

# SUSTAINABILITY IN THE NHS

## *Overview of an Innovation Project*

- PRESENTATION – EMRI- WORKING PAPER SERIES
  - Dr Michael Fascia 2018

# LEARNING OUTCOMES FOR TODAY

- A conceptual overview of innovation
- Typical approaches – Process
- Typical approaches – Management

## OUR FOCUS

- Modern methods to drive management innovation in the NHS

# CONTEMPORARY VIEW OF INNOVATION

# WHAT IS INNOVATION?

***Innovation is the successful exploitation of new ideas...'***

(adapted from, Bessant and Tidd, 2007, pg. 12)

- A purposeful process
- Commercial exercise
- Done by workers in an organization context
- Dependant on Ideas or knowledge

# WHAT IS INNOVATION – Examples

- **Sustainable innovation** - *describes products and processes that contribute to sustainable development*
- **Disruptive innovation** - *helps create a new market and value network, and eventually goes on to disrupt an existing market and value network (over a few years or decades), displacing an earlier technology.*
- **Supply chain innovation** - *applying best practices and technological innovations to your own supply chain in order to reduce wait times and other waste*
- **Incremental innovation** - *Incremental innovation seeks to improve the systems that already exist, making them better, faster cheaper*
- **Process innovation** - *Process innovation means the implementation of a new or significantly improved production or delivery method.*
- **Blue ocean innovation** - *represent the unknown market space, i.e. all the industries not in existence today.*
- **Red ocean innovation** - *Red Oceans refer to the known market space, i.e. all the industries in existence today.*

# WHAT IS INNOVATION - Examples

- **Radical innovation** - *provide something new to the world*
- **Open source innovation / Crowdsourcing** - *promotes free redistribution and access to an end product's design and implementation details*
- **Experience innovation** - *Companies try to create holistic experiences by emotionally engaging consumers.*
- **Service innovation** - *Service Innovation can be defined as “a new or considerably changed service*
- **Business model innovation** - *refers to the creation, or reinvention, of a business itself.*
- **Frugal innovation** - *Frugal Innovation is about doing more with less.*

# INNOVATION is IMPORTANT ~ Because...

- Innovation is a major contributory factor in the growth of firms
  - *(Mansfield, 1968,1971)*
- Better business performance related to higher measures of innovation
  - *(Cavanagh & Clifford, 1983)*
- Levels of competitiveness linked with levels of innovativeness
  - *(Dosi, 1988)*
- Firms using innovation to differentiate themselves from competition, twice as profitable
  - *(Pavitt, 1991)*
- Innovating firms have lower probability of stagnant or declining employment in comparison to non-innovating firms
  - *(Frenz et al 2003)*
- Innovative businesses growing more than non-innovative businesses
  - *(European Commission, 2004)*

# INNOVATION is SIGNIFICANT ~ Because...

- Leads to firm growth and survival, innovative & creative firms are more likely to be successful - market share, productivity, profitability
- Assists economic growth on national and global level
- At an individual level, fun to work in innovative/ creative firm environment



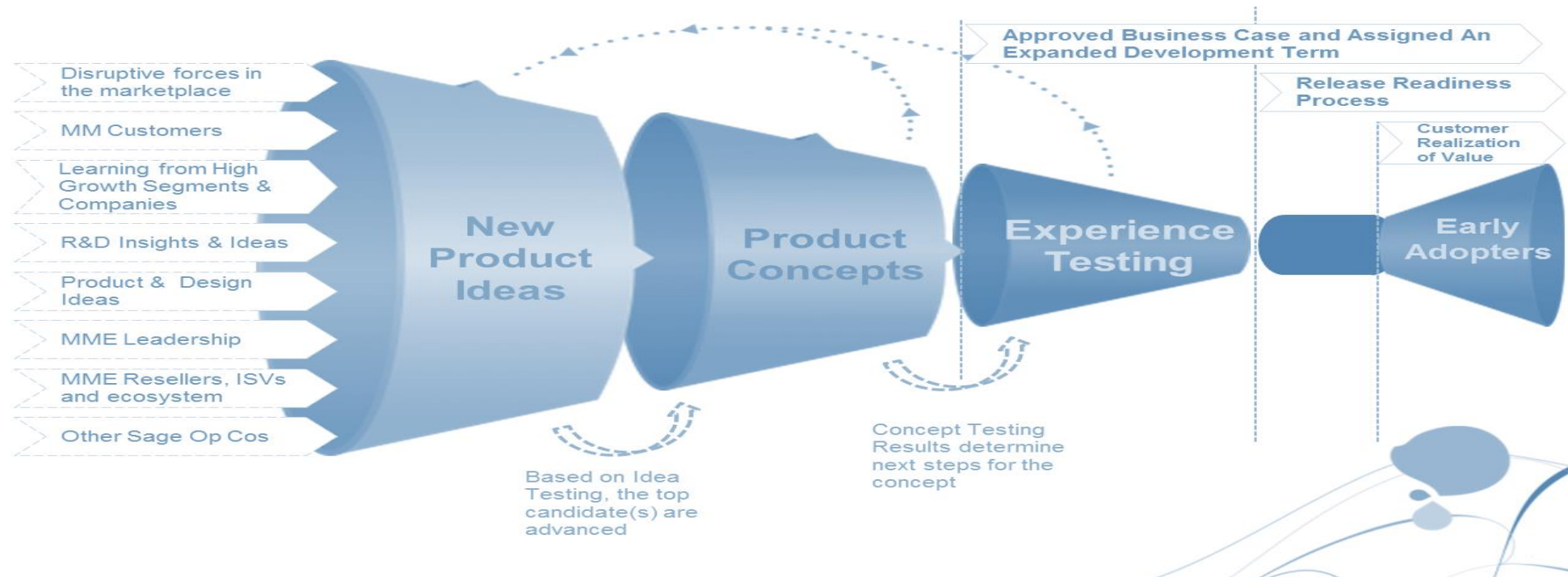
# INNOVATION is KEY ~ Because....

- TYPICAL IN A MODERN ORGANISATION SUPPORTING
- ***GROWTH*** – *Businesses must look to the future*
- ***COMMERCIAL VALUE*** – *Innovate to compete*
- ***COMPETITIVE ADVANTAGE*** – *New products/Markets & Services*
- ***ECONOMICS*** – *Worldwide influences & Infrastructures*

# Innovation Process Overview

## Innovation Process

### Innovation Process overview



# CONSIDER -DRIVERS OF INNOVATION

- Business environment (e.g. free trade)
- Technology Intensified competition
- Changing customer
- Application of technology through a different Business Model

# CONSIDER - DEGREE OF 'NEWNESS'

- New product/service lines
- Additions to existing product/service lines
- Improvements and revisions of existing product/service lines
- Repositioning

# CONSIDER - DEGREE OF “VALUE”

- The degree of value is how a new idea / concept /invention is judged as being useful, appropriate as solution to the problem or valuable to customers / users
- Customer value (how customer see it as being valuable in their daily lives)
- Social value (how society evaluates it of being valuable)
- Cost reductions (value through cost-efficiency)

# TYPICAL Examples

- In the early 1900s, General Electric perfected Thomas Edison's most notable invention, the **industrial research laboratory**. GE brought management discipline to the chaotic process of scientific discovery and, over the next 50 years registered 1000's of patents.
- Linux, the computer operating system, is the best-known example of a recent management innovation: open source development. Based on other innovations like the **general public license** and **online collaboration tools**, open source development has proved to be a highly effective mechanism for eliciting and coordinating the efforts of geographically dispersed individuals

