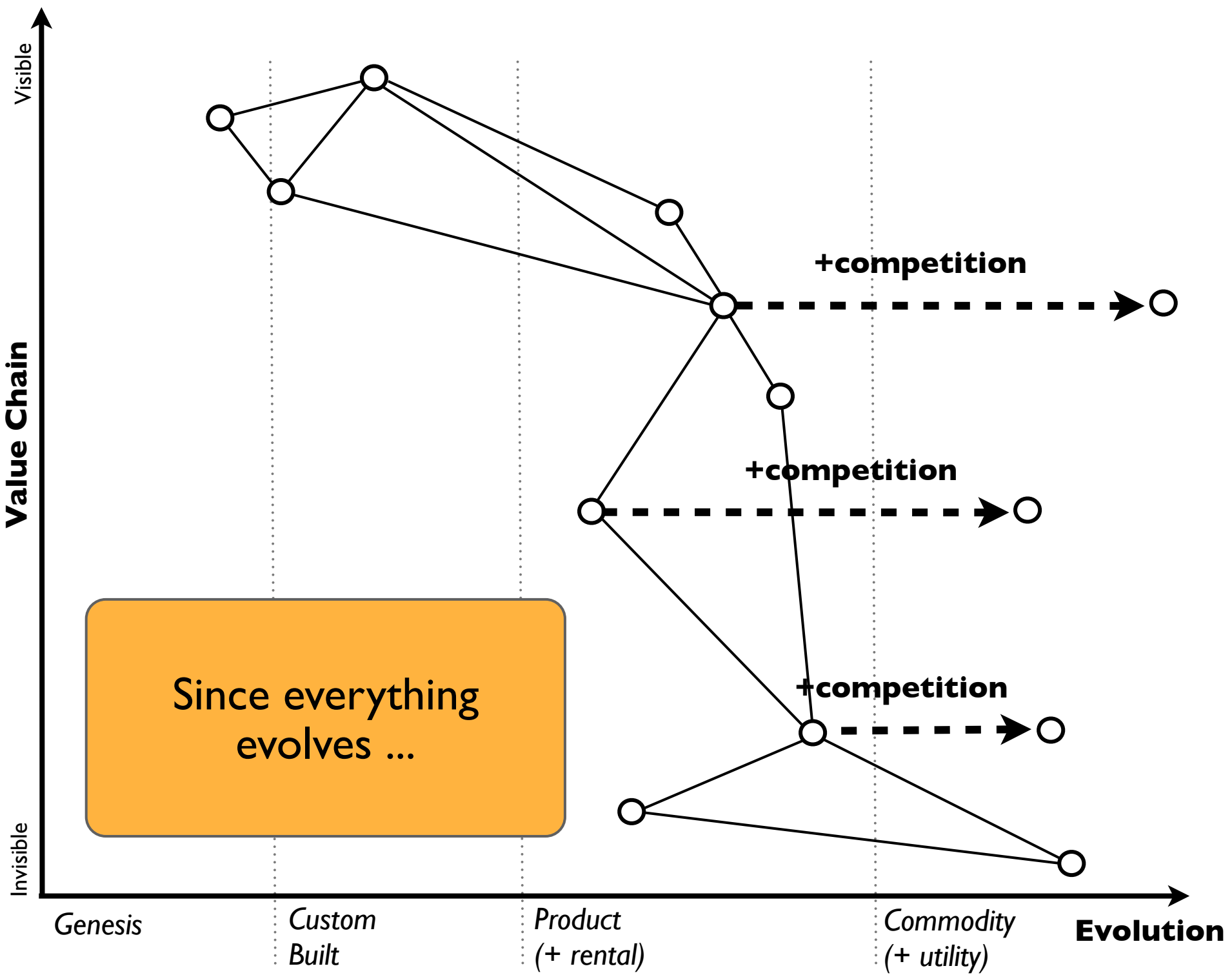
Evolution

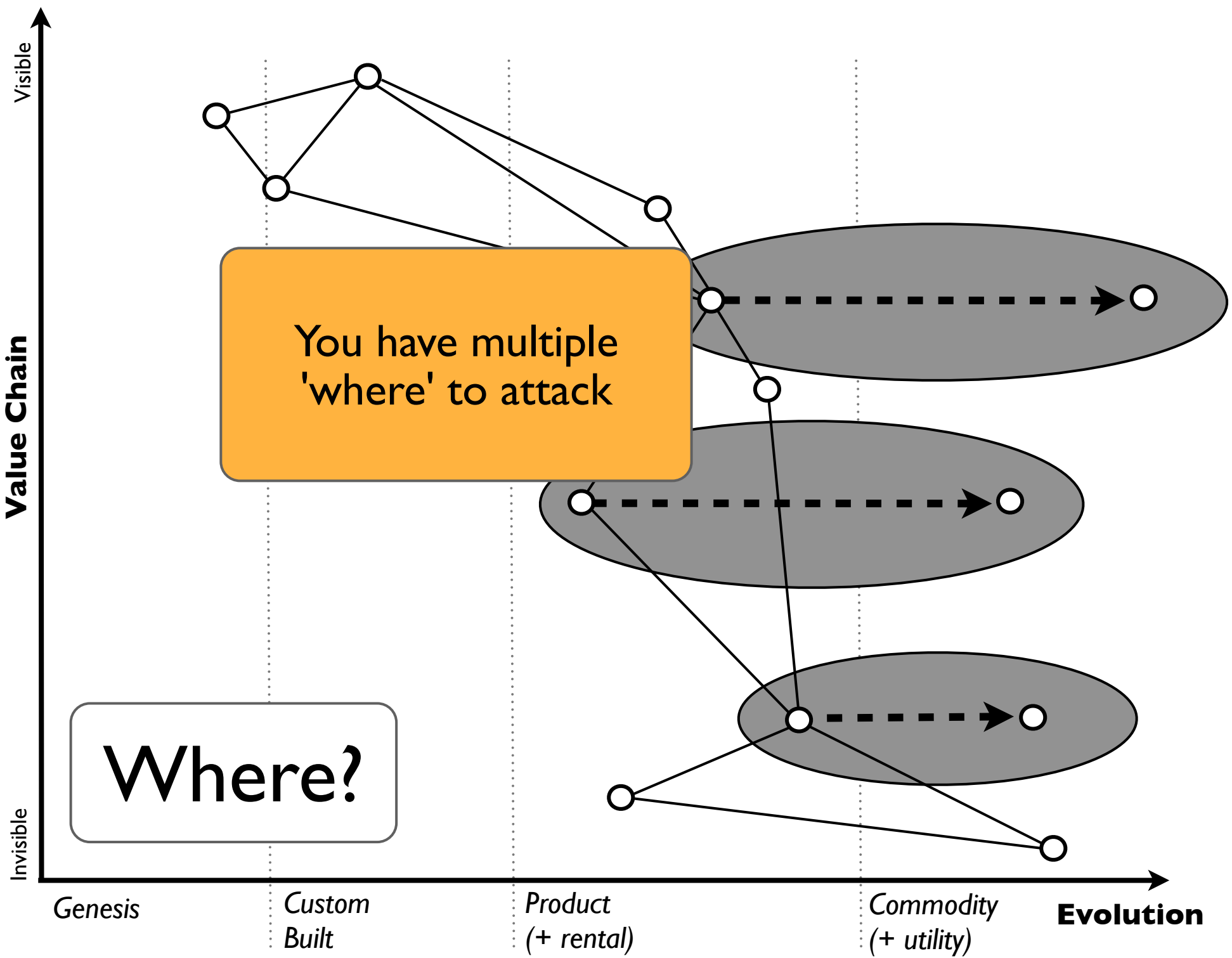
Fast Follower

