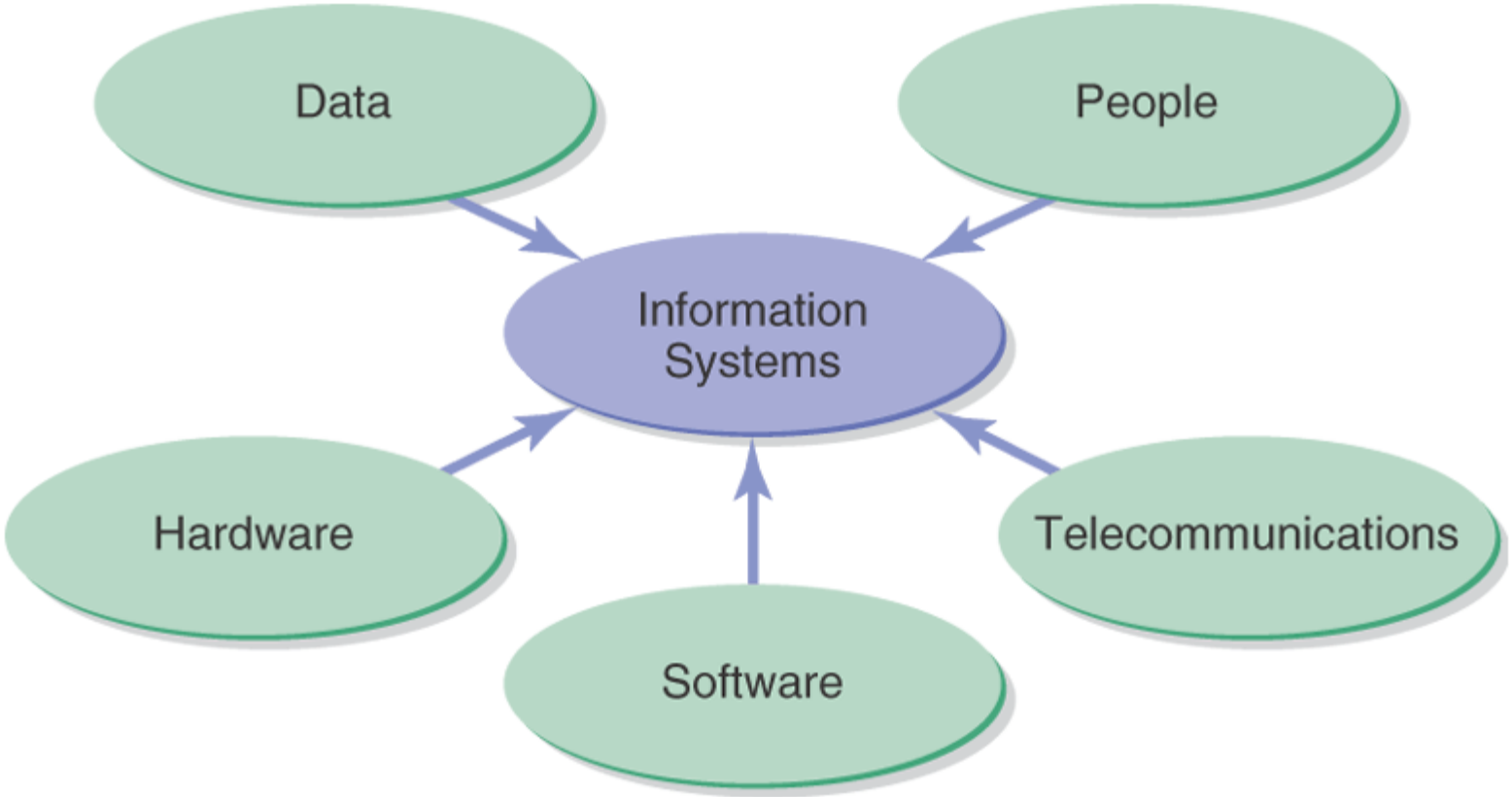
Sistem Informasi

Sistem Informasi

Kombinasi hardware, software, dan jaringan telekomunikasi yang dibangun oleh manusia untuk mengumpulkan, membuat, dan mendistribusikan data yang berguna dalam organisasi

Elemen Kunci Sistem Informasi

Figure 1.3 An information system is a combination of five key elements: people, hardware, software, data, and telecommunications networks.



Teknologi dan Sistem Informasi

- Sistem Informasi Berbasis Komputer
  - Salah satu tipe teknologi
  - Teknologi – peralatan mekanik dan/atau listrik yang membantu aktivitas manusia
  - Information Technology (IT) – teknologi yang dikontrol oleh atau menggunakan informasi
- Tujuan SI adalah untuk menyediakan data yang dibutuhkan oleh pengguna
  - SI dapat berada di organisasi lokal atau global.

LINGKUNGAN BISNIS

- Globalisasi
- Ekonomi Industri
- Transformasi Organisasi

Globalisasi

- Manajemen & Pengendalian
- Kompetisi pasar dunia
- Kelompok Kerja Global
- Sistem GLOBAL DELIVERY

Transformasi

- Ekonomi berbasis pengetahuan (knowledge based)
- Produktivitas
- Produk dan Pelayanan Baru
- Pengetahuan sebagai asset
- Kompetisi berbasis waktu (TIME-BASED COMPETITION)
- Siklus hidup produk yang lebih pendek (SHORTER PRODUCT LIFE)
- Lingkungan yang cepat berubah
- Pekerja berbasis pengetahuan

