

Organizational Analysis

- Open-systems thinking
- Congruence model
- Organizational forms
- What about the
“organization of the future”?

15.301 Managerial Psychology

John S. Carroll

“The management of many is the same as the management of few. It is a matter of organization.”

Sun Tzu

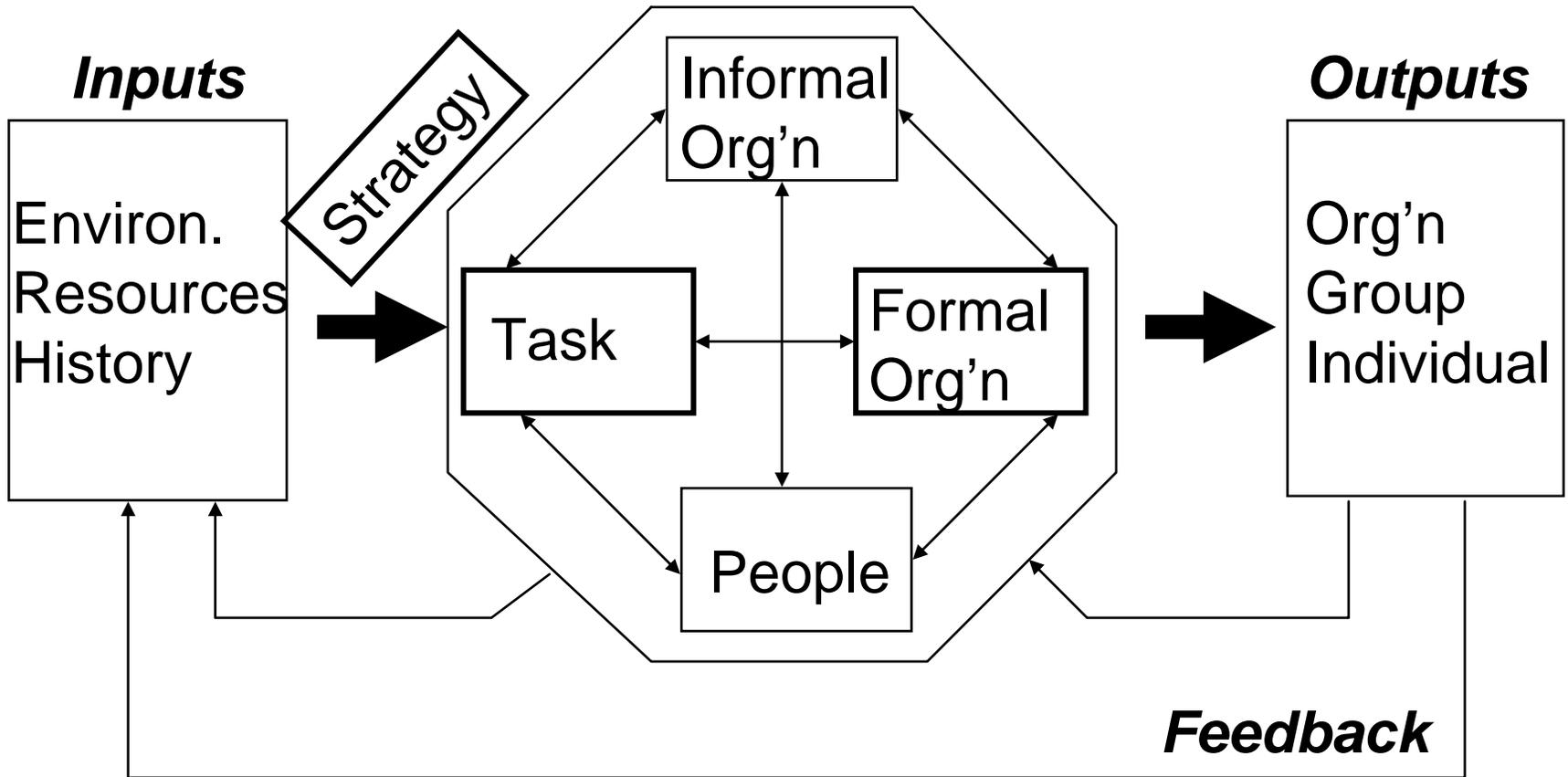
Open Systems View

- Organizations must strive to **fit** into their environments and **exploit** their **competencies** by transforming inputs into outputs in order to “succeed”
- Exploiting competencies means that there is **alignment** or congruence between strategy (how we succeed) and physical, financial, & human resources
- Yet organizations must also be able to look ahead, **explore**, adapt, change, and shape their environment
- Individuals within organizations are also exploiting and exploring and balancing work and life
- No “one best way” !!

