

FACULTY OF INFORMATICS  
MASARYK UNIVERSITY



# **Service and System thinking**

## **Department of Computer Systems and Communications**

Academic Year: 2024-2025

**Service and Systems Design**

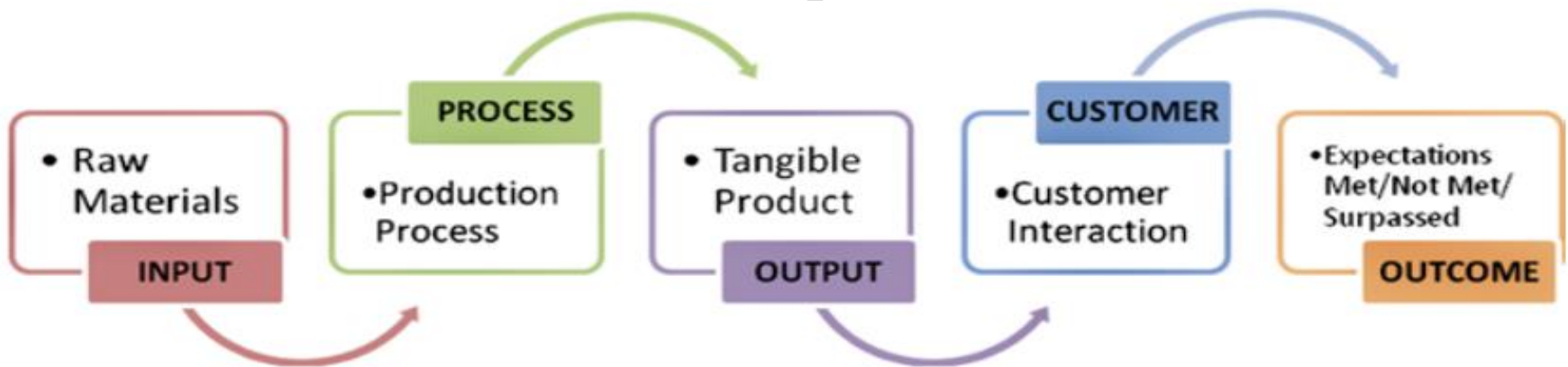
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Francesco Caputo

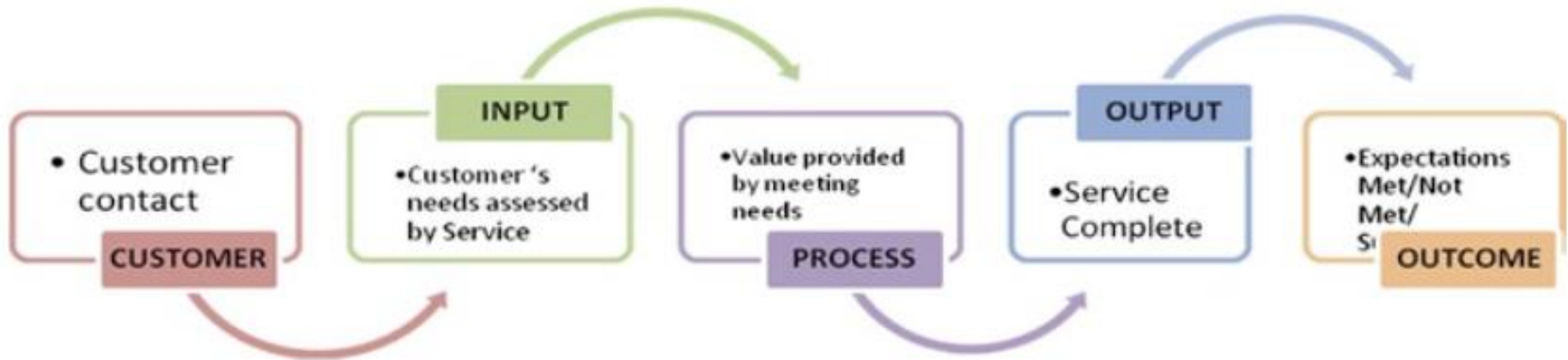
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# Product processes Vs. Service processes

