# Understanding Organization

# (Tutorial 4: Structural Contingency Theory)


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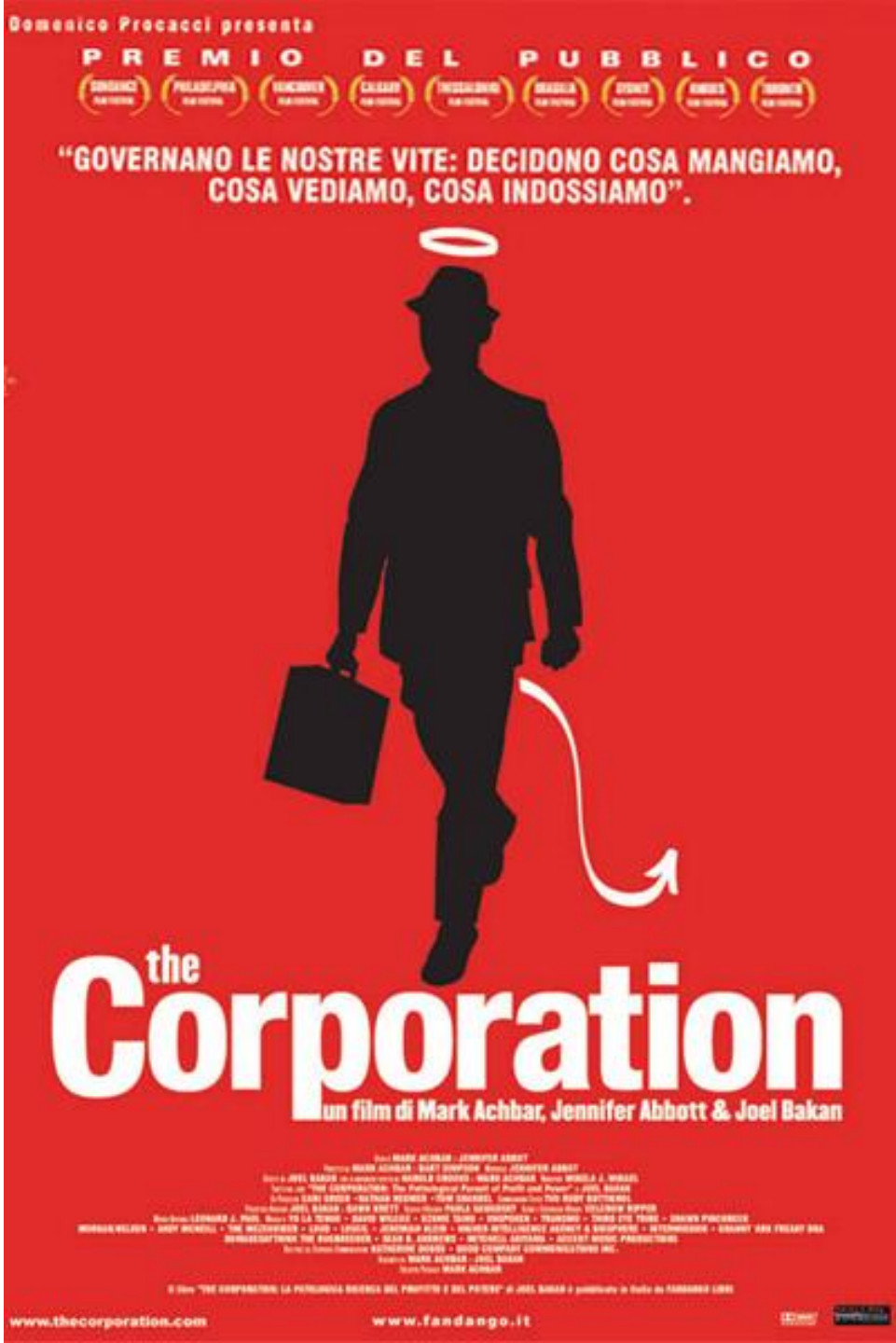
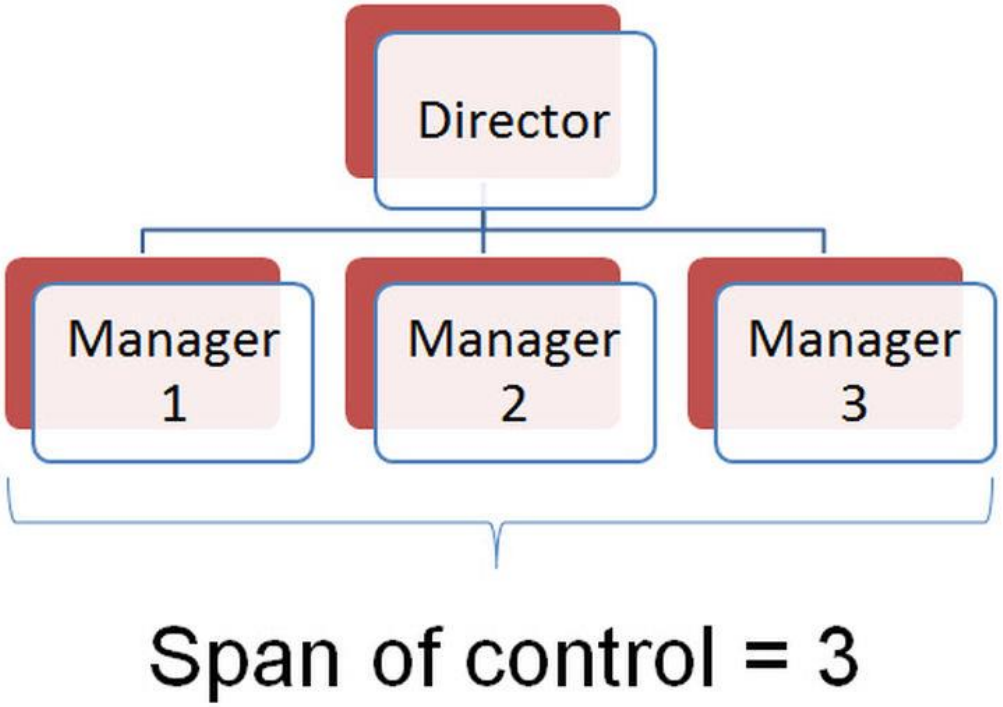