Congruence Model

(Nadler & Tushman)

Transformation Process

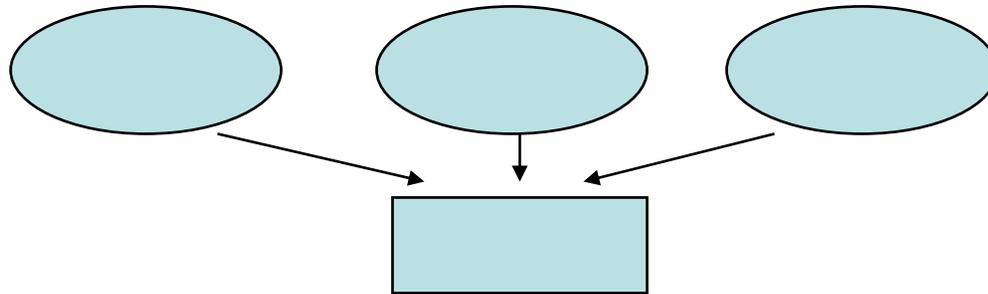


Grouping and Linking

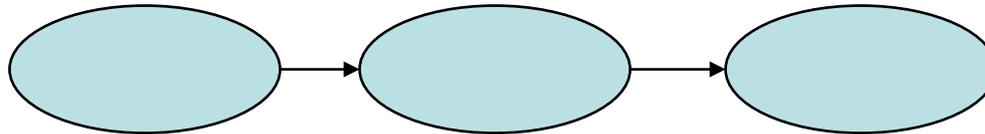
- The most basic organization is to divide up labor in some way
- We can group people and tasks together in various ways, e.g., by task structure, or by customer type, or by geography
- Transfer of materials and information is easier within group
- Interdependent groups must be linked
- Groups must be aligned or controlled