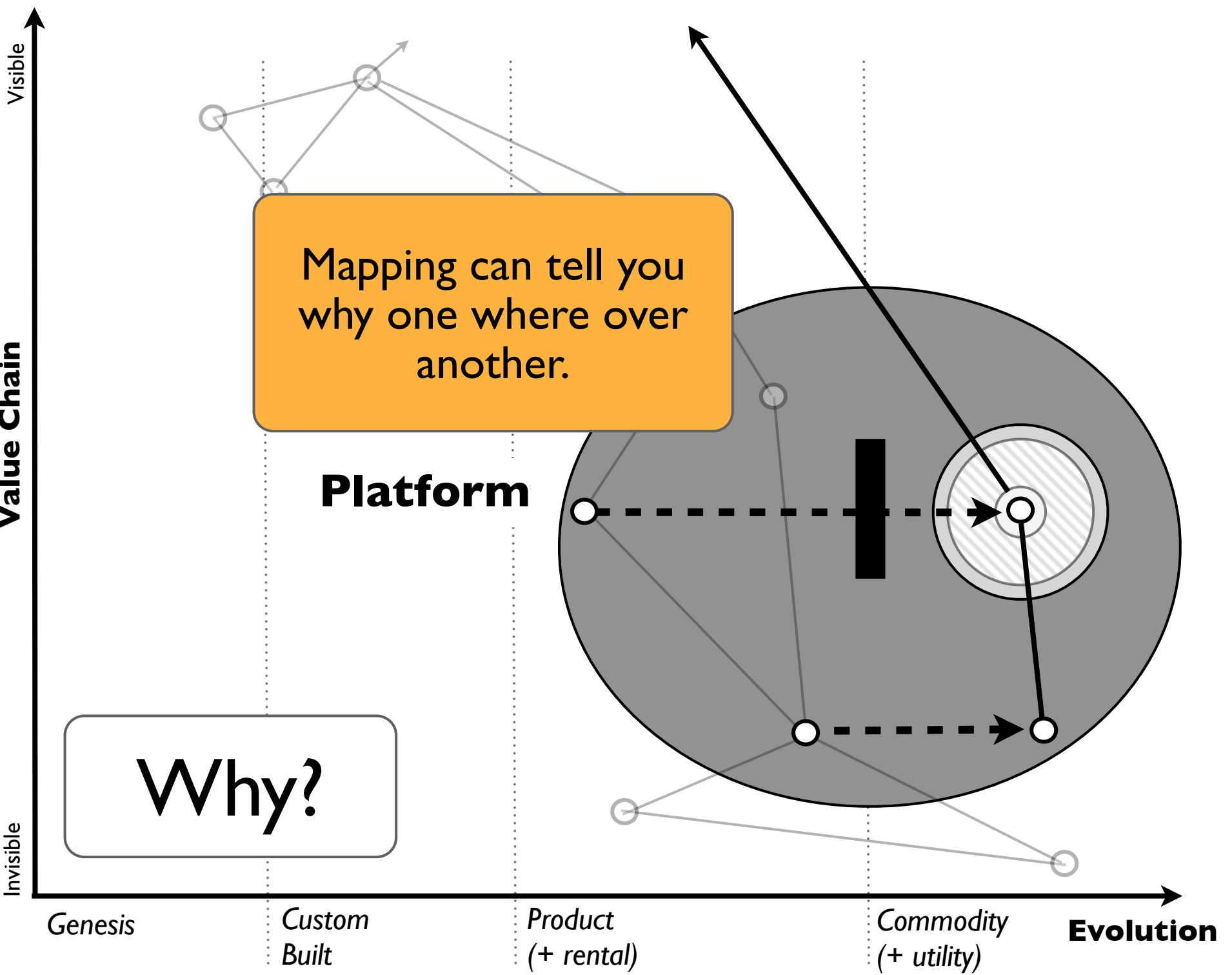
First Mover

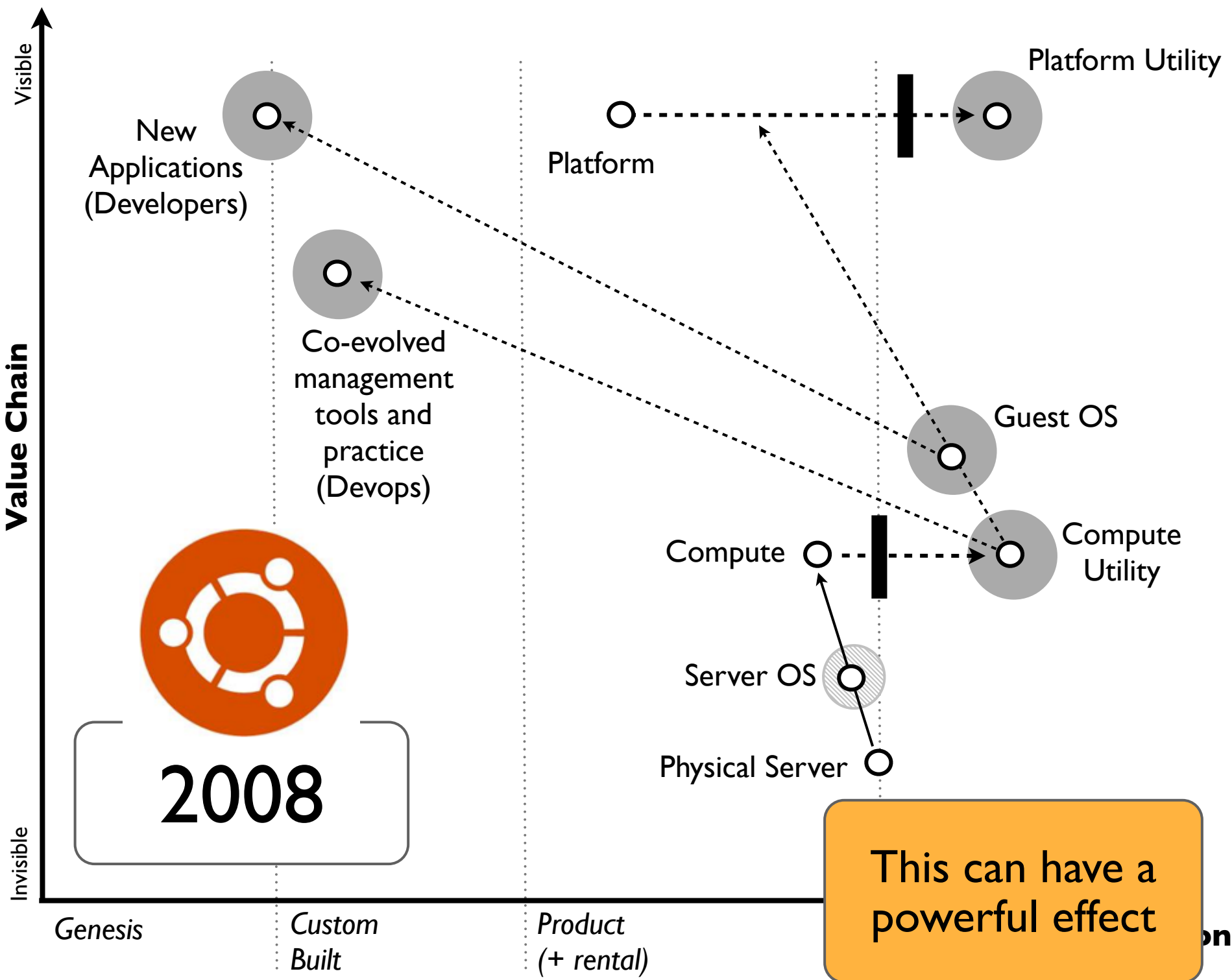
In other words, be first to create the industrialised service, allow others to innovate on top and mine consumption data.











