

# Benchmarking

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## Some Questions that trigger Benchmarks

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- You are a manufacturer and want to know whether all of your hard work is making your business more valuable than the competition?
- You are a retailer and you want to double your profitability?
- You are an investor and want to know where to invest?
- A restaurant is experiencing poor results, what needs to be done to be one of the best performers?

# Benchmark(ing)?

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- A benchmark is a known datum for some observable phenomenon.
- Benchmarking is a process that employs benchmarks with an objective of aligning them in a favourable manner.
- Benchmarking is an accepted contributor to organisational improvement processes.
- A Benchmark requires knowledge of
  - An Exemplar and measurement of its state of affairs.
- Benchmarking requires additional knowledge
  - An Anomalar and measurement of its state of affairs
  - Mechanisms describing alignment between two states of affairs

## What are some problems with Benchmarking?

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- It is an accepted organisational improvement tool, but there has been no theory describing a-priori effectiveness of its use. Wolfram Cox et al. (1997), Wöber (2002)
- Its efficacy, in other than simple situations, is unreliable and highly dependent on the skill of experienced practitioners – i.e. empirical or praxis-driven. Francis and Holloway (2007)

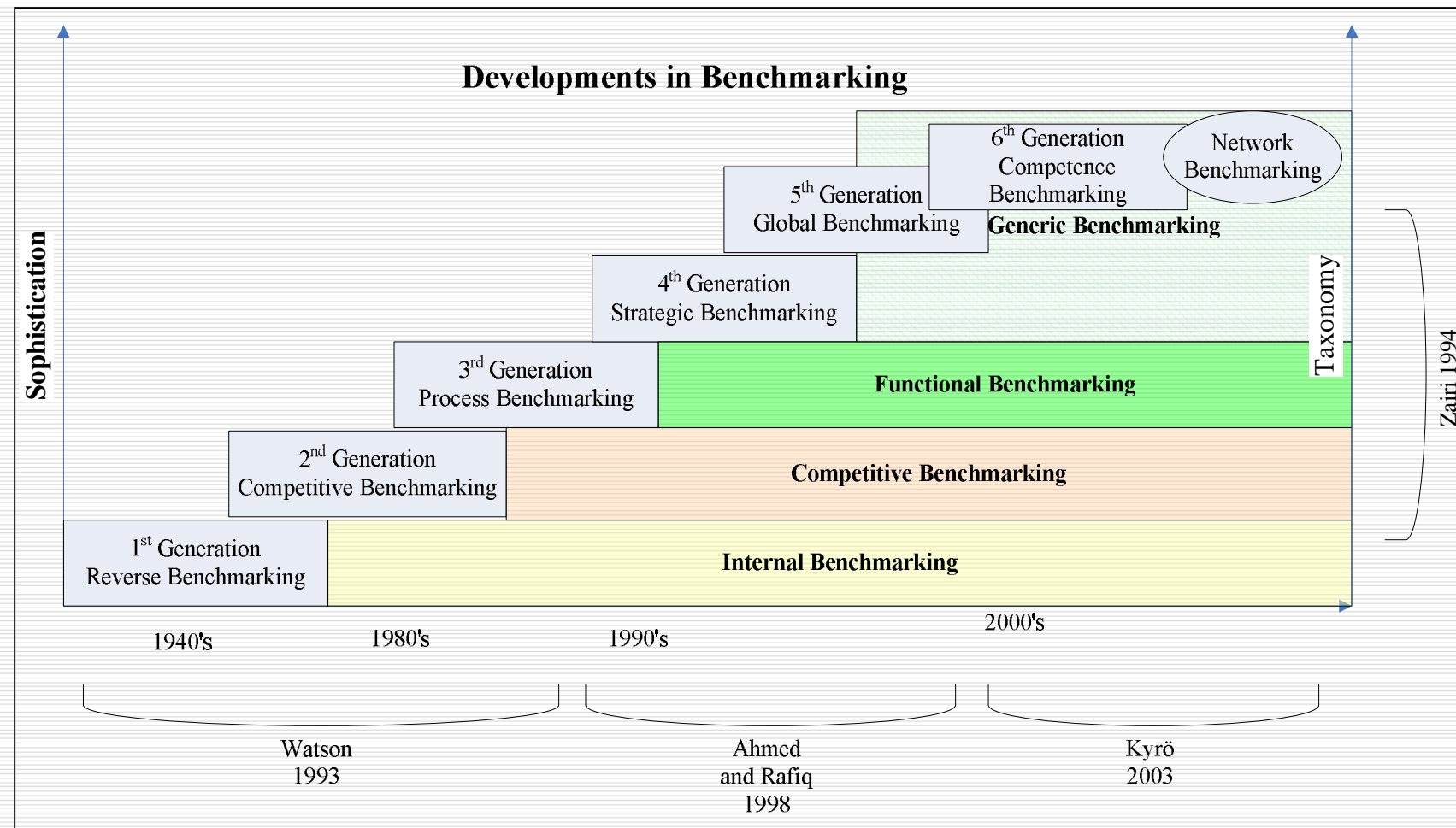
# Historical Progress

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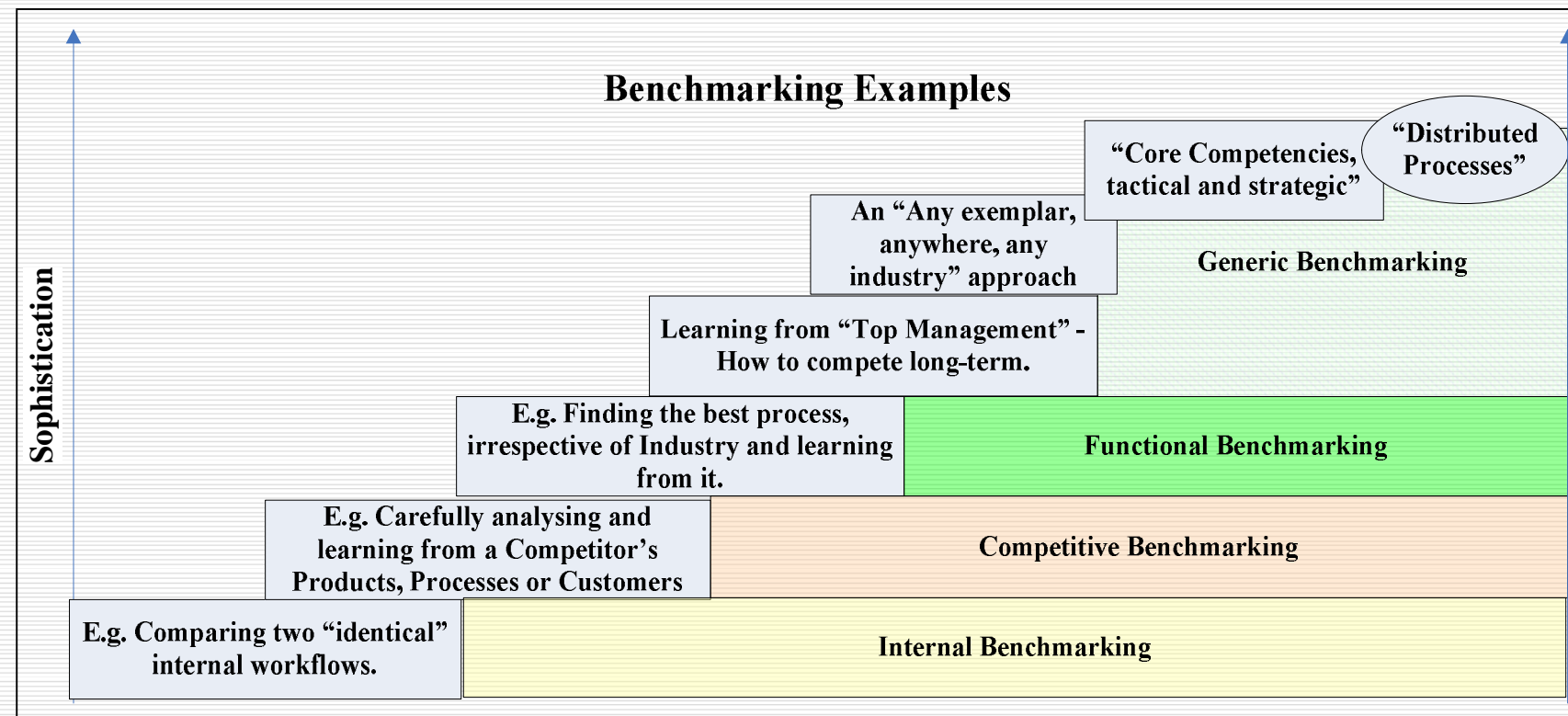
- Xerox<sub>1979</sub> - key adopter of benchmarking (Zairi & Ahmed, 1999)
- Deming's Quality Management Theory<sub>(1986)</sub> emphasised improvement via feedback mechanisms.
- Spendolini (1992) generalised the Xerox process into a system of continuous improvement embodying benchmarks against competitors and best practices.
- → 'External Focus on internal activities' for the purpose of continuous improvement (Leibfried & McNair, 1992)
- → Organisational adaptation mechanism (Watson, 1993)
- Overall Convergence:  
    Benchmarking → Accepted improvement tool