# Innovation Process Overview



## Innovation as a management process



FIGURE 1.7: Simplified model of the innovation process

# SUMMARY

- *HELPS DEVELOP IDEAS INTO REALITY*
- *BENEFITS THE ORGANISATION*
- *BENEFITS THE CUSTOMER/CONSUMER*



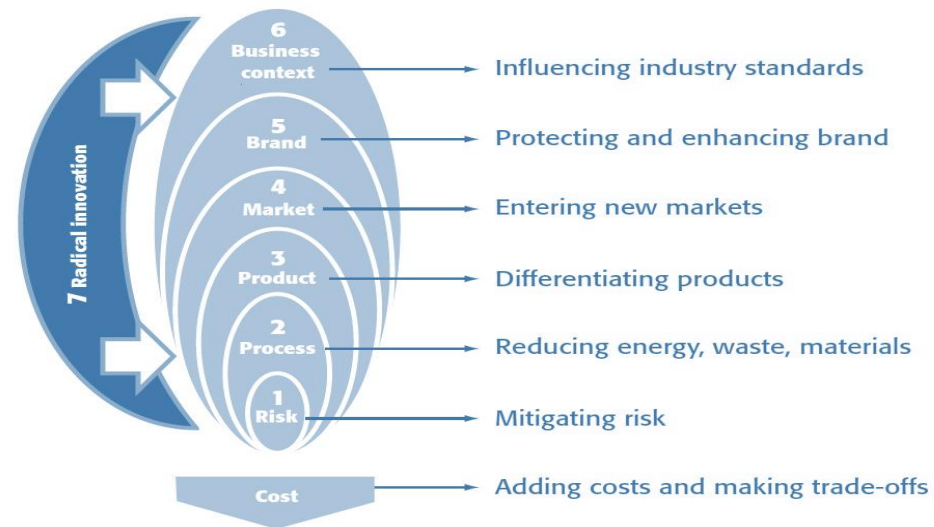
# -INNOVATION STRATEGY-

## Considerations

# TYPICAL Context for Innovation

- The management decisions related to Organization, People, and Innovation Strategy create an overall context in which the innovation process occurs...
- The best decisions can create an innovative organization which has (and this could, arguably be, part of its **culture**) 'surrounding' the innovation process:

- Trust & openness
- Challenge & involvement
- Support & idea space
- Conflict & debate
- Risk taking
- Freedom



# TYPICAL Consideration - 1

- Who owns the process?
  - Who has the power to change it?
    - What are its objectives?
    - What are the success metrics?
- Who are the customers of this process?
  - Who gets to participate?
    - What are the data or information inputs for this process?
      - What analytical tools are used?
      - What events and milestones drive this process?
- What kind of decisions does this process generate?
  - What are the decision-making criteria?
    - How are decisions communicated, and to whom?
    - How does this process link to other management systems?

## TYPICAL Consideration - 2

- Setting goals and laying out plans;
- Motivating and aligning effort;
- Coordinating and controlling activities;
- Accumulating and allocating resources;
- Acquiring and applying knowledge;
- Building and nurturing relationships;
- Identifying and developing talent;
- Understanding and balancing the demands of outside constituencies.