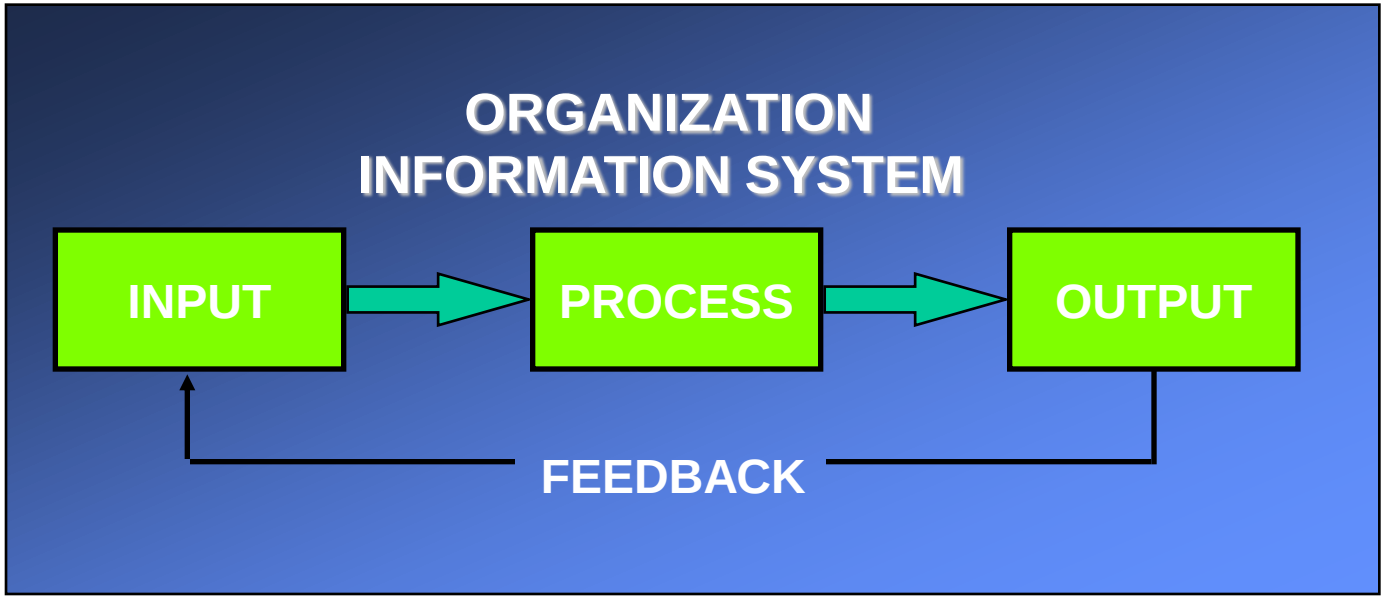
Transformasi Organisasi

- Flat
- Desentralisasi
- Fleksibilitas
- Lokasi independen
- Biaya transaksi murah
- Pemberdayaan
- Kerja kolaborasi

FUNGSI SISTEM INFORMASI

ENVIRONMENT

Customers **Suppliers**

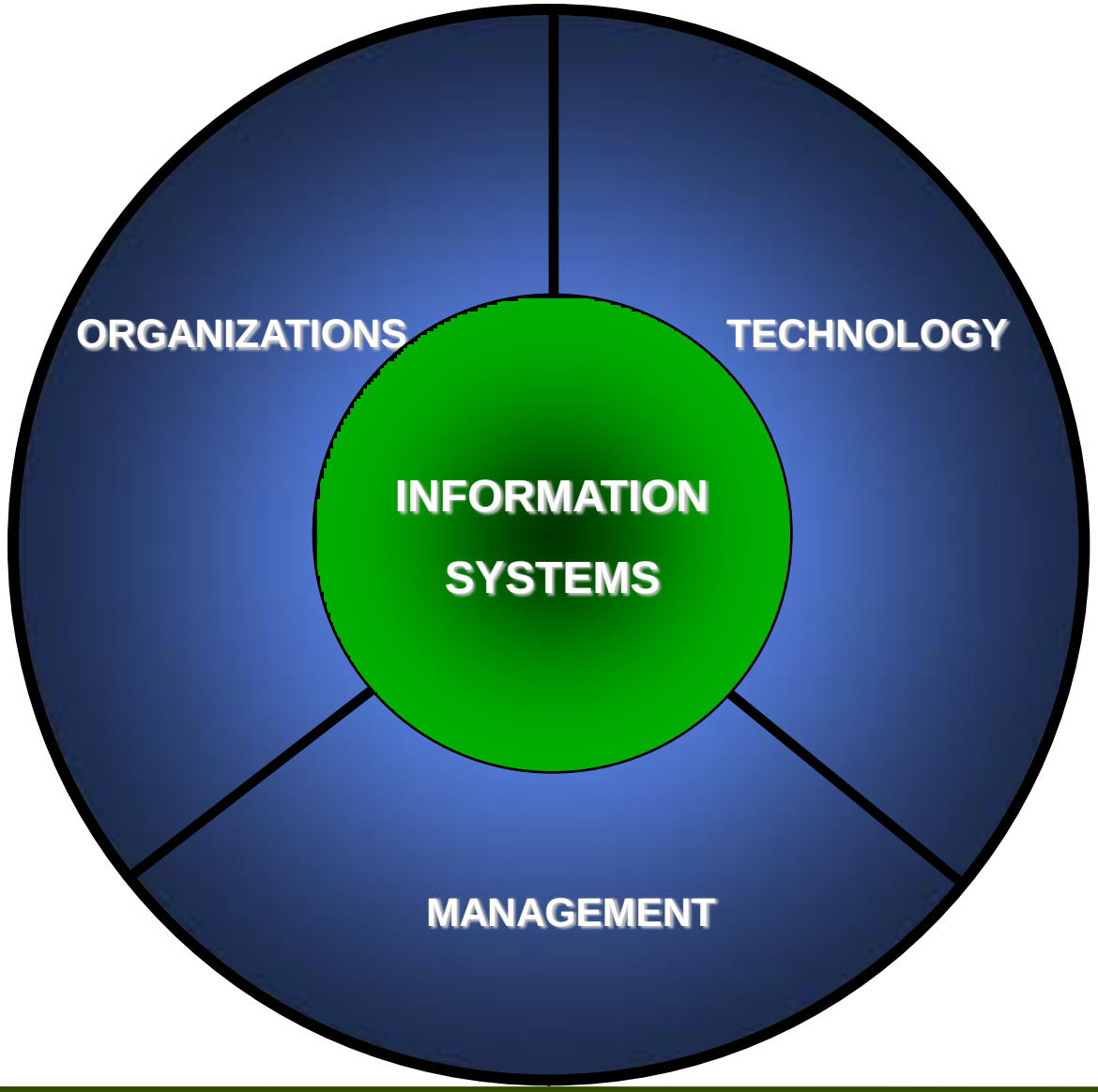


Regulatory Agencies **Stockholders** **Competitors**

COMPUTER-BASED INFORMATION SYSTEMS (CBIS)

- Sistem Formal
- Definisi data dan prosedur yang fixed
- Pengumpulan, penyimpanan, pemrosesan, desiminasi, penggunaan data