## Product process



## Service process



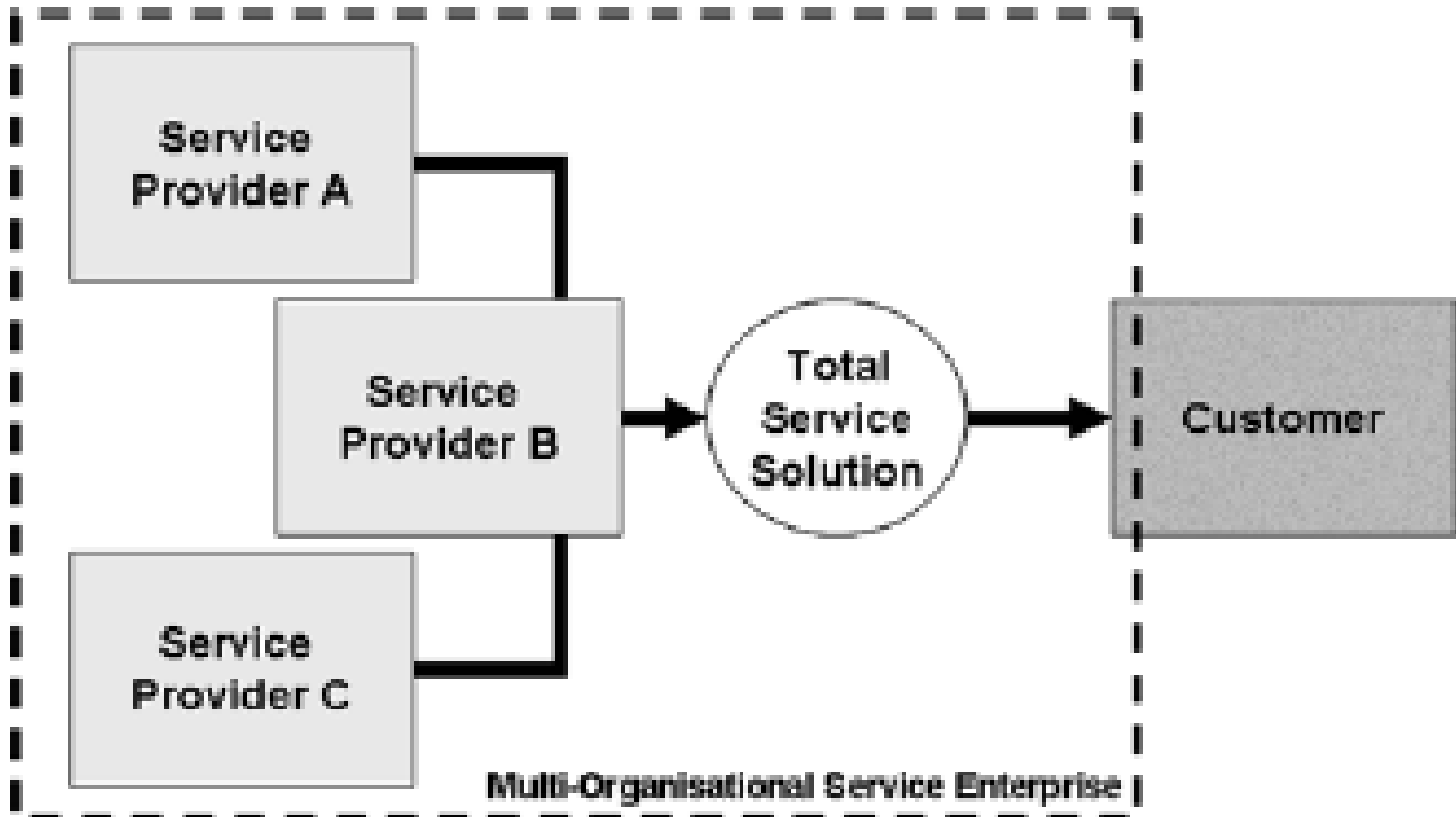
Source: Dhaliwal et al., 2011: pp.3-4

## Product processes Vs. Service processes

The “mental model of ‘products’ and ‘services’ does not appear to be helpful in thinking about twenty-first century organizations. Perhaps it is time to jettison this mental model (Lovelock 2004) and move instead to the concept of a continuum of outputs” (Dhaliwal et al., 2011: p. 4)