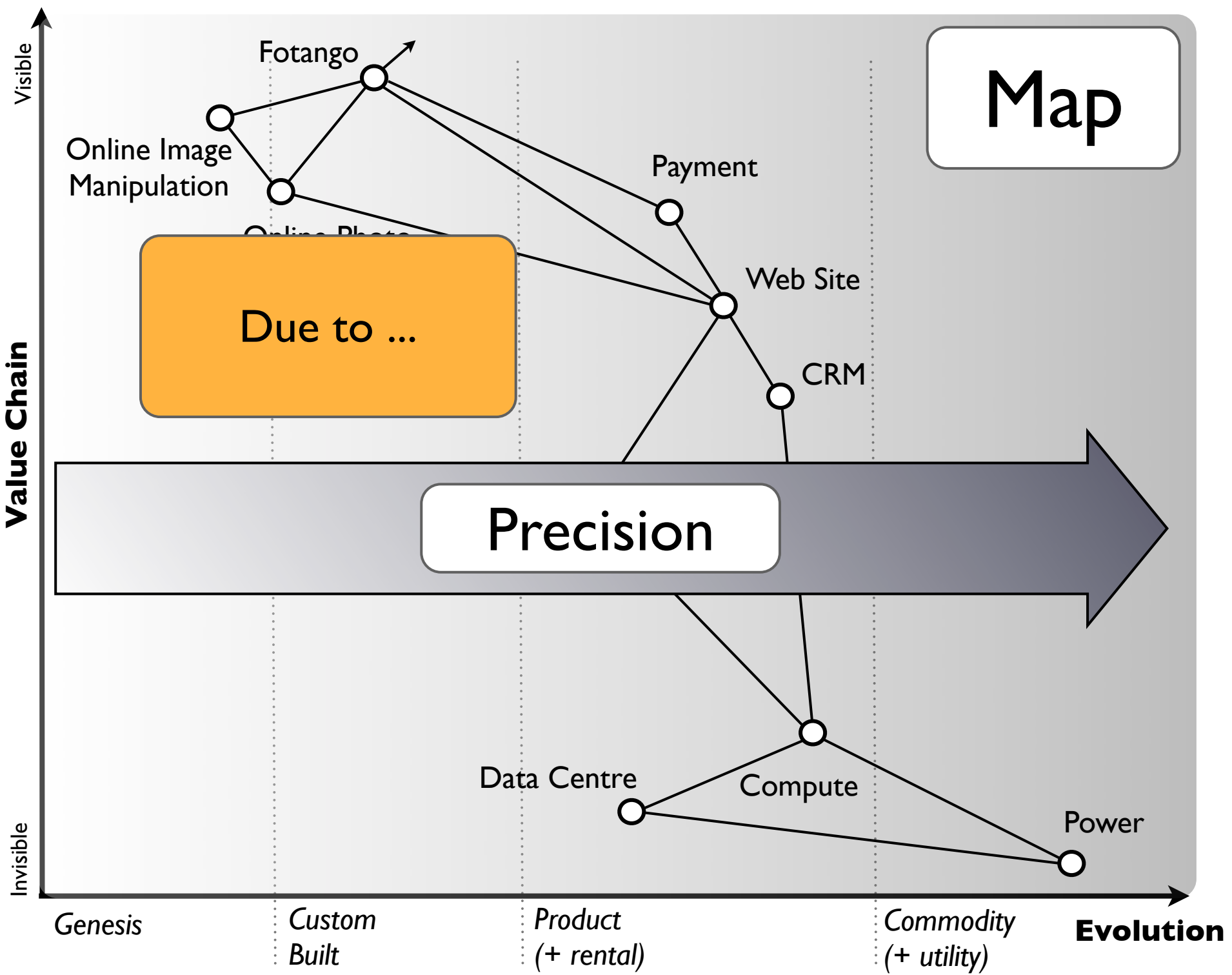
This can have a powerful effect



Remember ...

The only people who
can map a business
are people within the
business.