# Span of Control

- Span of control (or span of management) defines the optimal number of subordinates to be overseen by one manager.
- The bigger the number of the subordinates a manager controls, the broader is her/his span of control.
- In a hierarchical business organization of some time in the past, it was not uncommon to see average spans of 1 to 4 or even less, i.e. one manager supervised four employees on average.
- In the 1980s corporate leaders flattened many organizational structures causing average spans to move closer to 1 to 10. That was made possible primarily by the development of inexpensive information technology.

# Span of Control

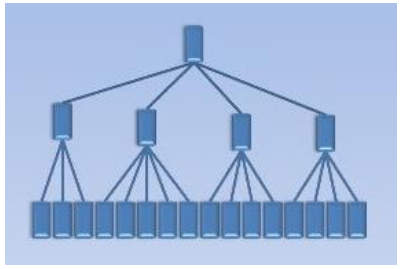
- $Span\ of\ control = \frac{number\ of\ employees}{number\ of\ managers}$
- Example:



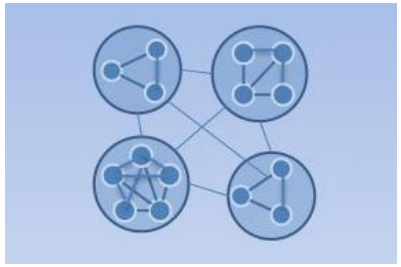
# Span of Control

- Span of control used in an organization determines whether the structure is tall or flat.

| Tall structures | Flat structures |
|---|---|
| • Narrow span of control | • Wider span of control |
| • Large, complex organizations | • Simple, small organization |
| • Long chain of command | • Short chain of command |
| • Vertical communication takes time | • Heavy managerial workload – many subordinates. |
| • Formal relationship | • Informal relationship |
| • Sometimes called traditional or mechanistic structure | • Sometimes called organic structure |