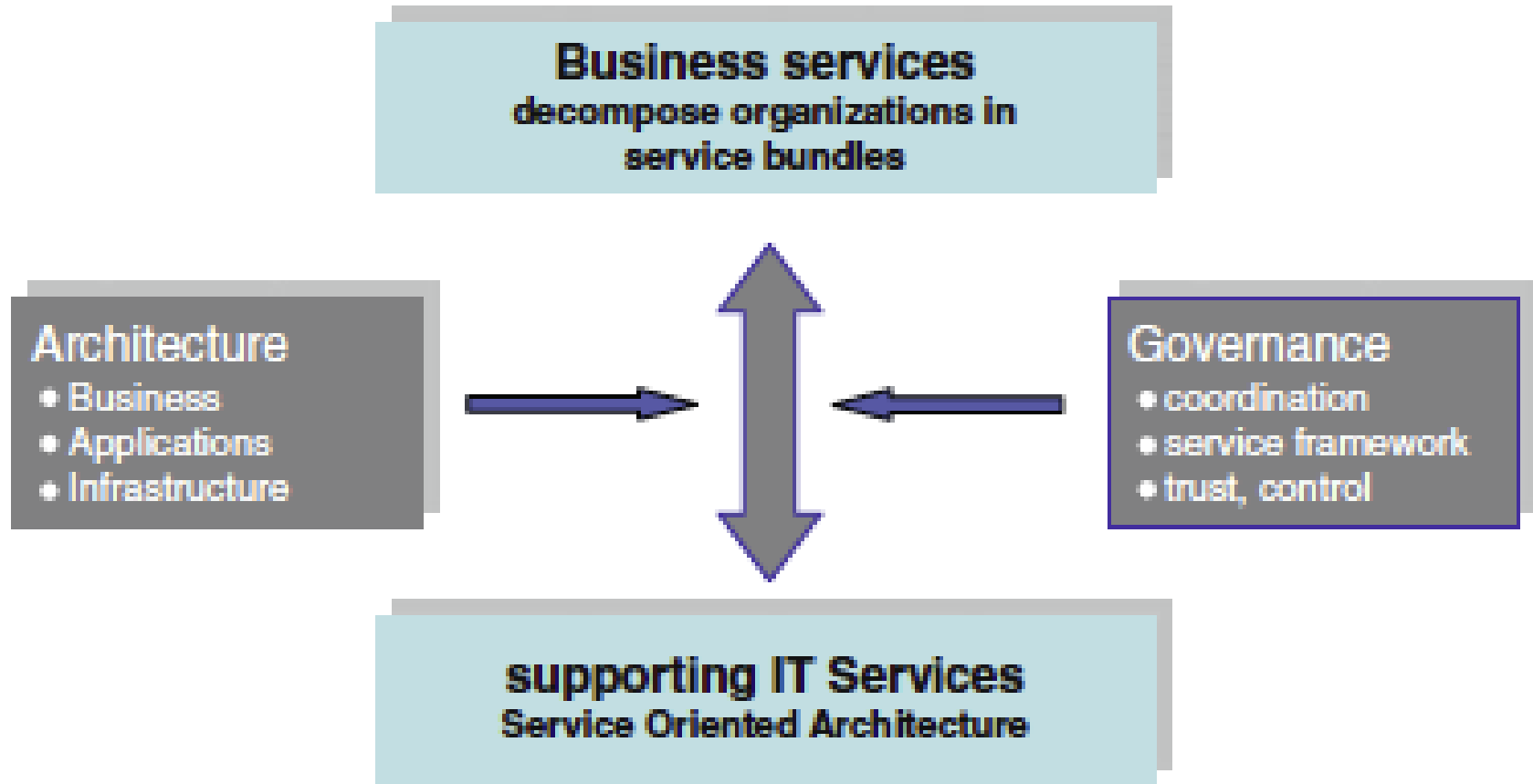


## An updated view of Service provision



Source: Purchase et al., 2011: p. 124

# An updated view of Service provision



Source: Y.-H. Tan et al., 2011: p. 53

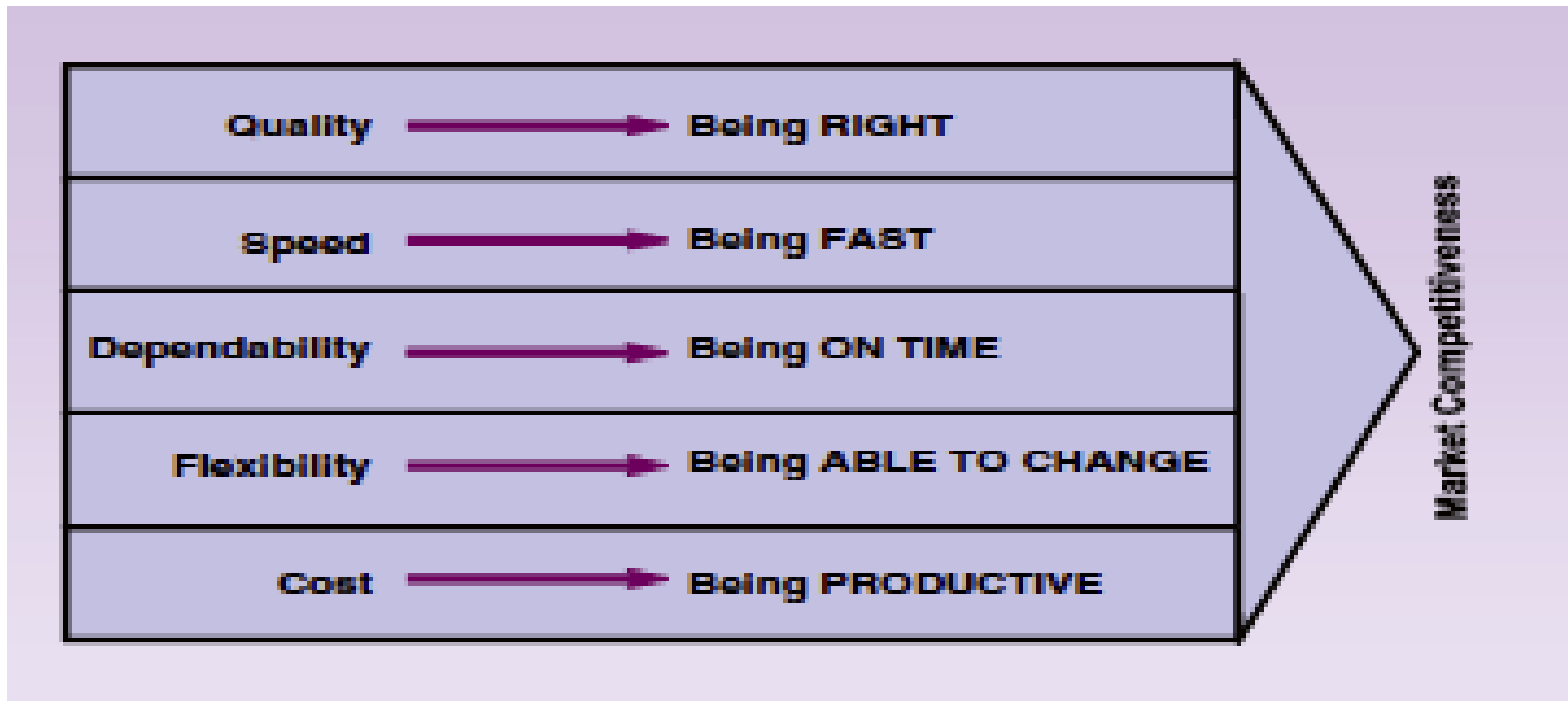
## Steps for Service and Systems Design

- ✓ **Step I:** Identify an Operations Domain and Scope the Opportunity
- ✓ **Step II:** Characterize, Model and Optimize the Environment