# An Integrated Perspective

Moriarty & Smallman 2009



# Construct some examples ..



Some examples span all categories (eg Multinationals), others perhaps one or two (SME), what about a Hospital?

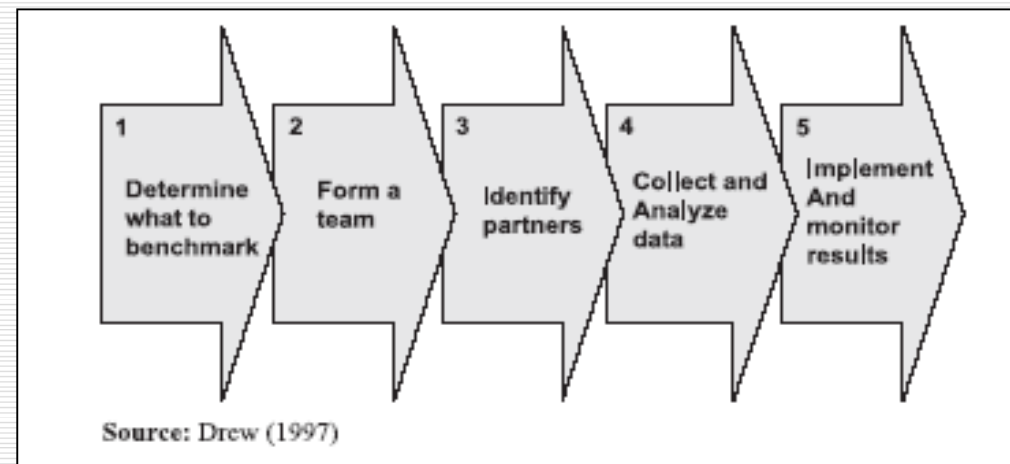
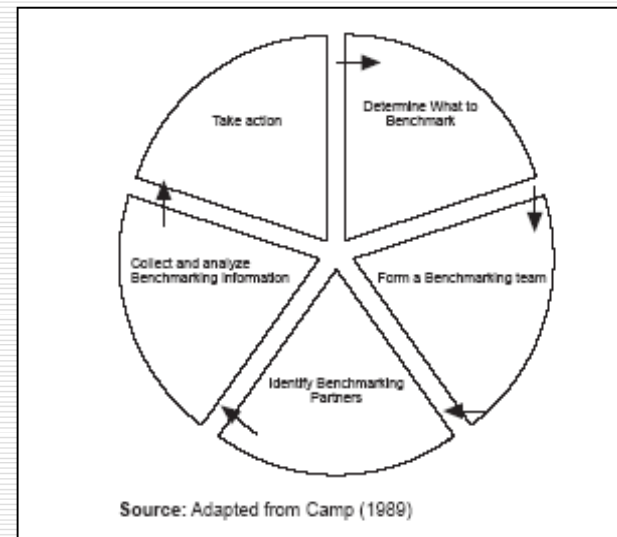
# Benchmarking Implementation

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- Historical emphasis on **processes** rather than **theory**.
- Implementation is predominantly a particular 'process' with **practitioner experience** the most important factor.
- Implementation models are highly influenced by **Total Quality Management perspectives**.



