

# ORGANIZATION THEORY AND DESIGN

# Nice to meet you!



Luca Gastaldi is **Associate Professor** at the School of Management of Politecnico di Milano

He teaches **Firms and Strategic Decisions** at the BSc of Management and Information Engineering, the **Process Analysis and Modeling Lab** at BSc of Management Engineering and he is part of the core faculty of the MIP Graduate School of Business, where he teaches **Business Process Management, Organisation Theory and Design** and **Digital Innovation in Public Settings**

Since 2013, he is **board member of CINet**, an international research network on continuous innovation

Over the years, he promoted research and consulting projects in the area of **digital innovation**, with a peculiar emphasis on **public entities**

He is **director** of the "Digital Agenda", "Digital Identity", "Design Thinking for Business", "Smart City" and "Cloud in Public Sector" Observatories

He is **senior researcher** in the "Digital Healthcare" and "Smart Working" Observatories

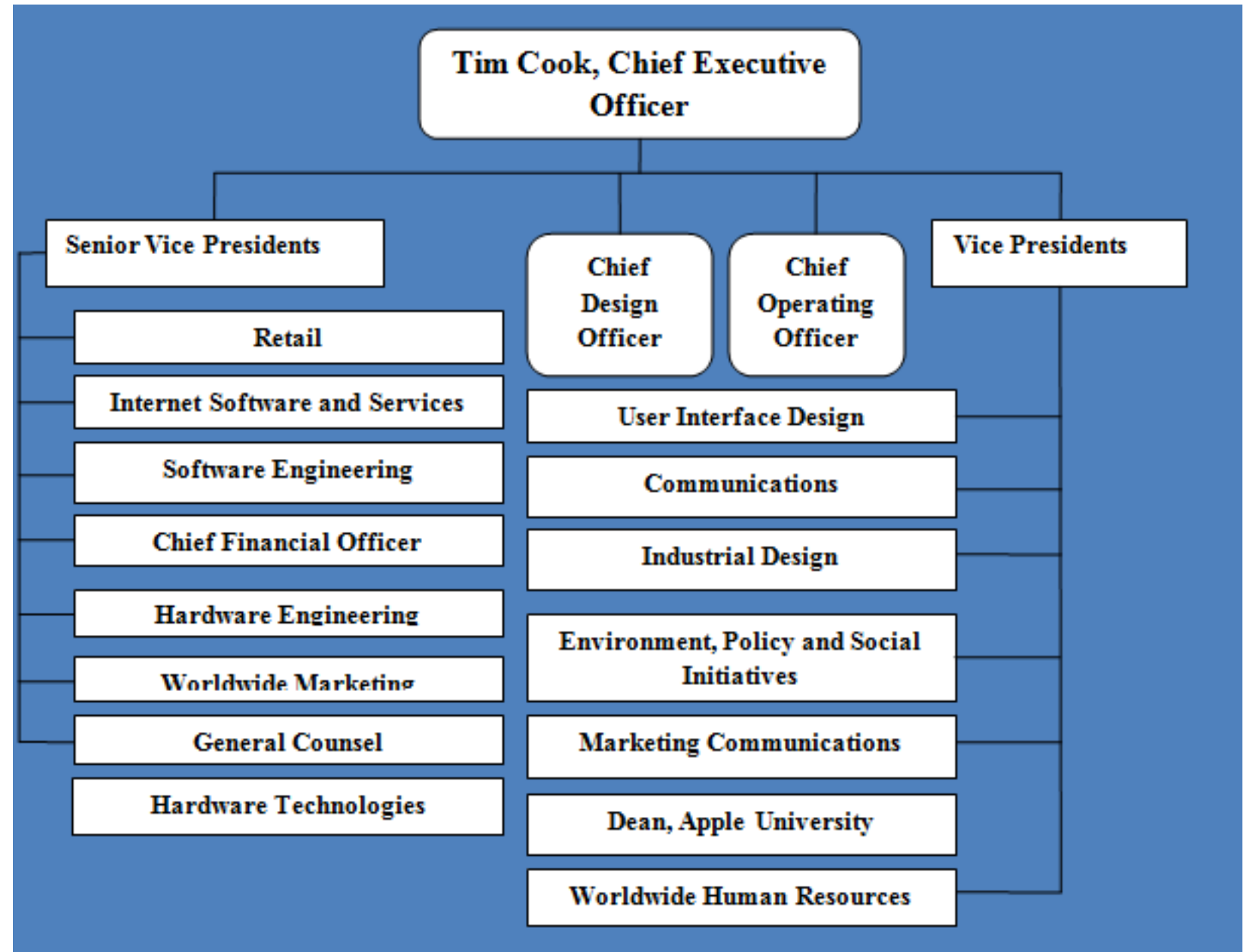
Since November 2021, he serves as a **technical expert** for all digitalization issues in the **Technical Secretary** of the Italian Presidency of Council of Ministers related to the implementation of Italian National Recovery and Resilience Plan (**PNRR**)