INFORMATION SYSTEMS



FUNGSI UTAMA ORGANISASI

- SALES & MARKETING
- MANUFACTURING
- FINANCE
- ACCOUNTING
- HUMAN RESOURCES

*

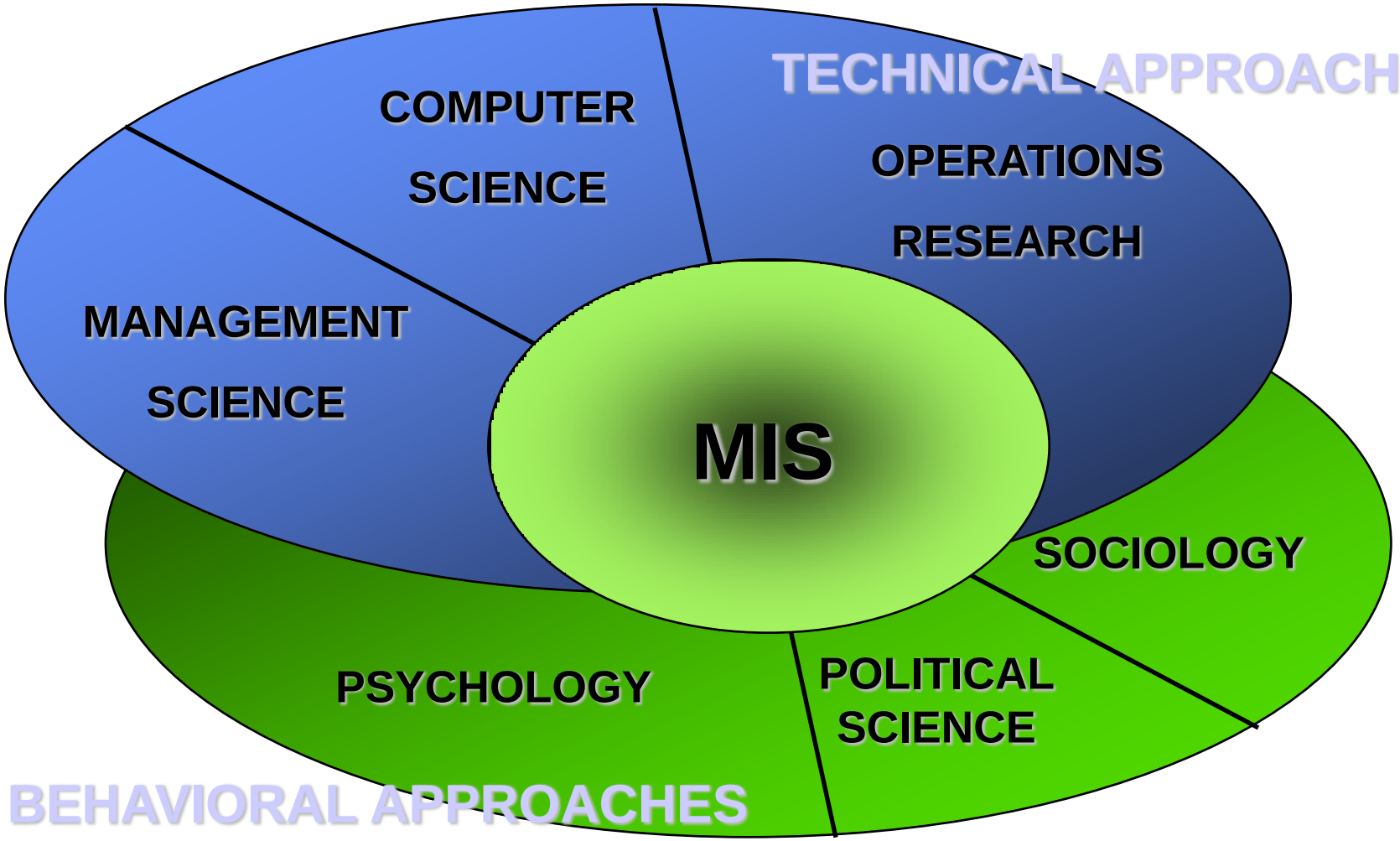
TEKNOLOGI KOMPUTER

- HARDWARE
- SOFTWARE
- STORAGE
- COMMUNICATIONS
- NETWORK

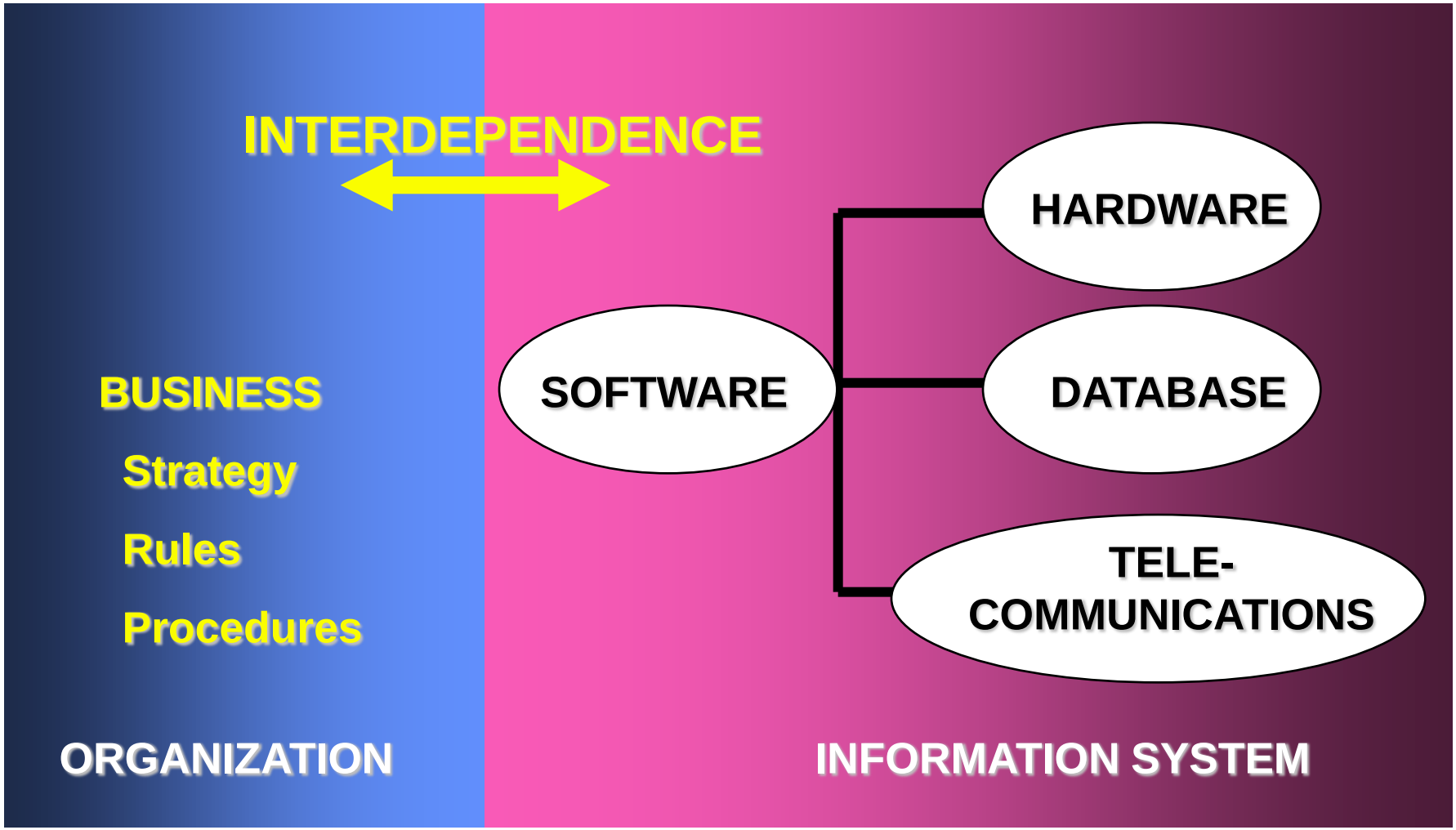
*

eri-