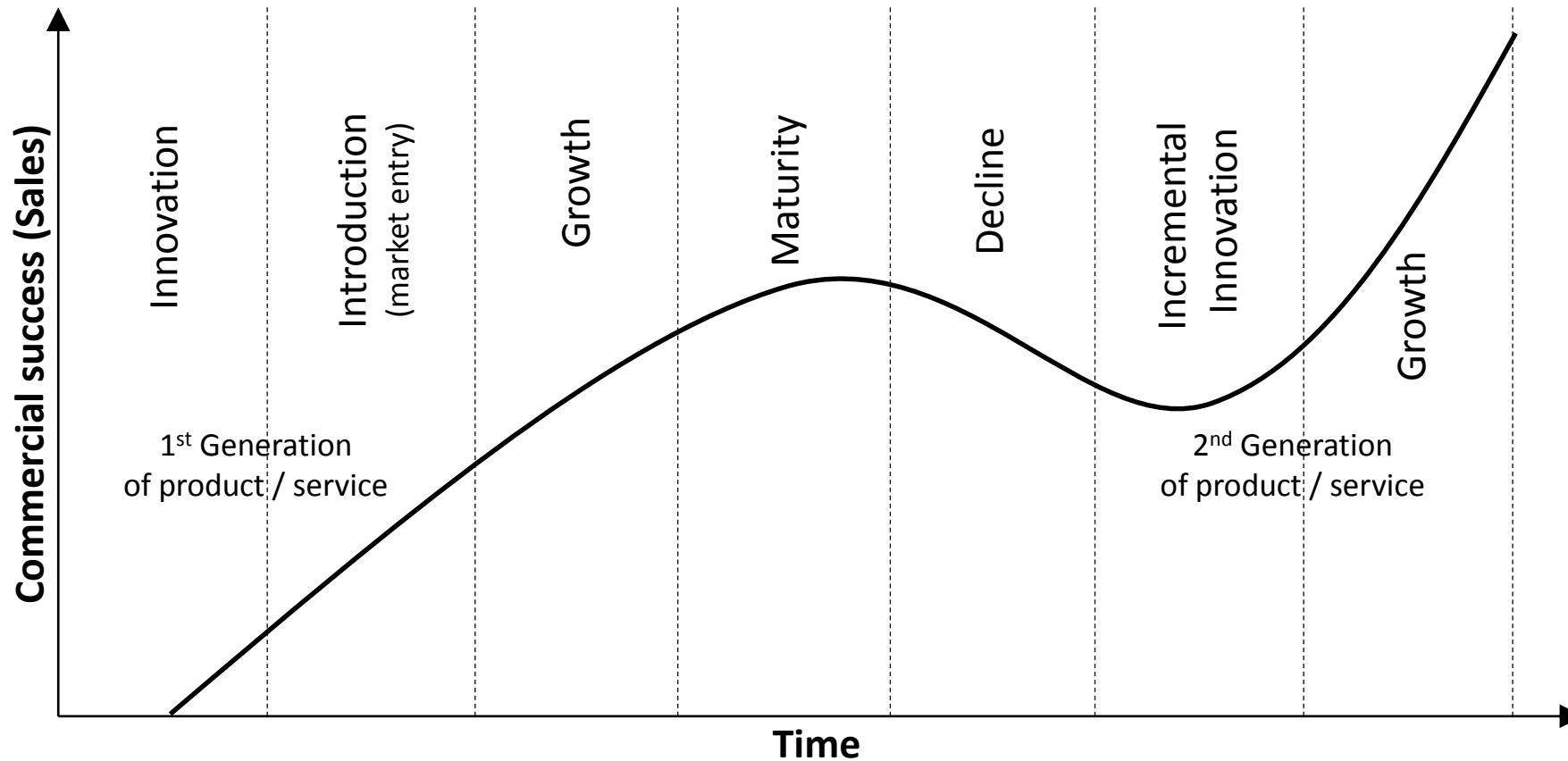
# -INNOVATION STRATEGY-

## Examples

*CONTEMPORARY*  
*v's*  
*NHS*

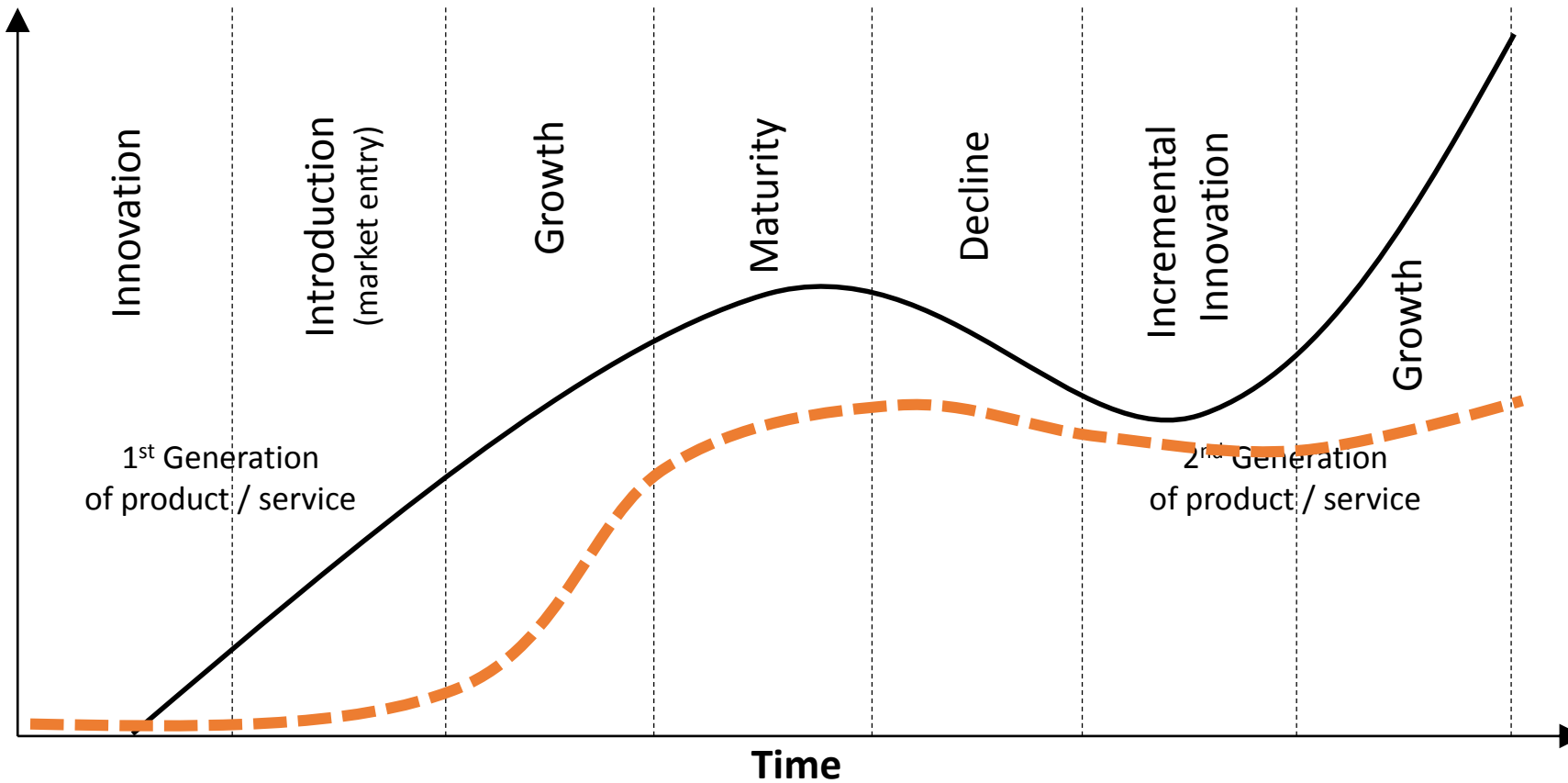
# Sustaining innovation TYPICAL EXAMPLE

**Sustainable innovation** - describes products and processes that contribute to sustainable development



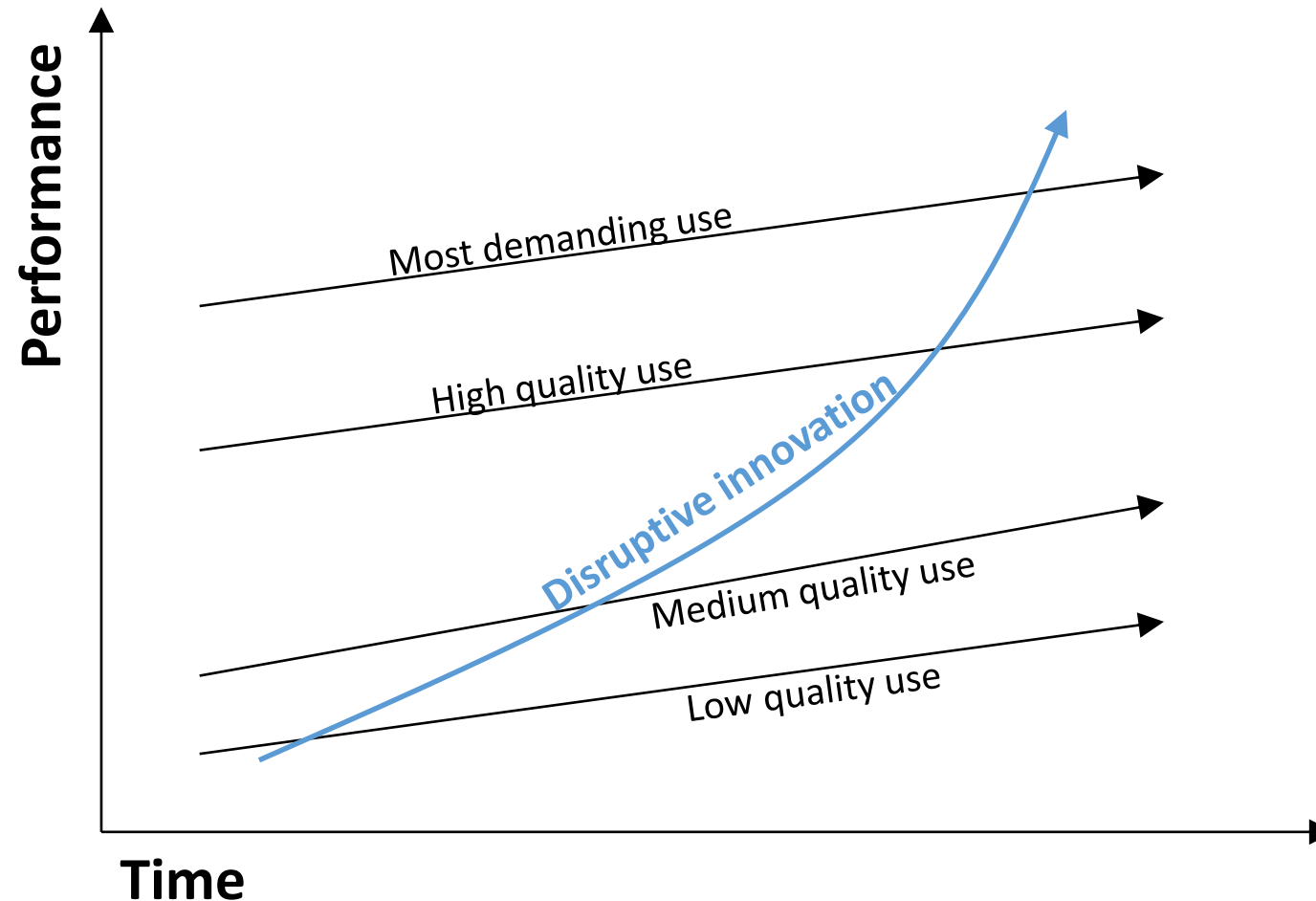
# Sustaining innovation (NHS)

Success (EFFICIENCY)