No consultants

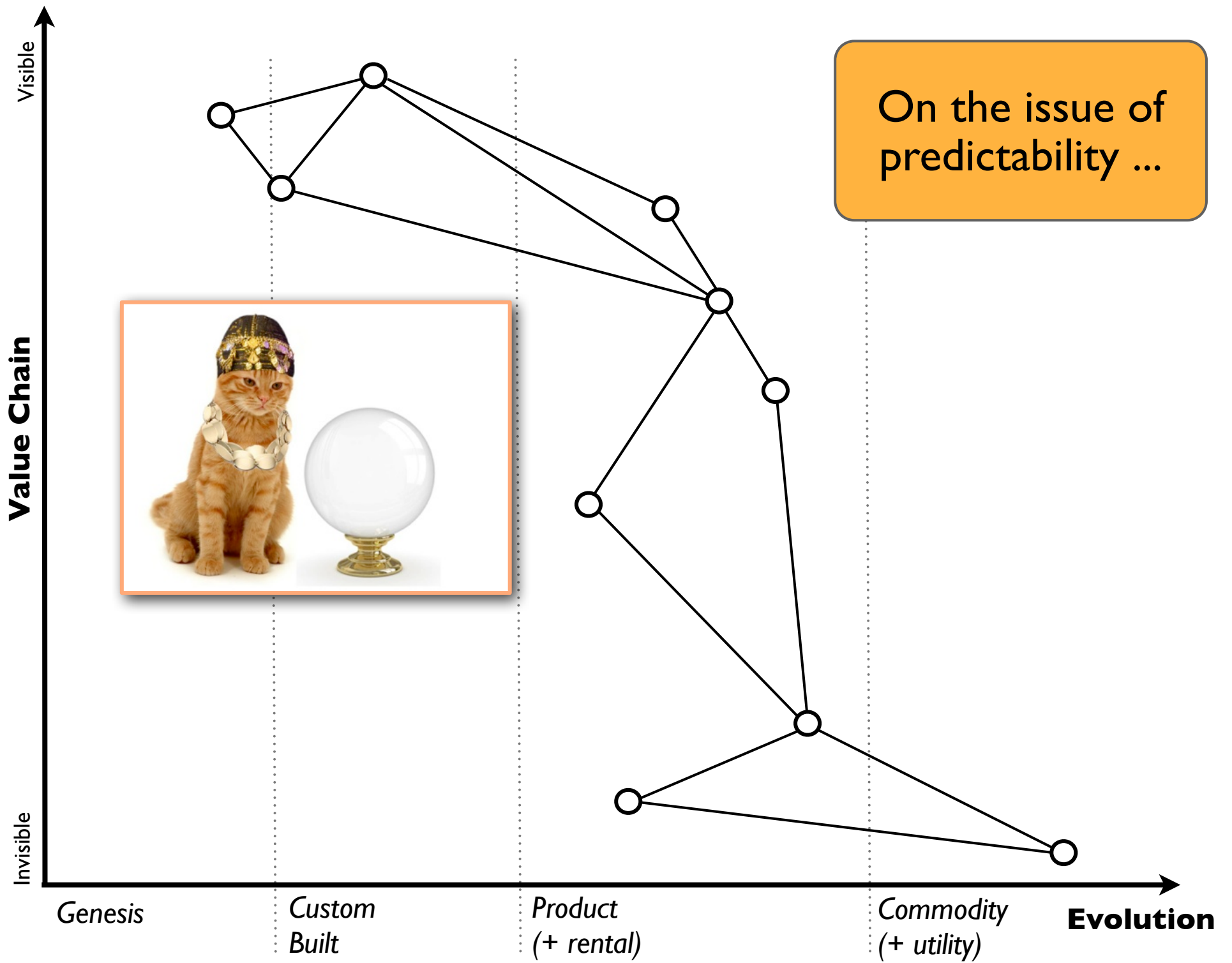




Marquis De Condorcet, 1785

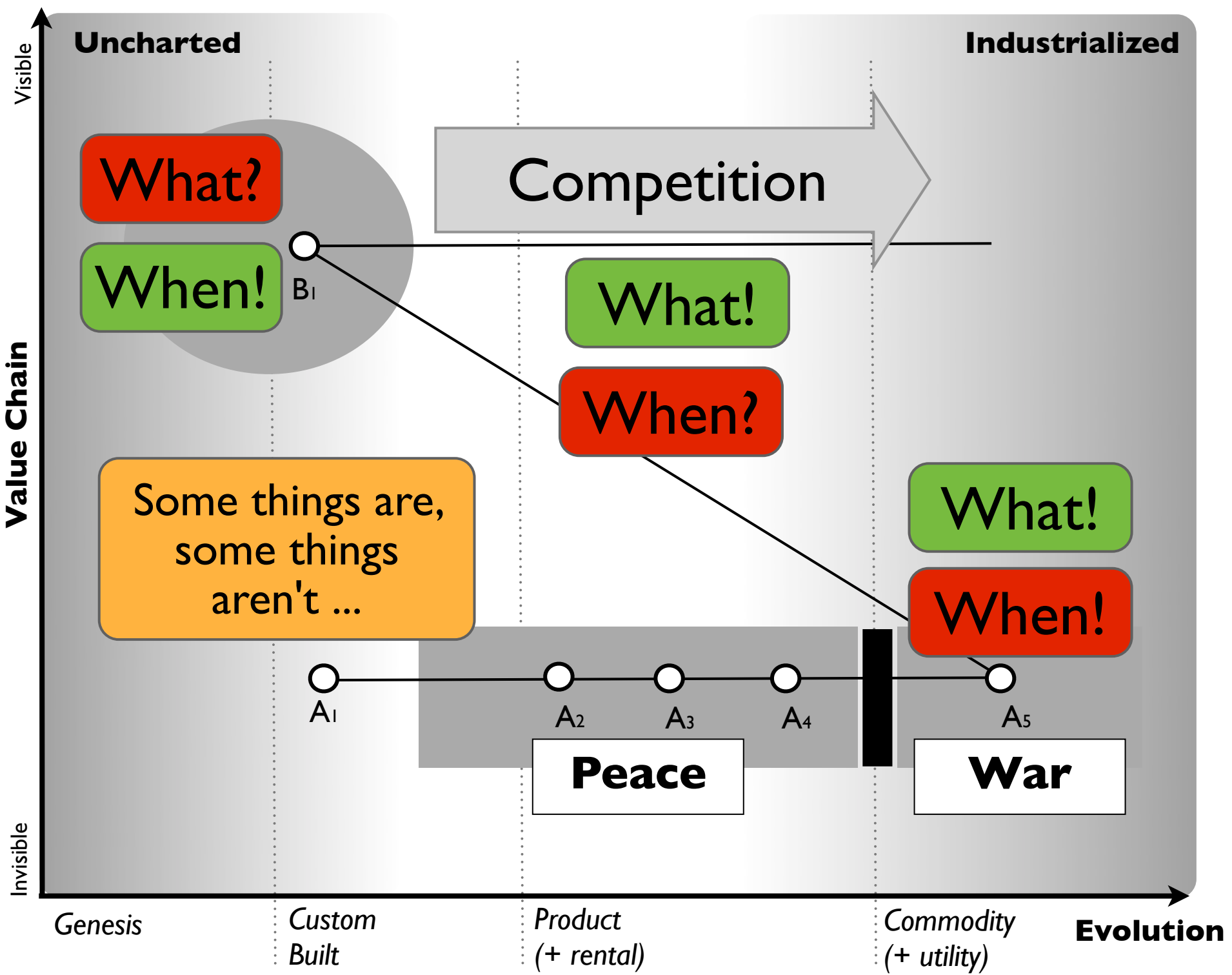
"each member of a voting group is **more likely than not to make a correct decision**, the probability that the highest vote of the group is the correct decision **increases as the number of members of the group increases**"

Wisdom of the Crowd



On the issue of predictability ...





Not confirmed,
but ...

*There appears to exist an
uncertainty principle in the
economic cycle whereby*

$$***p(what) + p(when) \approx 1***$$

We didn't get to organisation ...

Unit (fitness function)

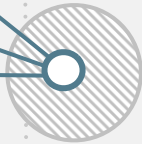
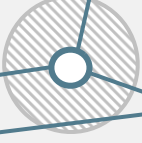
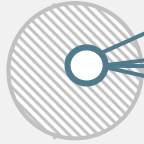


fitness function



fitness function

Cells

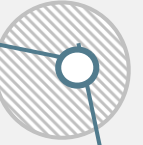
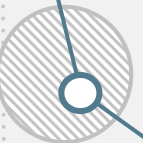


Aptitude

(finance + marketing)

Aptitude

(finance + engineering)



... maps help with cell based structures ...