- ✓ **Step III:** Develop Effective Human Factors Practices
- ✓ **Step IV:** Develop Tools, Training and Support Infrastructure for a Large Scale Rollout
- ✓ **Step V:** Integrate with Related Corporate Processes
- ✓ **Step VI:** Deliver Business Results on a Large Scale

**Source:** Ray, 2011

## Competitive advantages in Service Design

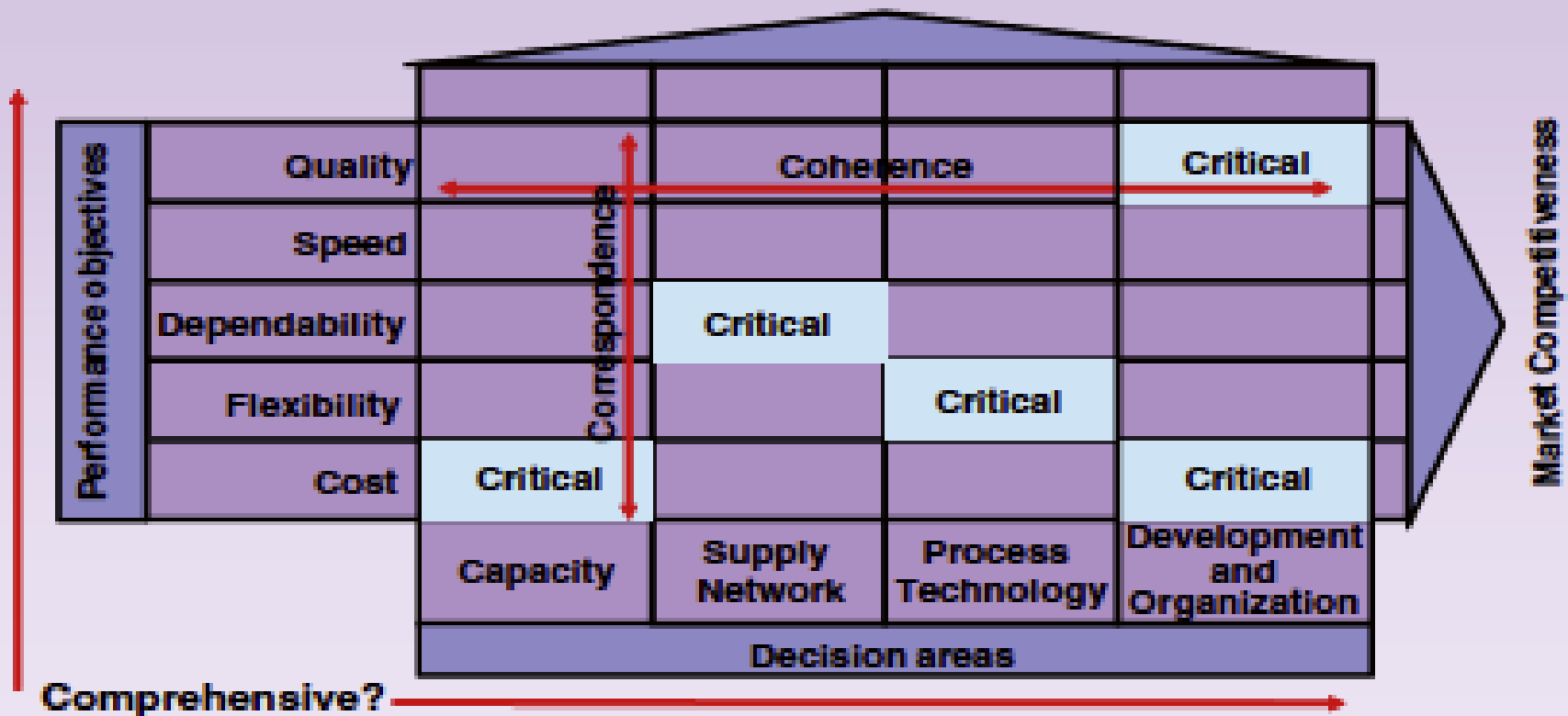
Slack et al. (2006) have identified five *sources of competitive advantage* in the service design.