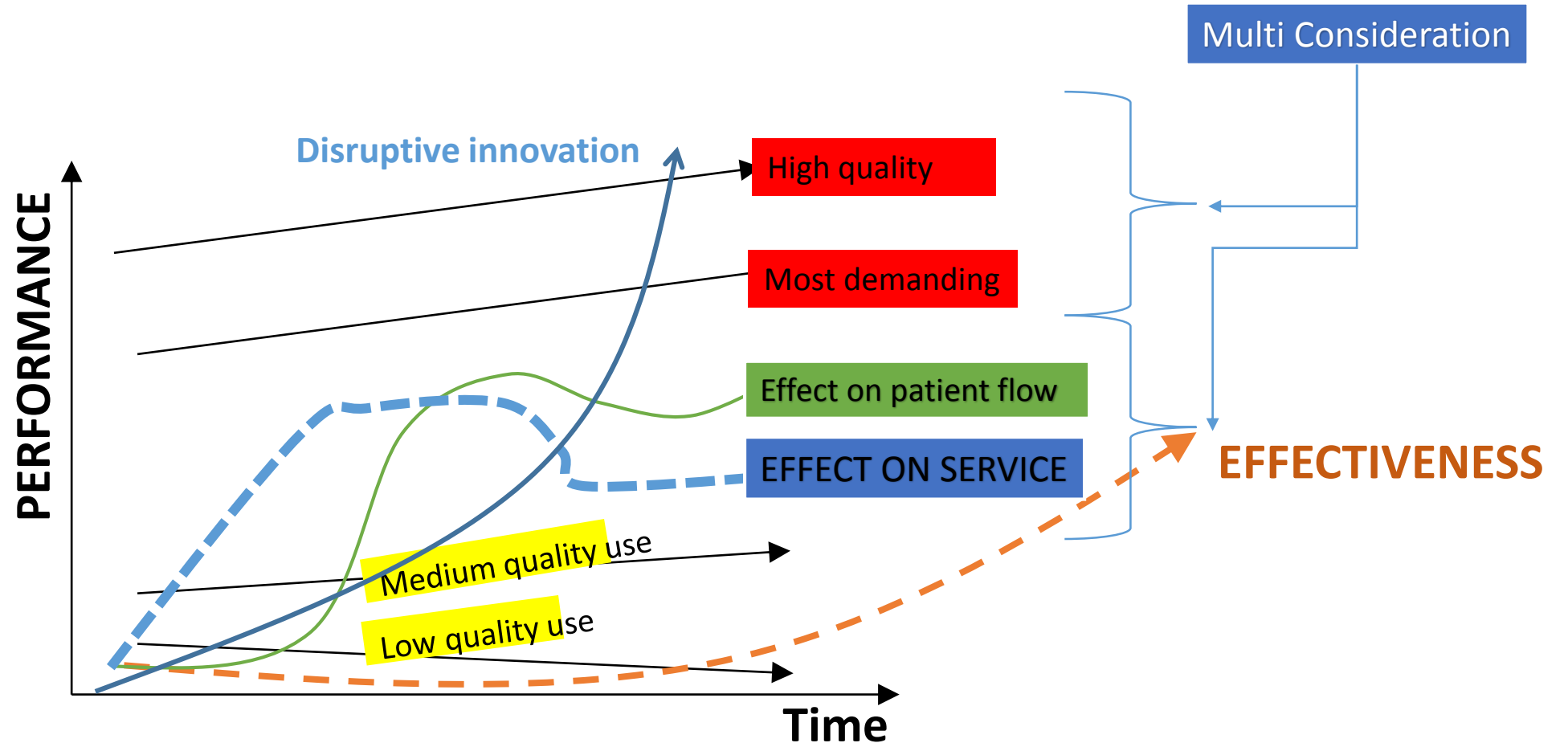
# Disruptive innovation TYPICAL EXAMPLE

**Disruptive innovation** - helps create a new market and value network, and eventually goes on to disrupt an existing market and value network (over a few years or decades), displacing an earlier technology.





# Disruptive innovation (NHS)



# STRUCTURES of MANAGEMENT INNOVATION

# TYPICAL Management Innovation \*\*

## Still the Same Process

1. **Search** – look for useful ideas or solutions to problems
2. **Selection** – which idea(s) will be taken to the next episode
3. **Implementation** – selected idea developed in the firm and/or the market
4. **Capture/routine** – no longer new, part of normal firm operations

# INNOVATION MANAGEMENT

## *NEW STRATEGIC APPROACH WITHIN THE NHS*

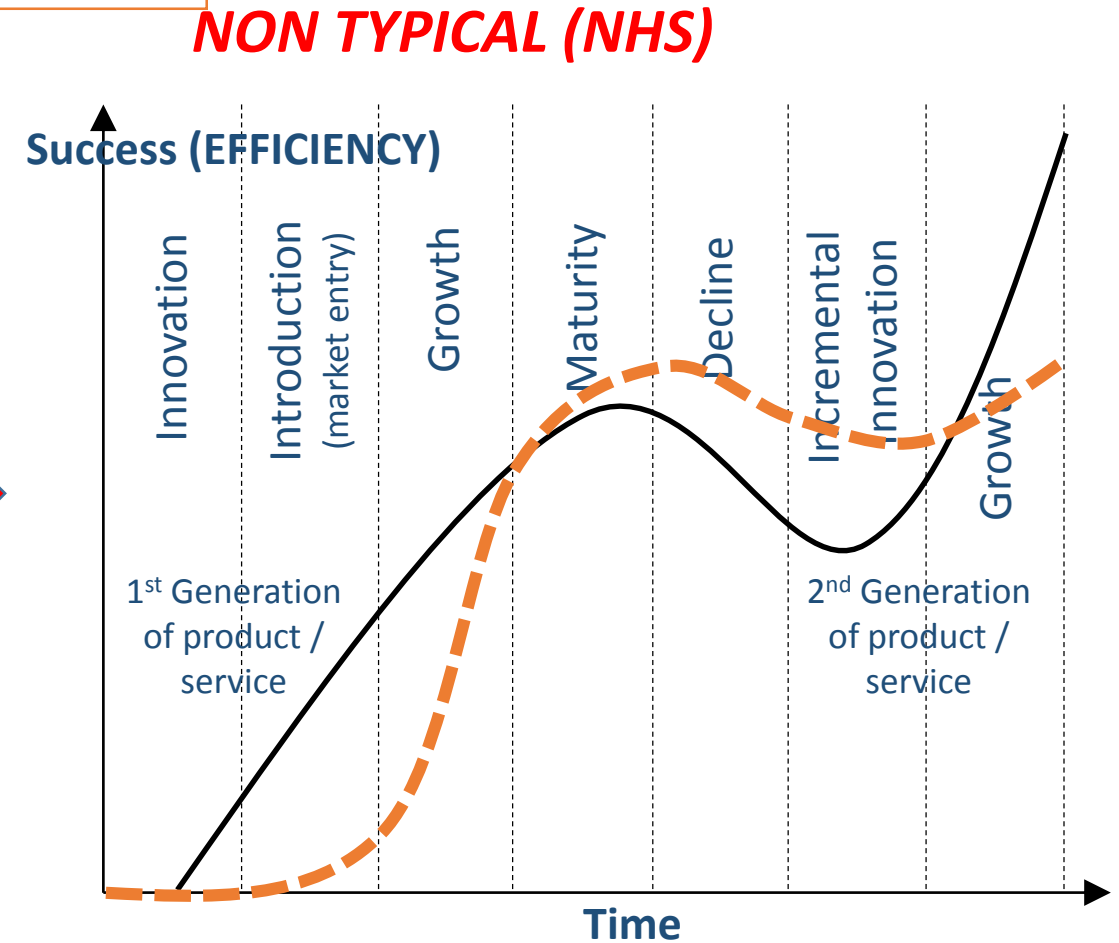
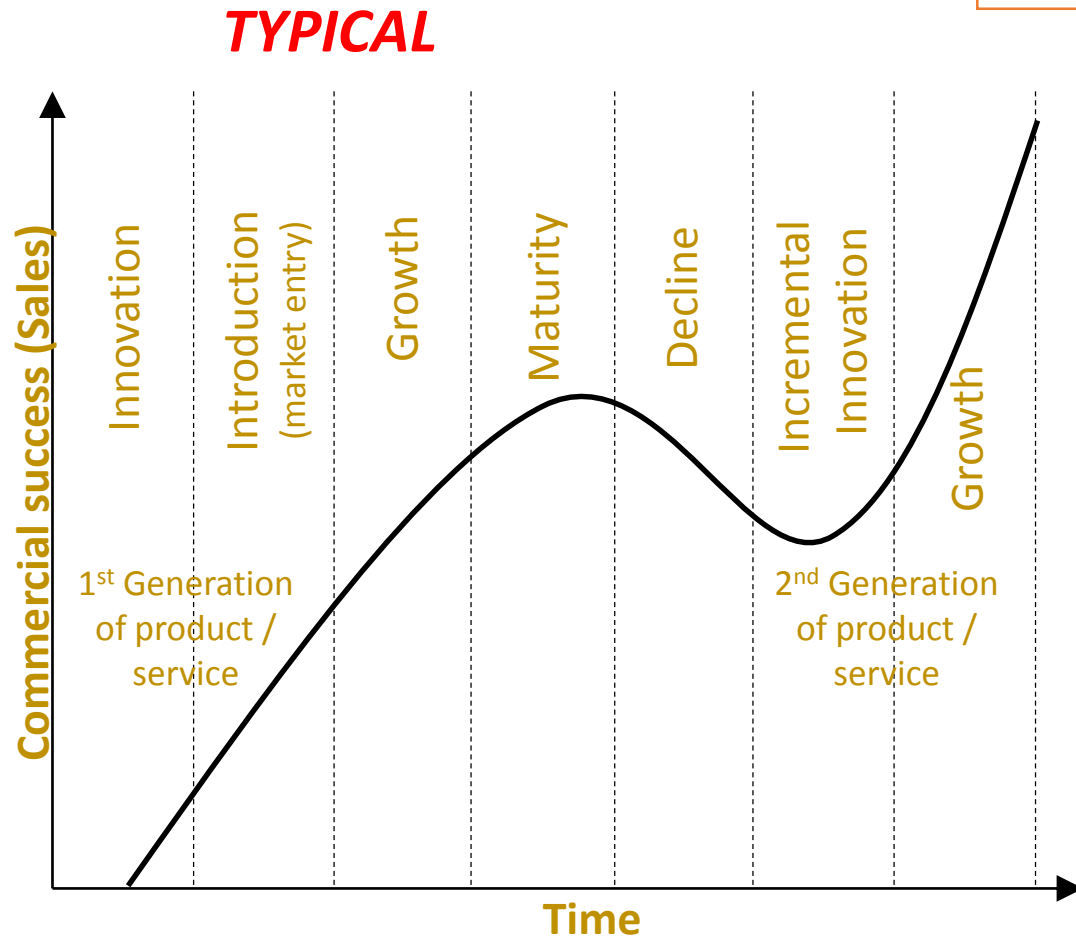
*University of Edinburgh*



