

Management Information Systems 8/e

Chapter 1 Managing the Digital Firm

Bahan Kuliah Sistem Informasi Manajemen
Magister Universitas Gunadarma



Tugas :

- Mendesign sistem informasi di kantor anda / bagian anda
- Menjabarkan / memaparkan sistem informasi yang sudah ada
- Dipresentasikan : pertemuan tatap muka ke tiga.

Objective

- What is the role of information systems in today's competitive business environment?
- What exactly is an information system? What do managers need to know about information systems?
- How are information systems transforming organizations and management?
- How has the Internet and Internet technology transformed business?
- What are the major management challenges to building and using information systems?

Management Challenges

1. Design competitive and effective systems
2. Understand system requirements of global business environment
3. Create information architecture that supports organization's goal
4. Determine business value of information systems
5. Design systems people can control, understand and use in a socially, ethically responsible manner

WHY Information SYSTEMS ?

Four powerful worldwide changes that have altered the business environment:

3. Emergence of the Global Economy
4. Transformation of Industrial Economies
5. Transformation of the Business Enterprise
6. The Emerging Digital Firm

WHY Information SYSTEMS ?



Emergence of the Global Economy

- Management and control in a global marketplace
- Competition in world markets
- Global work groups
- Global delivery systems

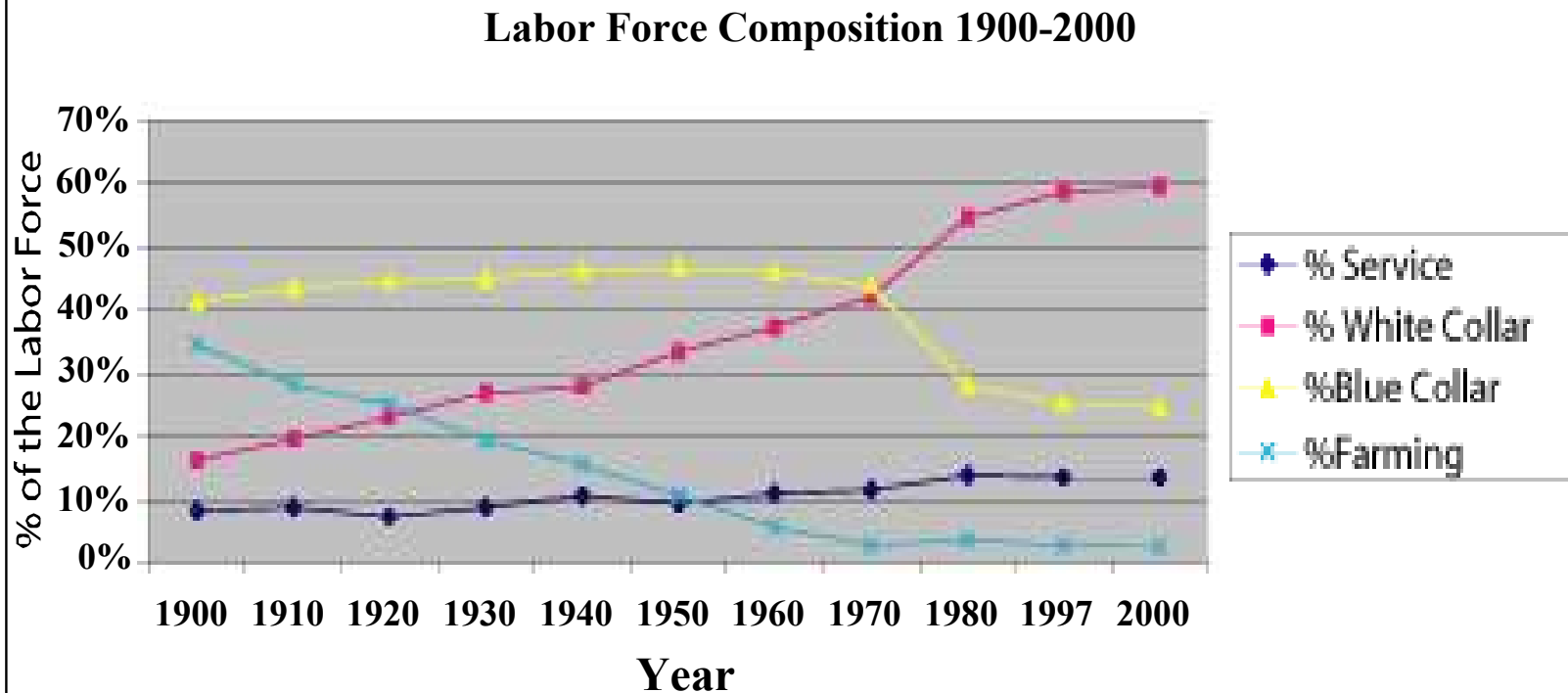
WHY Information SYSTEMS ?

Transformation of Industrial Economies

- Time-based competition
- Shorter product life
- Turbulent environment
- Limited employee knowledge base

WHY Information SYSTEMS ?

Labor Force Composition 1900-2000



WHY Information SYSTEMS ?

Transformation of the Business Enterprise

- Flattening
- Decentralization
- Flexibility
- Location independence
- Low transaction and coordination costs
- Empowerment
- Collaborative work and teamwork

WHY Information SYSTEMS ?

Emergence of the Digital Firm

- Digitally-enabled relationships with customers, suppliers, and employees
- Core business processes accomplished via digital networks
- Digital management of key corporate assets
- Rapid sensing and responding to environmental changes

WHY Information SYSTEMS ?

4 Major Systems Defining the Digital Firm

- Supply chain management systems
- Customer relationship management systems
- Enterprise systems
- Knowledge management systems

WHY Information SYSTEMS ?

What Is an Information System?

- (1) A set of interrelated components that collect
(or retrieve), process, store, and distribute information to support decision making and control in an organization
(Laudon & Laudon, 2002).