# TQM applied to Benchmarking



- Xerox (1979); 'TQM' 'Plan, Do, Check Act' (PDCA) process orientation based on 'scientific method' of Francis Bacon! (1620)
- Shewhart (1980), Deming (1986), Camp (1989), Leibfried and McNair (1992) Drew (1997), and Carpinetti and De Melo (2002) extension from process engineering to organisational practices.

# TQM applied to Benchmarking..

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A "British Telecom" Benchmarking Implementation Model. Zairi and Baidoun (2003, p13)

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- |                                  |                                 |  |
|----------------------------------|---------------------------------|--|
| 1. Ensure Management Commitment. | 2. Process Selection.           | 3. Selecting your Targets.                     |
| 4. Process Mapping               | 5. Start Partnership Selection. | 6. Successful Selection.                       |
| 7. Preparation for Site Visits.  | 8. The Site Visit.              | 9. Identify Practical Solutions & Plan Action. |
| 10. Implement.                   | 11. Keep in Touch.              | 12. Continuous Improvement.                    |
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## A Realistic Implementation Model!

**The importance of practitioner experience and judgement is evident in this implementation model. Intangible elements such as 'ensure management commitment' reflect the caution necessary in praxis-driven approaches!**

## BM models: themes & threads

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### TQM's influence stresses the following:

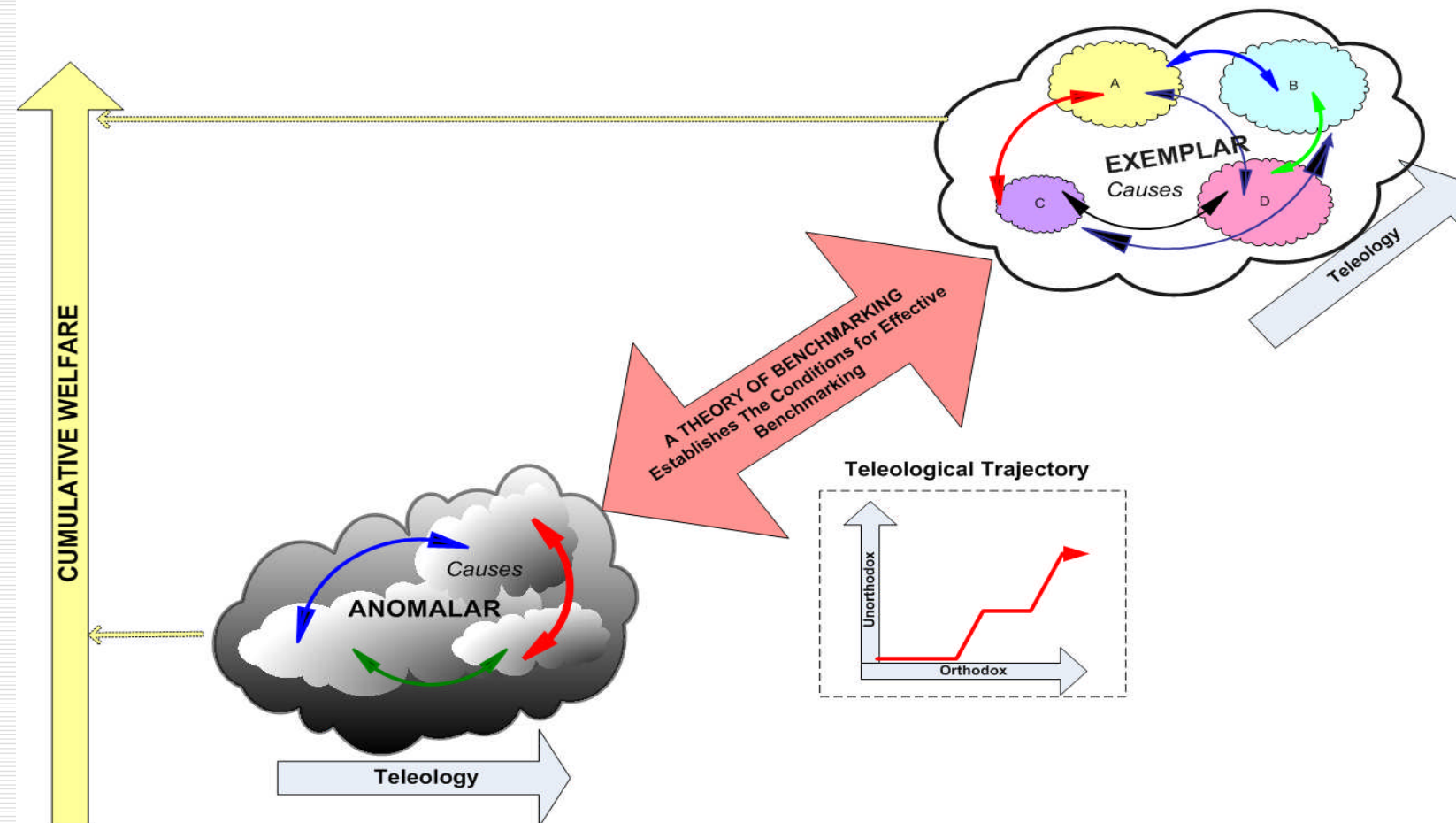
- ❑ priority factors that impinge on organisational performance,
- ❑ relationships between these priority factors and other organisational processes,
- ❑ exemplars having sufficient similarity to trigger improvement initiatives,
- ❑ the capacity to implement improvements.