# Competitive advantages in Service and Systems Design

**'Fit' is concerned with ensuring comprehensiveness, correspondence, coherence and criticality**

Resource Usage



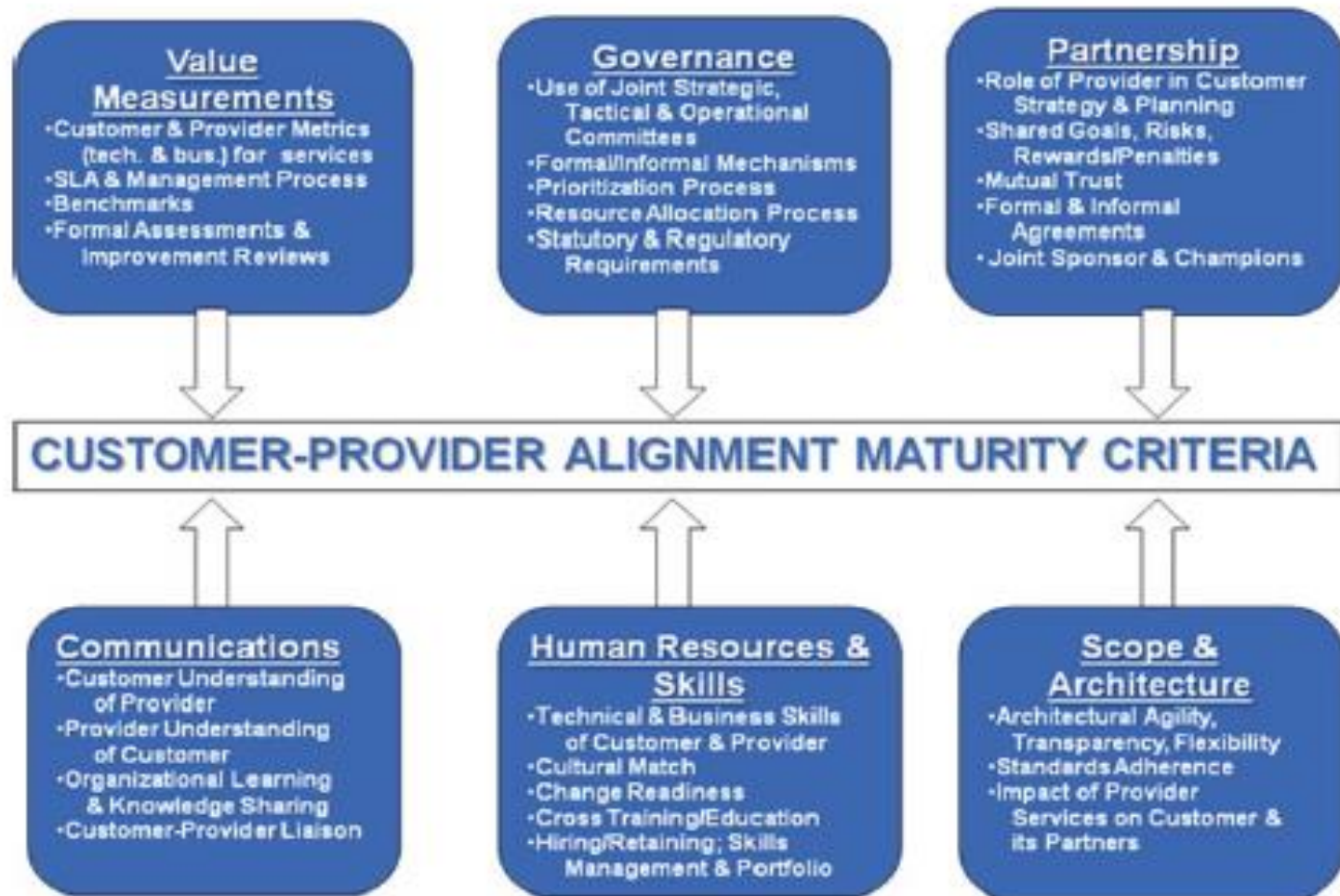


## Competitive advantages in Service and Systems Design

*“Through their services or products, organizations seek to elicit favorable customer experiences that stimulate the behaviors of repetition (customers buy the service or product again) and service/product promotion (satisfied customers advocate use of the service or product amongst their social network)” (Dhaliwa et al., 2011: p. 7).*



# Components of customer-provider alignment



Source: Luftman et al., 2011: p. 149

## Relevant issues for Service Design

Issues	Description
Intangible	“Intangible things are not physical objects and only exist in connection to other things” (p. 21).
Heterogeneous	“A common service varies according to the context, nature and requirements of each customer” (p. 21).
Inseparable	“Services may be said to be inextricably linked with customers in terms of production and consumption and so it is said that service is inseparable” (p. 22).
Perishable	“Services are not a stock of fixed assets and it is not possible to store services in inventories” (p.22).