*University of Oxford*



*PROBLEM*  
*how do we make it sustainable*



**SUSTAIN**

**Unable to evaluate**

# *SOLUTION – REDUCE COMPLEXITY*

# Developing an Entity SIMPLIFICATION of *OUTCOME*



FIGURE 4.0: SIMPLE PROCESS FLOW

static analysis of  
organisational  
process

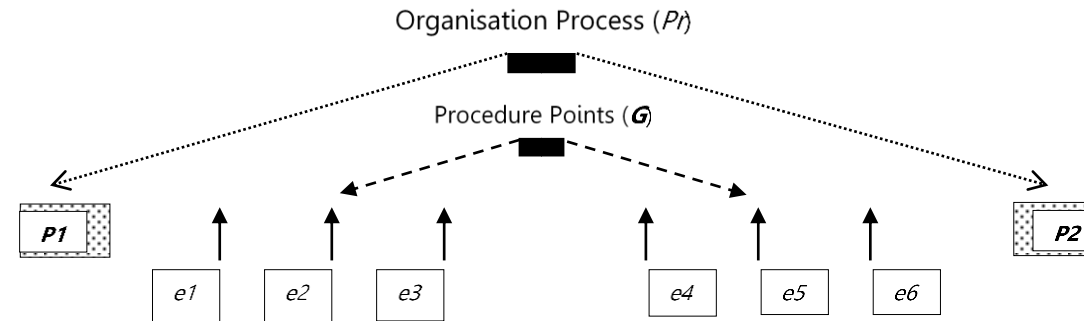
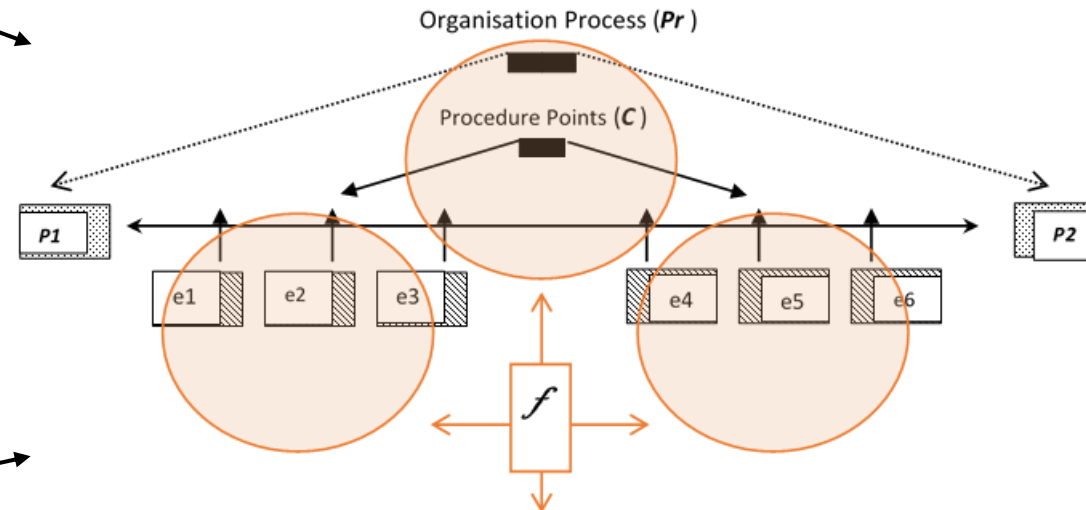