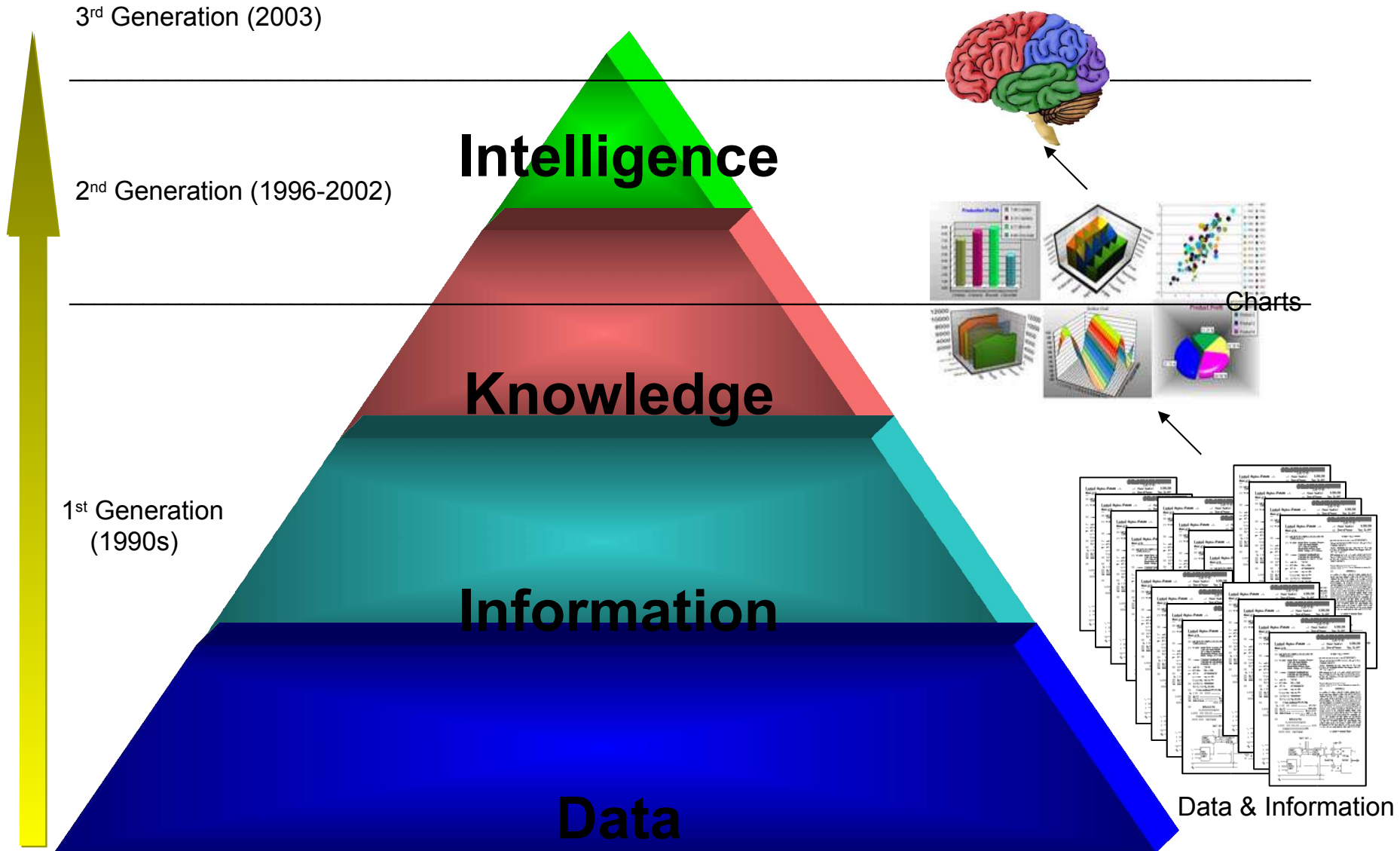


- (2) A **business application** of the computer. It is made up of the **database, application programs, manual and machine procedures** and encompasses the computer systems that do the processing (Tech Encyclopedia, 1999).

RELATIONSHIP BETWEEN SYSTEMS	
structure (is)	function (does)
Management System	
1. People 2. Machines	Sets organization's goals and objectives, strategies and tactics, plans, schedule and controls.
Information System	
1. Database 2. Application programs 3. Procedures	Defines data structures Data entry, updating, queries and reporting. Defines data flow
Computer System	
1. CPU 2. Peripherals 3. Operating system	Processes (the 3 C's) Store and retrieve Manages computer system

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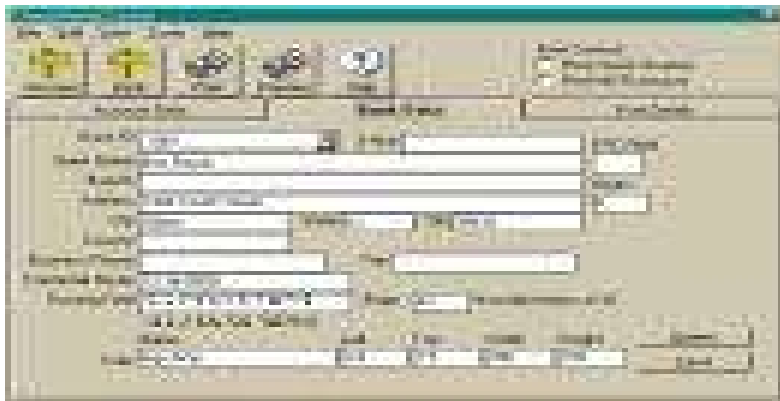
Hierarchy of Information



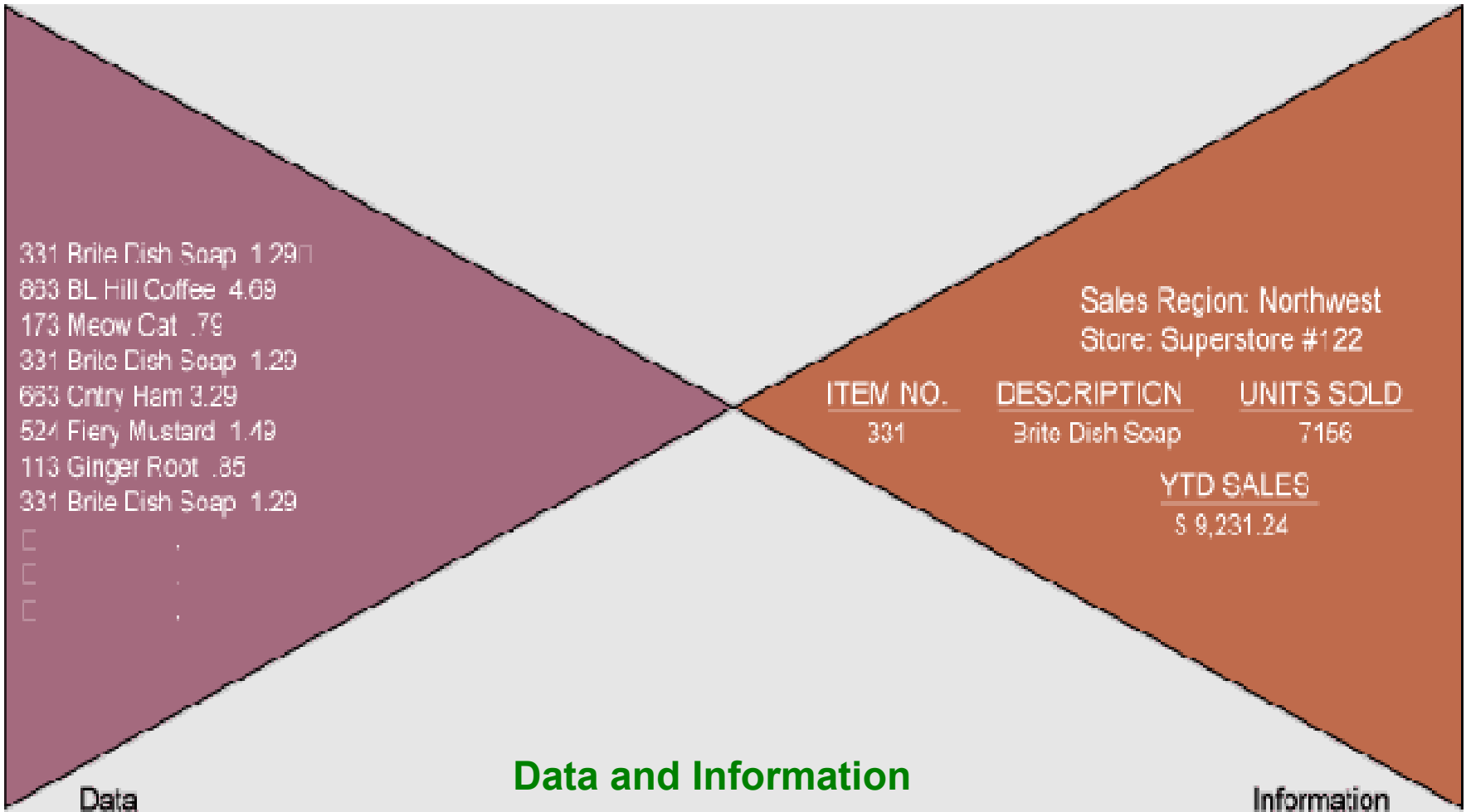
WHY Information SYSTEMS ?