## Isolating the Facts:

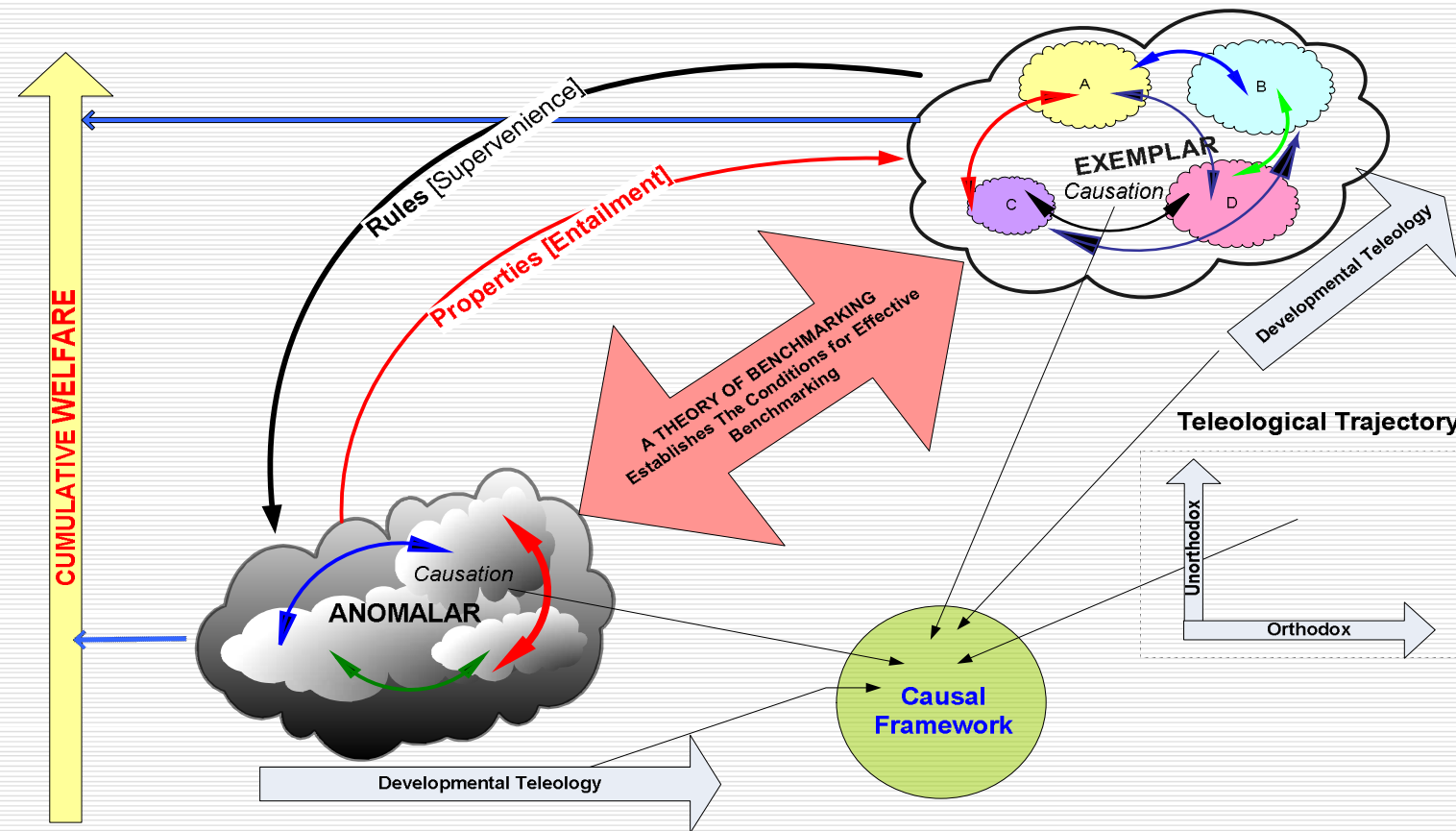
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- Effective Benchmarking is **purposeful**: performed for the sake of improvement (**teleology**). Moriarty & Smallman 2009
- Effective Benchmarking is **efficient** – improvement → a better 'X' → (**greater welfare**). Pfeffer's Sustainability (1997)
- Effective Benchmarking is also **causal** – the underlying nature of both anomalar and exemplar states of affairs really matter (**rules & properties**). Peirce's Causation (1892/1935)