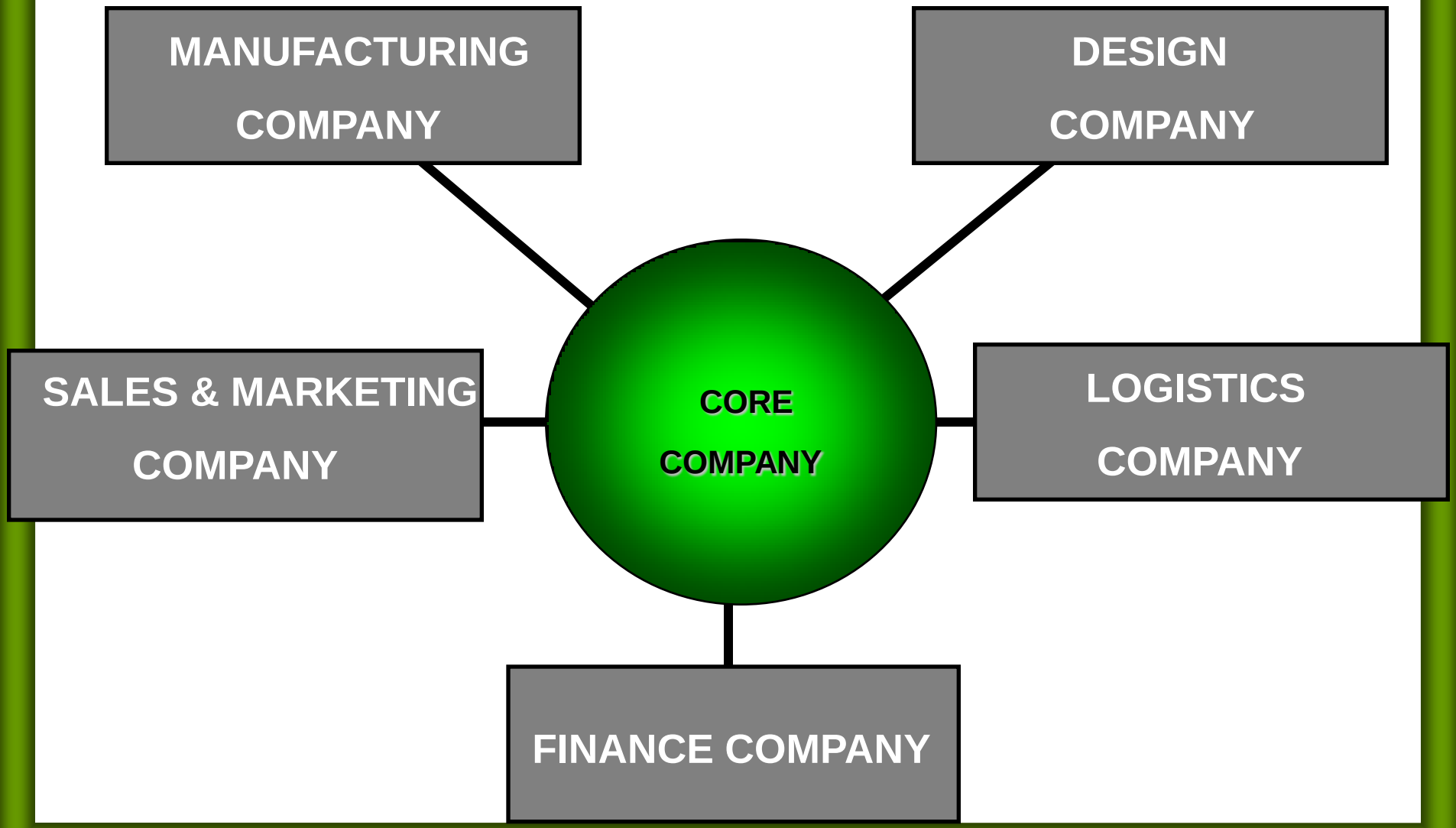
APPROACHES TO INFO SYSTEMS



SYSTEM INTERDEPENDENCE



VIRTUAL ORGANIZATION



CHALLENGE OF INFO SYSTEMS

- STRATEGIC: COMPETITIVE & EFFECTIVE
- GLOBALIZATION: MULTINATIONAL INFO
- INFO ARCHITECTURE: SUPPORT GOALS
- INVESTMENT: VALUE OF INFORMATION
- RESPONSIBILITY & CONTROL: ETHICS