Informasi:

Sumber / data yang diolah yang mempunyai nilai sangat penting

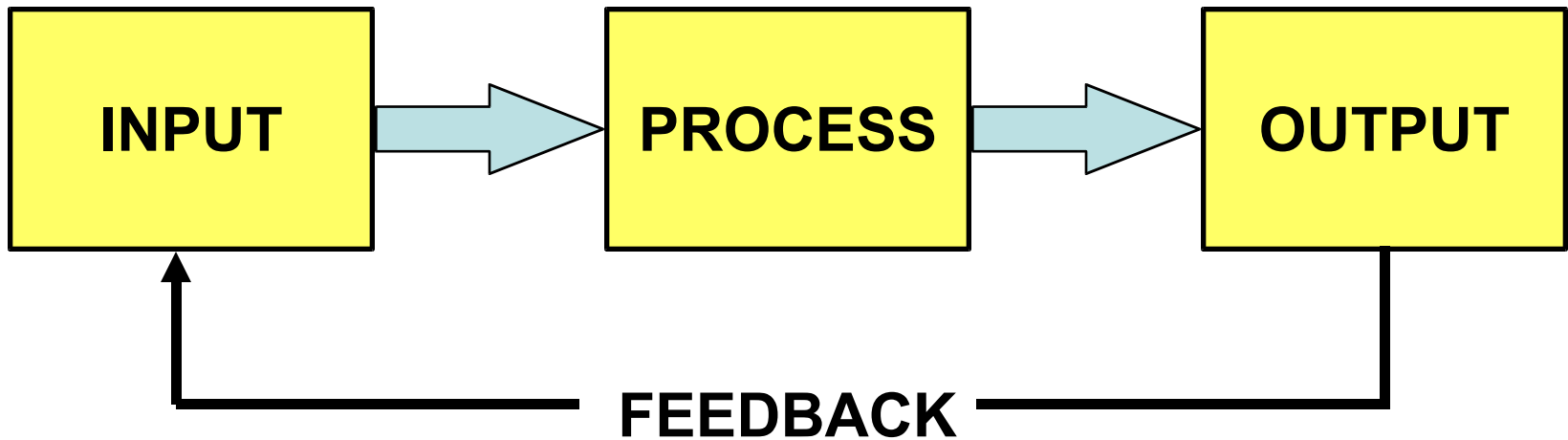


WHY Information SYSTEMS ?



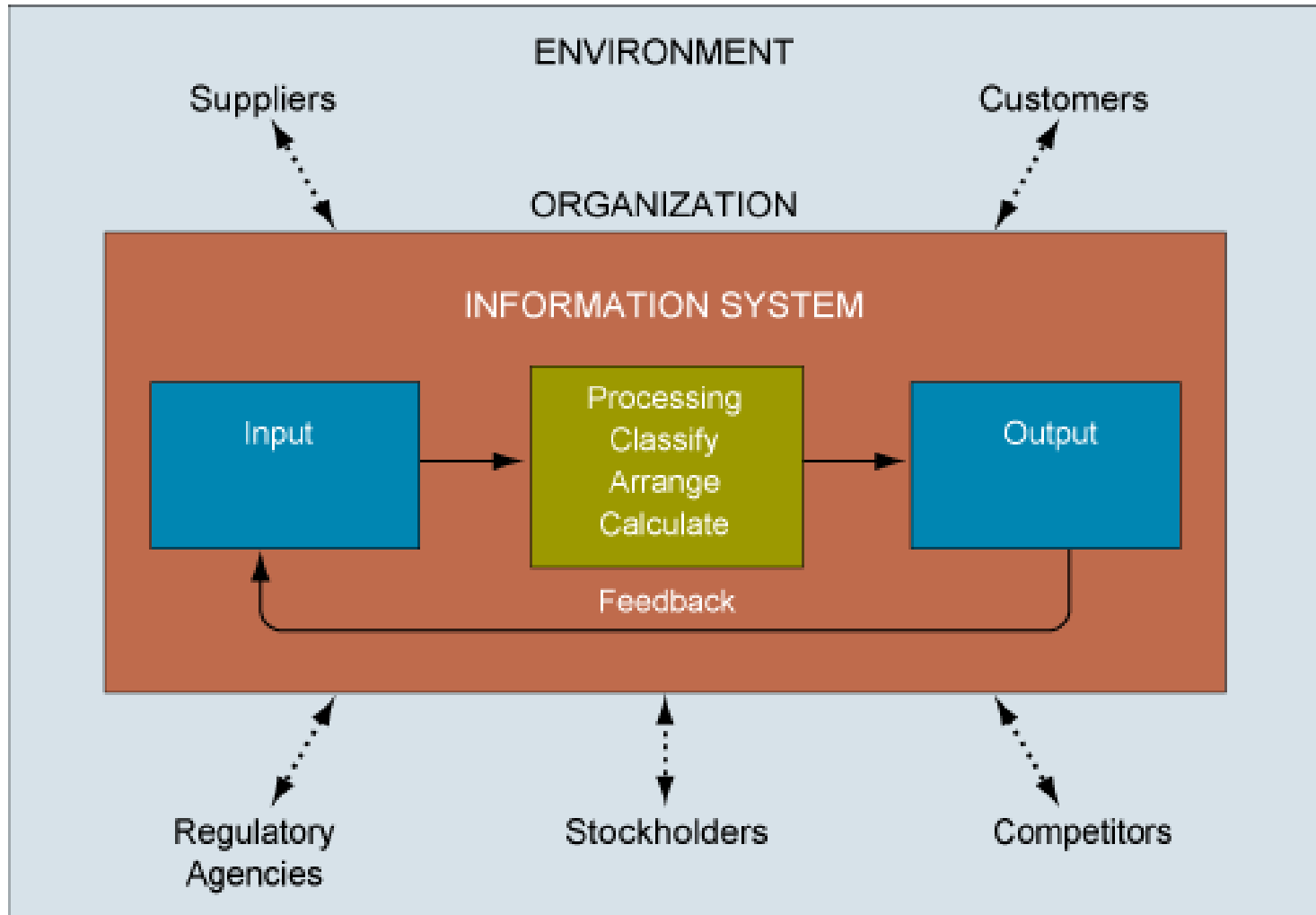
WHY Information SYSTEMS ?

Activities in an Information System



WHY Information SYSTEMS ?