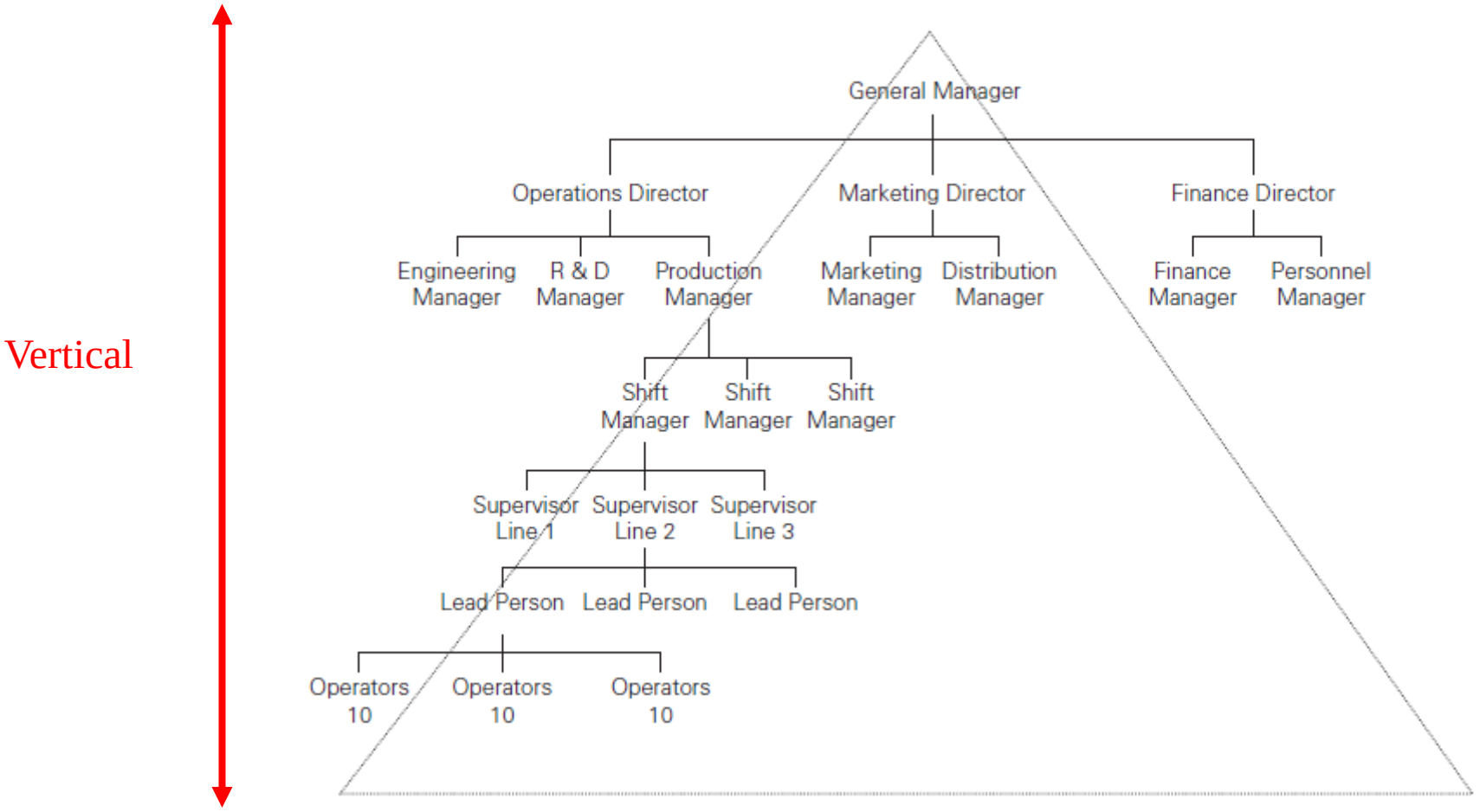
Tall structure (or mechanistic structure)



Flat structure (or organic structure)

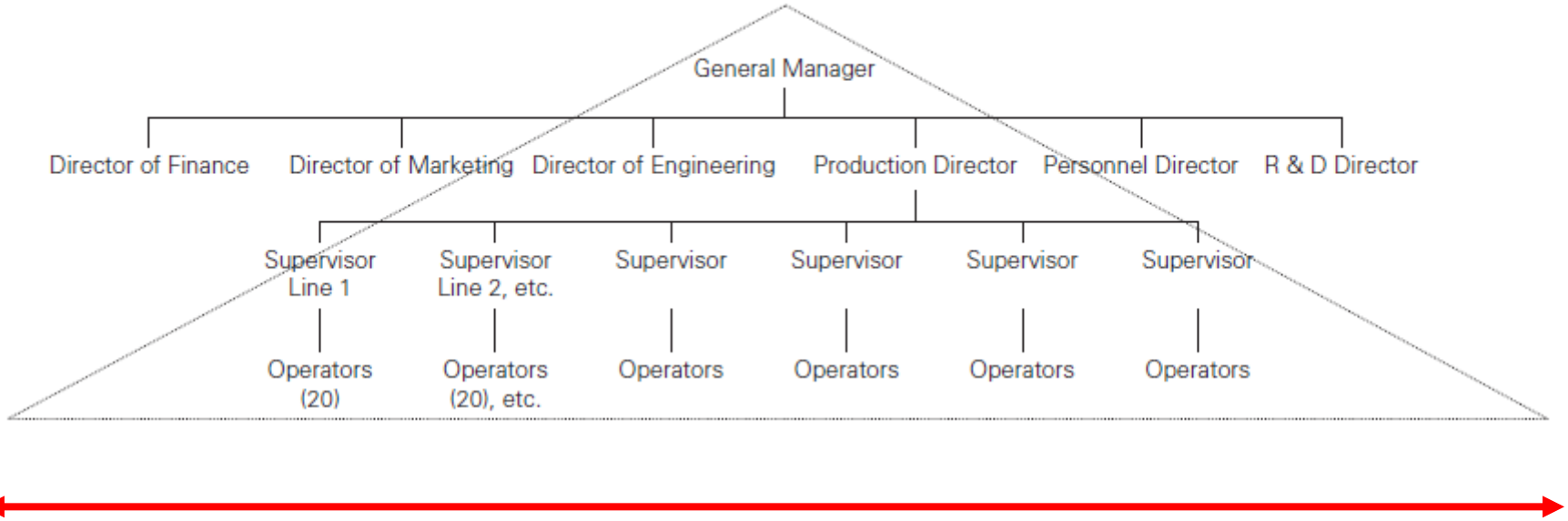
# Span of Control

- Tall structure is characterized by narrow span of control.