Task Interdependencies

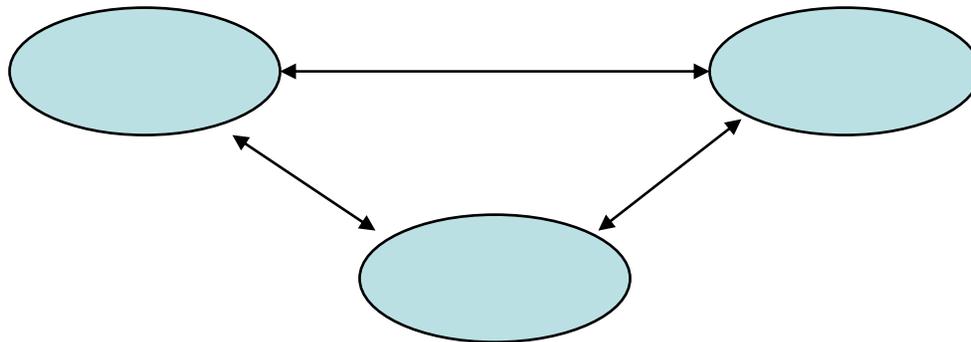
Pooled



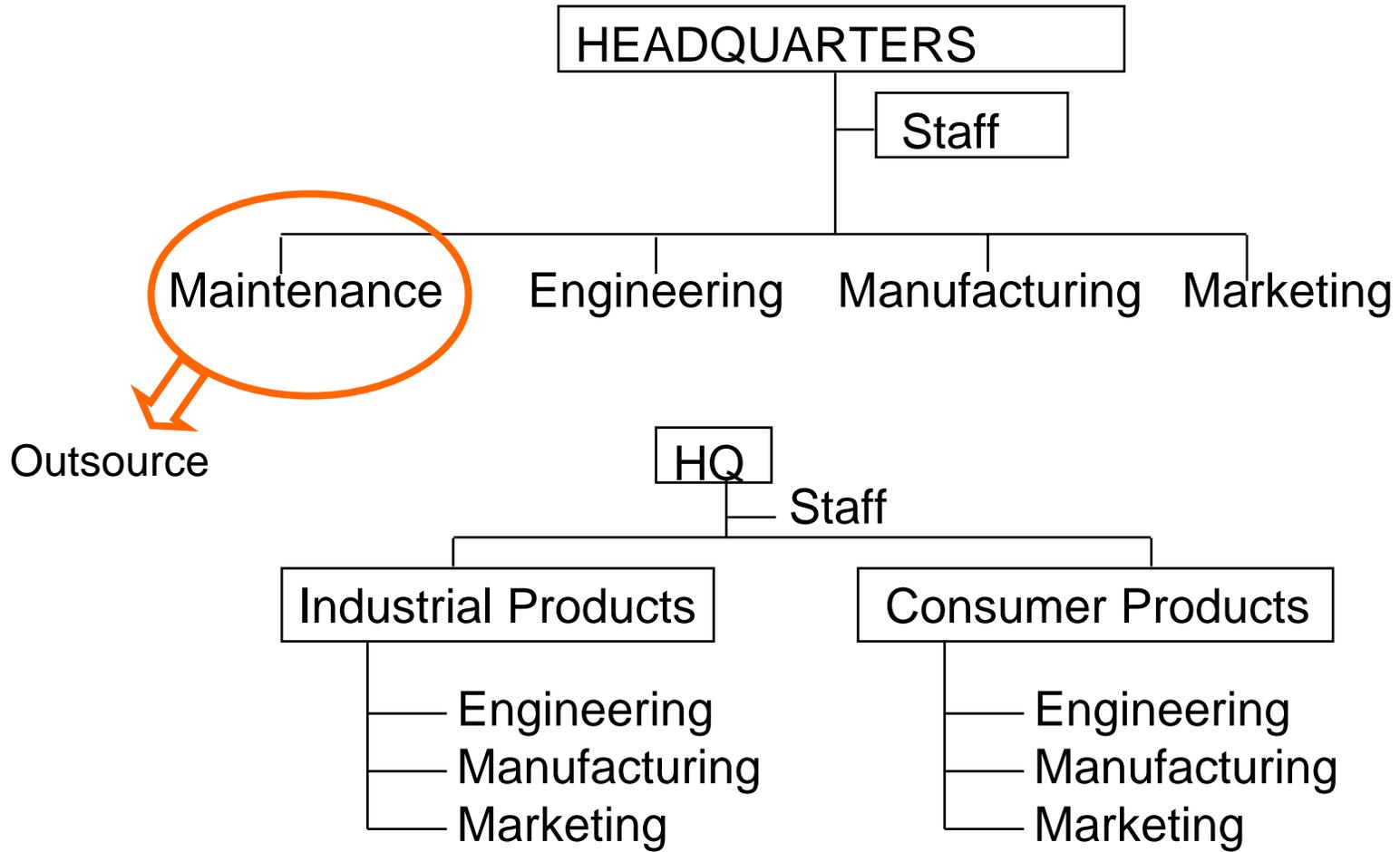
Sequential



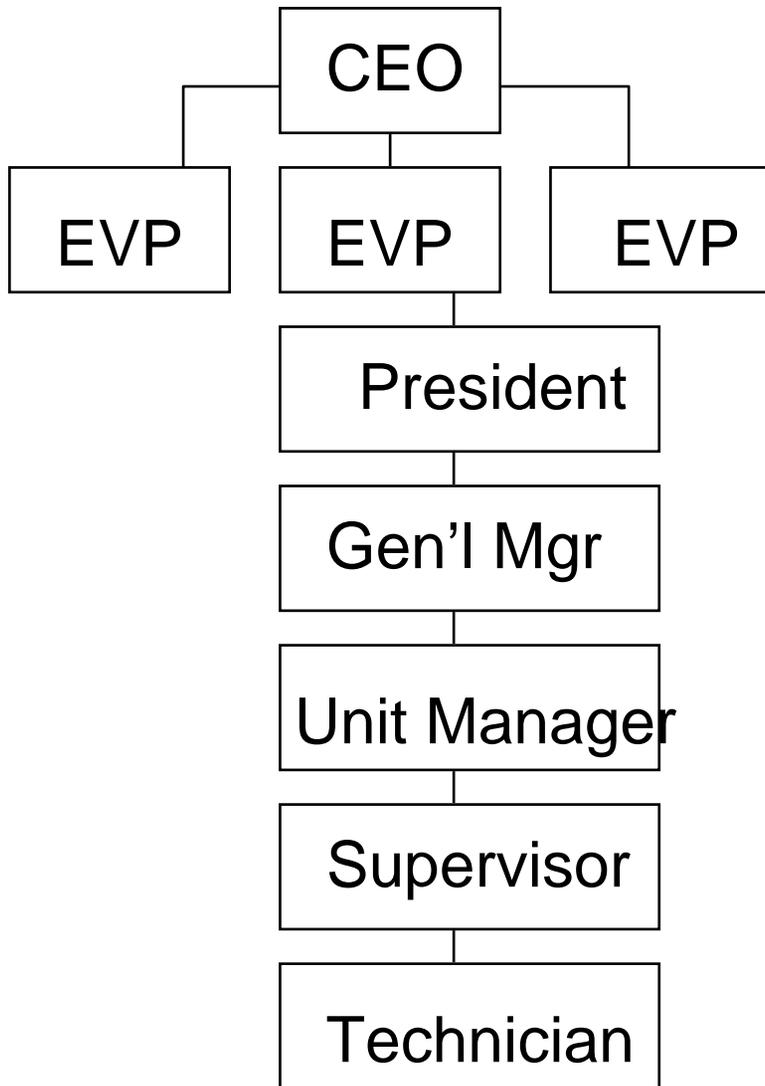
Reciprocal



Grouping by Function or Product