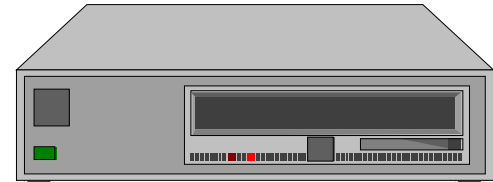
Functions of an Information System



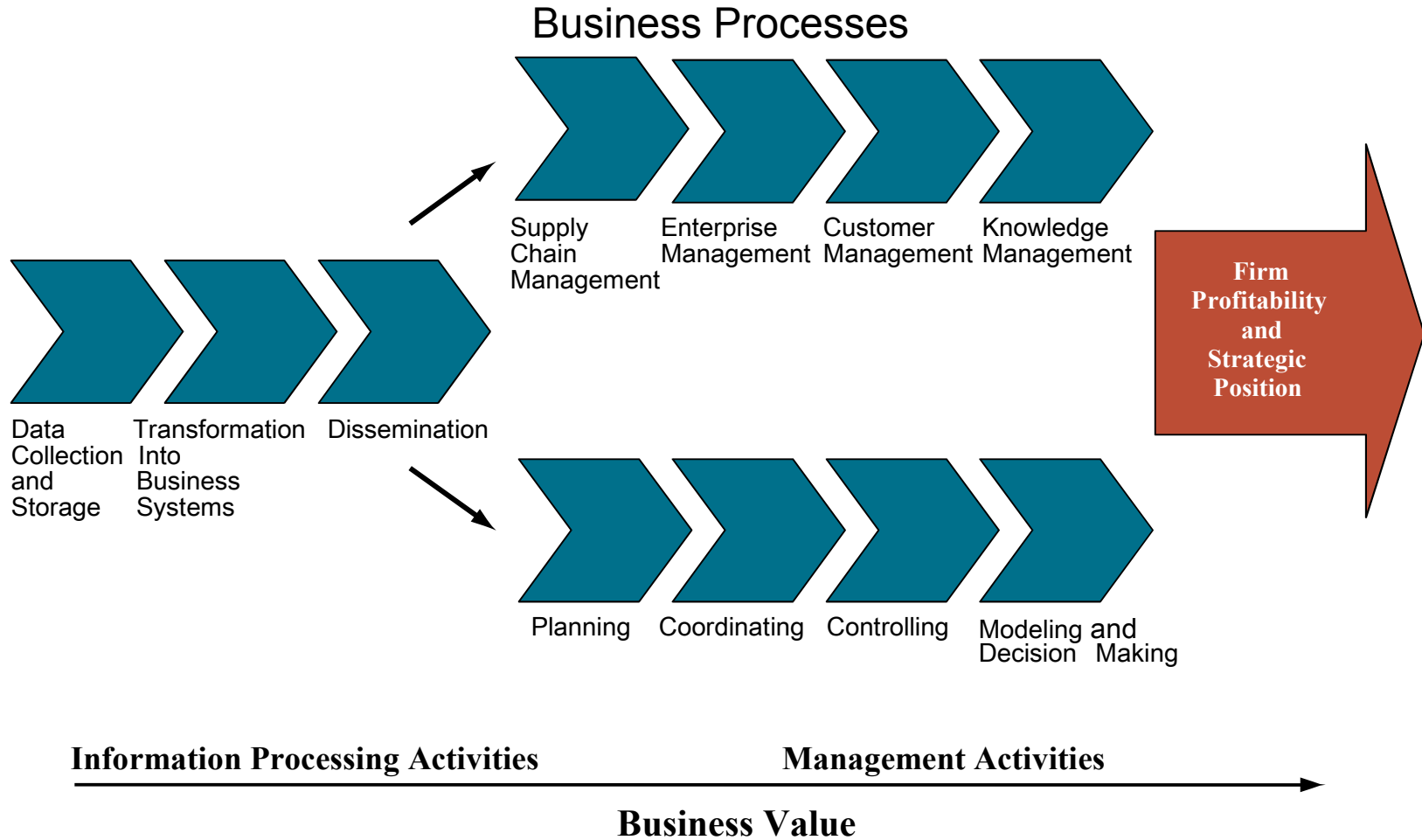
WHY Information SYSTEMS ?

Computer-Based Information System (CBIS)

- **Rely on computer hardware and software**
- **Processing and disseminating information**

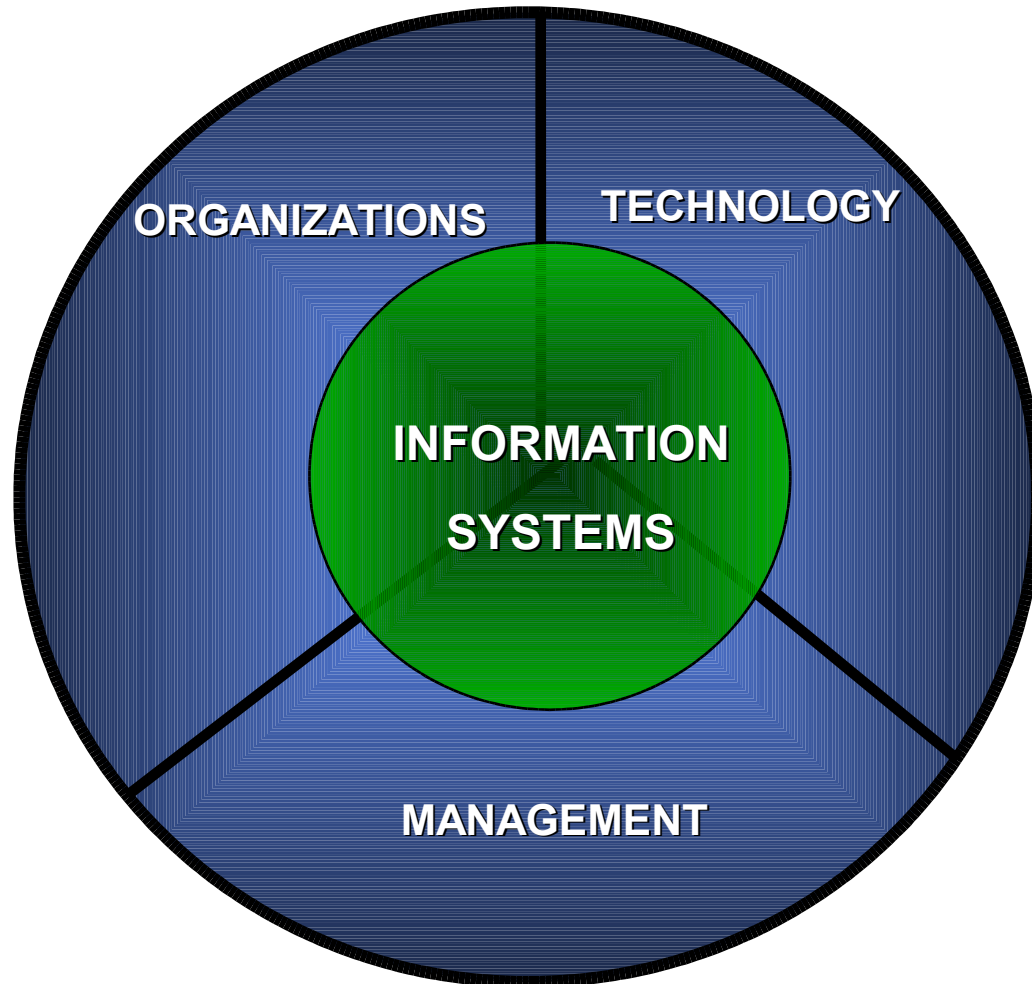


WHY Information SYSTEMS ?



WHY Information SYSTEMS ?

Information Systems



WHY Information SYSTEMS ?

A Business Perspective on Information Systems

- **Information systems literacy:** Broad-based understanding of information systems that includes behavioral knowledge about organizations and individuals using information systems and technical knowledge about computers.
- **Computer literacy:** Knowledge about information technology, focusing on understanding how computer-based technologies work

WHY Information SYSTEMS ?

