

# Research and Technology at Siemens



## Key Figures for 2000

	Fiscal 2000	Fiscal 1999	Change in %
New orders	83.425	69.537	+ 20
Net sales	78.396	68.582	+ 14
Capital expenditure and investments	11.358	5.898	+ 93
Research and Development	5.593	5.236	+ 7
Net income before extraordinary items	3.381	1.865	+ 81
Net income including extraordinary items	7.901	1.865	-
Employees (Sept. 30, in thousands)	447	443	+ 1
Shareholders' equity (September 30)	25.640	17.200	
Dividend per share in €	2.40*	1.00	

Amounts in billions of euros unless otherwise stated

\* Dividend EUR 1.40 and extra dividend EUR 1.00

# Corporate Structure (May 1, 2001)

## Managing Board

### Operations

### Corporate Departments

Information and Communications

**Information & Communication Networks (ICN)**

**Information & Communication Mobile (ICM)**

**Siemens Business Services GmbH & Co. OHG (SBS) \***

Transportation

**Transportation Systems (TS)**

**Siemens VDO Automotive AG (SV) \***

Automation and Control

**Automation and Drives (A&D)**

**Industrial Solutions and Services (I&S)**

**Siemens Dematic AG (SD) \***

**Siemens Building Technologies AG (SBT) \***

Lighting

**Osram GmbH \***

Medical

**Medical Solutions (Med)**

Power

**Power Generation (PG)**

**Power Transmission and Distribution (PTD)**

Financing and Real Estate

**Siemens Financial Services GmbH (SFS) \***

**Siemens Real Estate (SRE)**

**Infineon Technologies AG \***

**Corporate Finance (CF)**

**Corporate Personnel (CP)**

**Corporate Technology (CT)**

**Corporate Development (CD)**

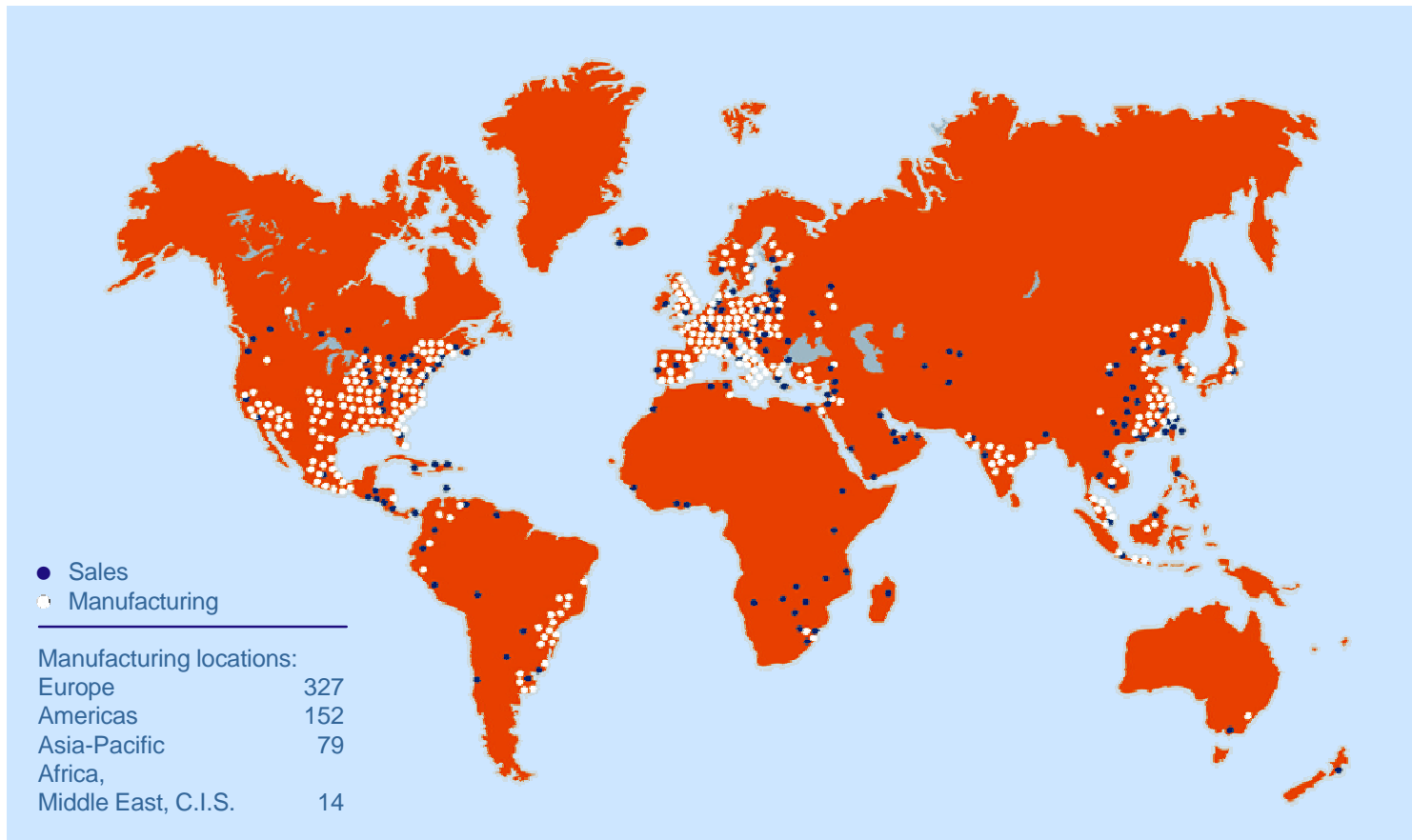
**Corporate Centers:**

- Corporate Communications (CC)
- e-Business (eB)
- Chief Economist /
- Corporate Relations (ECR)
- Global Procurement and Logistics (GPL)
- Information and Knowledge Management (IK)
- Management Consulting Personnel (MCP)