Value Chain

Invisible

Genesis

Custom
Built

Product
(+ rental)

Commodity
(+ utility)

Evolution



Visible

Uncharted

Industrialized

Unit (fitness function)

but there's an issue of attitude ...

Value Chain

Invisible

Cells

fitness function

fitness function

Attitude?

Attitude?

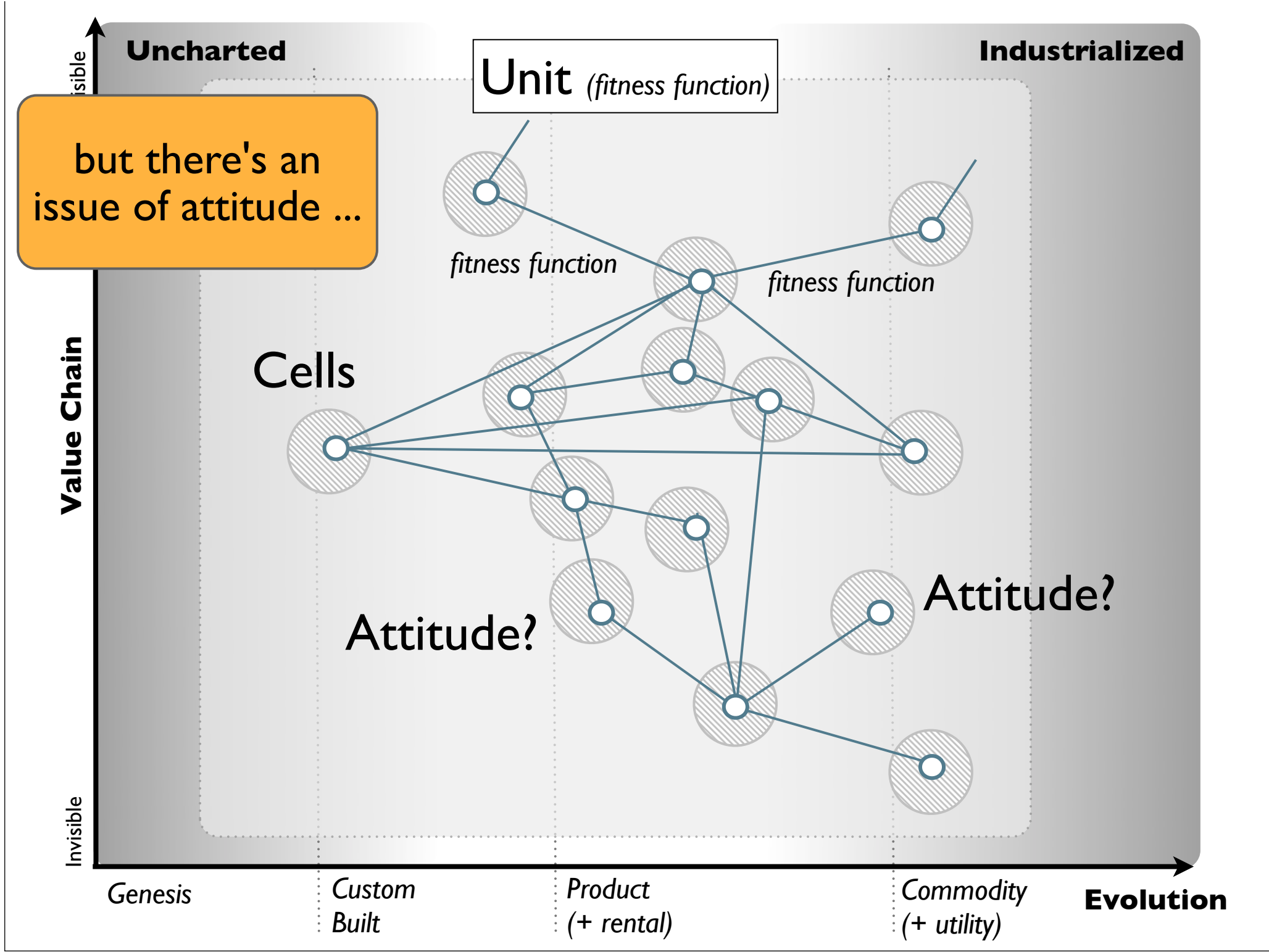
Genesis

Custom Built

Product (+ rental)

Commodity (+ utility)

Evolution



Visible

Uncharted



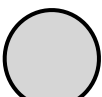
Industrialized

Unit (*fitness function*)

... that allows for new forms of organisation

Value Chain

Attitude

-  **Pioneers**
-  **Settlers**
-  **Town Planners**

Invisible

Genesis

Custom
Built

Product
(+ rental)

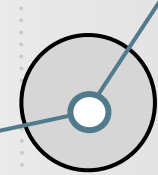
Commodity
(+ utility)