**Source:** Elaboration from Parry et al, 2011

## Elements for Service and Systems Design

Elements	Product	Service
Experience	It refers to the producers' ability to reduce the cost and to align the product's characteristics to the market needs.	It refers the complex of interactions and relationships between providers and users needed to support the service delivery.
Quality	It refers to the tangible characteristics of products and it can measured ex-ante.	It is based on the perception of users and it is measured in terms of differences between expectations and reality.
Tradability	It refers to the payment to acquire the ownership of a specific product.	It refers to the relationships between users and providers direct to ensure the co-creation of service.

## Service Management Vs. Product Management

The *three questions* that make up the core paradigm are the questions that preoccupy managerial decision-making in transactional service organisations:

- ✓ How much work is coming in?
- ✓ How many people have I got?
- ✓ How long do they take to do things?

In line with Chase's ideas about efficiency (Chase 1978), managers think of their job as a resource-management problem.

**Source:** Seddon et al., 2011: pp. 43-44

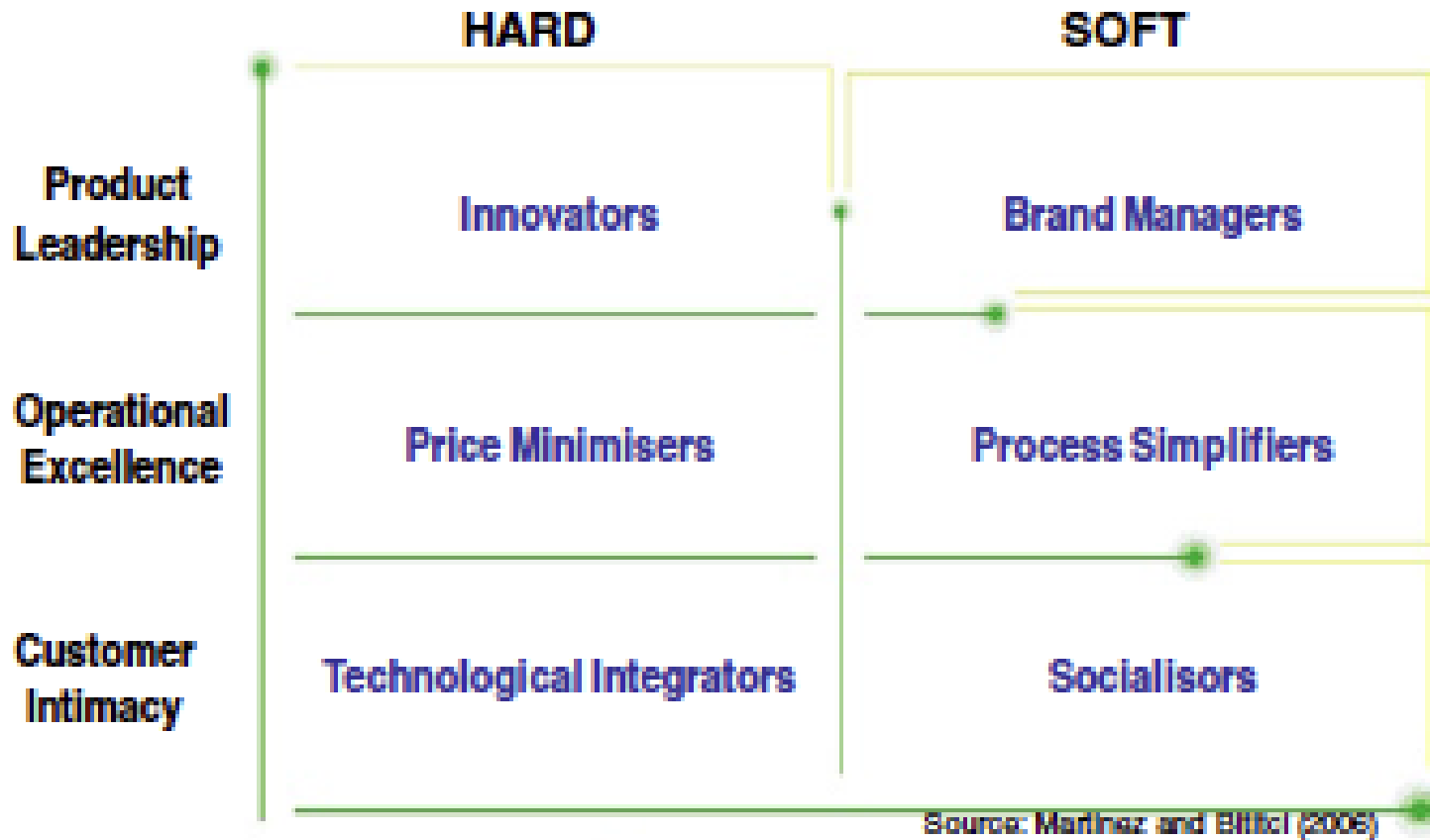
## Service Management Vs. Product Management