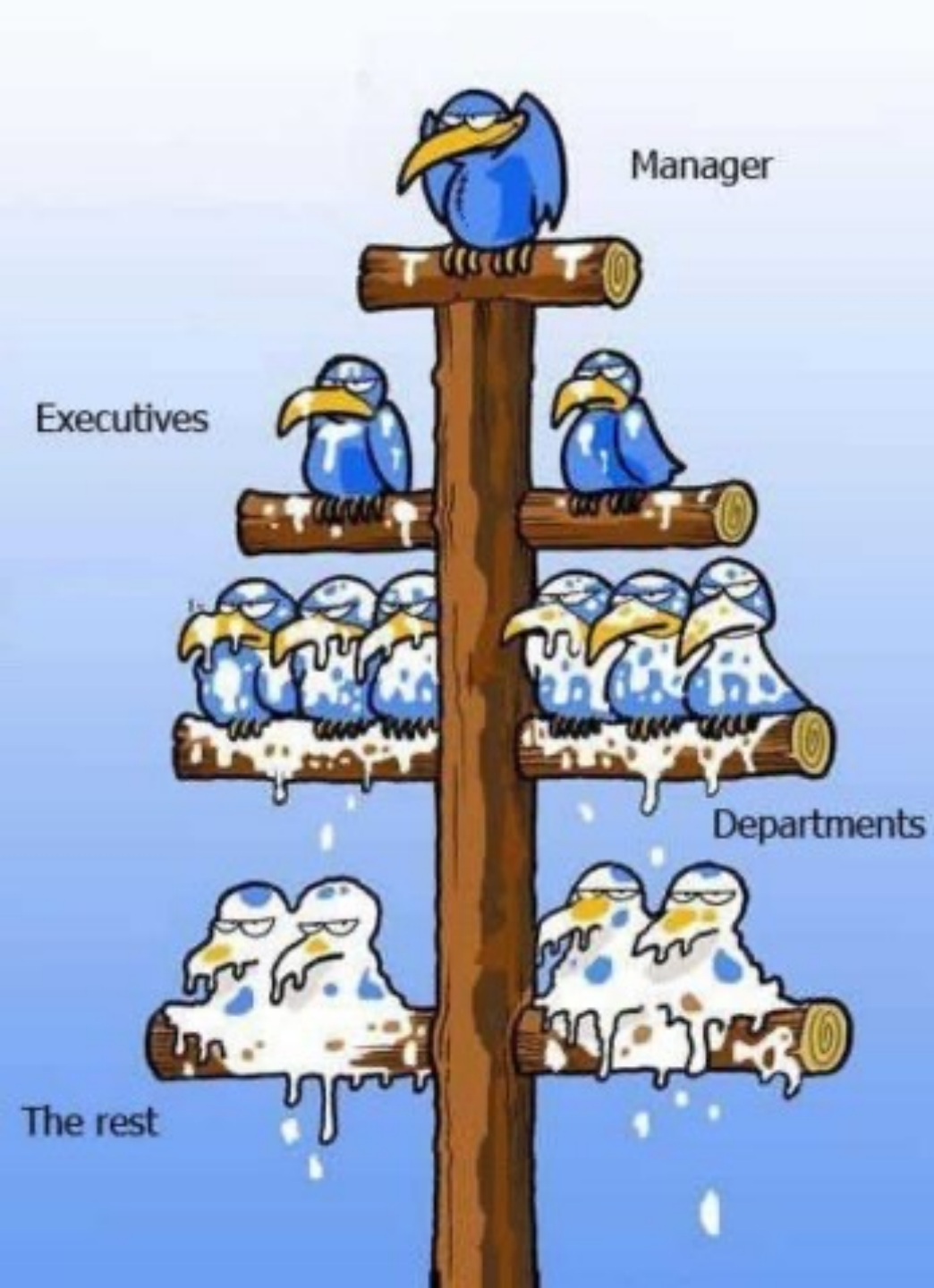
Let's start with a video

<https://bit.ly/jobs-od>



# The real organizational structure of Apple Inc





Organizational structure:  
the common belief

# Organizational structure in reality



# Key problems in organizational design

- **Specialization:** need to divide activities required to obtain a specific output between different people and organisational units
- **Coordination:** need to guarantee coherence and results of the activities when specialisation increases
- **Two levels:**
  - Individuals
  - Organizational units

## Bostil case history — Discussion items

- *Which are the main changes in the company's organizational context?*
- *Which are the features of the organization today?*
- *Which changes are needed to the organization?*



# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion

# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion

How many organizations were there in 1855?

# Organization: a definition

- Social entity
- Driven by clear objectives
- Designed as a system of deliberately structured and coordinated activities
- Which interacts with the external environment

**ORGANIZATIONS ARE NOT SO MUCH MADE BY BUILDINGS  
OR POLICIES / PROCEDURES BUT ARE CHARACTERIZED BY THE  
PEOPLE AND THE RELATIVE RELATIONSHIPS**

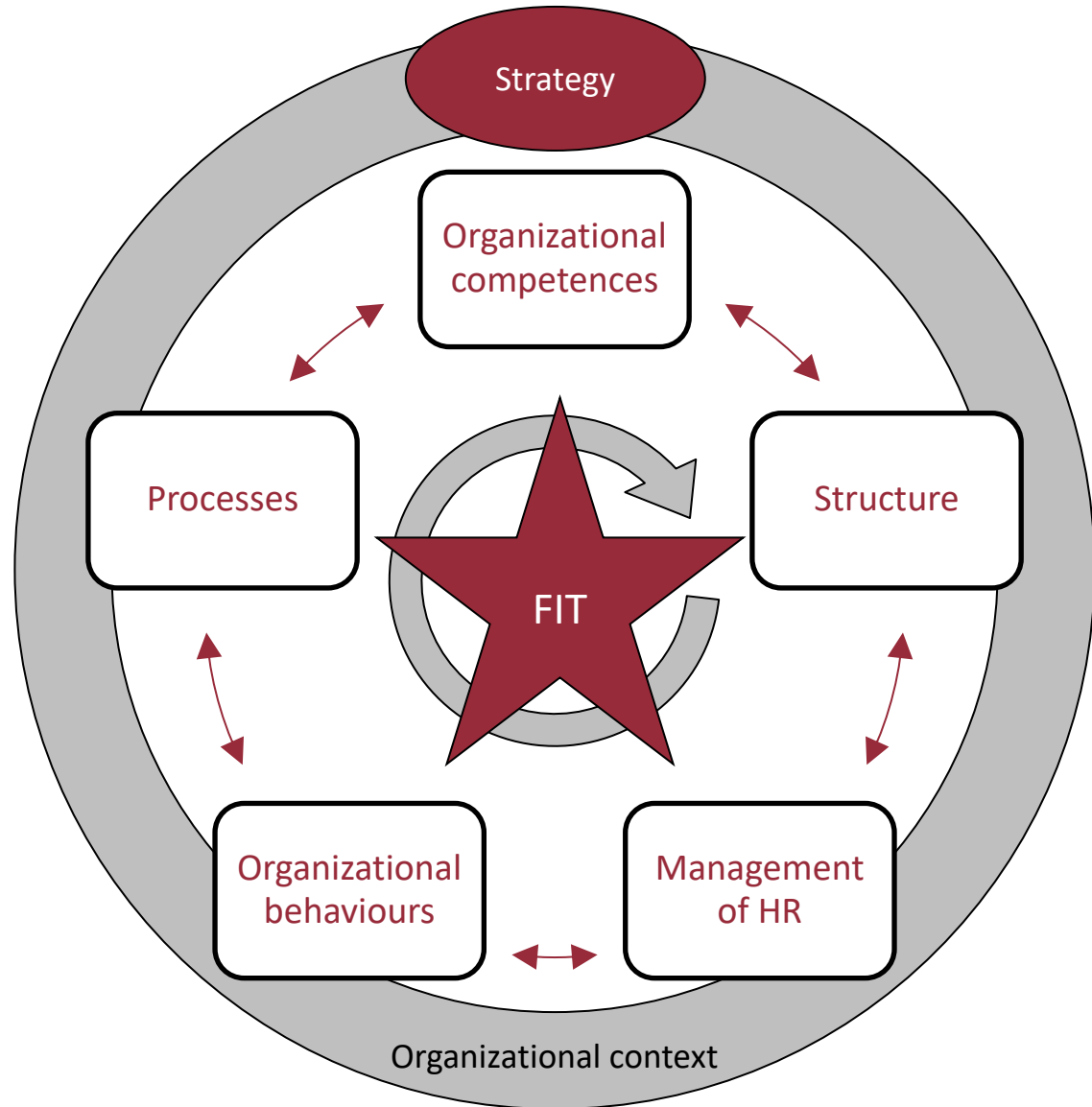
# Why organizations matter

- They bring together resources to achieve the desired goals and results
- They produce goods and services efficiently
- They facilitate innovation
- They use modern production technologies
- They adapt to the changing environment and influence it
- They create value for shareholders, customers and employees
- They combine the current challenges of motivation, ethics and diversity management with the need for greater coordination of human resources