Evolution

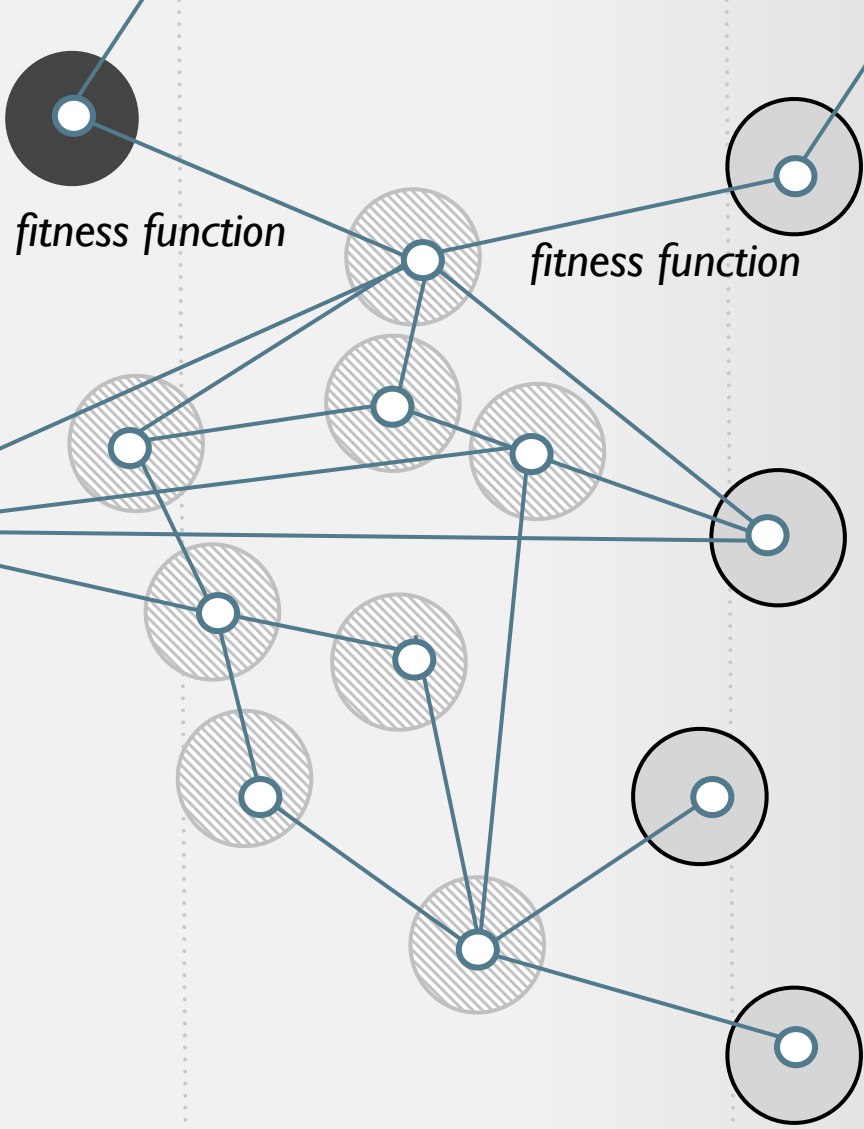
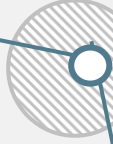
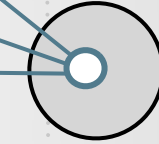
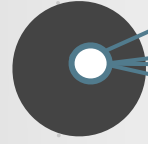
Cells