Major Business Functions

- Sales and marketing
- Manufacturing
- Finance
- Accounting
- Human resources



WHY Information SYSTEMS ?

Organizations

Key Elements:

- **People:** Managers, knowledge workers, data workers, production or service workers
- **Structure:** Organization chart , groups of specialists, products, geography

WHY Information SYSTEMS ?

Organizations

- **Operating procedures:** Standard operating procedures (SOP, rules for action)
- **Politics:** Power to persuade, get things done
- **Culture:** Customs of behavior

WHY Information SYSTEMS ?

Management

Levels:

- **Senior managers:** make long-range strategic decisions about products and services
- **Middle managers:** Carry out the programs and plans of senior management
- **Operational managers:** monitor the firm's daily activities

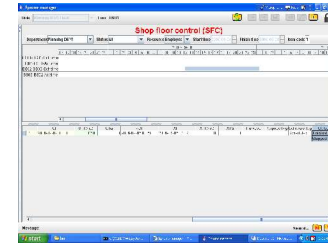


WHY Information SYSTEMS ?

Computer Technology

Tools managers use to cope with change

- **Hardware:** Physical equipment
- **Software:** Detailed preprogrammed instructions
- **Storage:** Physical media for storing data and the software



WHY INFORMATION SYSTEMS?

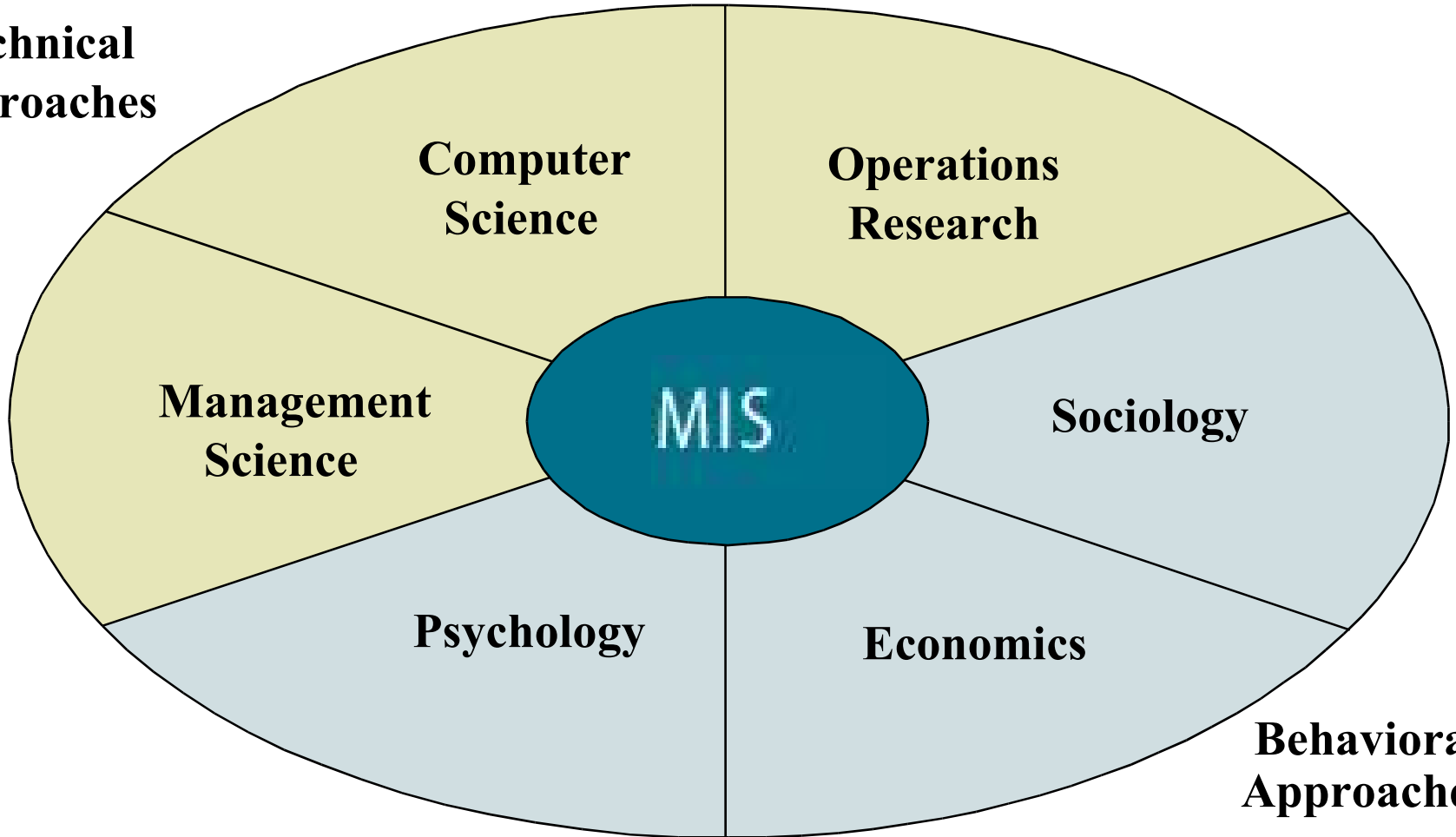
Computer Technology

- **Communications Technology:** transfers data from one physical location to another
- **Networks:** link computers to share data or resources



CONTEMPORARY APPROACHES TO INFORMATION SYSTEMS

**Technical
Approaches**



**Behavioral
Approaches**

Socio-Technical Systems

Optimize systems performance:

- Technology and organization
- Organizations mutually adjust to one another until fit is satisfactory