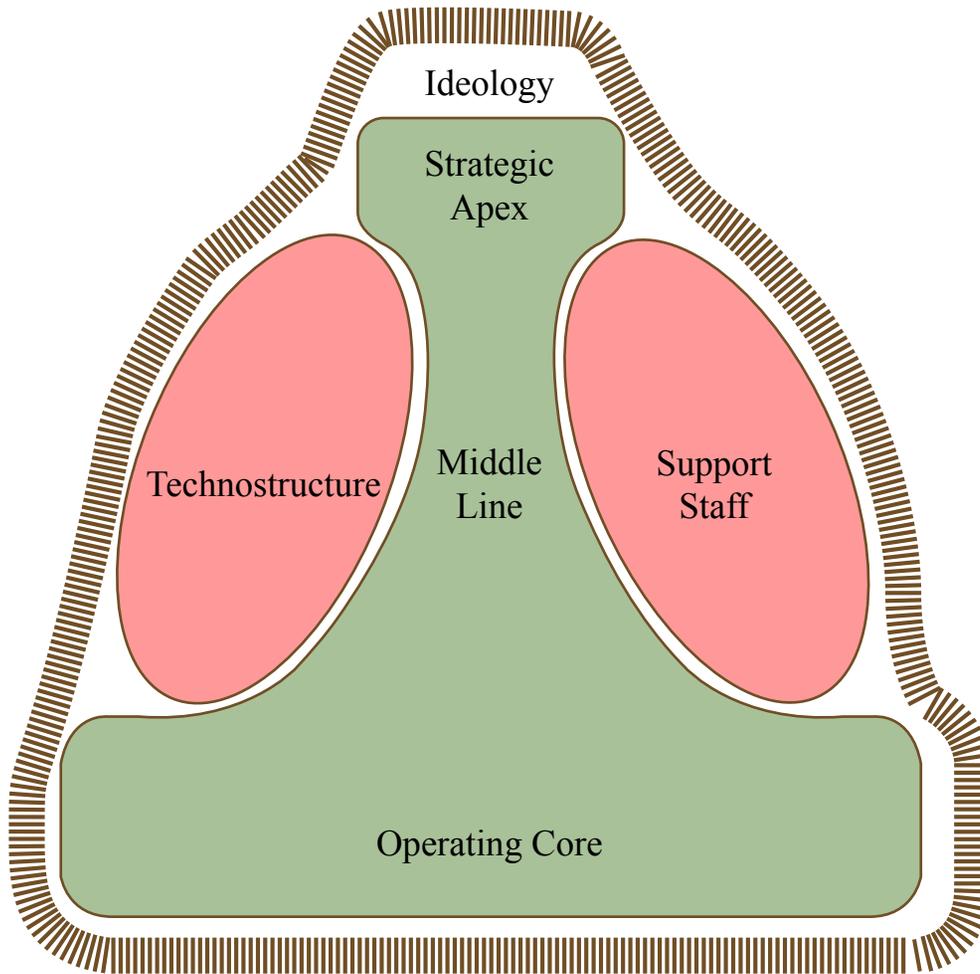
The Rationale for Hierarchy



<u>Layer</u>	<u>Time Span Felt Fair</u>	<u>Pay (90s)</u>
VII	20yrs	\$1,040,000
VI	10yrs	520,000
V	5yrs	260,000
IV	2yrs	130,000
III	1yr	68,000
II	3mos	38,000
I	1day	20,000