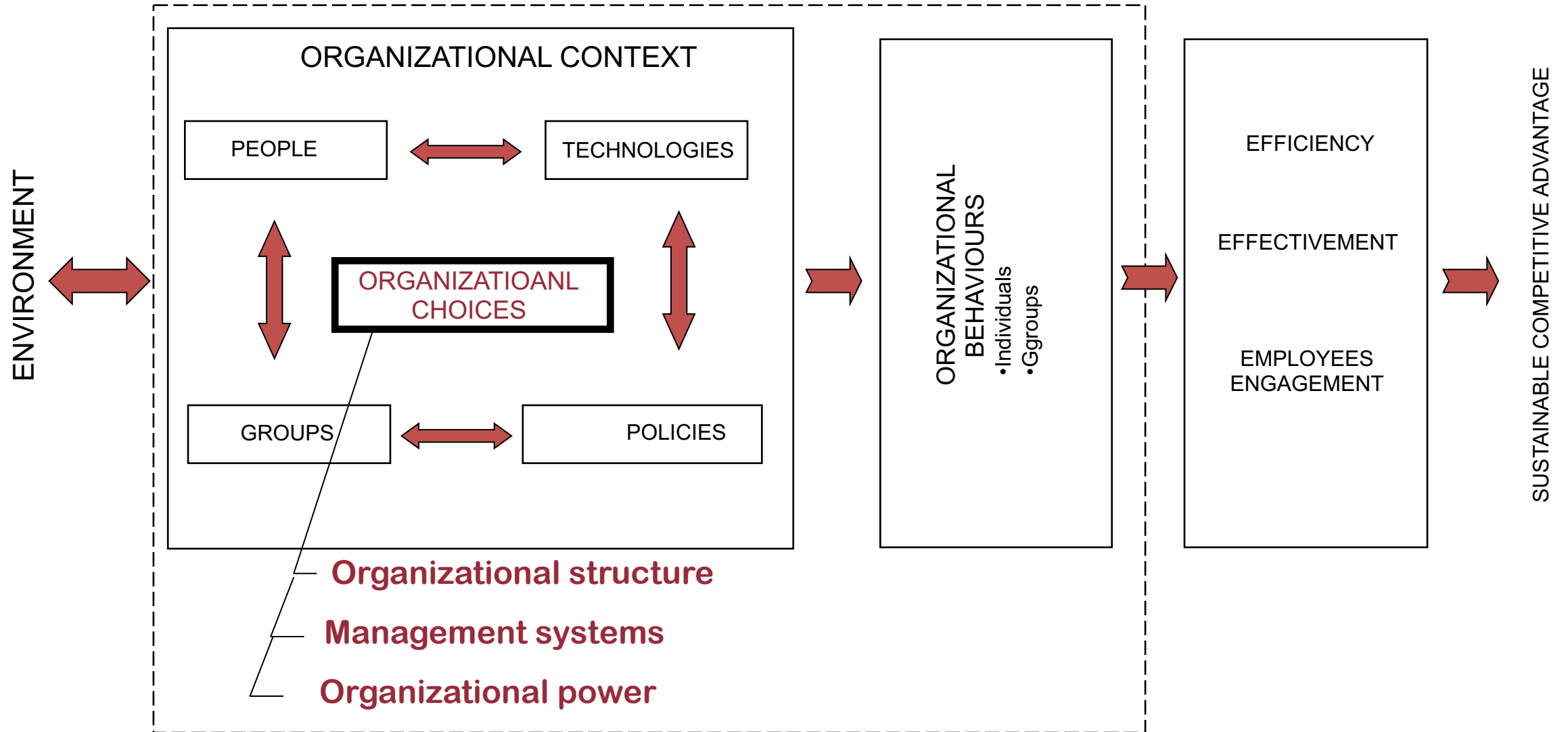
# How can you tell if an organization is not effective?

- Low motivation and morale
- Delayed or low-quality decision making
- Conflicts and lack of coordination
- Slow adaptation to changing circumstances
- Rising costs

# Key elements for an effective organization



# The organizational system as an open system

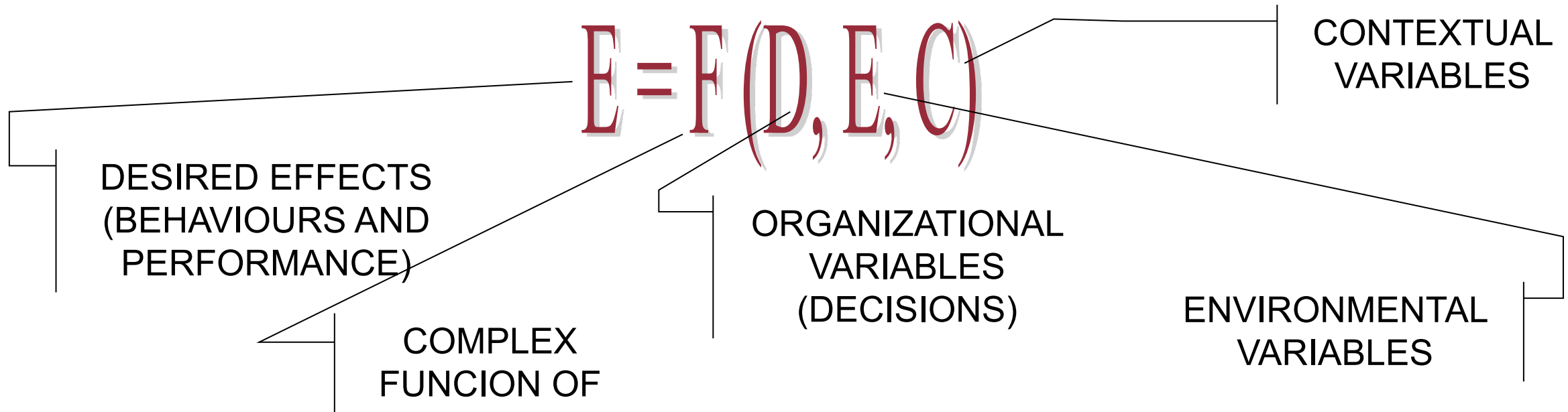




# The contingent approach to organizational design

## Organizational design

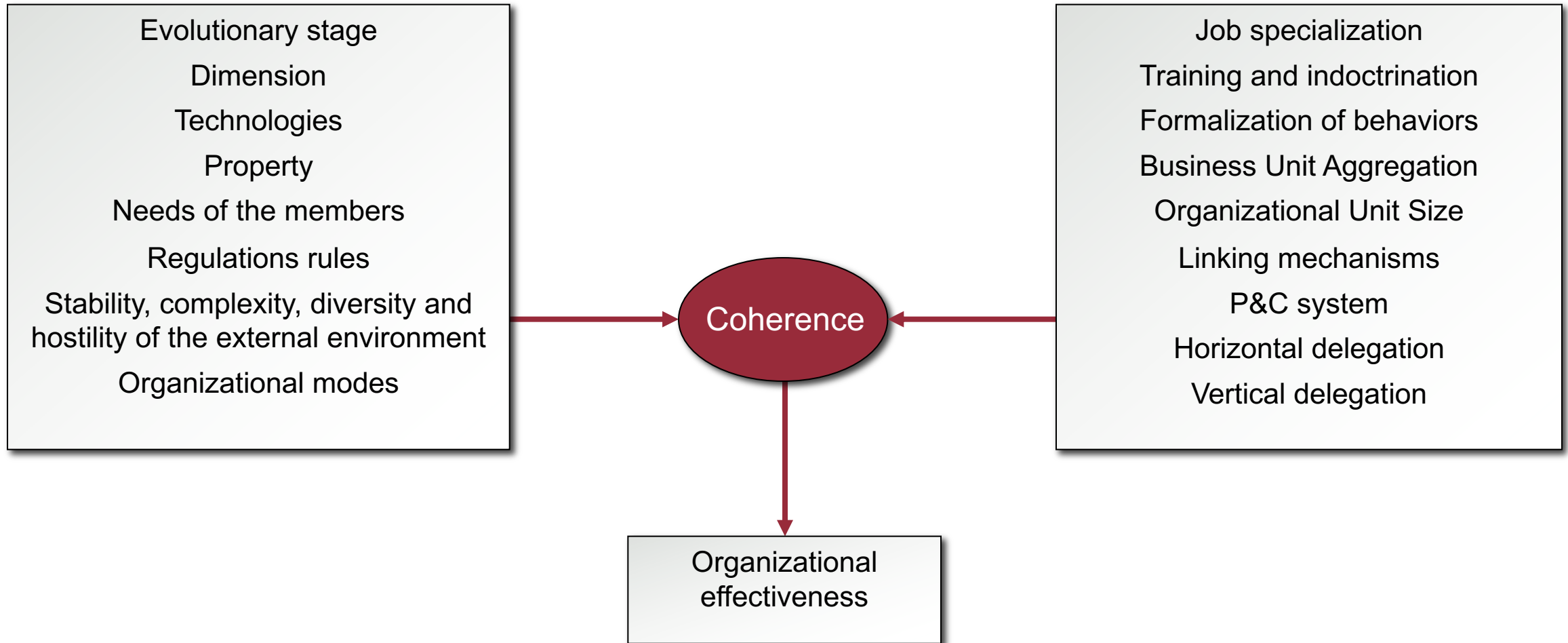
the organization is modeled as an artificial system, identifying levers, environmental and contextual *variables* and performances to "design" or redesign the organization