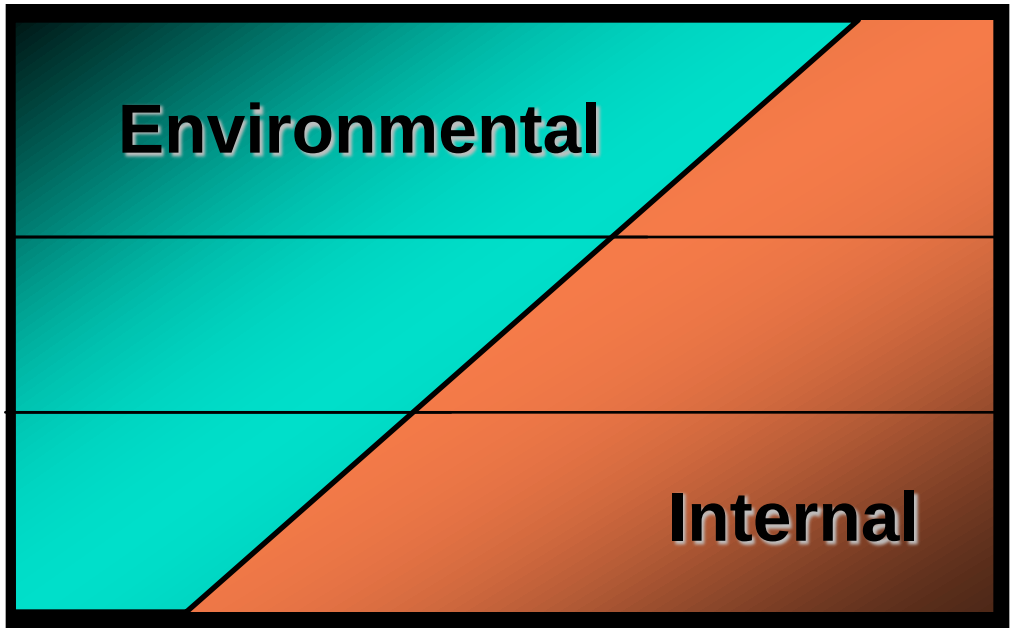
*

Penyediaan Sumberdaya Informasi

Top management

Middle management

Operasional management

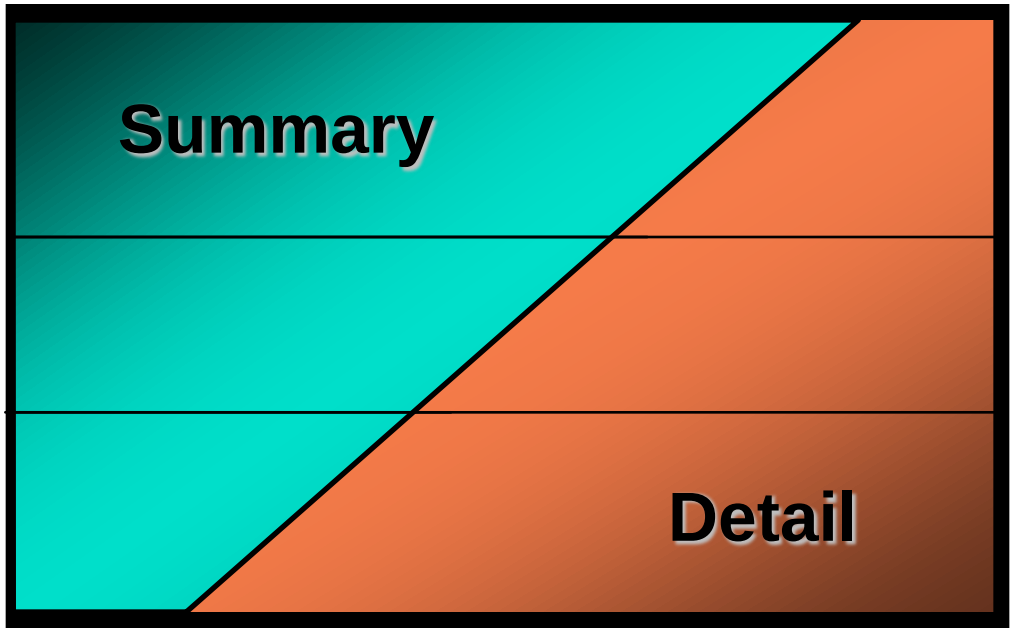


Format Informasi

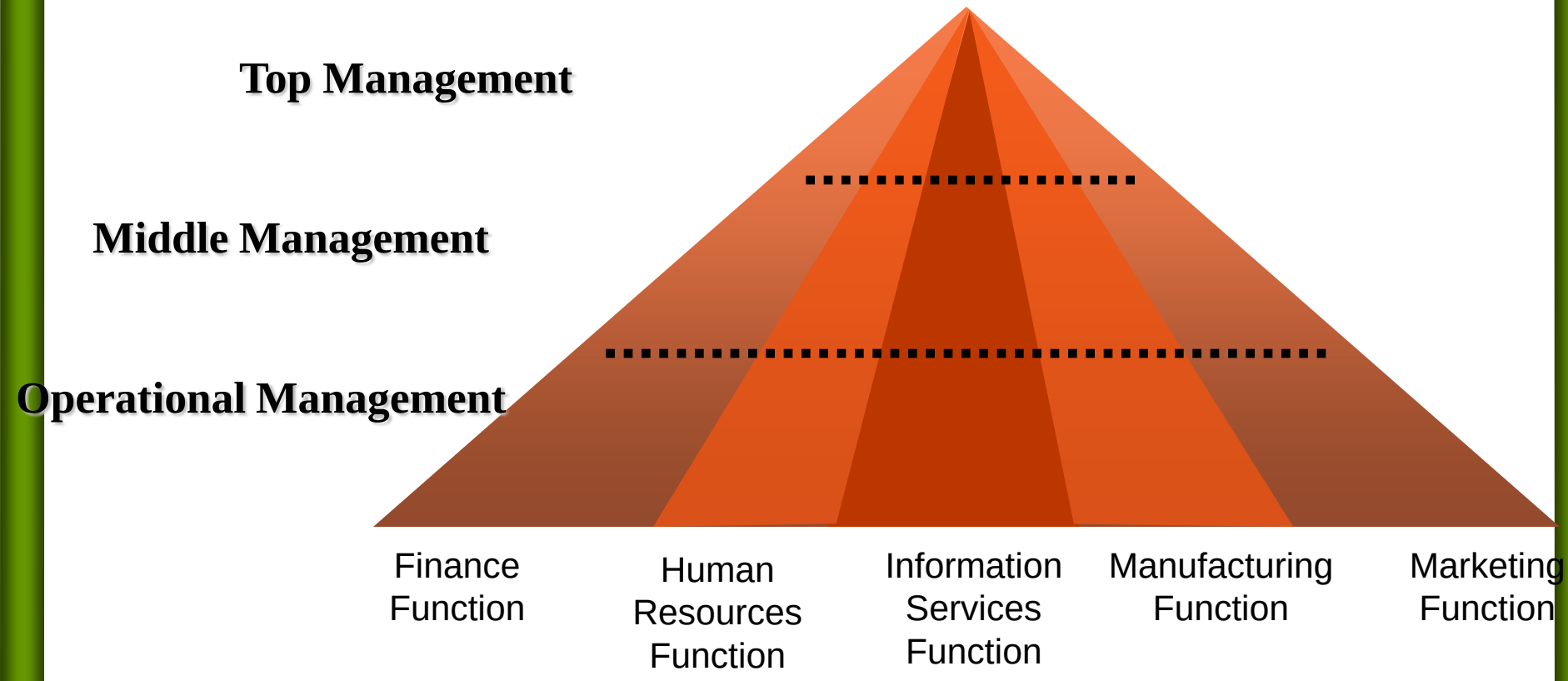
Top management

Middle management

Operasional management

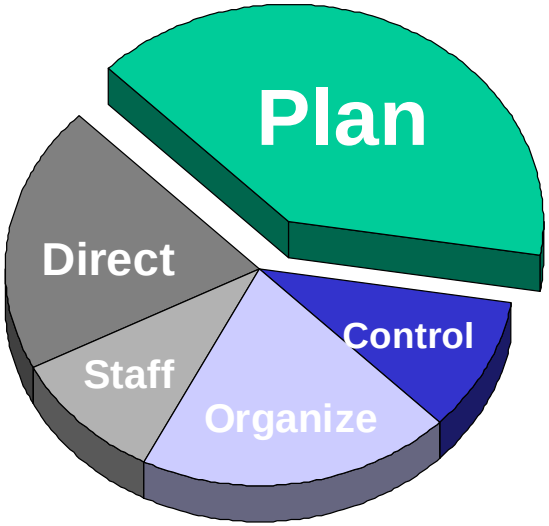


Piramida Managemen