CONTEMPORARY APPROACHES TO INFORMATION SYSTEMS

Socio-technical Systems

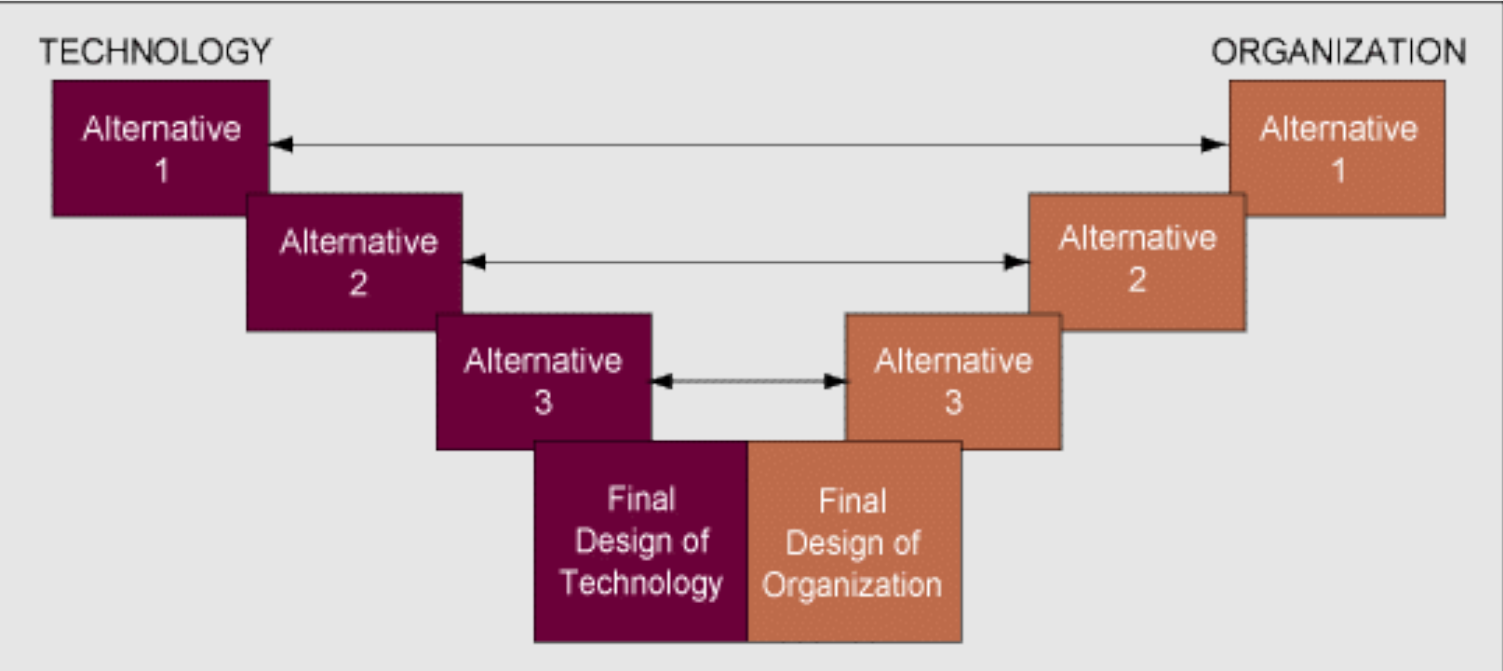
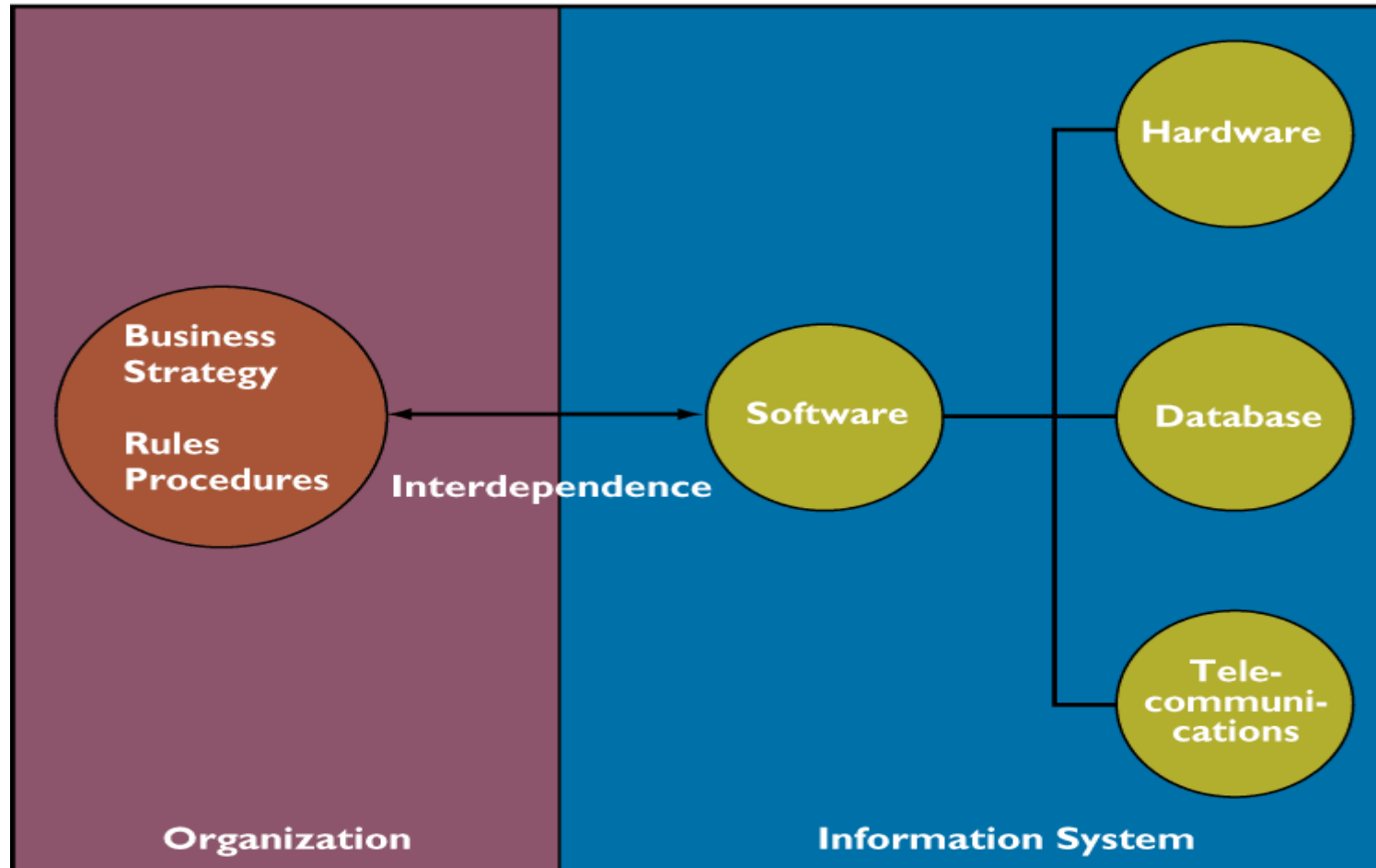