## Contingent approach:

There is no absolute better choice but rather it is possible to select a limited number of possibilities from which choosing based on criteria of internal (between decision variables) and external (with environmental and contextual variables) consistency

# Contingent factors and organizational choices



## Turbulence in the external environment

DID YOU  
**KNOW**



# The main organizational variables

- **Organizational structure (coordination and division of labor)**
  - Design and integration of organizational units (macro-structure)
  - Assignment to individuals of jobs/tasks/roles (micro-structure)
- **Management systems (stimuli for behavioral adaptation)**
  - Evaluation and incentive systems
  - Planning and control systems
  - Information and communication systems
- **Organizational power (relationships of mutual influence)**
  - Centralization and decision-making decentralization
  - Direction style
  - Conflict management

Perspective:

interpretation



Support to  
decision making

# Design of the organizational structure

*Set of relatively **stable elements** related to the roles that express the basic criteria with which the **division of labor** and **coordination** are implemented within a company*

- **Design of the organizational structure at MICRO level:**
  - Division of work and coordination between individuals within groups/units
  - Typical problems faced: specialization, qualification, motivation, empowerment
- **Design of the organizational structure at MACRO level:**
  - Division of work and coordination among groups/units in the organization
  - Typical problems faced: hierarchical levels and "span of control", criteria for aggregating positions, systems for coordinating units

# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion

# Design of the organizational structure at micro level

## *DESIGN AND ASSIGNMENT OF **TASKS**, **JOB**S AND **ROLES***

### **Key concepts**

- **Task:** set of necessarily linked activities/operations given the used capacity and technique
- **Job:** set of tasks that can be assigned to a position (that can be covered by an individual)
- **Role:** set of behavioral expectations that the organization has in relation to an individual assigned to a position

# Analysis and design of tasks

Definition for each position of:

- **What to do:** elementary jobs that form the task and degree of discretion (autonomy in programming and controlling results)  
⇒ **horizontal and vertical specialization**
- **How doing it:** define standards and rules for the realization of the assigned tasks  
⇒ **formalization**
- **With which skills:** define which knowledge, skills and values must have the person who performs the tasks  
⇒ **selection, training e indoctrination**

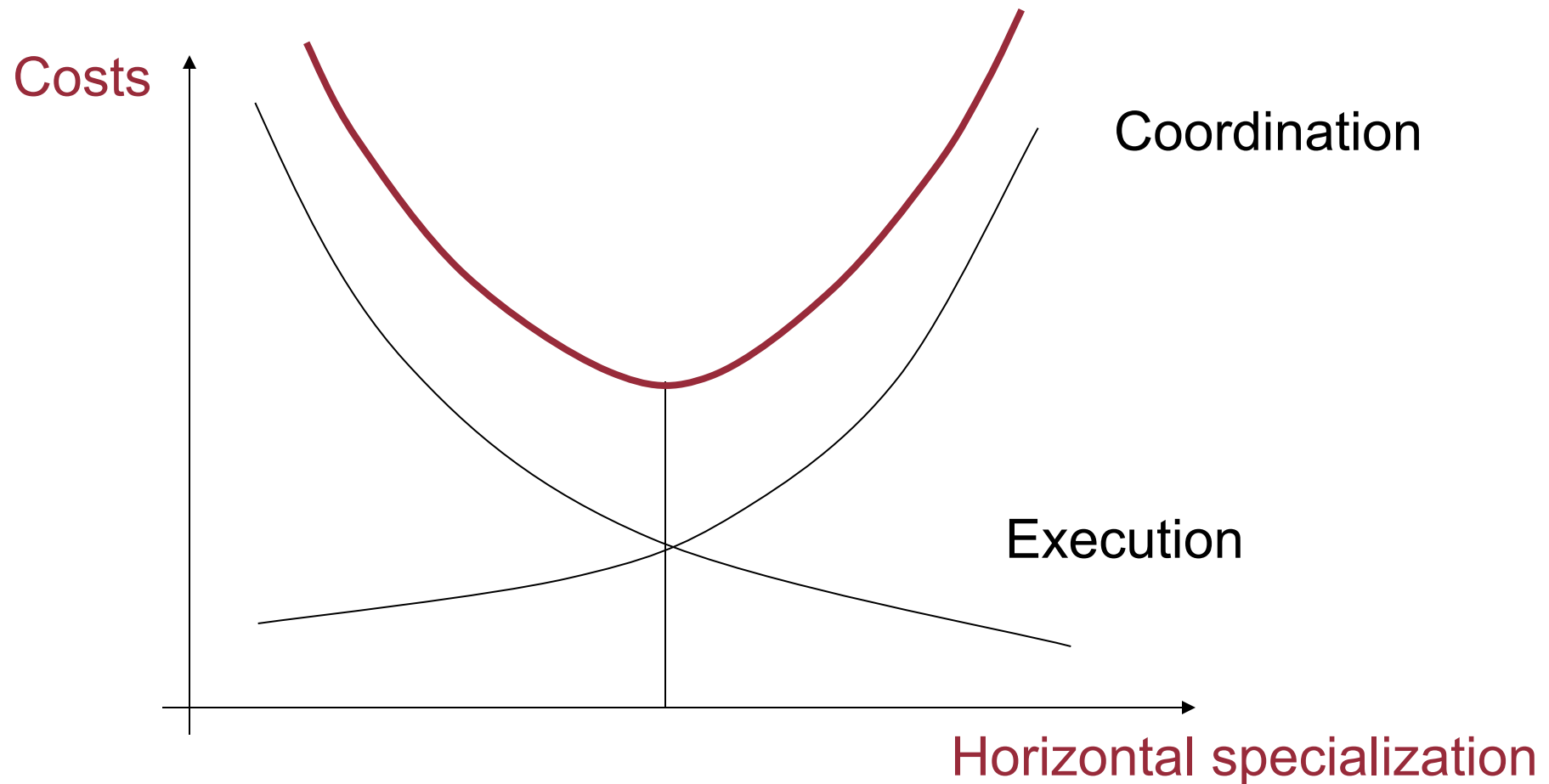


# Horizontal specialization

*Breakdown of the elementary activities necessary for the realization of a certain output*

- Factors driving towards horizontal specialization:
  - Improve of dexterity and learning economies
  - Saving in time lost in switching tasks
  - Specialized methods and technologies
  - Less need of training and qualified resources
  - Better use of individual skills
- Issues associate to excessive horizontal specialization
  - Need for coordination (overhead)
  - Problem of balancing resources' saturation
  - Repetitiveness, alienation

# Tradeoff between specialization advantages and coordination costs



# Vertical specialization

*Separation among pure execution from programming and control activities*

- Factors driving towards vertical specialization:
  - Consequence of horizontal specialization: workers' narrowed perspective makes difficult for them to relate their work to that of others
  - Possibility to hire less qualified workers
  - Better use of highly qualified workers and control and planning skills
- Issues associate to excessive vertical specialization:
  - Coordination problems
  - Demotivation, alienation
  - Insufficient contribution to improvement and innovation