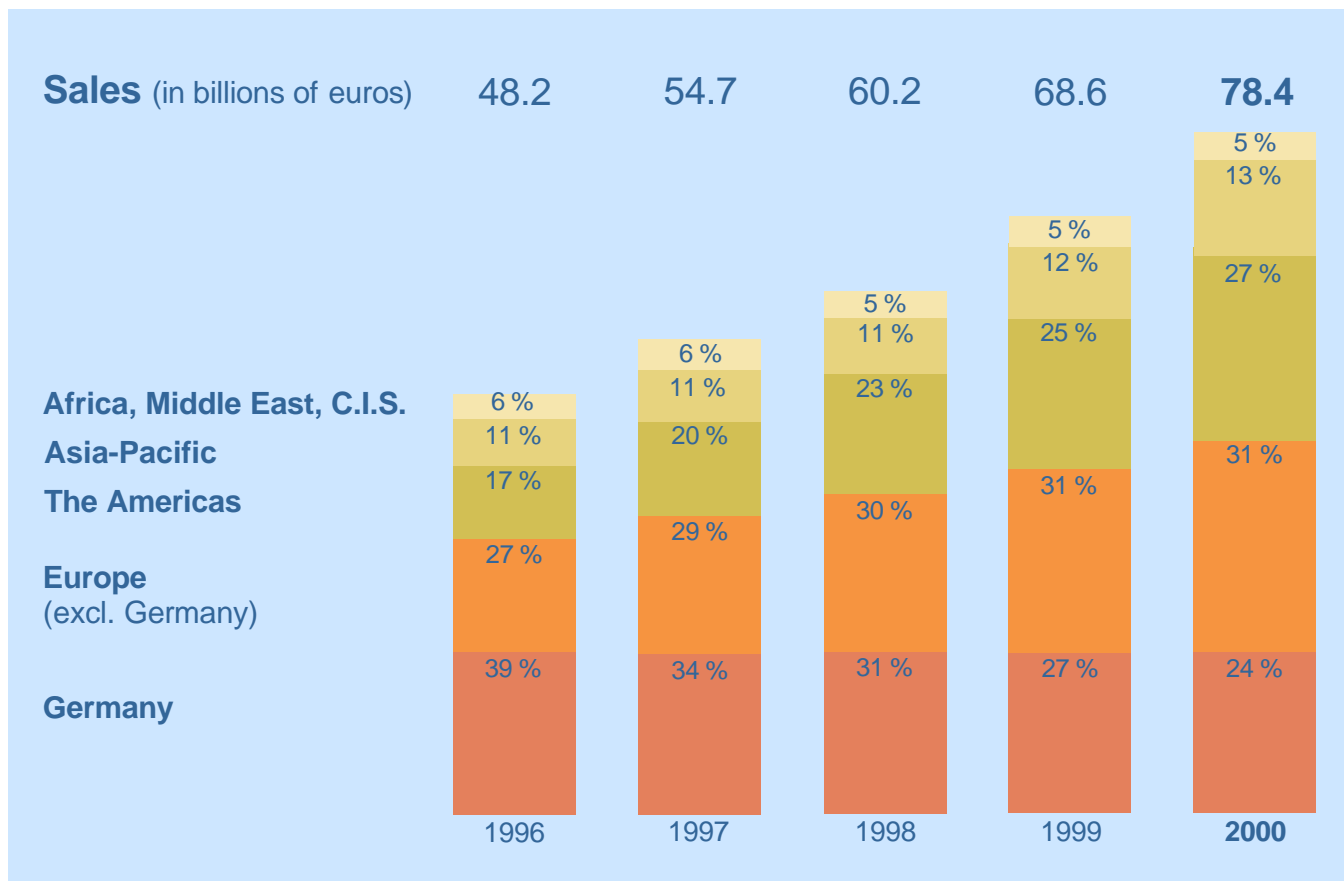
**Regional Units:** Regional Offices, Regional Companies, Representative Offices, Agencies

*\*) Legally Separate Group*

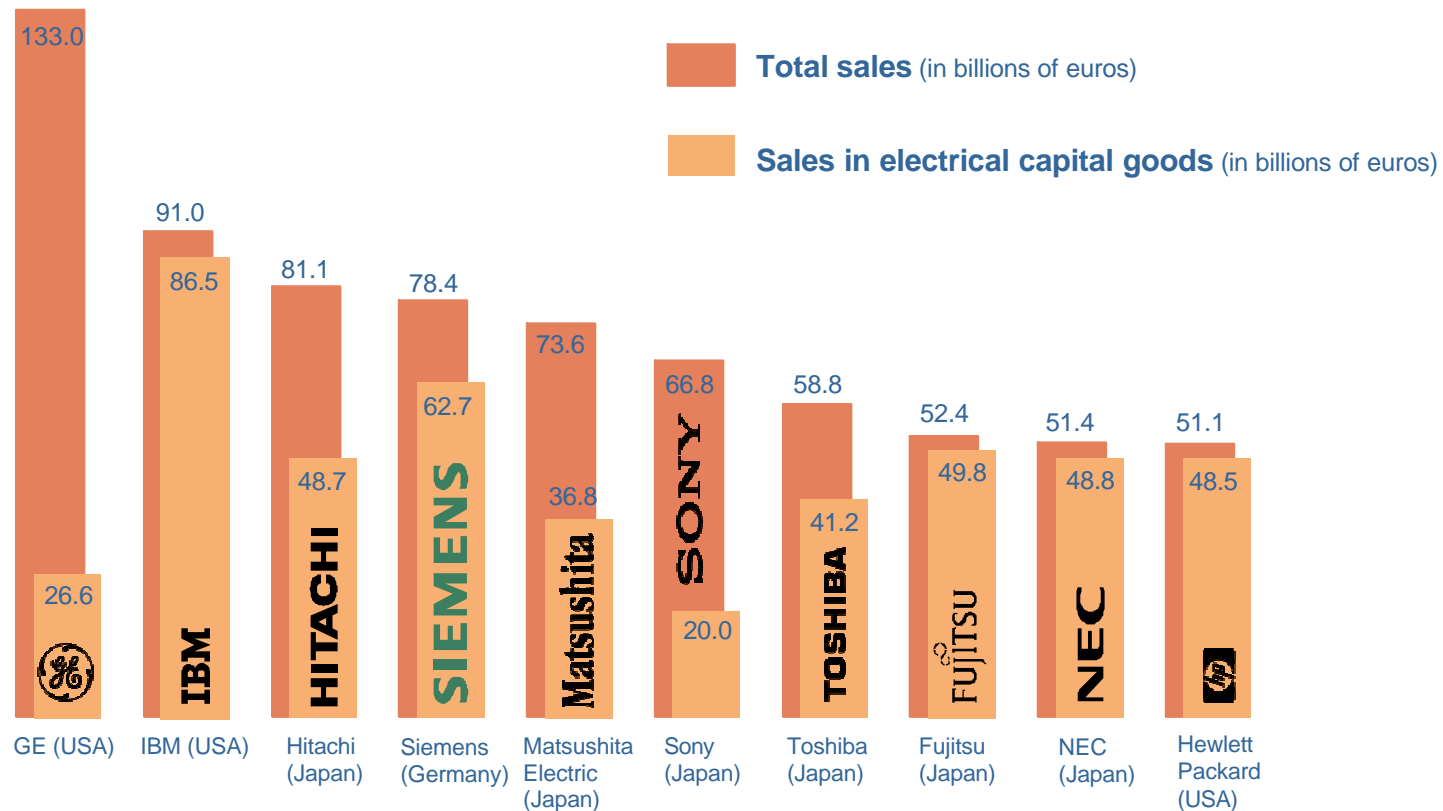
# Global Player - Operations Around the World