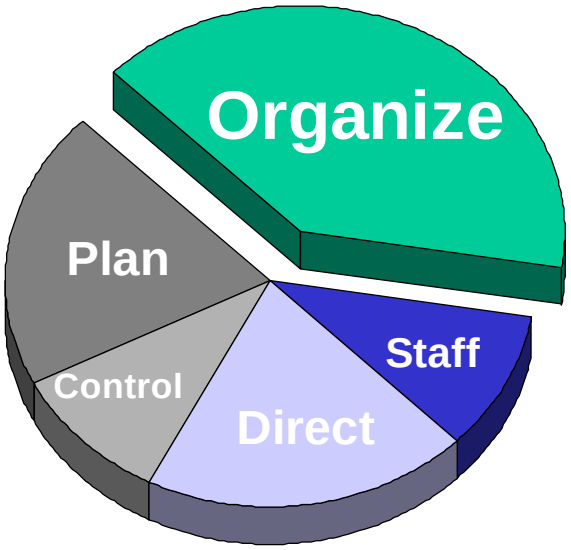


Tingkat Konsentrasi

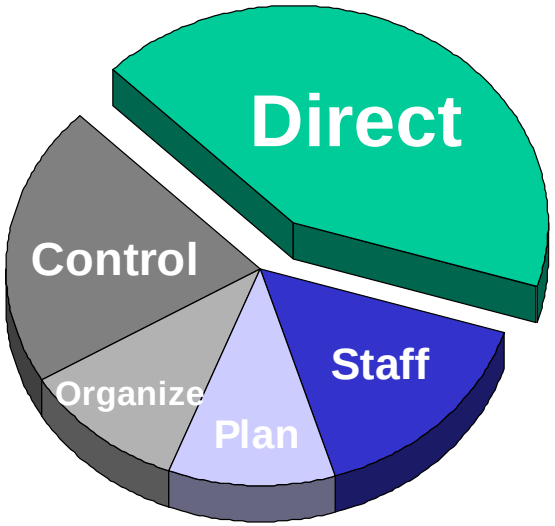
Top Management



Middle Management



Operational Management

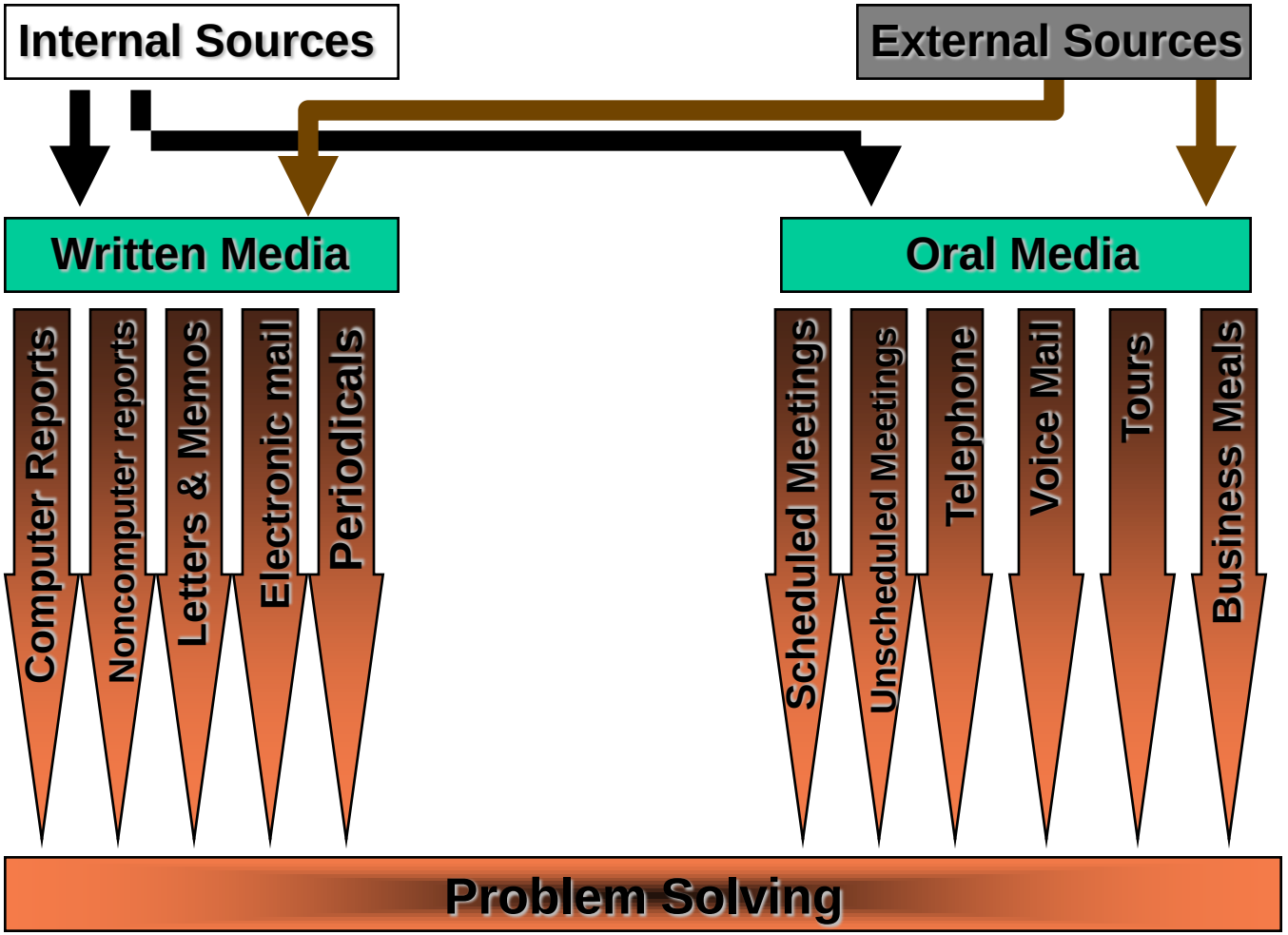


Peran Manager

- **Peran interpersonal**
  - **Figur**
  - **Leader**
  - **Liaison**
- **Peran informasional**
  - **Monitor**
  - **Disseminator**
  - **Penyampai informasi**