Traditional View of Organization: Henri Mintzberg

Six Basic Parts of the Organization



Coordinating mechanisms:

1. Direct supervision
2. Standardization of work
3. Mutual adjustment
4. Standardization of outputs
5. Standardization of skills
6. Standardization of norms

Figure by MIT OCW.

Which coordinating mechanism is best?

-Startup => Direct supervision

-Big company (GM)

=> Standardization of outputs

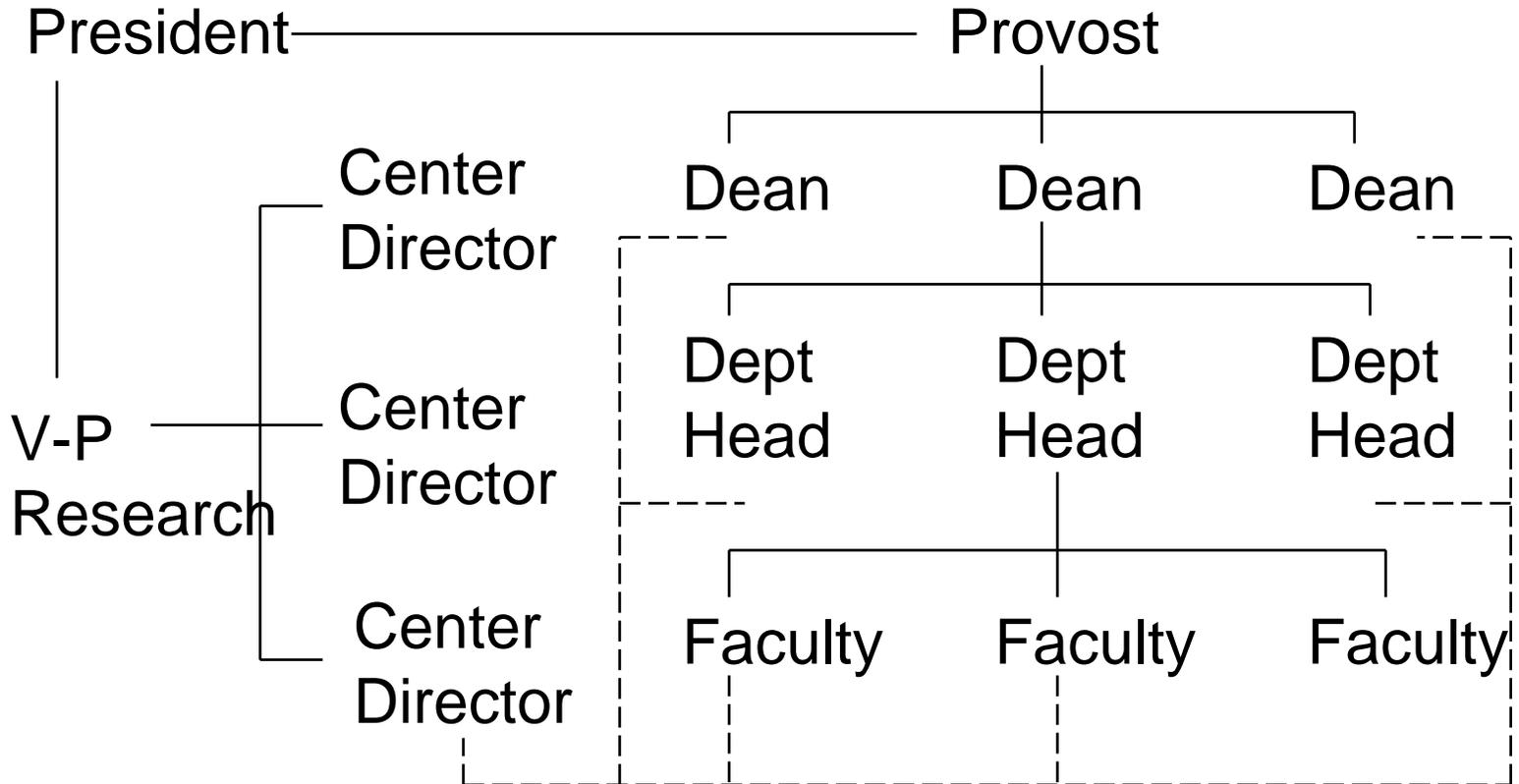
-Hospital (MGH)