# Increase in Sales in the Americas and Asia



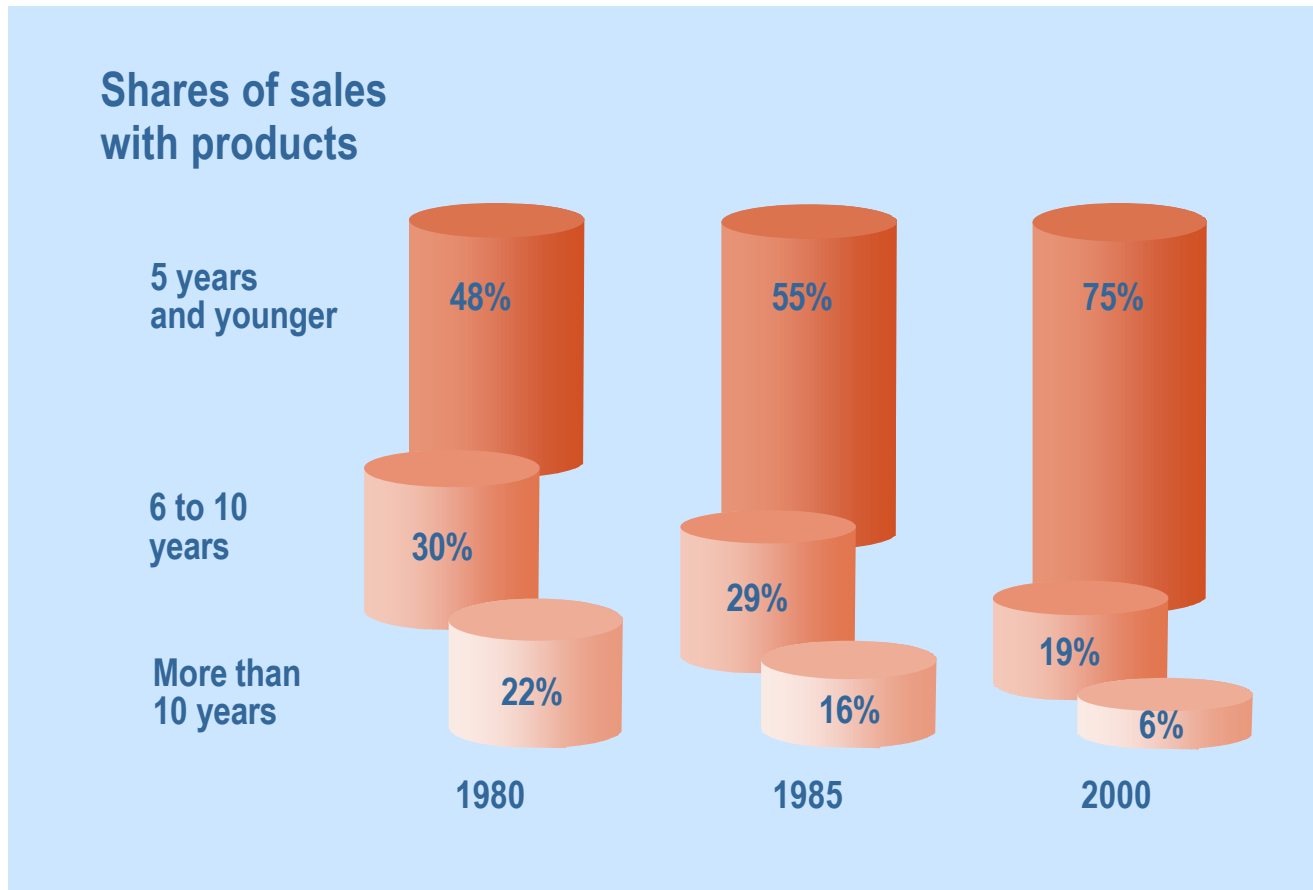
# The Top Ten Companies in Electrical Engineering and Electronics in Fiscal 2000



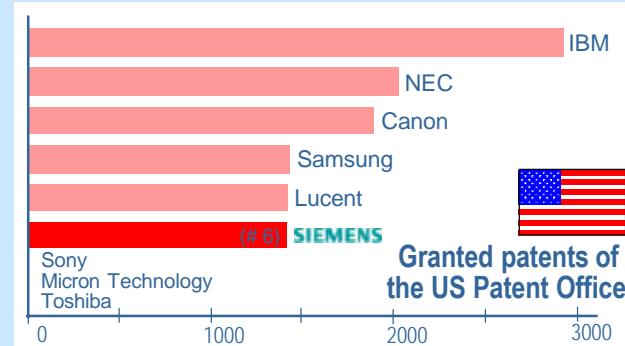
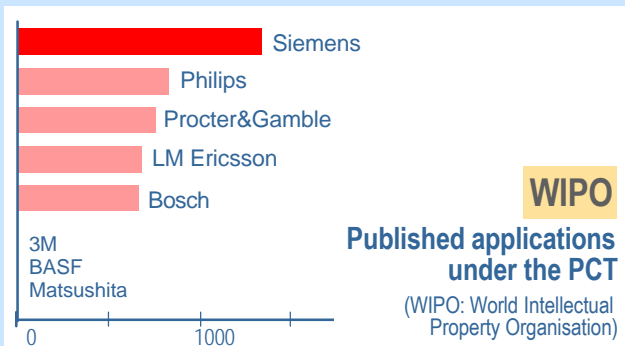
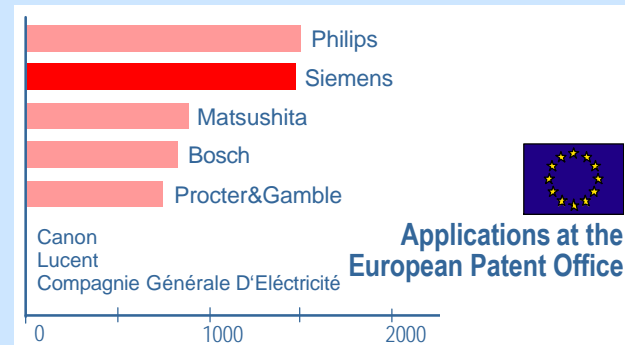
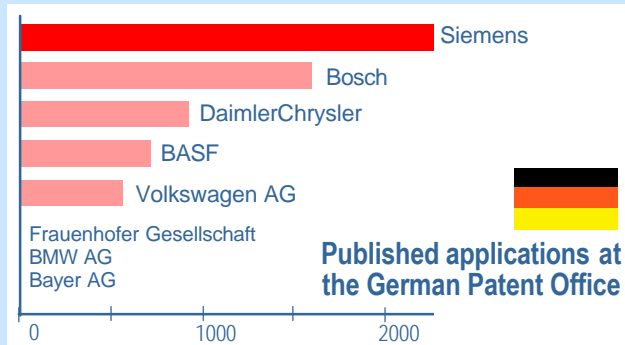
(Source: CD S W - 12/00)