- **Peran pengambil keputusan**
  - **Entrepreneur**
  - **Pengalokasi Sumberdaya**
  - **Negosiator**

Bentuk Informasi Untuk Problem Solving



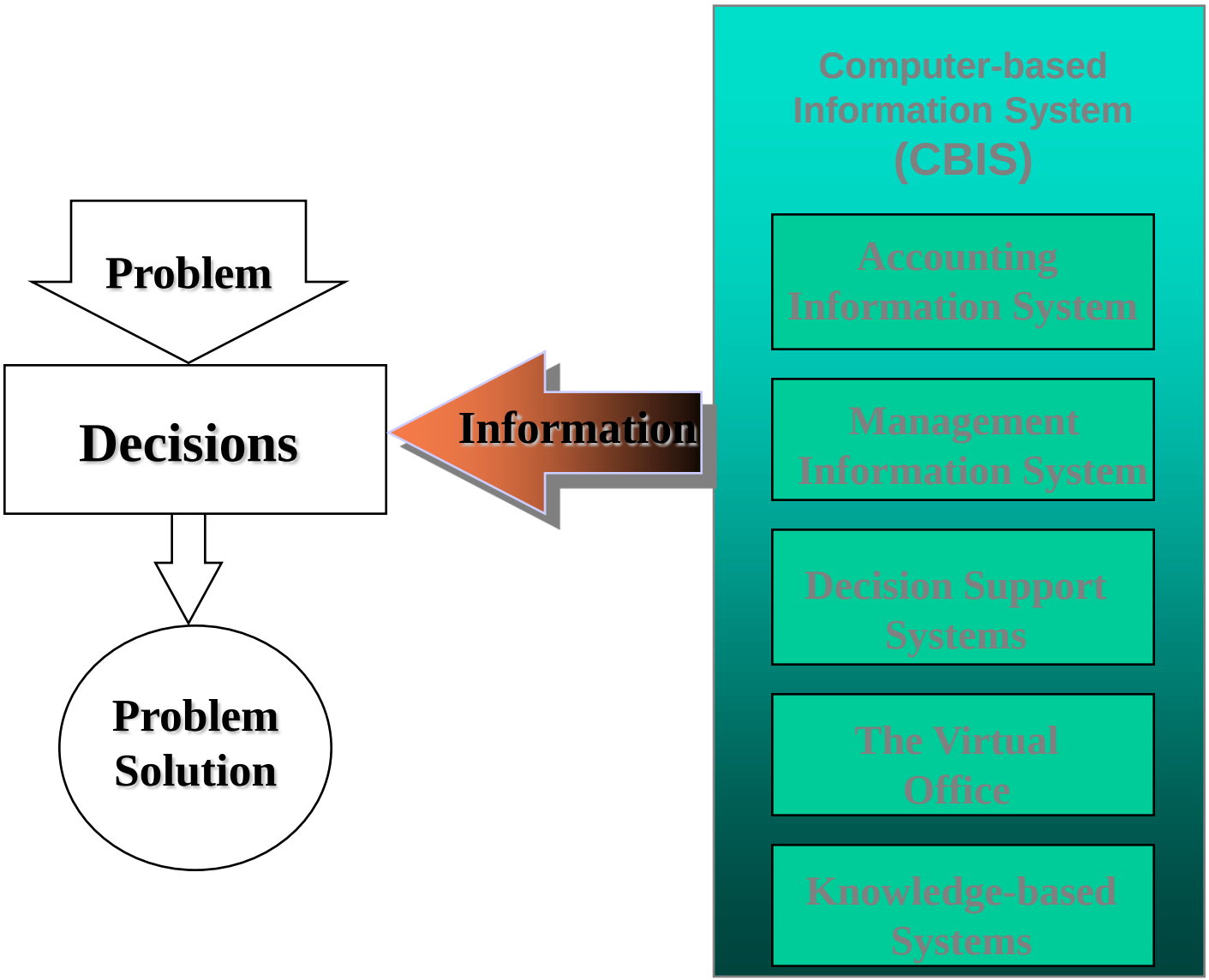
Data and Information

- Information processor
  - Key element in the conceptual system
  - Computer
  - Noncomputer
  - Combination
- Data is the raw material transformed into information

Evolution of the CBIS

- **Data Processing (DP)**
- **Management Information Systems (MIS) 1964**
  - **IBM promoted the concept as a means of selling disk files and terminals**
- **Decision Support Systems (DSS) 1971**
  - **Text book's distinction:**
    - **MIS: Organizational/group - general**
    - **DSS: Individual - specific**
- **Office Automation (OA) 1964**
- **Artificial Intelligence (AI)/ Expert Systems (ES) - 1990s**
  - **Heavy investment by businesses**