# This requires Explanation ..



# Identifying the Theoretical Elements



## Two concepts “simplified”

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- Supervenience? It simply means ‘**sets of rules**’ that govern behaviours within two different organisations. E.g. two local cafés might operate under the same rules or overall behaviours. The exemplar’s rules apply to the anomalar (though not necessarily the reverse!)
- Entailment? Means **commonality of properties**. E.g. two lunch cafés may have common attributes or properties.

Note: Electricity: it might be a common property but if used differently (rules), would not be good for benchmarking.

## Explaining Effective Benchmarking.

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- Two necessary components:
  - **Effective Benchmarking Process (EBP).**
    - Identifies the potential for improvement from an appropriate Exemplar. A Logical Process
  - **Effective Benchmarking Improvement.**
    - Realisation of improved welfare from an EBP. An Economic or Sustainability Process.
- Their combination is sufficient for Effective Benchmarking.



# A Theory of Benchmarking Ref: Moriarty (2009 & 2011)

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- Bo. Primal Axiom: 'To BE is to SURVIVE'. **Survival** is the primary purpose of an organisation.
- B1. Causal Engine: Effective benchmarking processes recognise **purpose, practices and chance**.
- B2. Effective Improvement: Anomalar welfare necessarily increases via the transformation of exemplary factors into feasible anomalar factors.
- B3. Effective Process: the rules governing an exemplary state of affairs also apply to an anomalous state of affairs and the properties of the anomalous state of affairs are also present in the exemplar's state of affairs.

A sufficient condition for Effective Benchmarking is  
B1 and B2 and B3

# Expansion

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- Purpose, practice & chance: agreed objectives, the way they are pursued and implemented together with any 'good luck' or 'fortune'; all contribute to the status of an exemplary enterprise.
- There is no improvement unless the anomalar becomes 'better off' (increased welfare) as a result of implementing benchmarks. This improvement is based on better satisfaction of those upon whom there is a dependency for supply & maintenance of resources. (It includes \$, security, well-being, public esteem, etc).
- Implementing benchmarking requires the alignment of two states of affairs so that some of the exemplar's evident welfare advantage also accrues to the anomalar. This is the hardest part of benchmarking as it involves internal changes.

# Benchmarking Internals (1)

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## □ Identifying Properties Common to the Exemplar and Anomalar

### ■ There are several options:

- Properties may be Explicit or Logical as in the case of identical outputs that two competitors produce (e.g. Cellphones, Network Access, Milk Powder or other commodities). Such properties are generally substitutable between exemplar/anomalar. These make excellent benchmarks.
- Properties may be Probabilistic – i.e. they are sometimes present and their presence is governed by statistical relationships. Integrated circuit manufacture, complex recipes, weather-dependent activities, etc are examples. These can make benchmarking much less reliable.
- Properties may be Dispositional – i.e. they are uncategorical tendencies or propensities that are associated with some desirable state of affairs. Dispositional properties might include “responsiveness, patience, leadership, attentiveness, friendliness, knowledgeable, empathy, etc”. Many of these dispositions are evidenced in organisational cultures and are much harder to benchmark. The Baldrige Criteria are dispositional benchmarks.