**Research and Technology at Siemens**

## Speed as a Measure of Innovative Strength



# Leading Position in Patents is the Proof of Our Innovative Strength

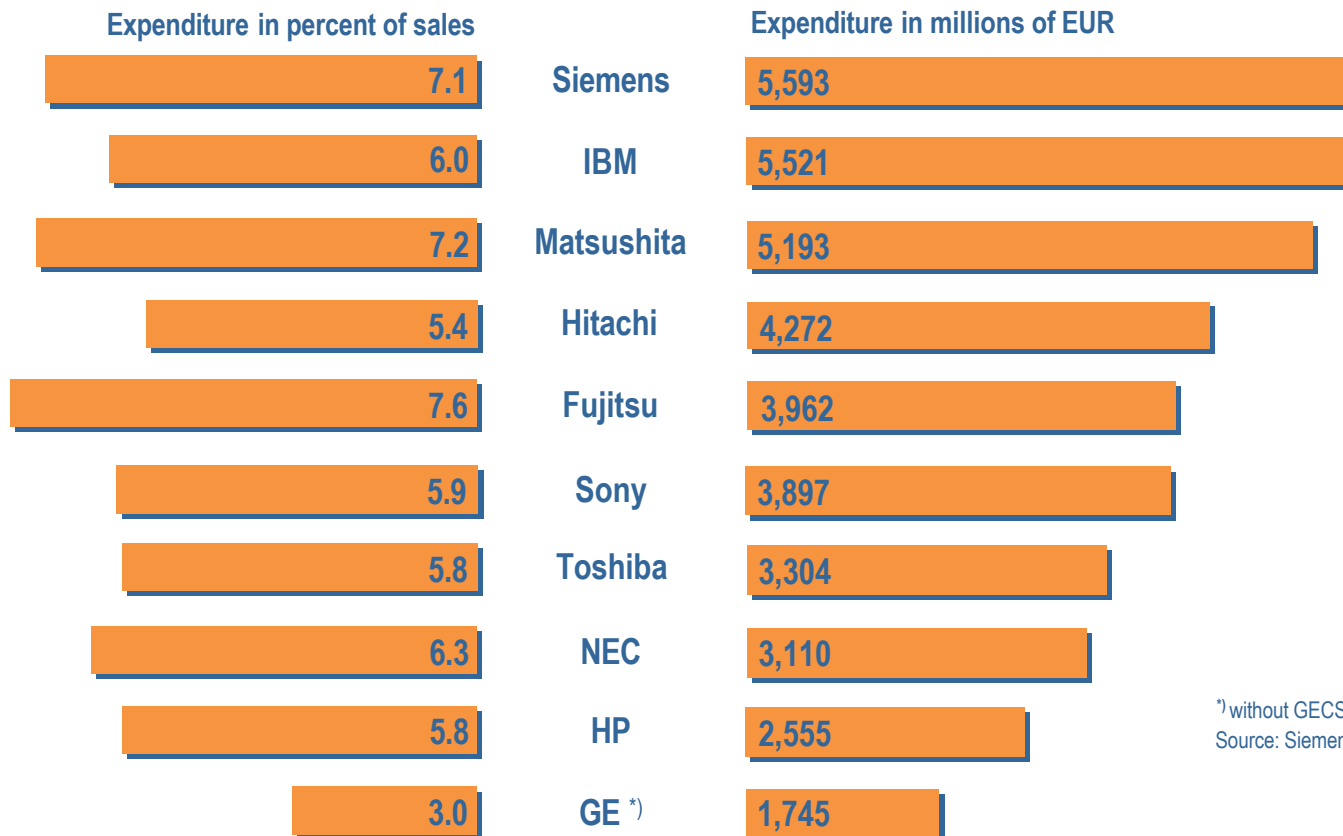


Source: Reports 2000/01 of the patent offices/WIPO



# R&D Expenditure of the Top Ten Electrical Engineering Companies

(Based on annual reports 1999 and corresponding exchange rates;  
only partially comparable, without external R&D orders and public funding)