The CBIS Model

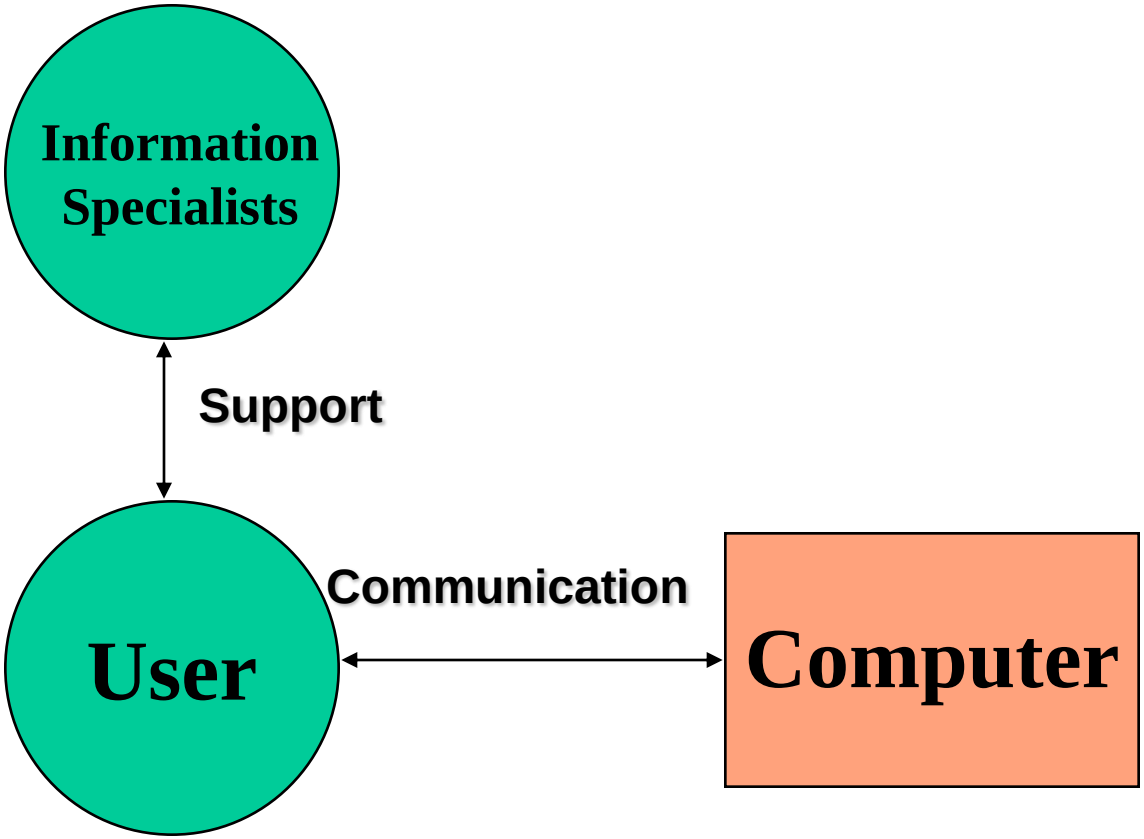


End-User Computing (EUC)

- **End-user computing**
  - **Development of all or part of applications**
  - **Information specialists act as consultants**
- **Stimulants to EUC**
  - **Increased computer literacy**
  - **IS backlog**
  - **Low-cost hardware (the PC)**
  - **Prewritten software (electronic spreadsheets)**

IS and EUC

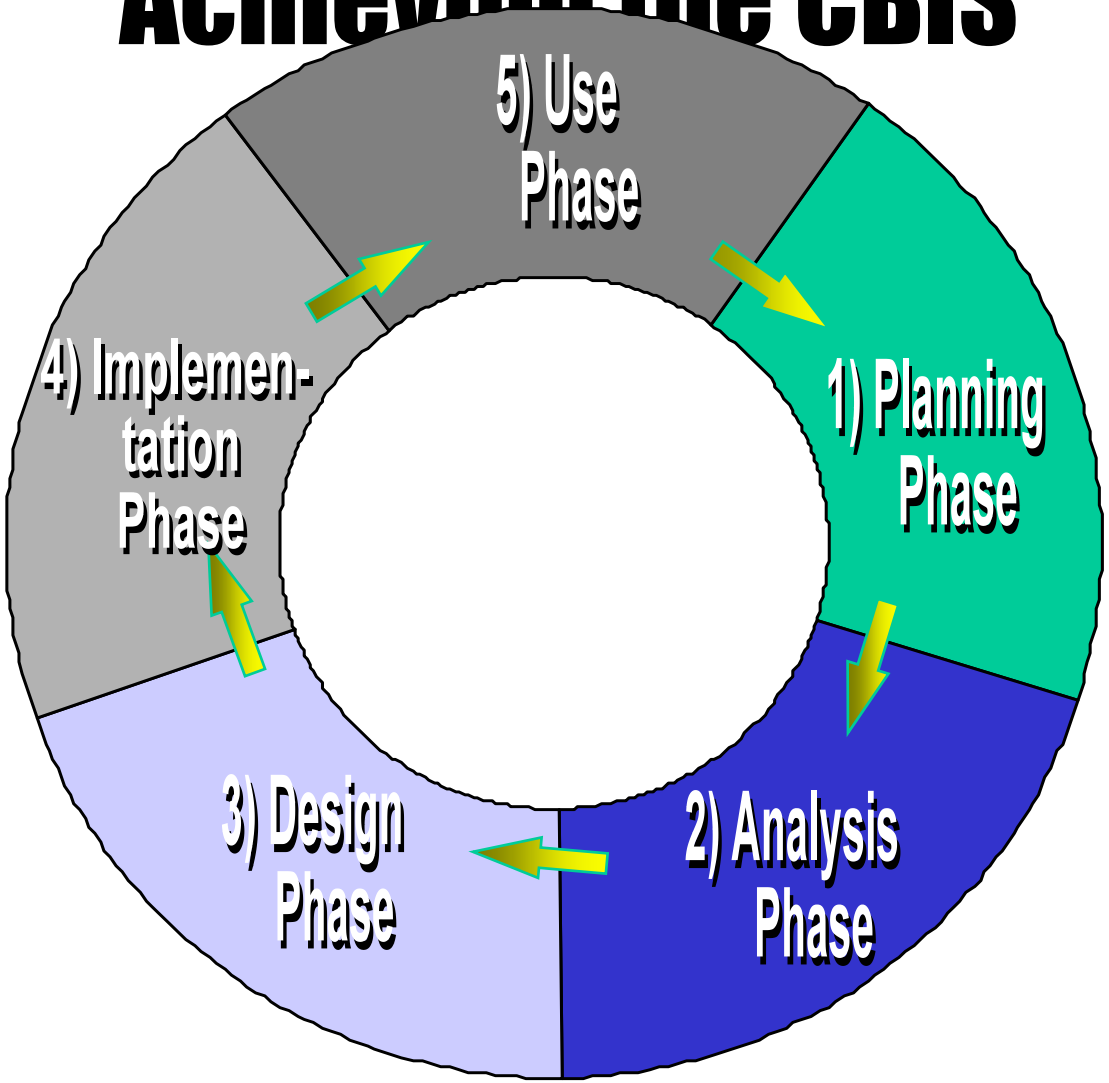
The End-User Computing Communication Chain



Justifying the CBIS

- **Justify in the same manner as any other large investment**
- **Economic**
  - **Cost reduction**
  - **Reduced inventory investment**
  - **Increased productivity (CAD/CAM)**
- **Noneconomic**
  - **Perceived value**

Achieving the CBIS



Roles Played by the Manager and by the Information Specialist