# Joint effects of vertical and horizontal specialization

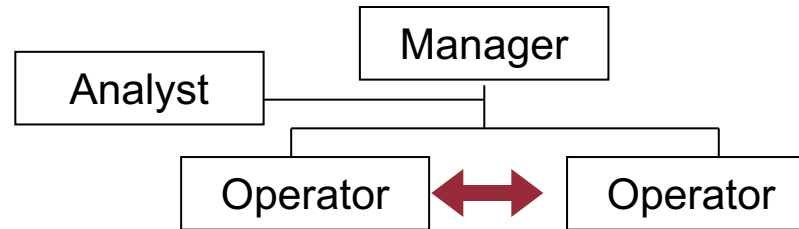
		HORIZONTAL SPECIALIZATION	
		HIGH	LOW
VERTICAL SPECIALIZATION	HIGH	Non- qualified tasks	Low and middle managers
	LOW	Professional. tasks	High-level managers

# Job redesign

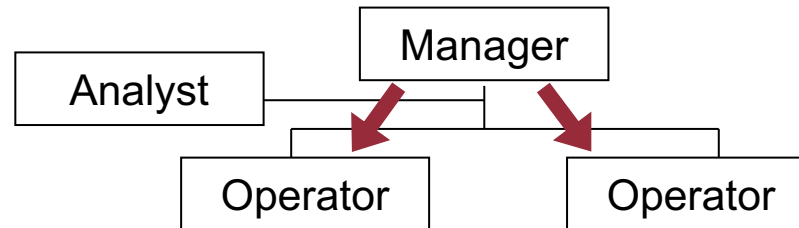
- Pressures towards job redesign
  - Lack of motivation
  - Need for flexibility to market changes and customer requirements
  - Focus on quality and innovation
- Redesign approaches:
  - **Job rotation:** rotation of tasks among individuals to pursue less repetitiveness and rigidity
  - **Job enlargement:** increasing the number of tasks assigned to a job
  - **Job enrichment:** increasing the level of autonomy and discretionary power of individual jobs
  - **Teamwork:** merge “self containing tasks” and assign them to interdisciplinary autonomous groups

# Coordinating mechanisms at micro level

- **Mutual adjustment**

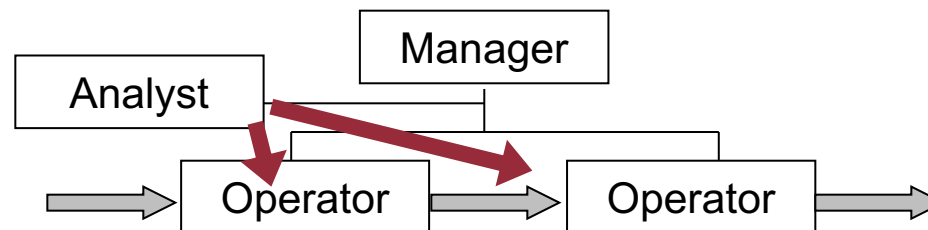


- **Direct supervision**

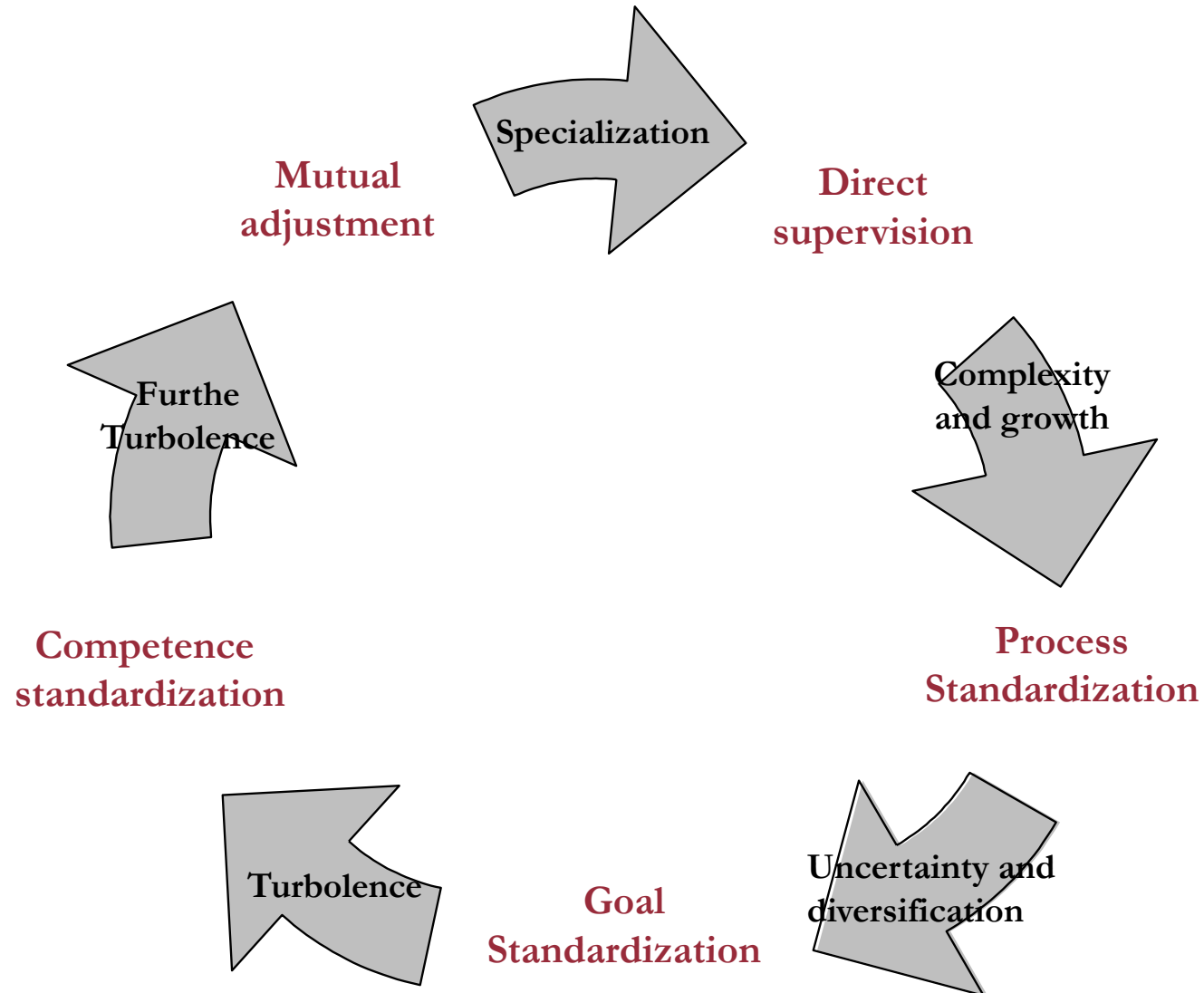


- **Standardization**

- Output (o goals)
- Input (o competences)
- Processes



# Coordinating mechanisms' cycle at micro-level



# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion



# Designing the organizational structure at macro level

*DESIGN OF ORGANIZATIONAL UNITS THROUGH THE DEFINITION OF  
HOW THEY WILL BE AGGREGATED AND/OR INTEGRATED*

**Organizational unit:** subset of positions/roles to which a set of tasks is assigned in a rather stable way; tasks should be interrelated each other and sufficiently autonomous and measurables



**Possibility of assigning a unitary responsibility (accountability)**

# Key decision for a proper organizational design at macro level

- **Horizontal and vertical differentiation**
  - **Horizontal differentiation:** the way tasks are grouped into organizational units
  - **Vertical differentiation:** the way the hierarchy of authority and reporting relationships are designed
- **Span of control:** total number of subordinates a supervisor has
- **Number of hierarchical levels**