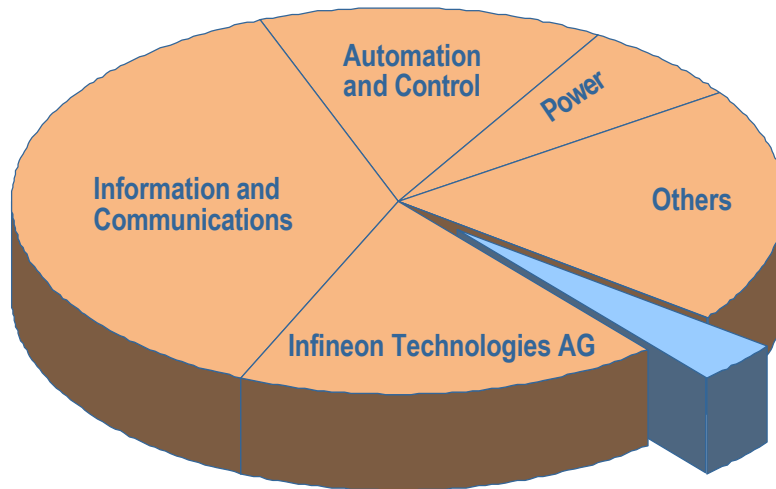


\*) without GECS (GE Capital Services)  
Source: Siemens AG, CD S W 12/00



## Siemens' R&D Expenditure in Fiscal Year 1999/00: EUR 5.6 Billion / 7.1 Percent of Sales

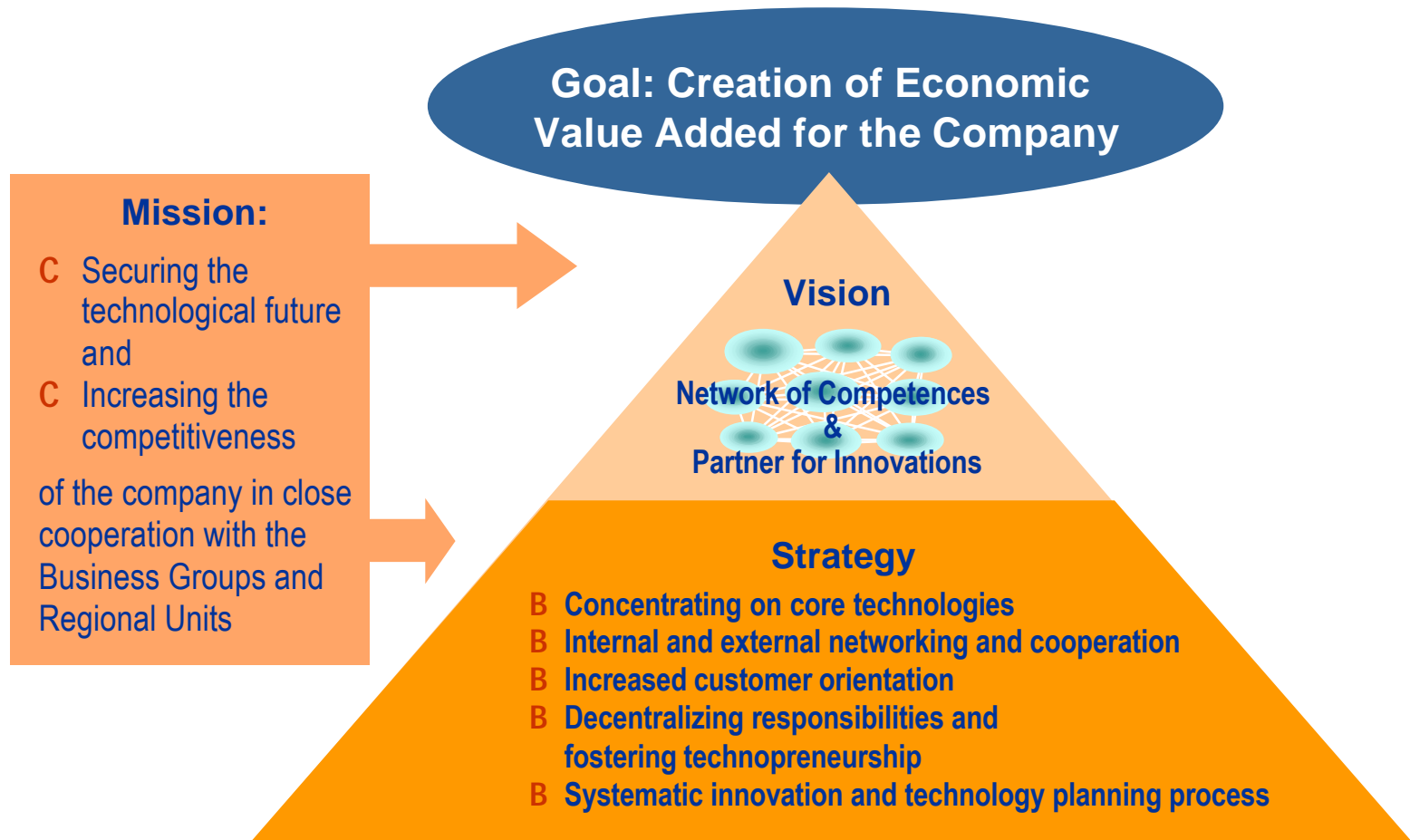
About 96% at Groups, Regional Units, Subsidiaries and Associated Companies for development of products, systems and manufacturing processes



About 4% at

- Corporate Technology (CT),
  - Siemens Corporate Research (SCR), and
  - Roke Manor Research Ltd. (RMR)
- for research, basic development and advanced production technologies

# Siemens Corporate Technology: Mission, Vision and Strategy



# Corporate Technology

## Technology Divisions

Materials and Manufacturing  
 Production Processes  
 Energy  
 Microsystems  
 Software and Engineering  
 Information and Communications

Strategic Marketing

Siemens Corporate Research, Inc.

Roke Manor Research, Ltd. \*

Siemens Technology Accelerator GmbH

Technology-to-Business Center, LLC

## Corporate Intellectual Property

Intellectual Property Services 1  
 Intellectual Property Services 2  
 Intellectual Property Services 3  
 Intellectual Property Region US  
 Regional Intellectual Property Units  
 Intellectual Property Support  
 Company Name & Trademark Law

## Corporate Functions

Standardization & Regulation  
 Information Research Center  
 Quality Management  
 Environmental Affairs  
 & Technical Safety

Business Administration  
 and Controlling

Human Resources

Chief Information Officer /  
 Chief Knowledge Officer

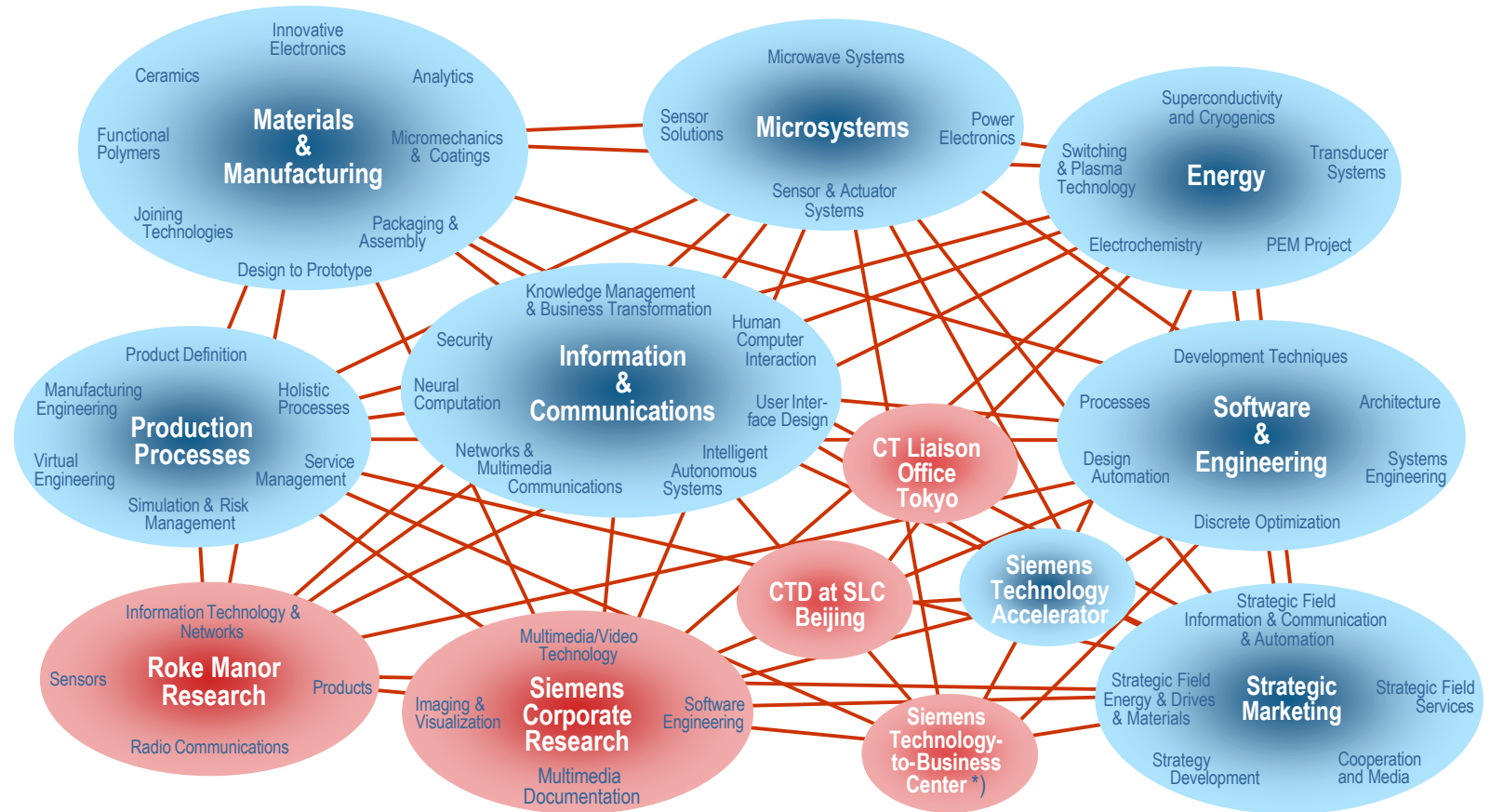
\* Functional reporting to Corporate Technology