The core paradigm leads managers to do *the following types of things in pursuit of improving service operations*:

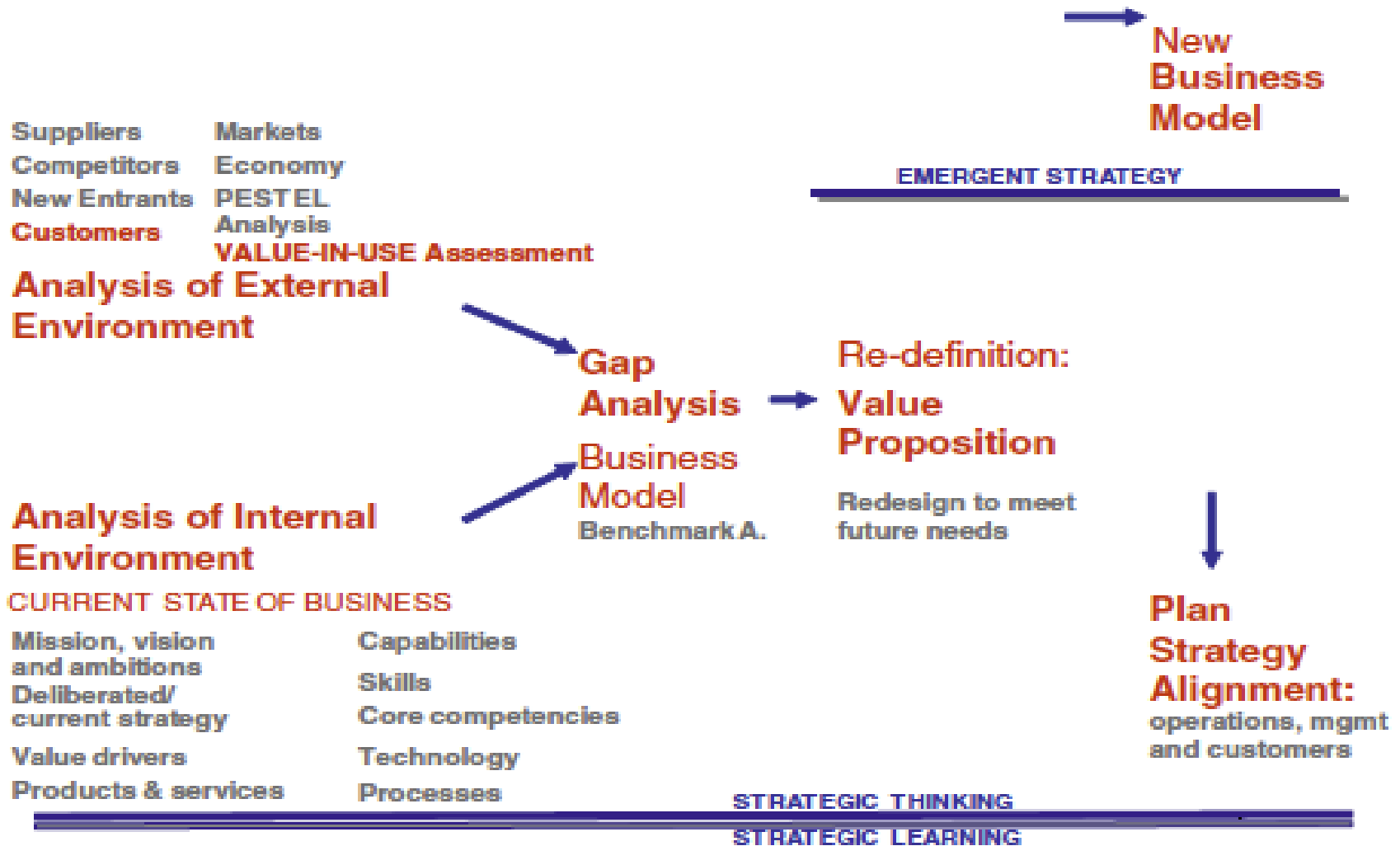
- ✓ Reduce average activity time (through procedures, job aids, call coaching and targets)
- ✓ Use I.T. to replace, support or control the service agent
- ✓ Outsource activity to lower-cost organisations/economies
- ✓ Increase functional specialisation (to reduce training costs)
- ✓ Standardise work processes
- ✓ Put similar work into back-office factories