# Span of Control

- Flat structure is characterized by wider span of control.



# Span of Control

- According to a research by Lockheed Missile and Space, there are six contingencies to determine the "optimal span of control":
  - Similarity of functions;
  - Geographic contiguity;
  - Complexity of functions;
  - Control and direction required;
  - Coordination required;
  - Planning required.

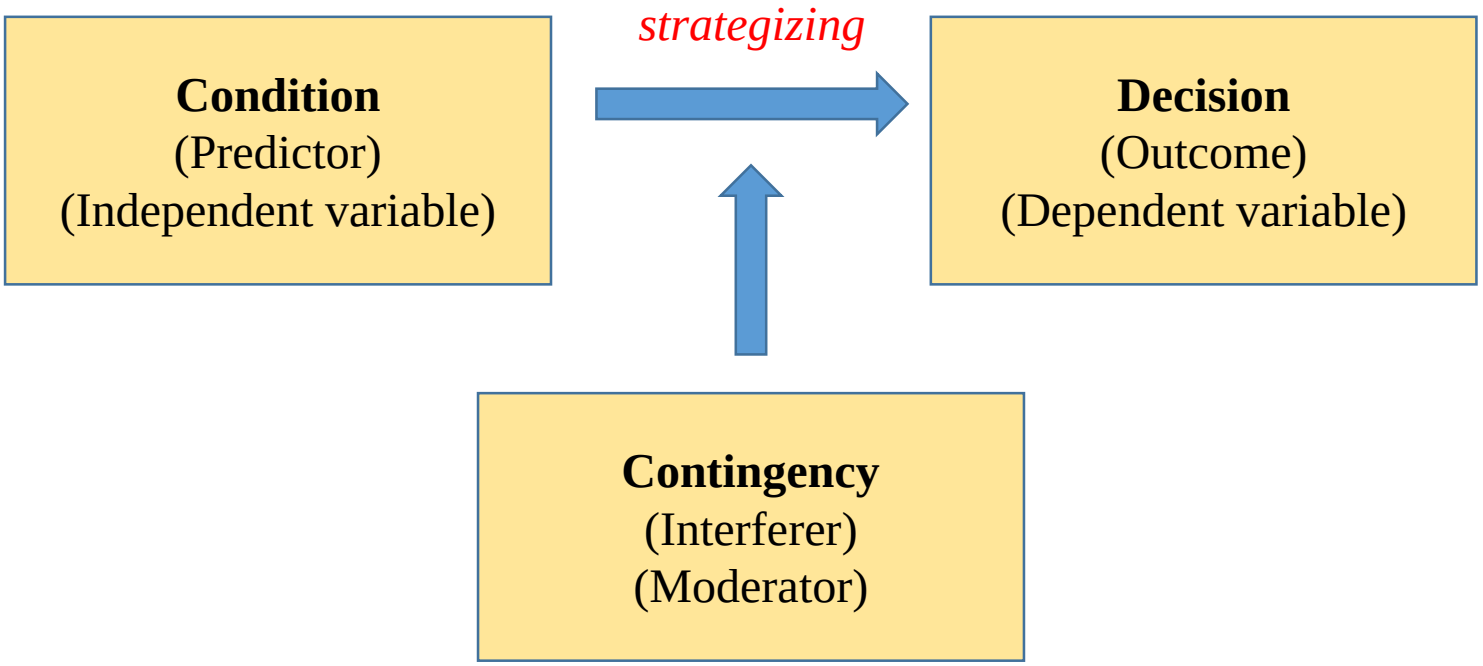
# Span of Control

- Narrow (tall structure) or wide (flat structure) span of control?

| Contingency factors | High | Low |
|---|---|---|
| **Similarity of functions** | Wide | Narrow |
| **Geographic contiguity** | Wide | Narrow |
| **Complexity of functions** | Narrow | Wide |
| **Control and direction required** | Narrow | Wide |
| **Coordination required** | Narrow | Wide |
| **Planning required** | Narrow | Wide |

# What is Contingency?

- Contingency: Something (such as an emergency) that might happen.
- Contingency refers to something that cannot be controlled or be predictable.



# Contingency Theory

- Contingency theory refers to an organization theory that asserts that there is no single best way for making decisions, leading a company, and organizing a corporation.
- The theory says that an effectiveness of management is contingent and is dependent upon internal and external environment.
  - Internal environment? (e.g., organizational culture and leadership)
  - External environment? (e.g., technological change)
- Structural contingency theory argues that the most effective structure for an organization is contingent on the structure fitting the organization's level of contingency factors.