# Core Technologies are Strategically Important for the Company

## Core Technologies ...

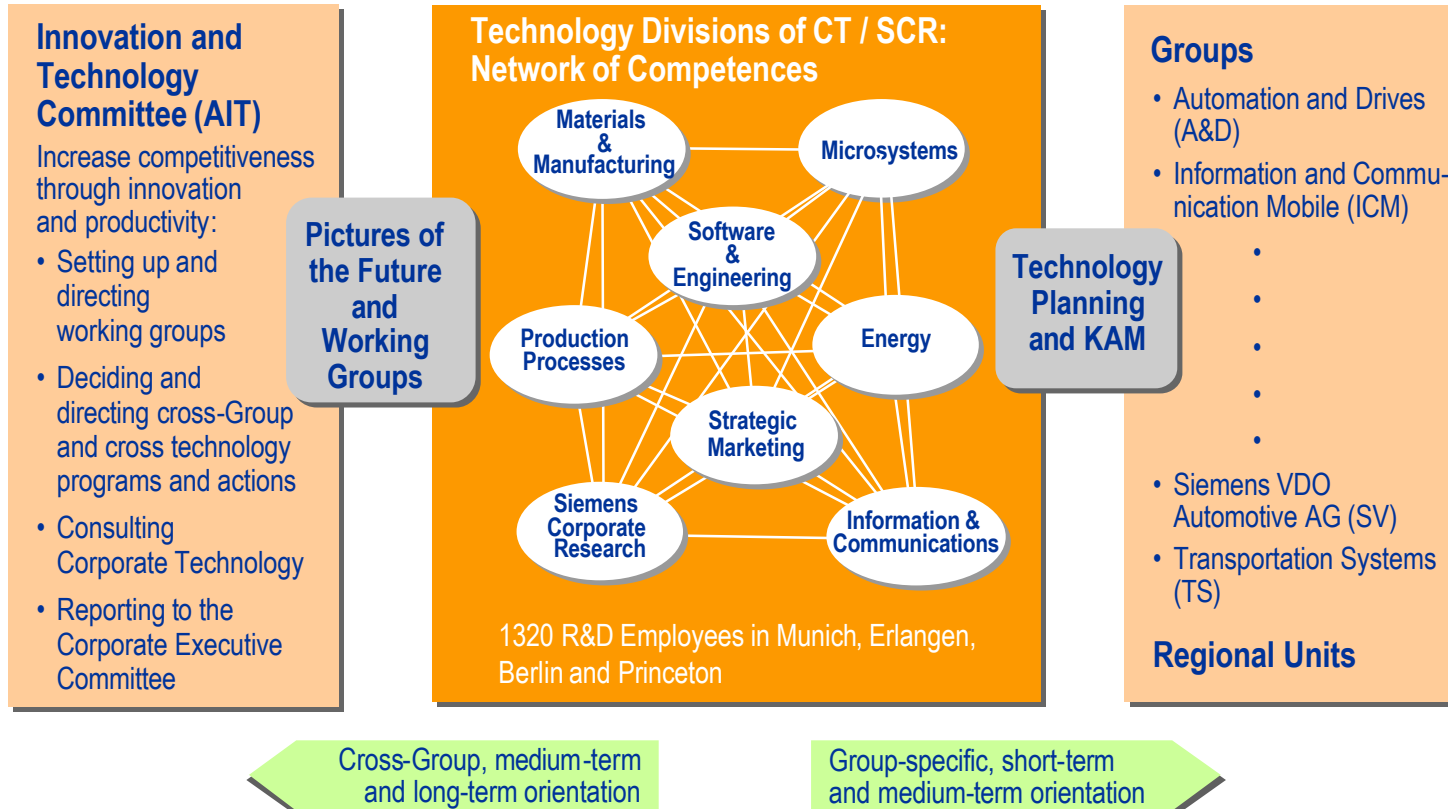
- ... are technologies providing major contribution to value-added and net earnings.
- ... are consistently derived from the medium-term technological requirements of the Groups.
- ... support multiple business areas and Groups.
- ... offer potential for long-term innovation and growth.

# Technology Divisions and Core Technologies: Network of Competences - Partner for Innovations



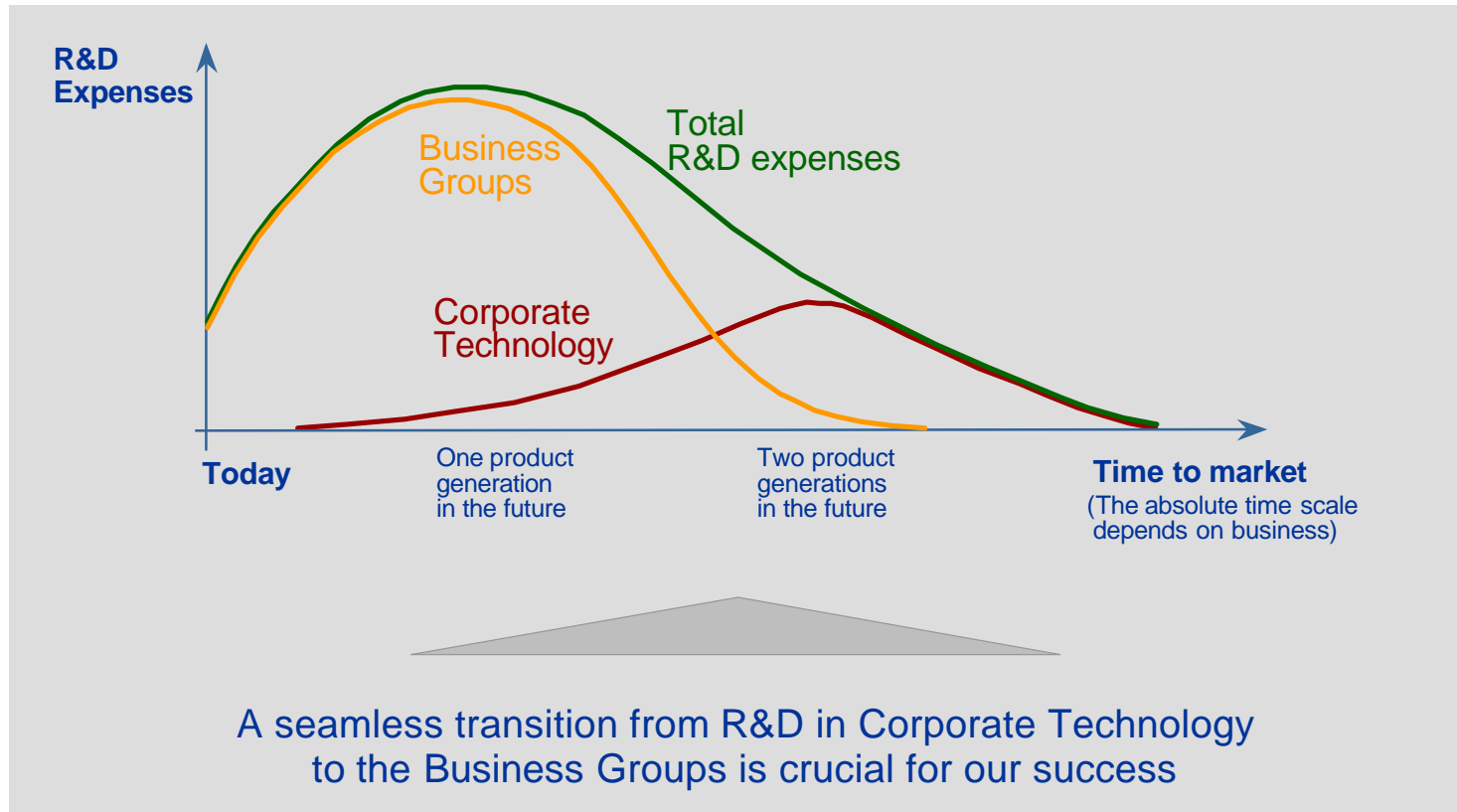
\*) subsidiary to Siemens Corporate Research