## Factors influencing the link between size, n° of hierarchical levels and span of control:

- Tasks complexity and interrelatedness
- Horizontal differentiation
- Decentralization of authority
- Standardization
- Use of IT systems

# Centralized vs. decentralized organizations

## CENTRALIZATION

- Higher coordination
- Focus on company goals

BUT

- Managers become bottlenecks
- Focus on operational decisions
- Distance from day-to-day problems

*Vertical/tall organizational structures*

## DECENTRALIZATION

- Flexibility and responsiveness
- Motivation of (middle) managers

BUT

- Lower control on decision making
- Requires decision making skills throughout the organization

*Flat organizational structures*

# McDonald's change from centralized to (partially) decentralized structure

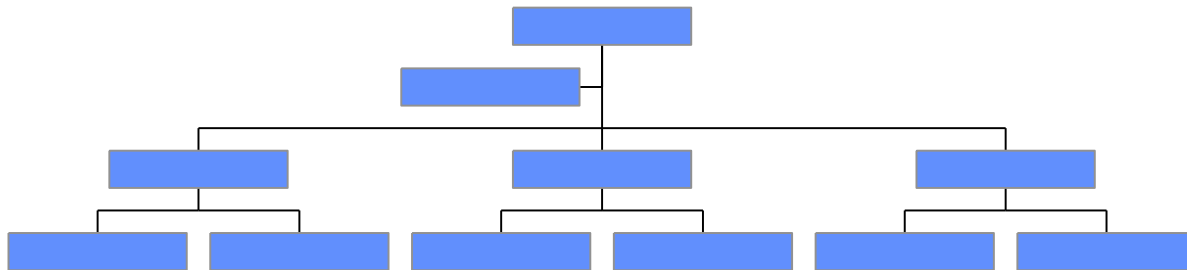
- Traditional McDonald's org structure:
  - Centralized authority, control
  - Standardized production
  - Formalization of all activities throughout the world
- Challenges from the environment:
  - Changed consumer tastes and eating behaviors
  - Environmental consciousness
  - Increased competition
- New strategic approach: flexibility in menus, decor, restaurant's formula, etc.
- New organizational structure: Decentralized authority to regional managers was not enough
- So:
  - Decentralized authority to core operations
  - Teams of food specialists
  - New top management team
  - Centralized control over quality



# Description of the macro structure: the organizational chart

## ORGANIZATIONAL CHART

GRAPHIC REPRESENTATION THAT EXPRESSES THE NAME OF THE ORGANIZATIONAL UNITS AND THEIR RELATIONS OF HIERARCHICAL DEPENDENCE



If detailed also contains:

- Staff for each unit with positions and relative rank
- Name and qualification of the managers
- Horizontal and diagonal relationships

- **Strengths**

- Describes existing positions
- Represents grouping mode
- Expresses formal authority

- **Weaknesses**

- Does not describe informal behaviours/relationships

Do we have to burn our organizational charts?



The image shows a man in a blue shirt pointing at a whiteboard. On the left side of the whiteboard is a complex network graph with 13 nodes (circles) and many edges. The nodes are labeled with numbers 1 through 9, and letters A, B, C, S. The edges are drawn in black and red. Below the graph, it says "13 People Links". On the right side of the whiteboard is a hierarchical tree structure. The root node is labeled 'B'. It has three children: 'A', 'S', and 'C'. Node 'A' has two children: '1' and '2'. Node 'S' has two children: '3' and '4'. Node 'C' has two children: '5' and '6'. Below the tree, there are handwritten notes: "13 Links", "17 Links", "4/7/21", and "Relationships".



Do we have to burn our organizational charts?



The image shows a man in a blue shirt pointing at a whiteboard. On the left side of the whiteboard is a complex network graph with 13 nodes (circles) and many edges, labeled "13 People Links" at the bottom. On the right side is a hierarchical organizational chart with a root node 'B' and three children 'A', 'S', and 'C', each with further sub-nodes. The man is holding a red marker and pointing at the network graph.

[illegible][illegible]

Do we have to burn our organizational charts?



The image shows a man in a blue shirt standing in front of a whiteboard. He is pointing with a red marker at a complex network diagram on the left side of the board. The diagram consists of 13 nodes (circles) connected by lines, representing a network of 13 people. The nodes are labeled with numbers 1 through 13. The network is dense, with many connections between the nodes. Below the network diagram, the text "13 People Links" is written in red. On the right side of the whiteboard, there is a hierarchical organizational chart. The root node is labeled 'B'. It has three children: 'A', 'S', and 'C'. Node 'A' has two children: '1' and '2'. Node 'S' has two children: '3' and '4'. Node 'C' has two children: '5' and '6'. Below the organizational chart, there is some handwritten text that is partially obscured but appears to say "13 People Links" and "13 Links". The man is holding a red marker in his right hand and pointing at the network diagram. He is smiling and looking towards the camera. The background is a solid orange color.

# Organizational structures

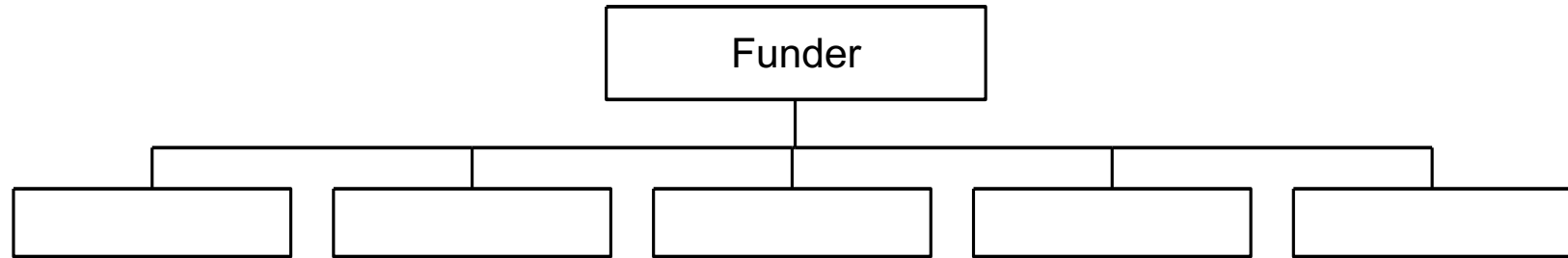
- Simple
- Functional
- Divisional
- Hybrid
- Matrix

The perfect organizational structure does not exist

There are organizational structures that are best suited to the company and the context in which it competes

# Organizational structures

- **Simple**
- Functional
- Divisional
- Hybrid
- Matrix

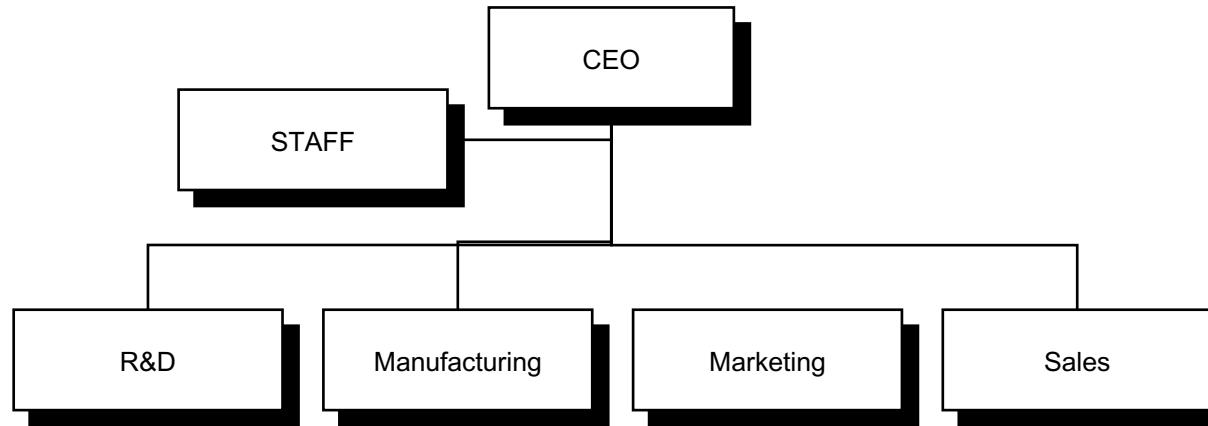


- **Grouping criteria:** –
- **Strengths:** flexibility, knowledge development, diffusion of norms and values
- **Weaknesses:** conflicts, decision-making bottle-necks
- **Typical context:** young and small companies