FIGURE 4.1: SIMPLE PROCESS FLOW WITH FIGURATIONAL ALIGNMENT

multifaceted,  
multidimensional,  
dynamic mode of  
interpretation

$(V_1)$



$(V_2)$

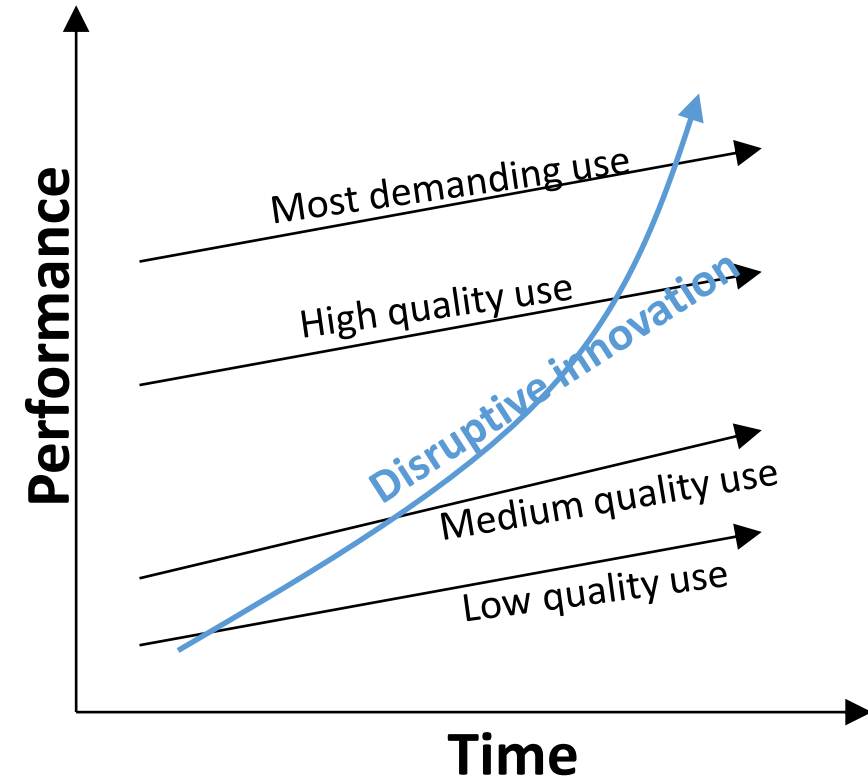


# *PROBLEM*

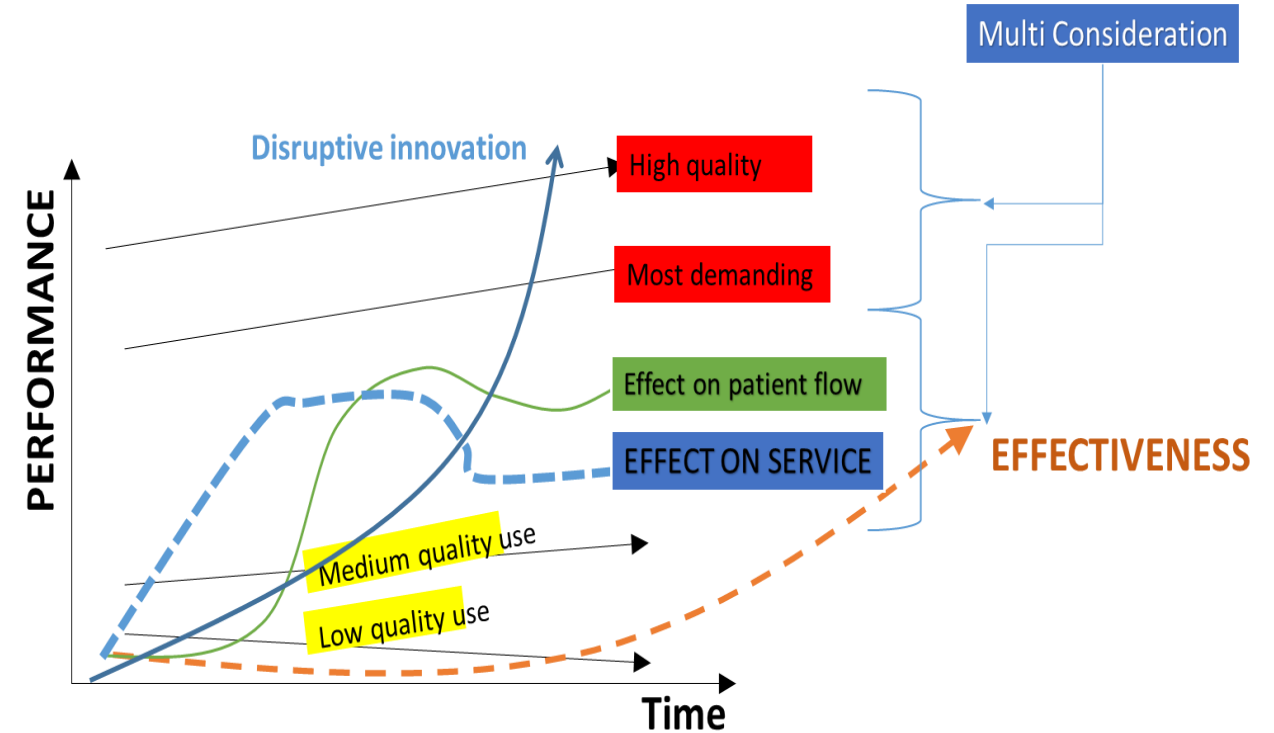
## *How do we manage the disruption*

# DISRUPT

**TYPICAL**



**NON TYPICAL (NHS)**



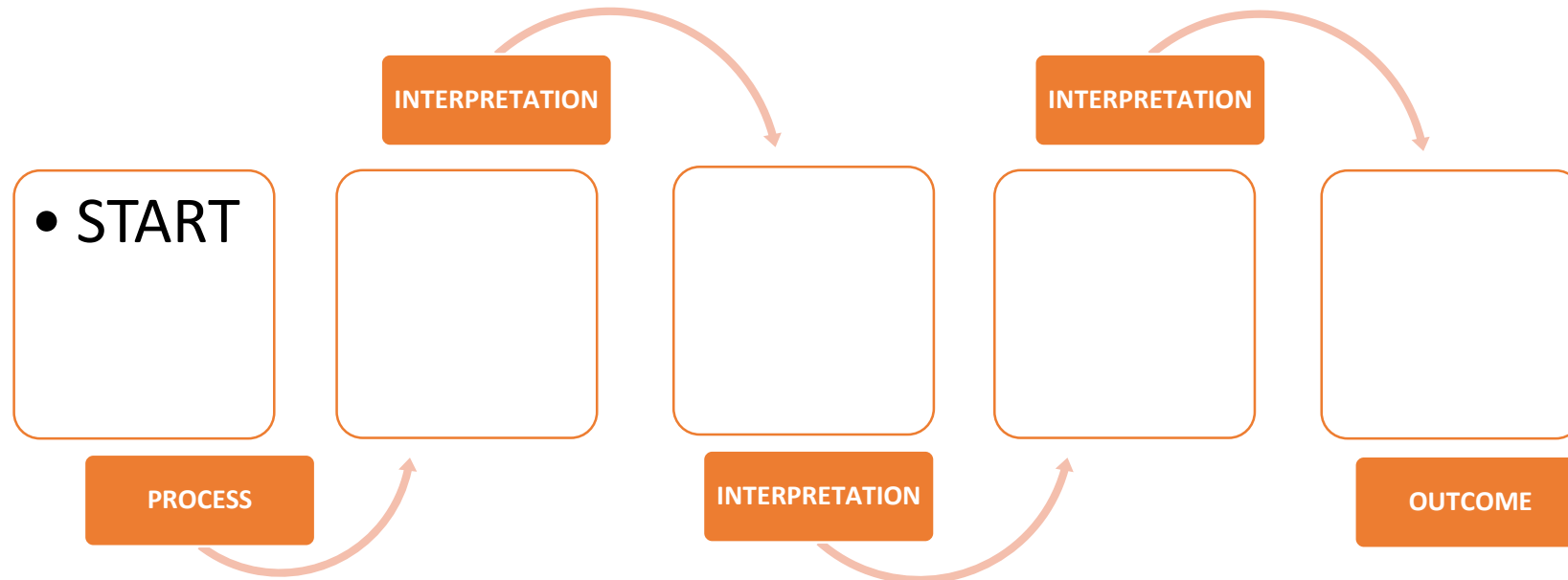
# Unable to evaluate

*SOLUTION – REDUCE ITS COMPLEXITY*

## Developing a Figurational Entity *Perspective to Sustainability*



A Figurational approach corrects this predisposition by adding a relativistic dimension of analysis to a sustainable solution