## Benchmarking Internals (2)

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- Identifying Rules common to the Exemplar and Anomalar.
  - Rules are governing principles and practices that might be shared by both parties to the Benchmarking Exercise.
  - At process levels, rules are often detectable and replicable – e.g. machining metals, recipes, software, formulations, chemical reactions, procedures, IP, etc.
  - At higher organisational levels, rules are not so easily discerned as they may also be conflated with **purpose** (which may not be evident). This is where most practical benchmarking fails, as it omits an essential element for success.

# Definition

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**Benchmarking is an exemplar-driven teleological process operating within an organization with the objective of intentionally changing an anomalar's existing state of affairs into a superior state of affairs via transformation of causal and feasible exemplary rules and properties'.**

Moriarty (2009 & 11)

# Scope of Benchmarking

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- A benchmarking exercise may have any organisational scope whatsoever, so long as the rules apply.
- In practice, the smaller the scope, the more certain one can be that the rules actually do apply! For example, simple organisations (e.g. SMEs) generally benchmark much more successfully than complicated organisations (e.g. VLEs).
- Note that competitors must take care not to collude or breach any statutory requirements if they co-operatively benchmark against each other.

# A Theoretical Process

The Effective Benchmarking Process	
1	Establish a Welfare Framework and the properties & rules for the Anomalar's states of affairs.
2	Establish the Anomalar's Current Organisational Purpose (s).
3	Make an Internal/External Benchmarking Decision.
4	Find a Benchmarking Partner Selection: Style (use purpose and practice to select the partner, then properties and rules to further refine).
5	Benchmarking Partner Selection: Alliance. (ensures feasibility of transferring beneficial practices).
6	Benchmarking Knowledge Transfer (isolate best practices).
7	Benchmarking Durability (embed & ensure the benefits occur).
8	Implement Improvements (Improve on the new states of affairs).

Reference: Moriarty (2009)

# Applying the Process: Class Brainstorm

Suppose you are a small business – a small Motel that wishes to improve performance in a very competitive market. What are potential factors in applying this Benchmarking Process?

1. What is the Welfare Framework?
2. How would you establish “purpose”?
3. Where is the best exemplar likely to be? Internal or external?
4. How would you go about finding a partner? What would you do to be sure?
5. How might you set-up an alliance?
6. How might you home in on best practices in a small business?
7. What is the best way forward? How do you choose?
8. Implementation: What & How?

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# Some Notes, Readings and Work!

- Internal, Competitive, Functional and Generic are terms often used to define the type/scope of benchmarking. These are well-proven to both work and not work depending on circumstances! They are praxis-based concepts and although they are often very helpful, they have no theoretical provenance. Jacobs 432-435
- Internal versus external benchmarking is also a concept that defines the locus (place) of the exemplar. The rules are identical no matter where benchmarking is performed. External exemplars may not disclose 'purpose' and failure to align 'purposes' increased the likelihood of benchmarking failure.
- Administrative processes often surround and overwhelm benchmarking exercises as there is a considerable amount of information and access to be handled – especially with an external exemplar. Often the COST of such administration is ignored in the calculation of future benefits.
- Simple Radar/Spider Diagrams can be used to provide a visual comparison (benchmark) of the anomalar versus the exemplar.

□ **Case Exercise: For the case shown, review the rules and compare the two organisations.**

- Note: Data has been obtained from public sources.
- Draw a Radar or Spider Diagram to illustrate the data\*
- Which is the potential exemplar?
- What might be said about the anomalar?
- What might the anomalar's CEO be concerned about?

Organisations AA and BB manufacture oil pressure sensors (X) for petrol engines			
Both organisations are located in Mytown and produce for both local and international markets			
Lot sizes per order are typically 500 units at the unit prices indicated.			
Item	AA	BB	
Customer's Order lead time (days)	12	10	
Market Share of X	25%	35%	
Sale Price of X	\$63	\$67	
MTBF of X (Hrs)	50,000	55,000	
Staff Numbers	100	110	
Staff Turnover	20%	10%	
Published Capital Investment (% Revenue)	4%	8%	

\*Normalise categories so that 100% = best.

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