# Contingency Theory

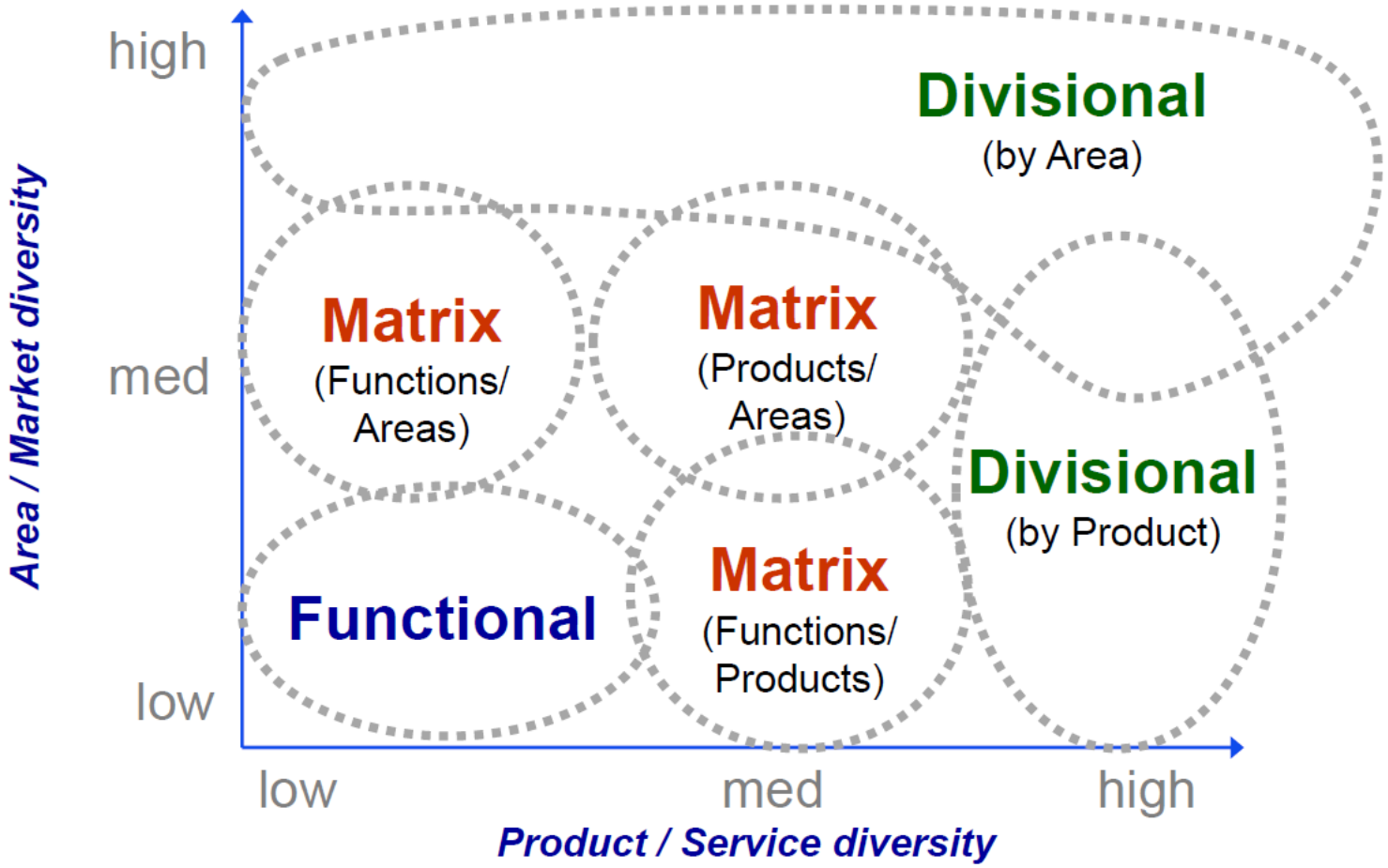
- The theoretical foundation of contingency theory:
  - Open system: Organization is a set of interdependent parts that, together, constitute a whole which, in turn, is interdependent with some larger environment.
- Two open system characteristics that are central to the contingency approach:
  - Adaptation: The elements within the system adapt to one another to preserve the basic character of the system – homeostasis.
  - Equifinality: A system can reach the same final state from differing initial conditions and by a variety of paths. There is no one best way to organize.