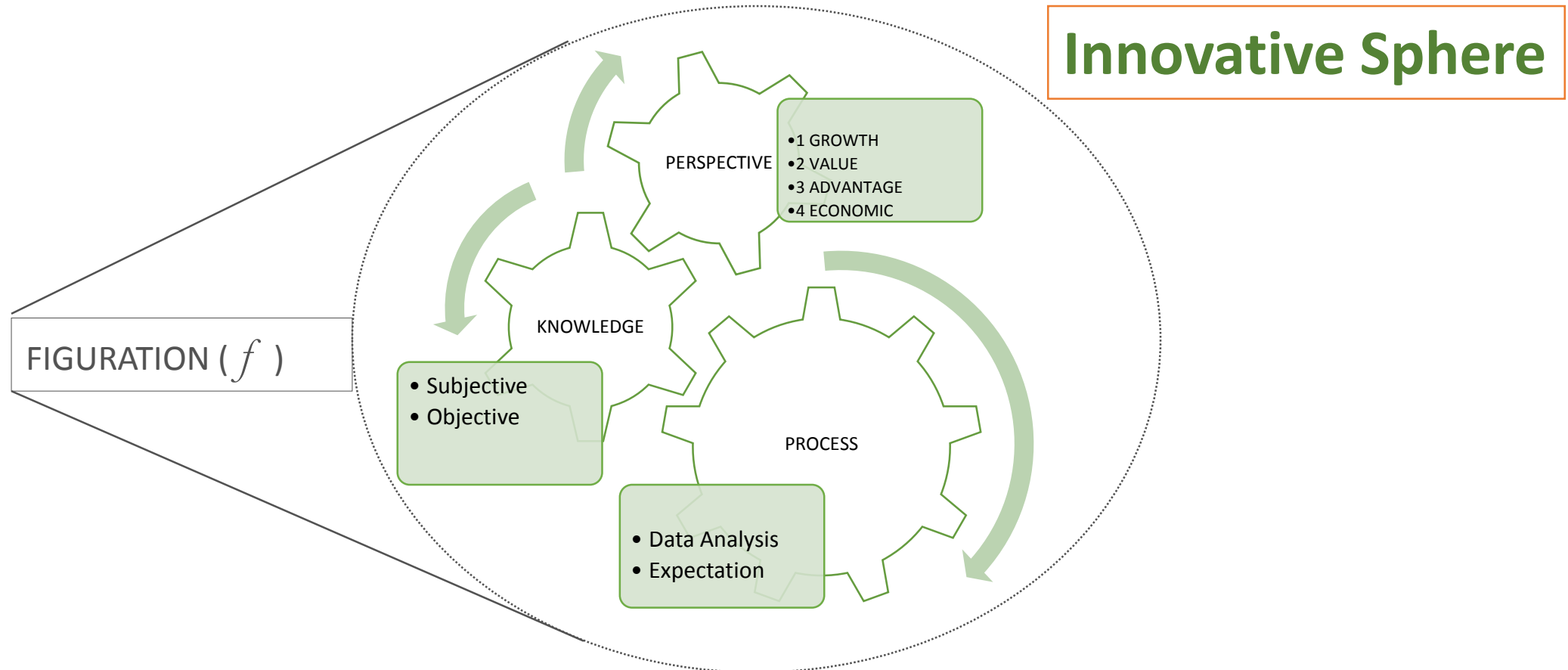


Conceptual criteria, interpreted related to process

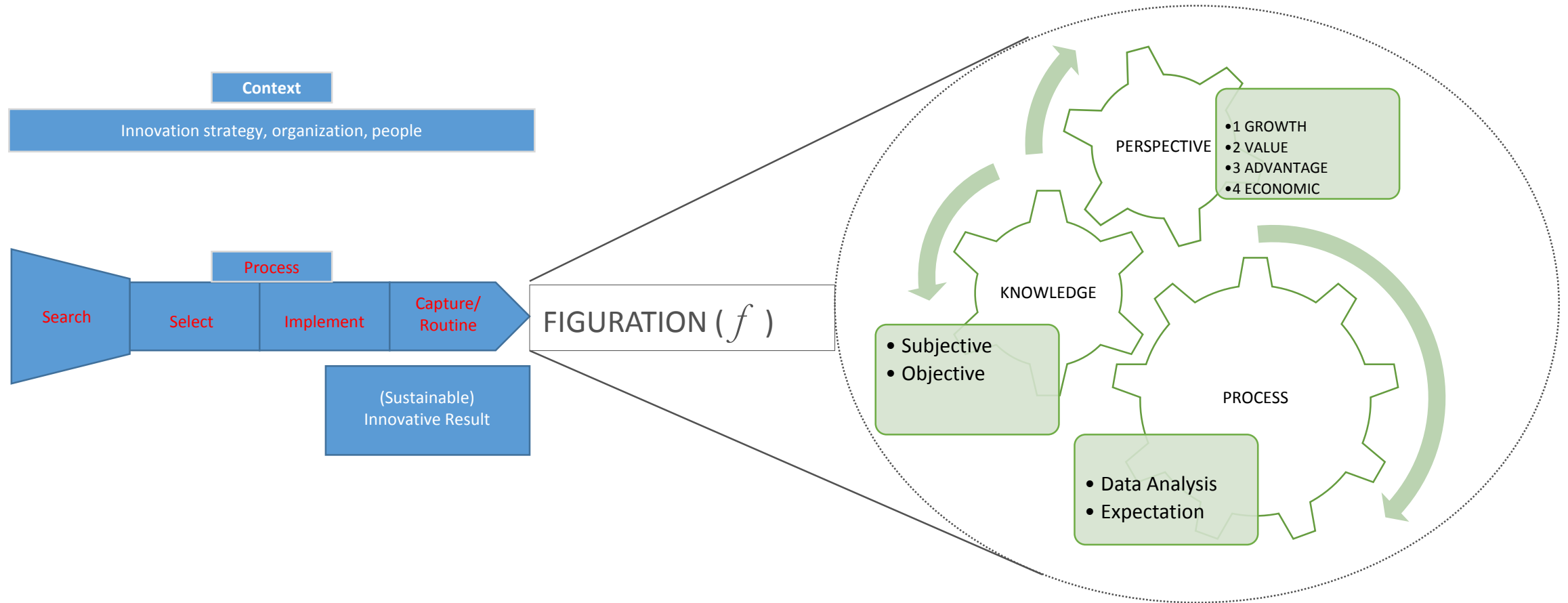
## Developing a Figurational Entity

### *The Figurational Entity*

A dynamic Figurational entity of INNOVATION can then be derived from multiple qualia relative to sustainability; data, context and perspective.

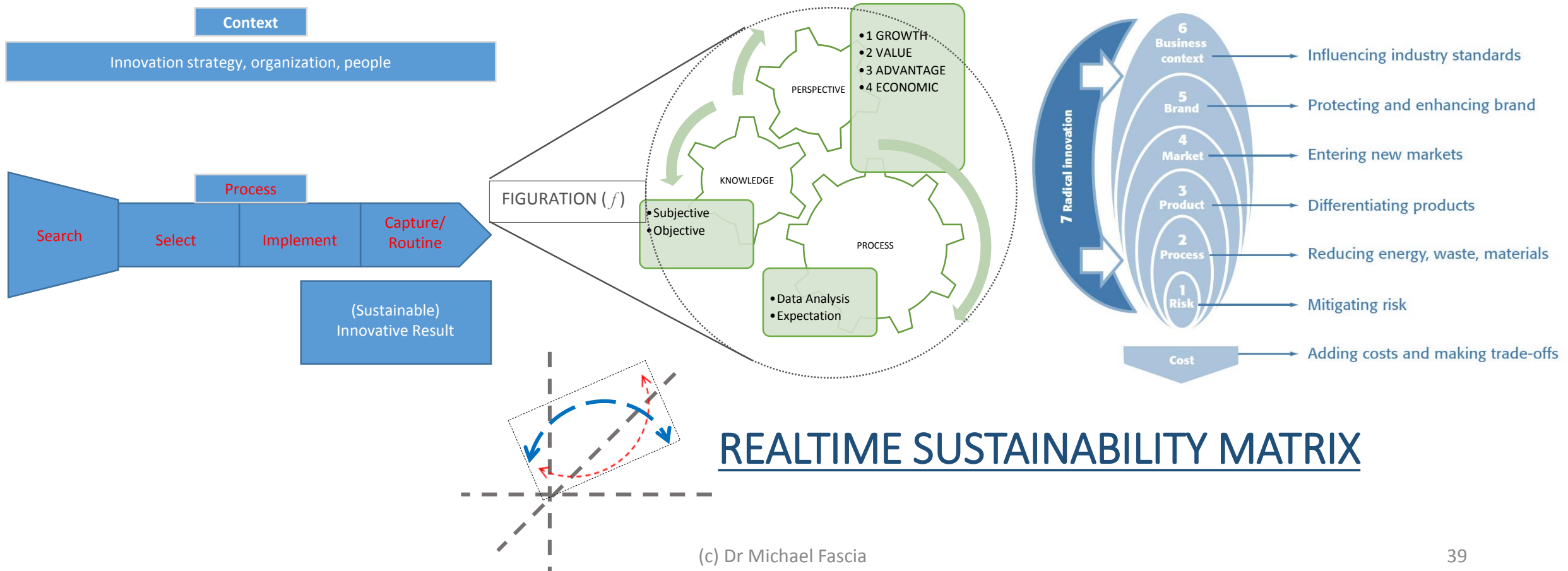


# Innovation Management – Innovation & Sustainability



# NEW Context for Innovation

## LINKING INNOVATION TO SUSTAINABILITY



# Developing a Figurational Entity Multiple Perspective



interpretation of INNOVATION depending on the sustainability **perspective**. ( $V_x$ )

**Wherein;**

If you are a, then a = (a)  
If you are b, then b = (b)  
c = (a) + (b)

**Whereas;**

$V = (a) + a + (b) + b + C + d + e + f + \dots \dots \dots \text{etc}$

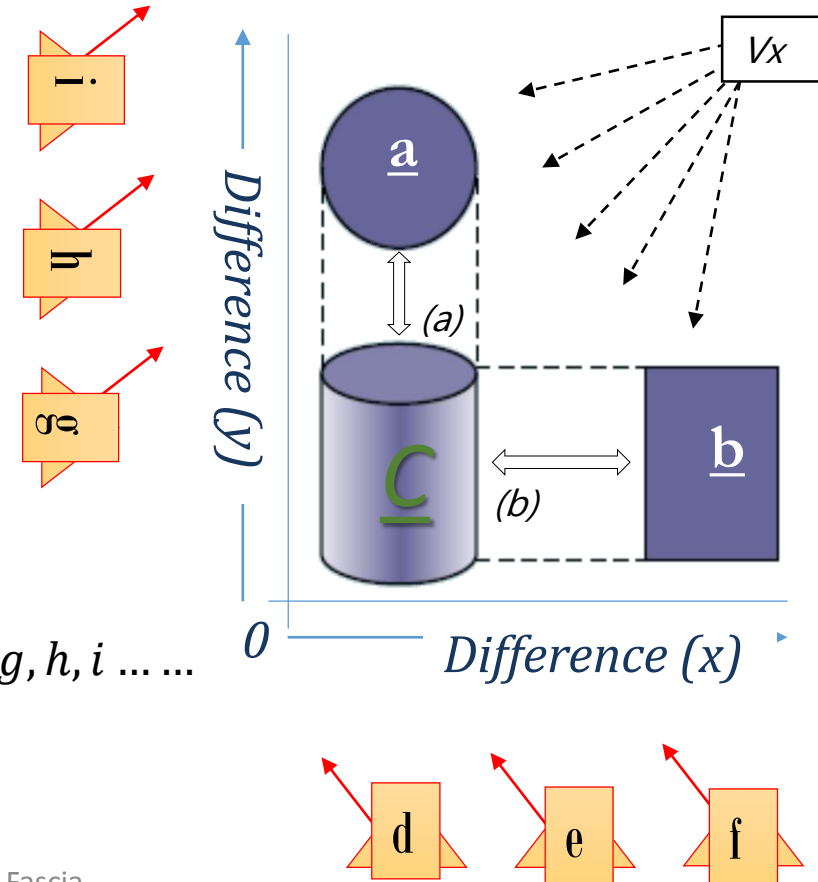
Expansion of the Sum  $V = \infty$

Because any perspective relative to (D) can be calculated as a difference, relative to C. Thus, elemental fraction of differentiation emerge.

$$D \left( \frac{dy}{dx} + v \right)^n = \sum_{k=0}^n \binom{n}{k} x^k v^{n-k}$$

**Therefore;  $\{V_x\}$**

$$x_{y^2} (1 + x)^n = 1 + \frac{nx}{1!} + \frac{n(n-1)x^2}{2!} + V, e, f, g, h, i \dots \dots$$