=> Standardization of skills

-Research lab (LAI, Draper)

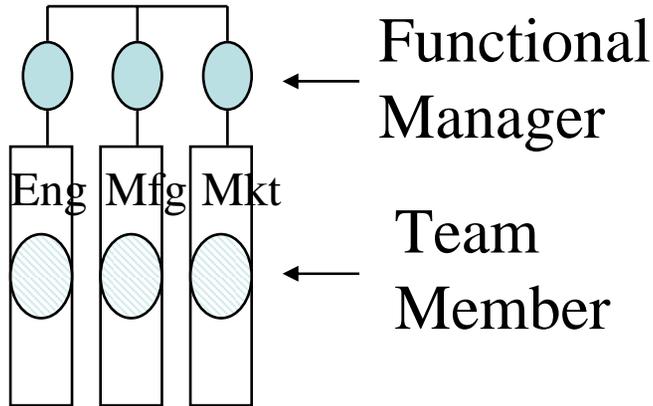
=> Mutual adjustment

MIT is a Matrix Design

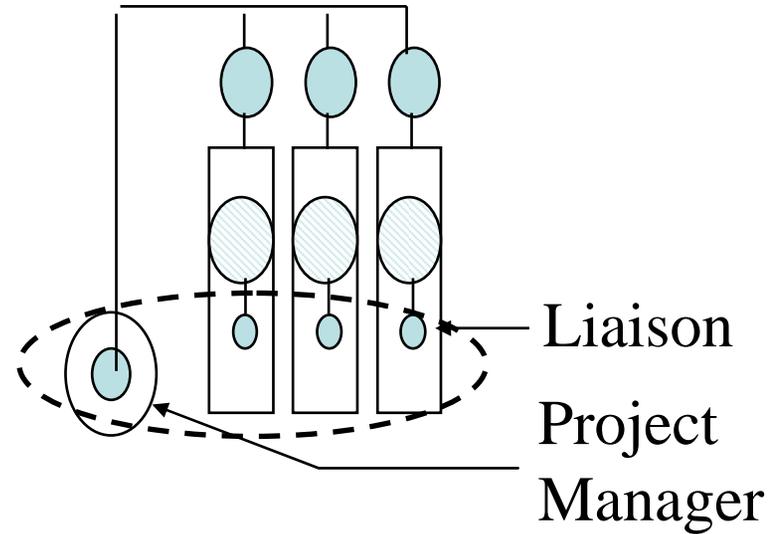


Project Teams

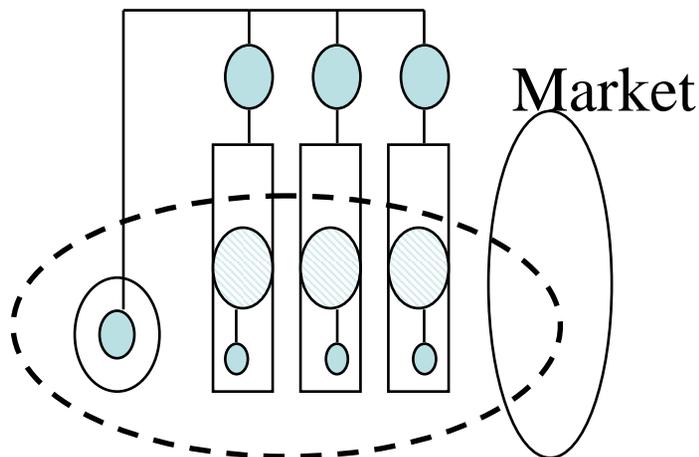
1. Functional Team



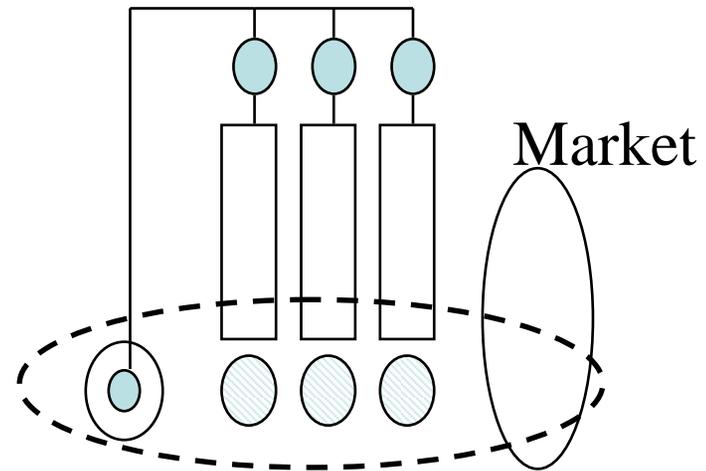
2. Lightweight Team



3. Heavyweight Team



4. Autonomous Team



Grouping and Linking

- Forms change with time
- More complex environment leads to more need for internal complexity
- Craft → Mass Prod → Mass Mkt → R&D are getting more coordination intensive
- **Core technology** gets more complex, but support departments can fit their technology, e.g., accounting
- Organizations may change as they grow and mature, but may be “imprinted” with their founding conditions, unable to change

Information Processing Demands More Linkages

As task/technology increase in complexity, the need to process information increases:

- all-to-all communication explodes
- hierarchy, rules, plans, SOPs help
- self-contained tasks, slack resources
- new communication technologies
- lateral relations, networks

San Diego Zoo

- Old zoo managed by 50 departments: animal keeping, horticulture, maintenance, food service, fund raising, education,...
- As the zoo remodels by bioclimactic zone, each is run by a team, e.g., Tiger River, an Asian jungle, has a 7 person team of mammal and bird experts, horticulturalists, maintenance and construction workers, & tracks its own budget
- Ownership, efficiency, innovation, cross-training

Alignment

The San Diego Zoo example also shows how individuals and groups create alignment with organizational goals:

- Measure team-level outcomes that support organizational goals
- Reward team-level outcomes consistent with organization goals
- Career paths are coherent for all levels
- Information systems support team work
- Training and development
- Socialization, shared values and culture (how much at team vs. organizational levels?)

Organize By Processes

- Business Process Reengineering and others suggest organizing by “process” or “groups of related tasks that work together to create a valued result”
- Each process has a **process owner** and customers
- Any company has 6-10 such processes, often unrecognized, such as order fulfillment, order acquisition, procurement, demand creation, product development, plan to produce
- Customer-oriented, outcome-oriented, cross-functional, work-oriented rather than people

NetCentric and Disaggregated

- IT makes communication less costly, so all-to-all networks are possible
- Companies become internal markets, exchanging goods and services at a price; individuals become contractors
- Company boundary disappears with outsourcing, up to the “shell company” and open source development
- Boeing is now a “system integrator”
- Cisco Systems owns 2 of 34 plants that produce its product, 90% of orders come in without an employee’s efforts, 52% filled without employee
- Al Qaeda is a “netcentric” organization

The rise of networks... means that conflicts may increasingly be waged by "networks" perhaps more than by "hierarchies". It also means that whoever masters the network form stands to gain the advantage.

**-- John Arquilla & David Ronfeldt,
*Networks and Netwars (Rand, 2001)***