# Contingency Theory

- Contingency factors or organization design:

| | |
|---|---|
| **Size** | Size is typically measured by the number of employees. Other measures such as total sales or total assets also reflect magnitude. |
| **Organizational technology** | The tools, techniques, and actions used to transform inputs into outputs. |
| **Environment** | All elements outside the boundary of the organization. Key elements include the industry, government, customers, suppliers, and the financial community. |
| **Goals and strategy** | The purpose and competitive techniques that set it apart from other organizations. |
| **Culture** | The underlying set of key values, beliefs, understandings, and norms shared by employees. |

# Contingency Theory



# Technology as a Contingency Factor

- Joan Woodward's primary contribution to organizational theory was the idea that organizational structure is contingent on the types of production technologies employed by the firm.
- She performed a research on 100 British firms.
- Three production technologies:
  - Unit and small batch production (one-of-a-kind products or small quantities of products) (e.g., ship building, aircraft manufacturer, furniture maker, tailors)
  - Large batch and mass production (huge volumes of identical products) (e.g., cars, razor blades, aluminum cans, toasters)
  - Continuous process production (liquids and powders) (e.g., chemical companies, oil refineries, bakeries, dairies, electronic power plants)

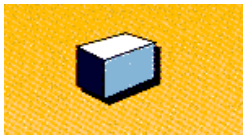
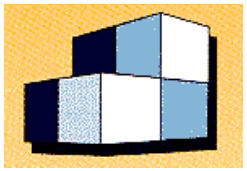
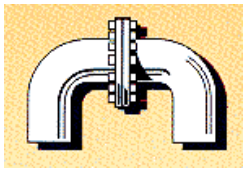
# Technology as a Contingency Factor

- Production technology determines the organizational structure:

Low

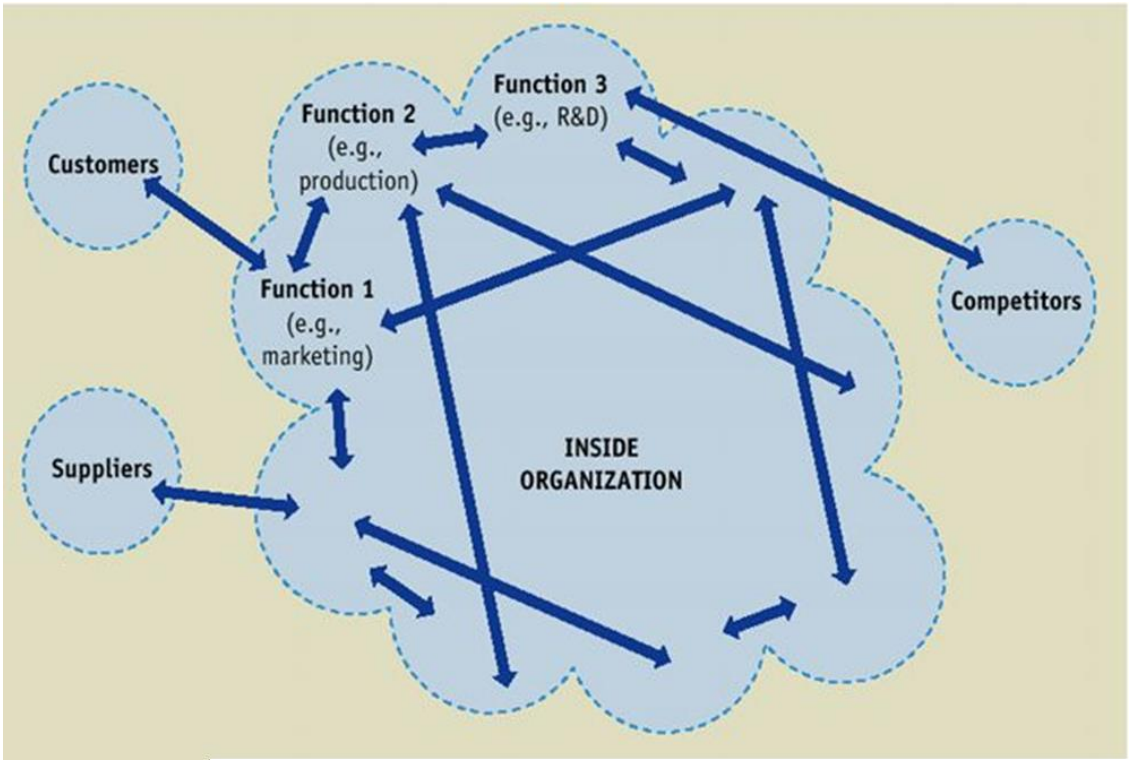
Technical complexity

High

| Production technology | Organizational structure |
|---|---|
| Unit and small batch production  | • People's skills and knowledge is more important.<br>• Flat organization.<br>• Organic structure. |
| Large batch and mass production  | • Bottom level is huge (supervise span of control is 48).<br>• Tall organization.<br>• Mechanistic and bureaucratic structure. |
| Continuous process production  | • These organizations are tall and thin or even inverted pyramid; almost nobody at the bottom.<br>• At the very top there is an organic structure.<br>• Lower levels more mechanistic. |

# Environment as a Contingency Factor

- Tom Burns and George Stalker gave prominence to the uniqueness of environmental factors in shaping organizational outcomes.
- Their research findings based on British and Scottish industries reported that organizations operating in stable environments produced different outcomes from those in unstable and/or dynamic environments.
- They believed a stable, unchanging environment demanded a different type of organization than a rapidly changing one.
  - Stable environment: mechanistic organizational structure with high level of formalization.
  - Unstable environment: organic organizational structure with low level of formalization.