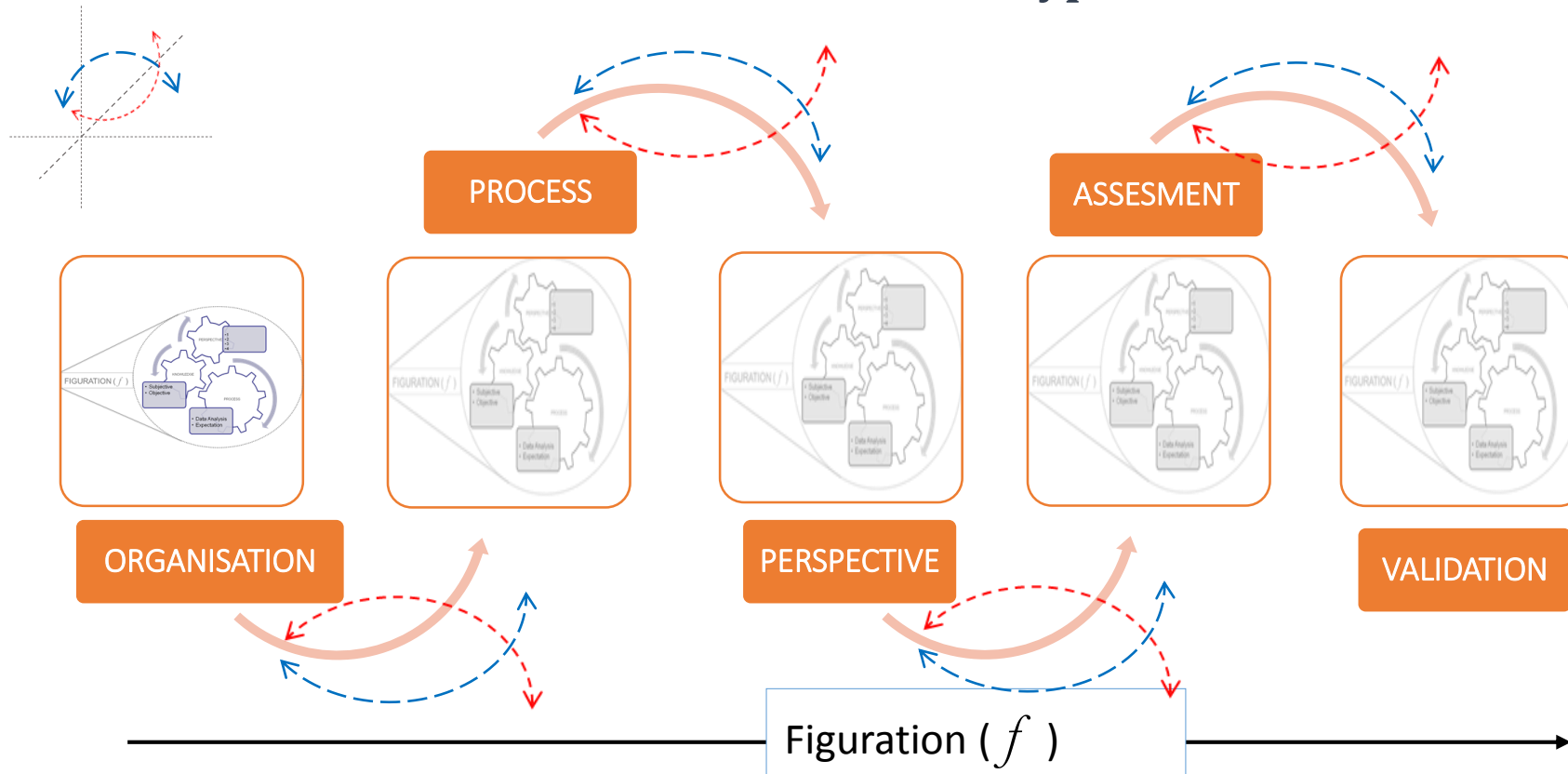
## Figurational Entity

*Non existence of the Linear Boundary*



Figurational boundaries and parameters can be then logically associated to the INNOVATION PROCESS under investigation.

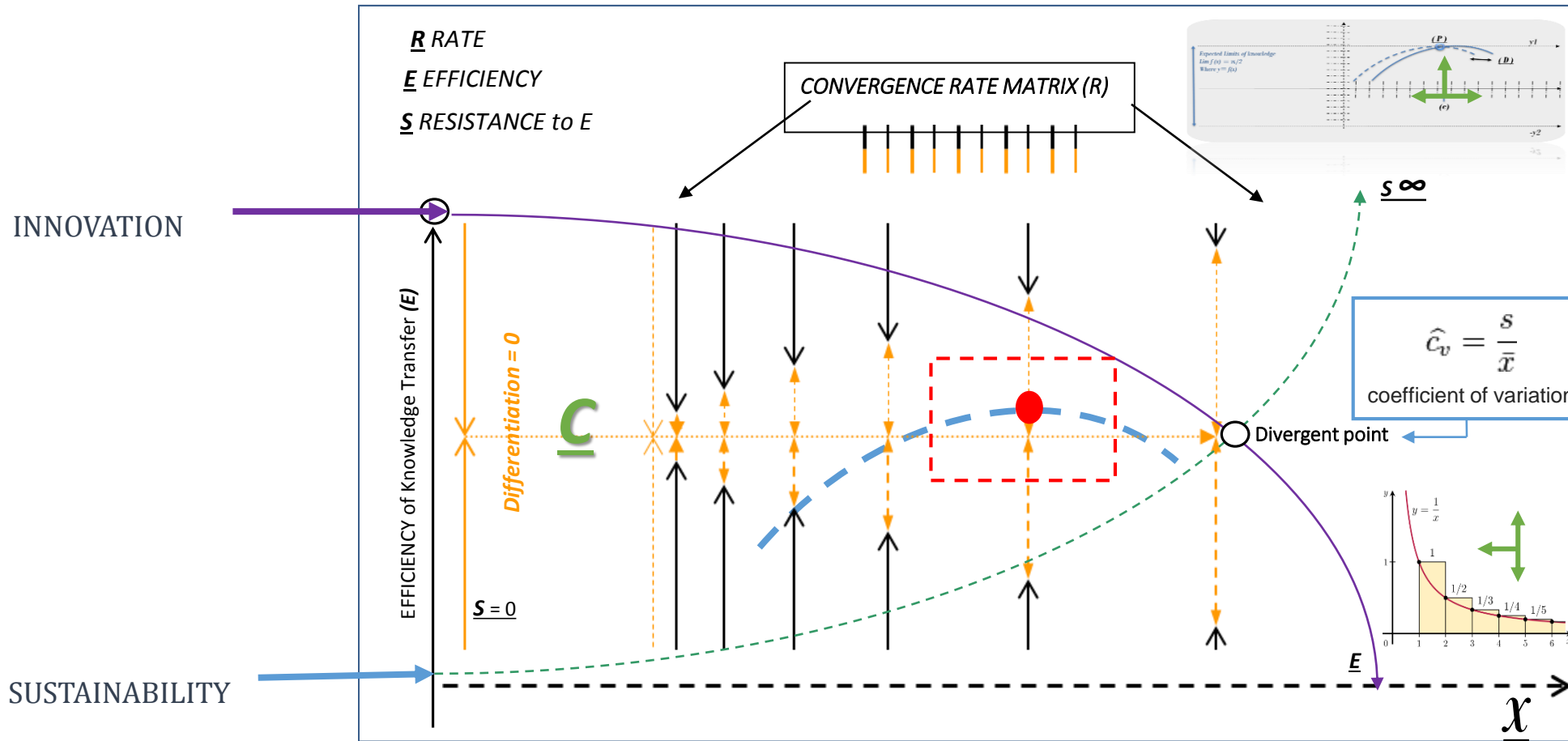
**Use of resources to support INNOVATION becomes strategic, rather than remedial and need not be entombed within typical linear interactions**



# Figurational Entity DEVERGENT POINT ANALYSIS



## CORRELATION BETWEEN INNOVATION AND SUSTAINABILITY IN THE NHS



# Summary

- Innovation incorporates both novelty and value
- There are different types of innovation
- Innovation management incorporates
  - Strategy
  - Process
  - Organisational environment
- Innovation and sustainability are inextricably linked

# Questions