Figure 1-7

SOURCE: Liker, et al, 1987

TOWARD THE DIGITAL FIRM

The Interdependence Between Organizations and Information Systems

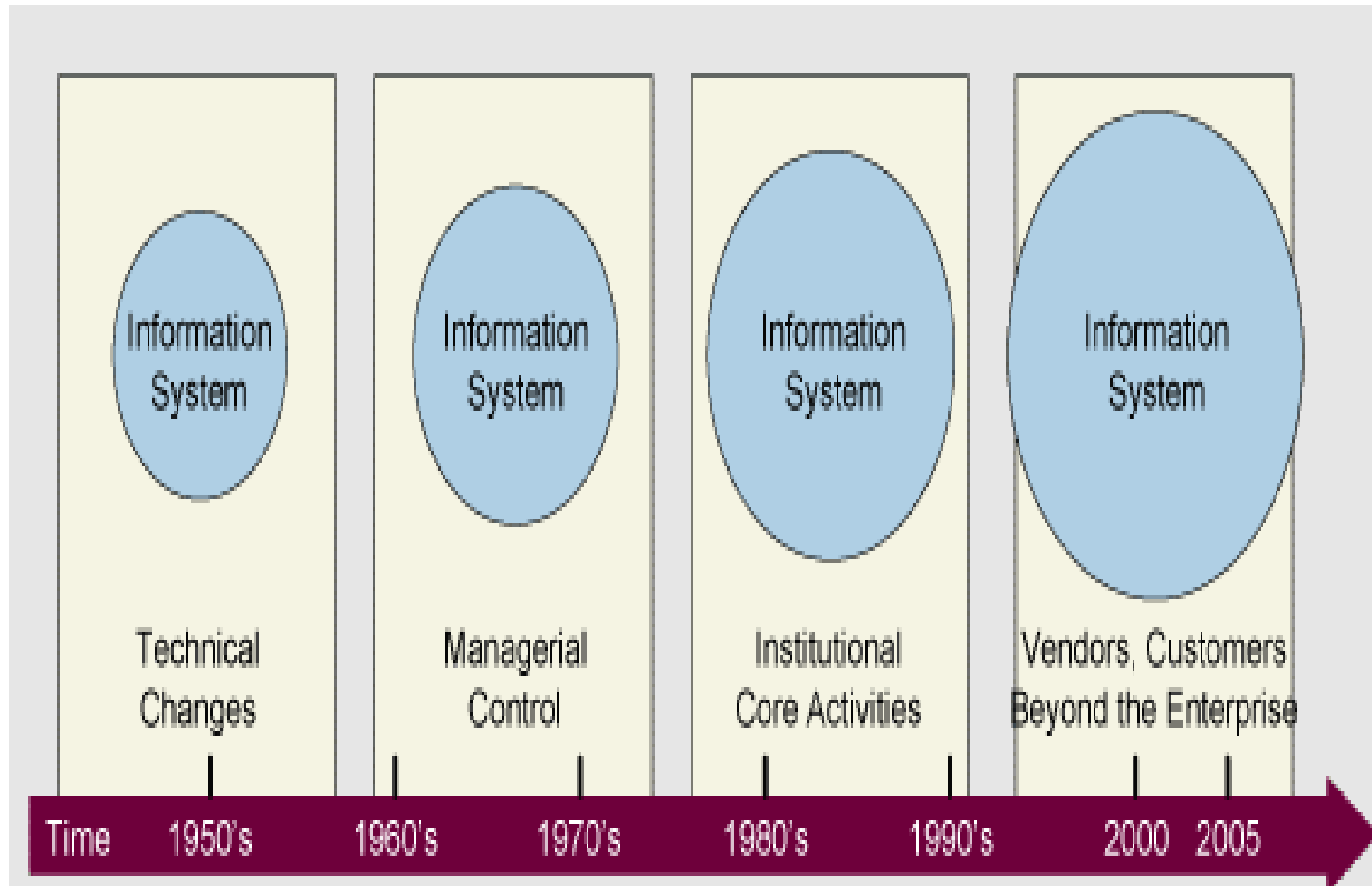


The Widening Scope of Information Systems

- 1950s: Technical changes
- 1960s-70s: Managerial controls
- 1980s-90s: Institutional core activities
- Today: Digital information webs extending beyond the enterprise

TOWARD THE DIGITAL FIRM

The Widening Scope of Information Systems



TOWARD THE DIGITAL FIRM

The Internet

- International network of networks
- Universal technology platform: Any computer can communicate with any other computer
- World Wide Web and Web sites

TOWARD THE DIGITAL FIRM

What You Can Do on the Internet?

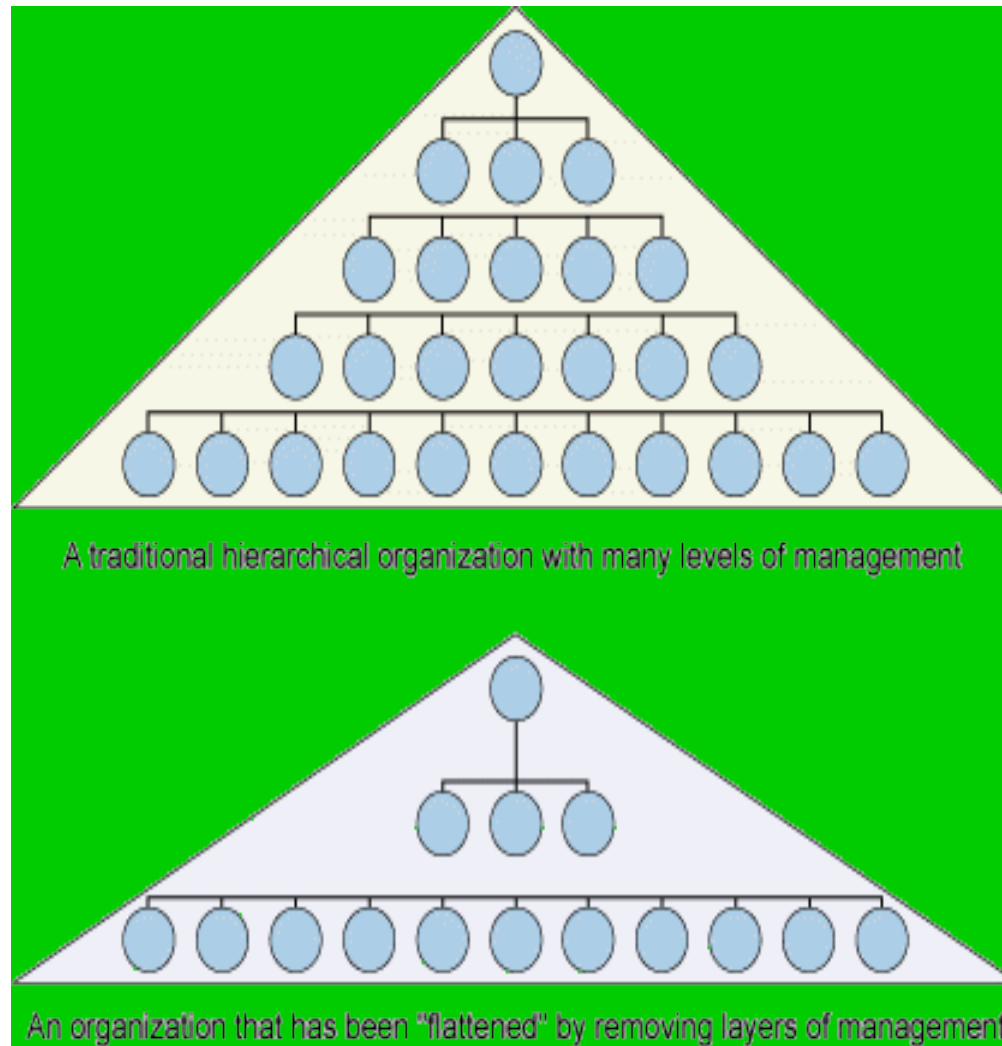
- Communicate and collaborate
- Access information
- Participate in discussions
- Supply information
- Find entertainment
- Exchange business transactions

New Options for Organizational Design

- Flattening organizations
- Separating work from location
- Reorganizing work-flows
- Increasing flexibility
- Redefining organizational boundaries