a) **Functional structure**

b) **Divisional structure**

c) **Matrix structure**

d) **Flat structure**

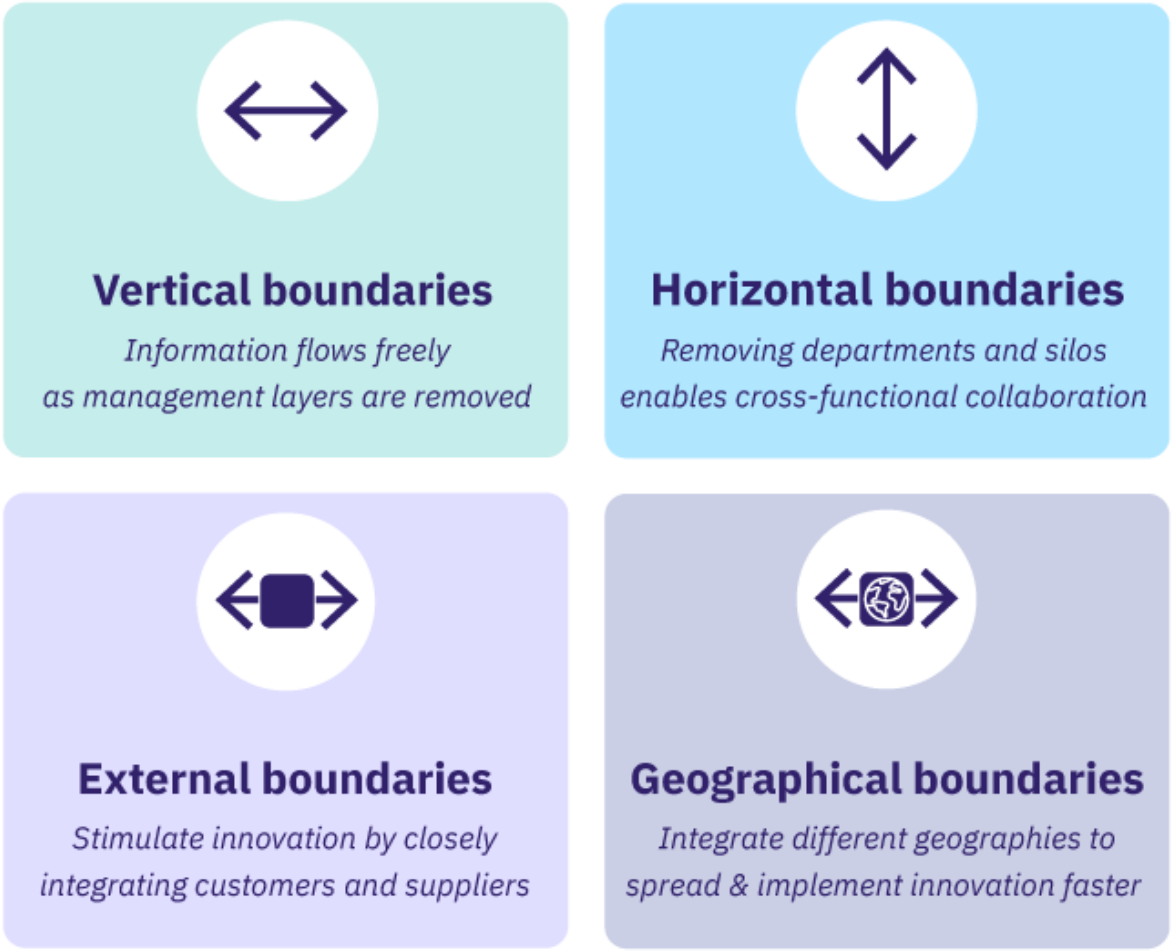
e) **Boundaryless structure**

# Boundaryless Organization

- A boundaryless organization is an organization that actively removes boundaries to innovation, meaning it has less hierarchy and functional separation and is more integrated.
- This term belongs to Jack Welch, who developed this concept during his tenure as CEO of General Electric (GE).
- Vertical, horizontal, and external barriers are removed or minimized.
- It is an organization with no boundaries in terms of hierarchy, geography, work functions, and more.
- The primary goal of such organization is to ensure greater flexibility and responsiveness, as well as a smooth flow of information and ideas.