**Source:** Seddon et al., 2011: pp. 43-44

# The value Matrix for Service Design

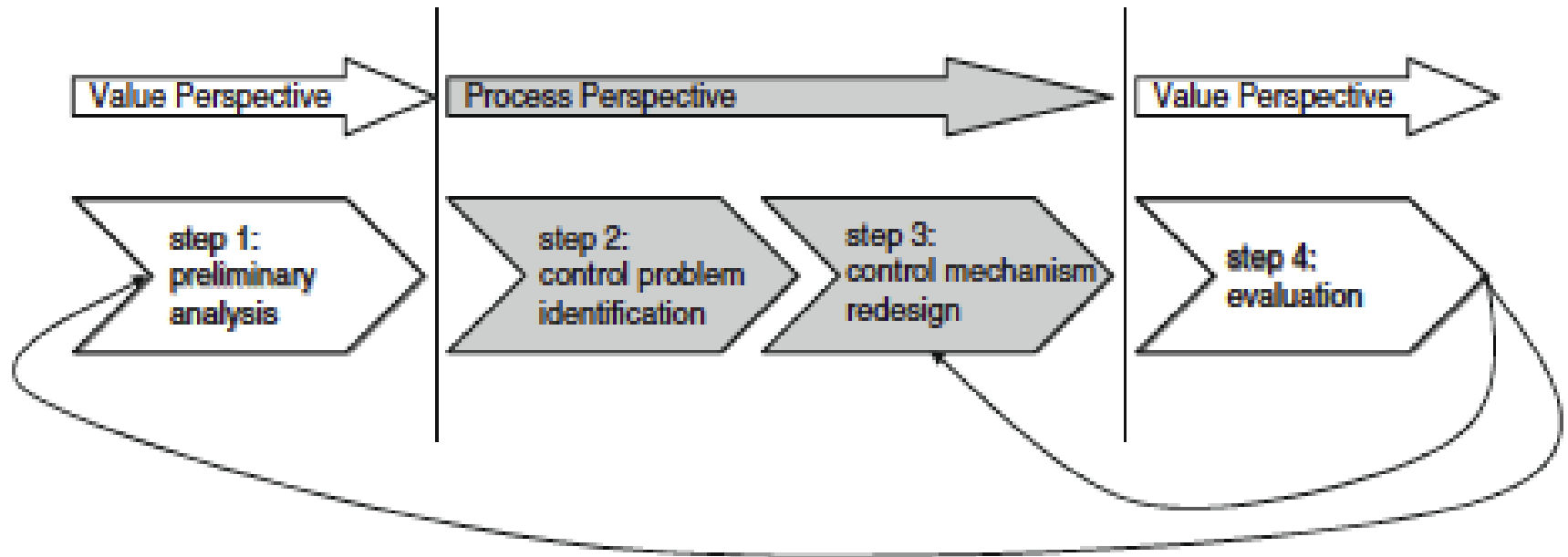


# A general map for Service and Systems Design





# A general map for Service and Systems Design



**Source:** Y.-H. Tan et al., 2011: p. 62

# Leadership in Service and Systems Design

## **1. Provide the Vision**

“If there is likely to be an impact on people’s jobs it should also set out how the organization will support those involved”.

## **2. Make Sure You Are Visible**

“The role of Leader is to inspire and empower and in doing so they release talent from those around them”.

## **3. Focus on the Priorities**

“If change to the culture is required then you need to understand how the existing structure and systems reinforce it”.

## **4. Communicate**

“It is essential to communicate all the time so that you maintain a shared vision of the future; one that will sustain the organization through the tough decisions that will need to be taken”.

**Source:** Smart et al. 2011: pp. 155-156



**Questions ???**