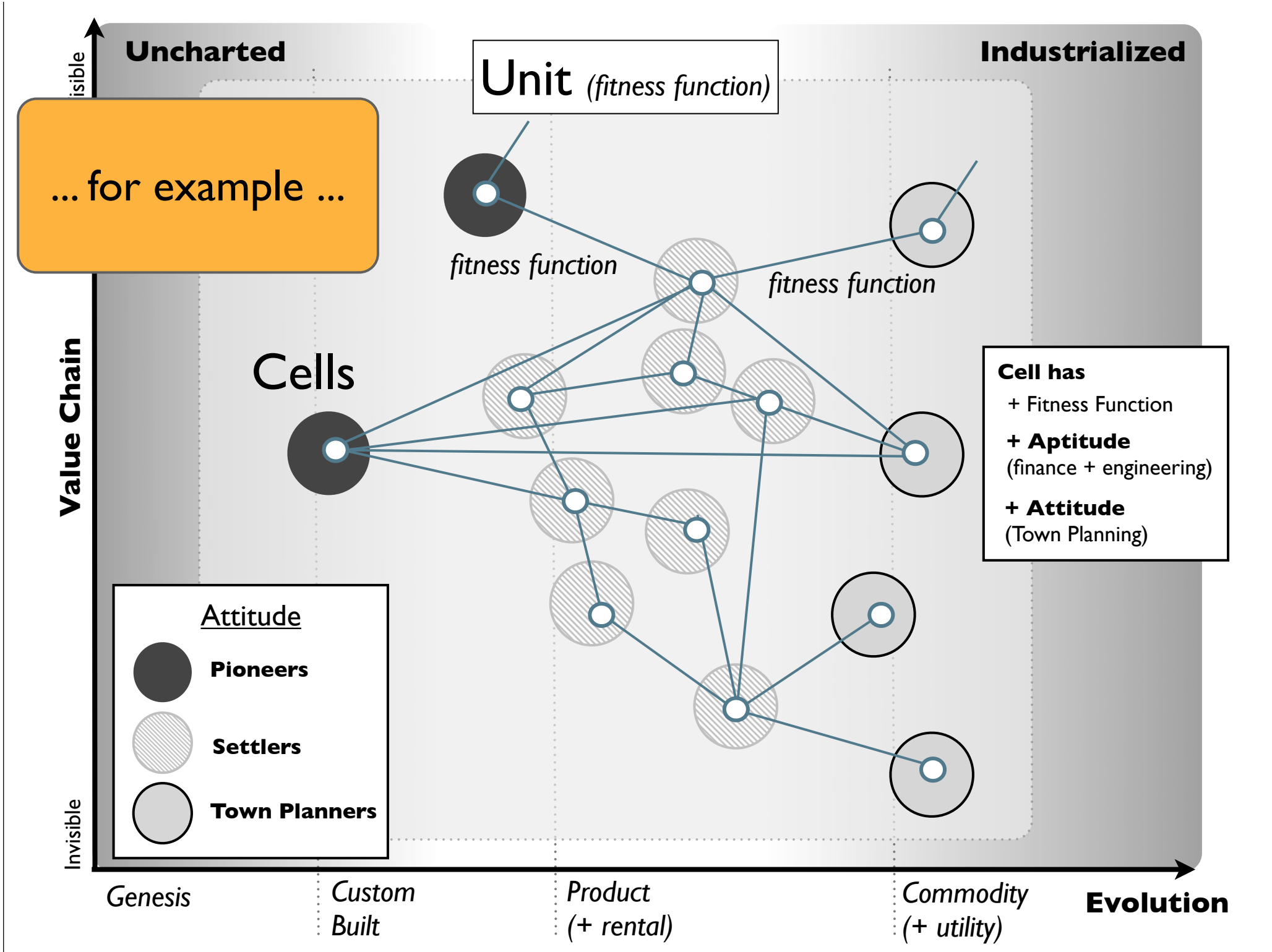


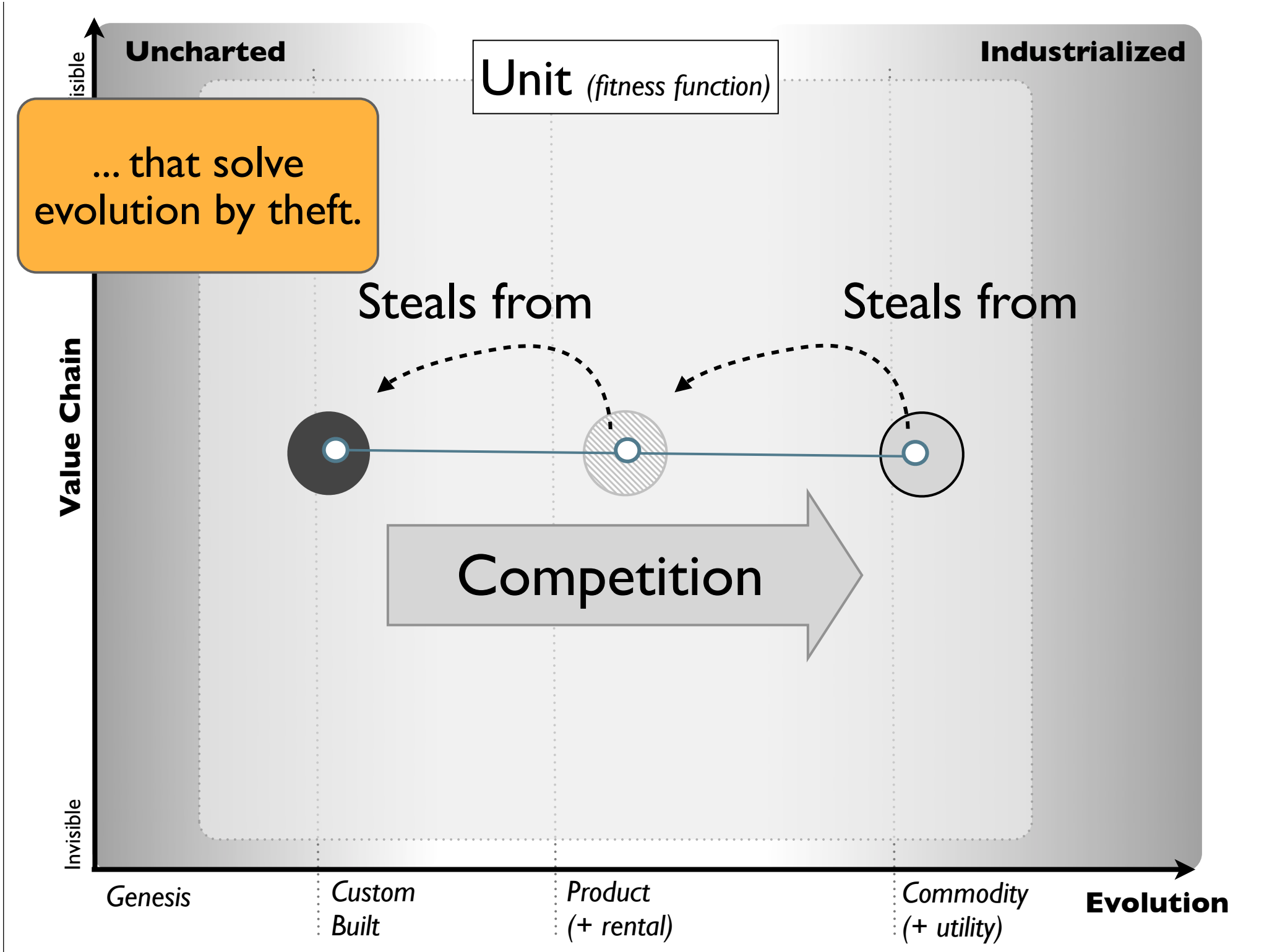
fitness function



fitness function







Leading to ...

Executive

+situational awareness

+fitness functions

Chief Pioneer

Chief Settler

Chief Town Planner

Units

Units

Units

+fitness functions

+populate

+fitness functions

+populate

+fitness functions

Finance

Engineering

Operations

Marketing

Cells
(aptitude & attitude)

Cells
(aptitude & attitude)

steal from

Attitude

Attitude

Attitude

3 x Cultures

+enforces evolution

Preparation

Work

Aptitude