# Boundaryless Organization

- Four types of boundaries are eliminated:

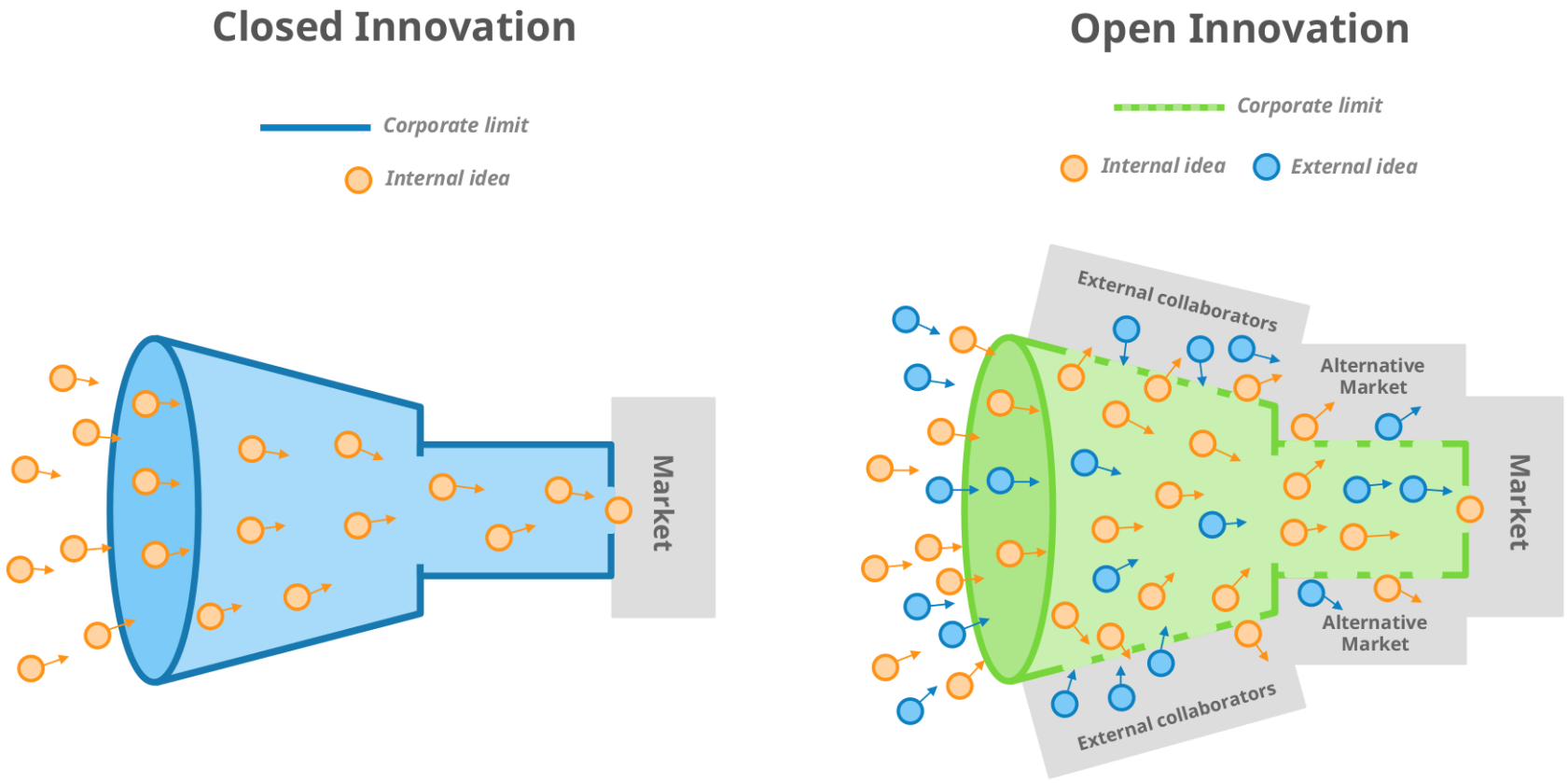


# Boundaryless Organization

- The theoretical root of boundaryless organization is open innovation (by Henry Chesbrough).
- Traditionally, new business development processes and the marketing of new products took place within the firm boundaries.
- Open innovation implies that an organization doesn't just rely on their own internal knowledge, sources, and resources (such as their own staff or R&D for example) for innovation (of products, services, business models, and processes).
- It also uses multiple external sources (such as customer feedback, published patents, competitors, external agencies, and the public) to drive innovation.

# Boundaryless Organization

- Closed vs. open innovation:



# Boundaryless Organization

| Closed Innovation Principles | Open Innovation Principles |
|---|---|
| The smart people in the field work for us. | Not all the smart people work for us, so we must find and tap into the knowledge and expertise of bright individuals outside our company. |
| To profit from R&D, we must discover it, develop it, and ship it ourselves. | External R&D can create significant value: internal R&D is needed to claim some portion of that value. |
| If we discover it ourselves, we will get it to the market first. | We don't have to originate the research to profit from it. |
| The company that gets an innovation to the market first will win. | Building a better business model is better than getting to the market first. |
| If we create the most and the best ideas in the industry, we will win. | If we make the best use of internal and external ideas, we will win. |
| We should control our intellectual property (IP) so that our competitors don't profit from our ideas | We should profit from others' use of our IP, and we should buy others' IP whenever it advances our business model. |

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