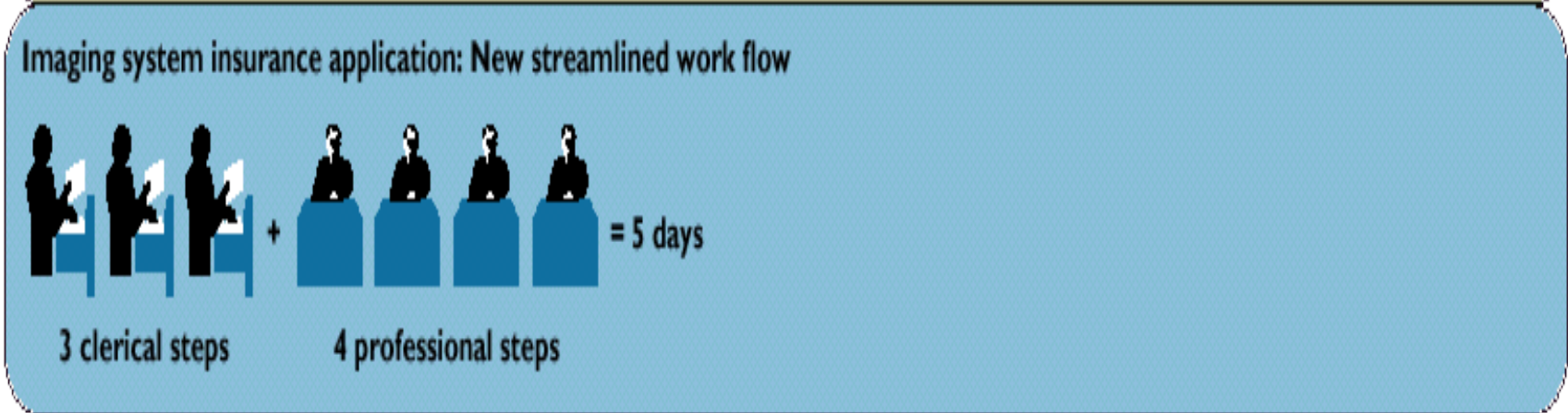
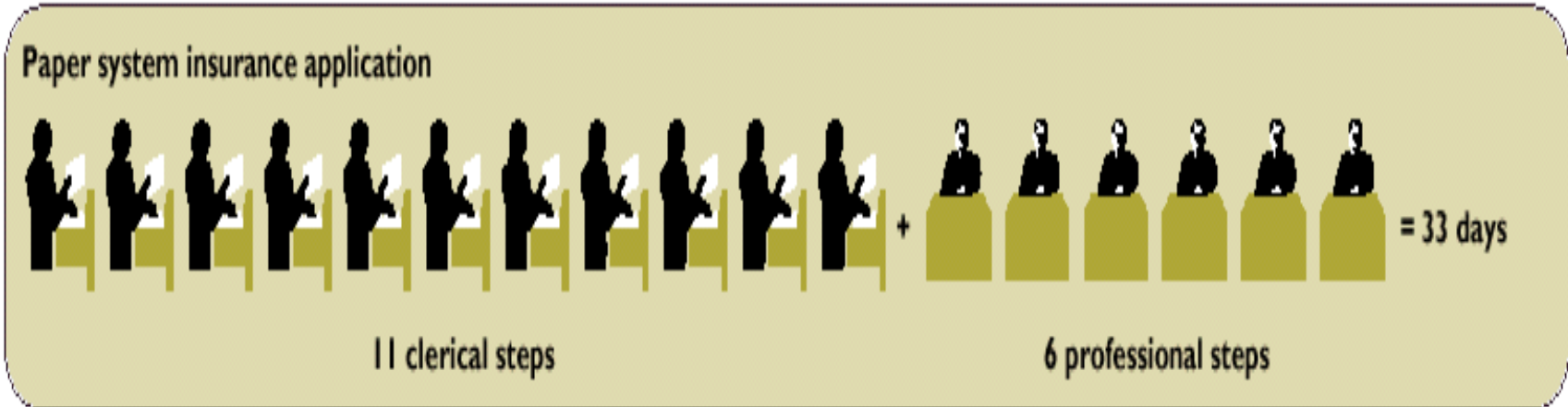
TOWARD THE DIGITAL FIRM

Flattening Organizations & Information Systems



TOWARD THE DIGITAL FIRM

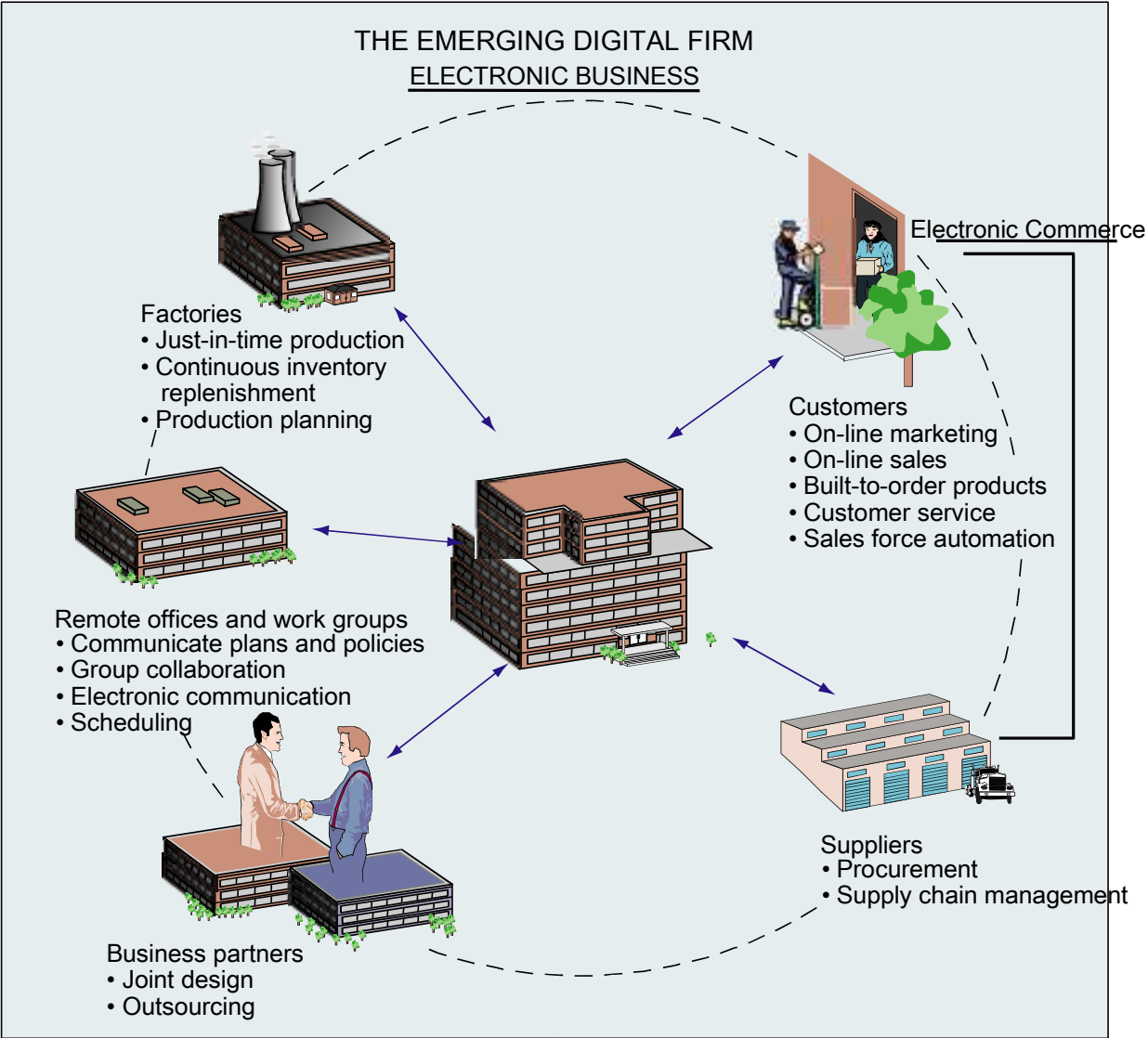
Redesigned Work Flow For Insurance Underwriting



The Digital Firm

- Electronic commerce
- Electronic business
- Digital market: Information systems links, buyers and sellers to exchange information, products, services, payments

TOWARD THE DIGITAL FIRM



TOWARD THE DIGITAL FIRM

Electronic Business

- **Electronic Business:** Executing all the firm's business processes with Internet technology
- **Intranet:** Business builds private, secure network based on Internet technology
- **Extranet:** Extension of intranet to authorized external users

TOWARD THE DIGITAL FIRM

Information Architecture and Information Technology Infrastructure