# Organizational structures

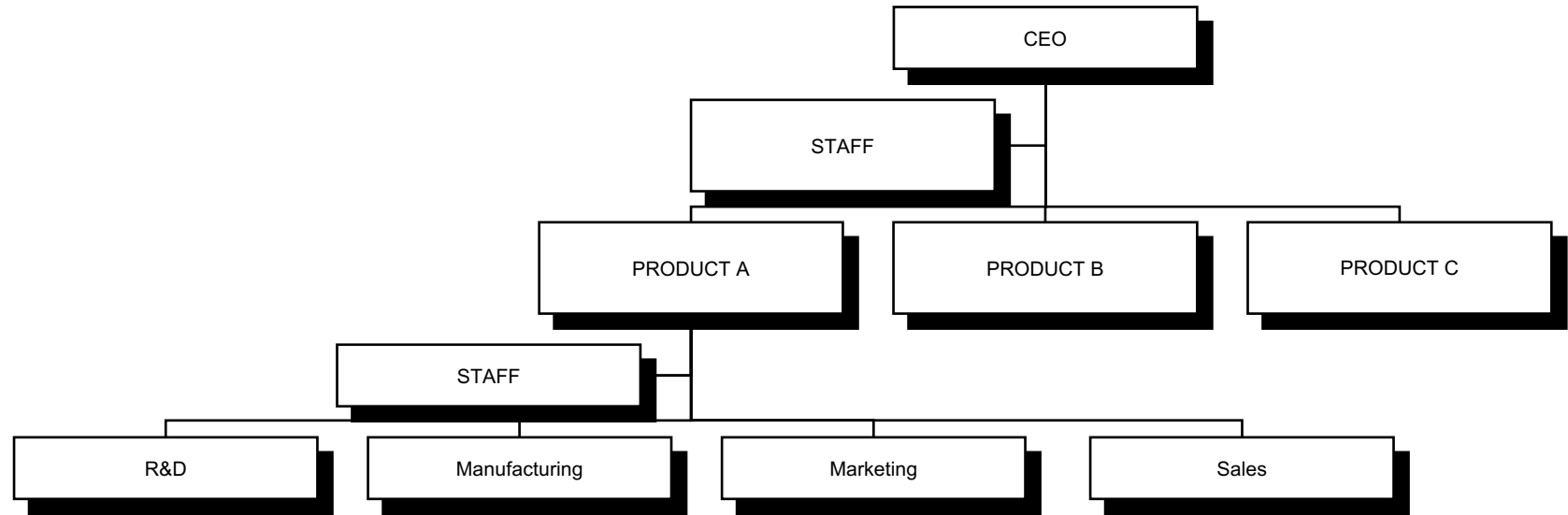
- Simple
- **Functional**
- Divisional
- Hybrid
- Matrix



- **Grouping criteria:** process or technique used, competence
- **Strengths:** allows economies of scale within functional departments; enables knowledge and skill development; facilitates peers supervision; enables development of competence-based norms and values
- **Weaknesses:** slow response time to environmental changes; hierarchy overload; poor horizontal coordination among departments; lack of innovation, limited awareness of organizational goals
- **Typical context:** companies with one or few products competing in rather stable industries

# Organizational structures

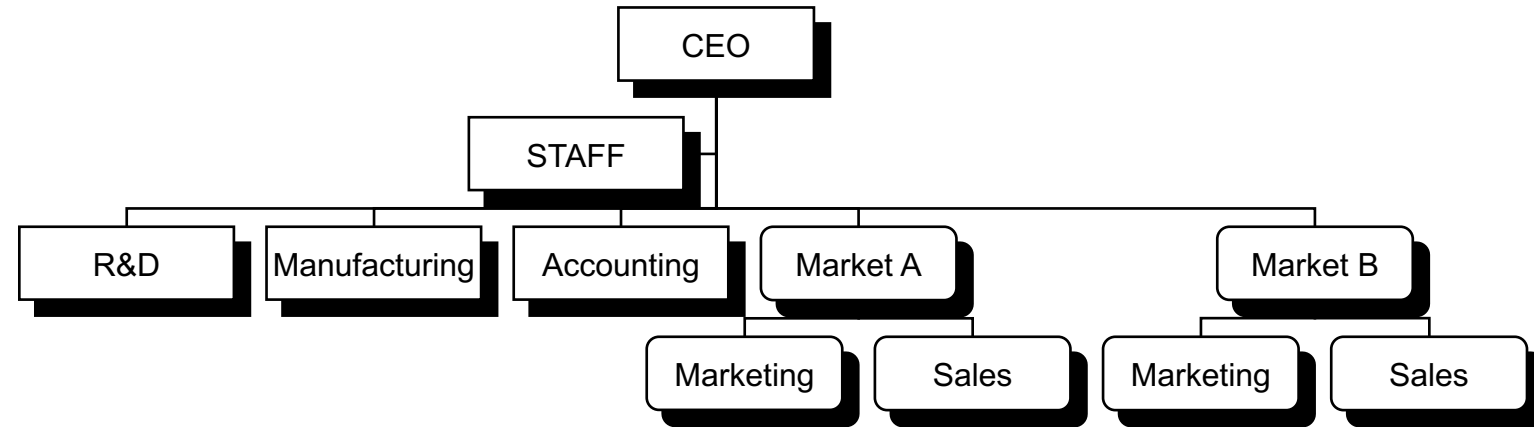
- Simple
- Functional
- **Divisional**
- Hybrid
- Matrix



- **Grouping criteria:** product, customer, geographical area
- **Strengths:** market responsiveness, adaptation to differences in products, regions, clients, faster and decentralized decision-making
- **Weaknesses:** reduced economies of scale, poor coordination across product lines, lack of in-depth competence and technical specialization
- **Typical context:** large organizations with several products in dynamic and unstable industries

# Organizational structures

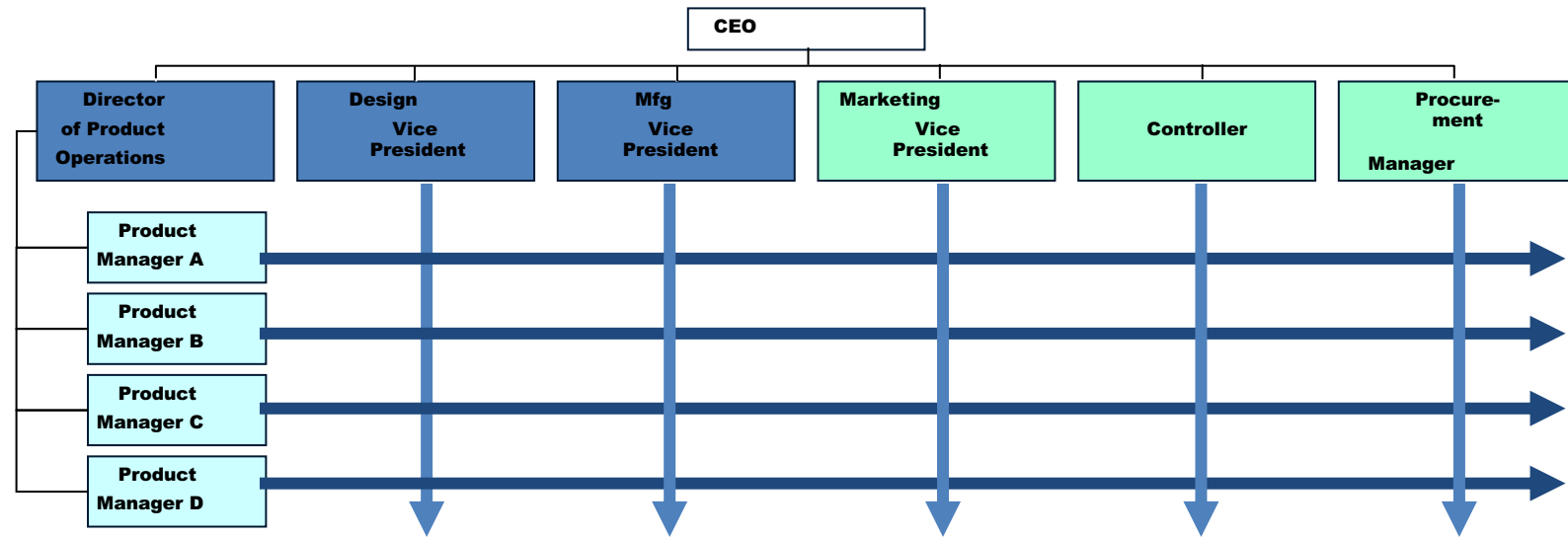
- Simple
- Functional
- Divisional
- **Hybrid**
- Matrix



- **Grouping criteria:** mix of functional and divisional criteria
- **Strengths:** uses most suitable criterion for each function; tries to combine the advantages of the functional and divisional structures
- **Weaknesses:** loss of clarity of grouping criteria and problems in cross-functional integration among activities
- **Typical context:** —

# Organizational structures

- Simple
- Functional
- Divisional
- Hybrid
- **Matrix**

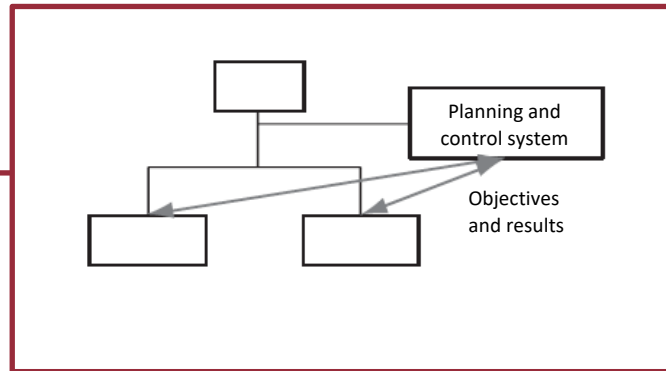


- **Grouping criteria:** both functional and divisional criteria
- **Strengths:** achieves coordination necessary to meet multiple goals; flexible sharing of human resources across units; provides opportunity for both functional and market skill development
- **Weaknesses:** causes participants to experience dual authority, which can be frustrating and confusing; participants need good interpersonal skills and extensive training; is time consuming; involves frequent meetings and conflict resolution sessions; requires great effort to maintain power balance
- **Typical context:** complex industries and unstable environments; best in large-sized organizations with multiple products

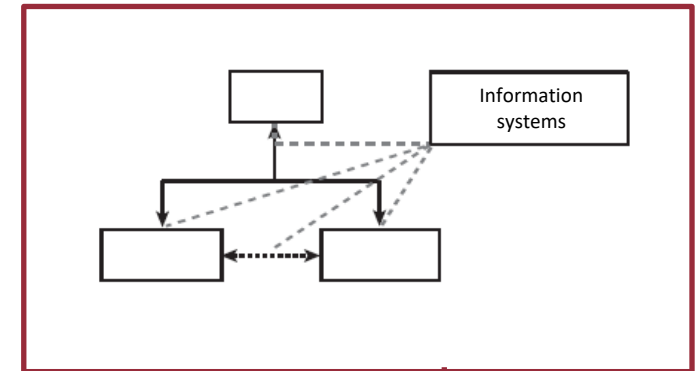
# Coordinating mechanisms at macro level

**Goal:** achieving alignment and consistency among different organizational units

**Managerial mechanisms:**  
Planning and control systems

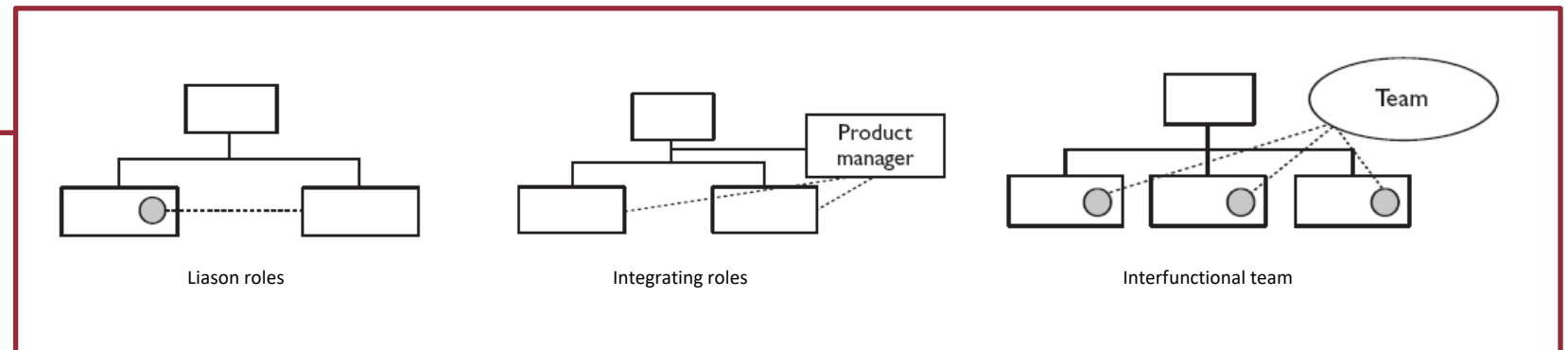


**Technological mechanisms:**  
Information systems

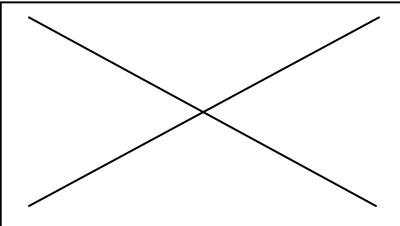


**Organizational mechanisms:**

- Liason roles
- Integrating roles
- Interfunctional teams



# Coordinating mechanisms at macro level: interfunctional teams

		<b>COLLABORATION INTENSITY</b>	
		CONTINUOUS	DISCONTINUOUS
<b>COLLABORATION HORIZON</b>	CONTINUOUS		<b>COMMITTEE</b>
	LIMITED	<b>TASK FORCE</b>	<b>MEETING</b>

# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion

# New organizational forms

See separate slides



# Agenda

- Organization and organizational system
- Organizational design at micro level
- Organizational design at macro level
- New organizational forms
- Conclusions and discussion

# THANK YOU



For contacting me

- Email: [luca.gastaldi@polimi.it](mailto:luca.gastaldi@polimi.it)
- LinkedIn: [www.linkedin.com/in/gasta](https://www.linkedin.com/in/gastaldi)