# How Corporate Technology Works in the Company

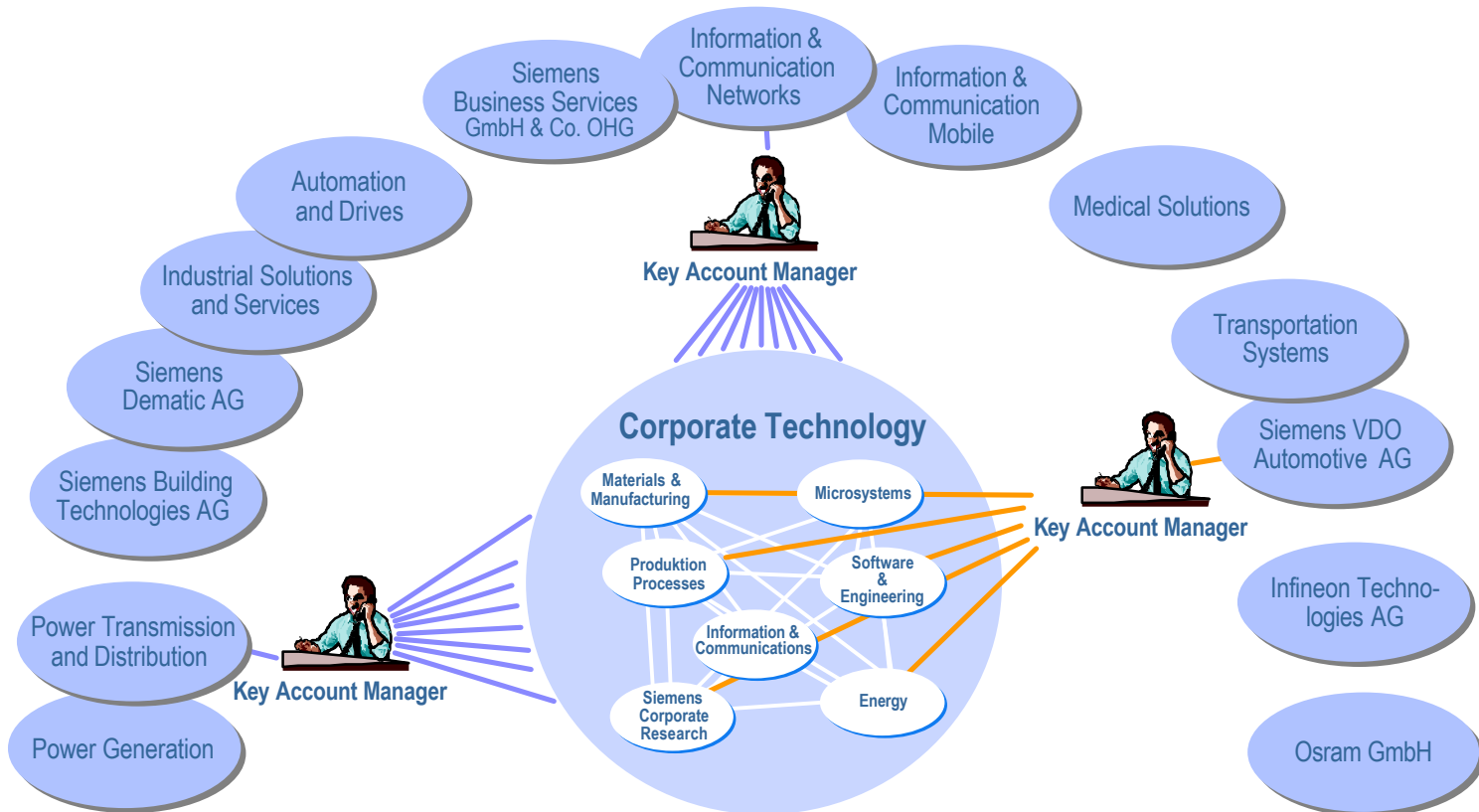




# The Time Horizons of the R&D Activities of the Business Groups and of Corporate Technology are Different

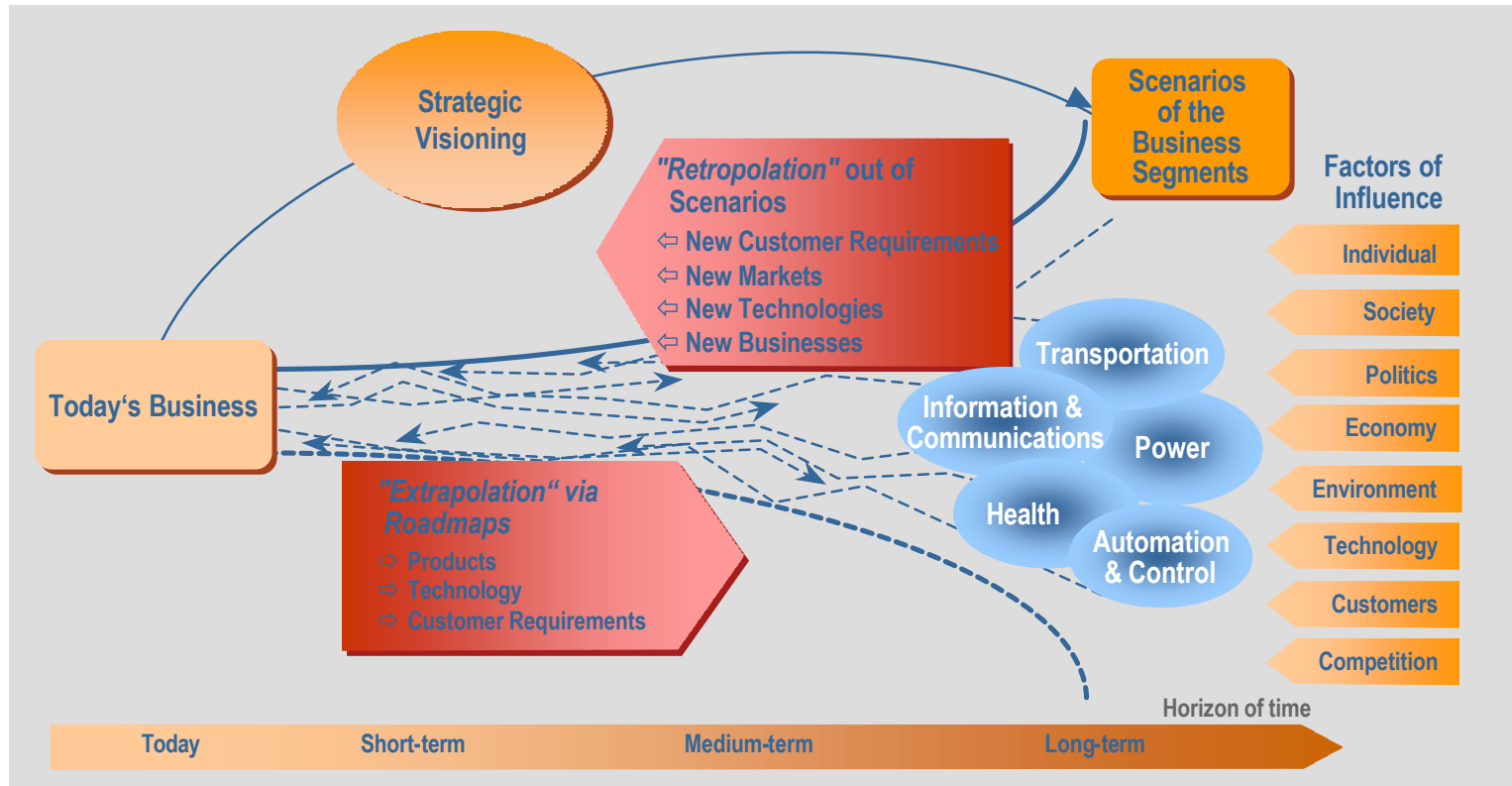


# Networking to the Groups: Key Account Managers Represent the Whole of CT's Technologies



▶ Key Account Managers act like heads of “virtual Group laboratories”

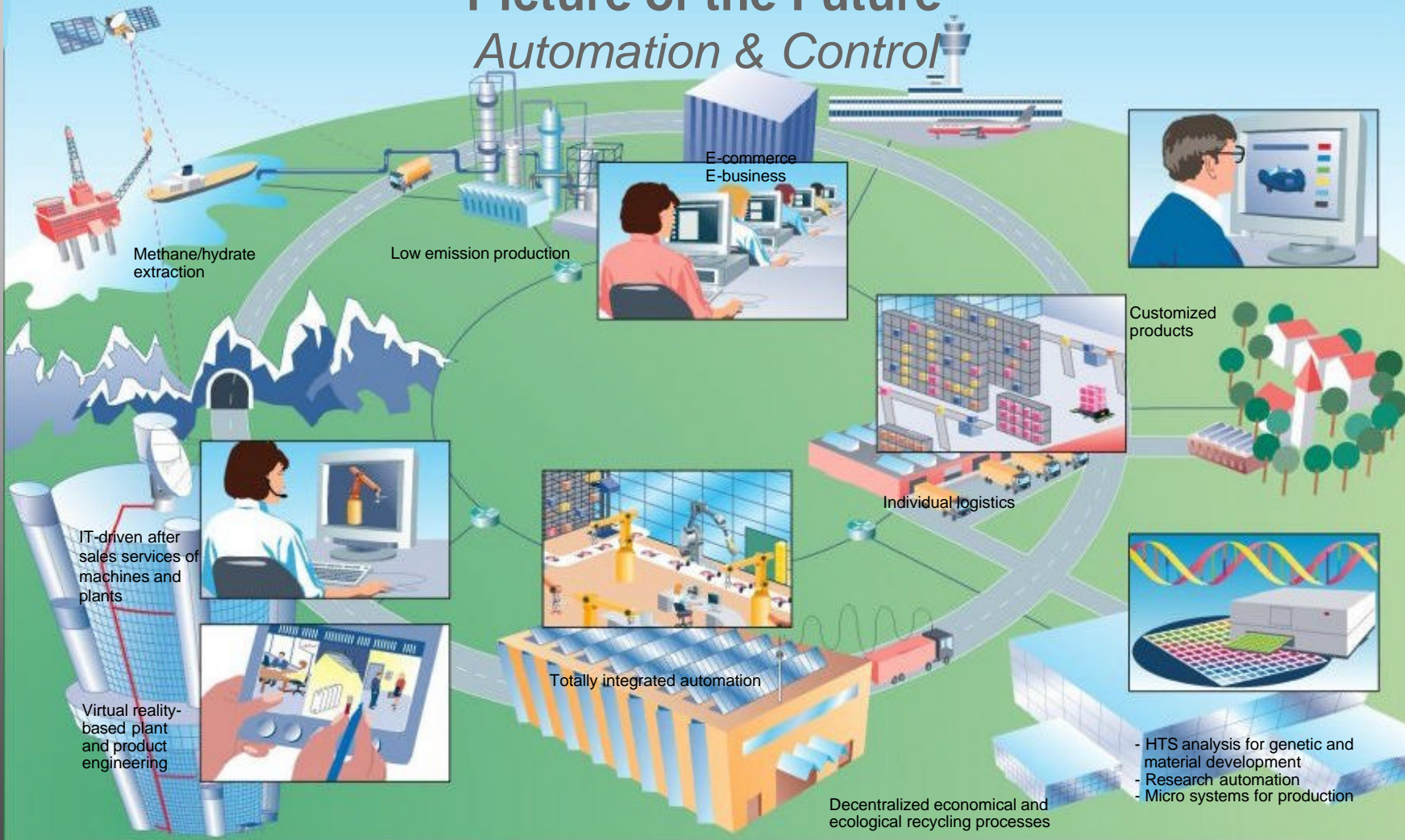
# Strategic Planning of Technologies & Innovations



# Picture of the Future Information & Communications



# Picture of the Future Automation & Control



CORPORATE TECHNOLOGY

# Picture of the Future *Transportation*



GPS positioning

Wireless communication networks

Dynamic Information displays

Personal travel assistant

Fleet management

Adaptive cruise control

Low/zero emission city

In-car navigation and information systems

Radio-based vehicle operations

Electronic ticket, hands free

Remote diagnosis and maintenance

Traffic data collection

Service centre (traffic information)

Electronic toll collection and enforcement

Magnetic Levitation Transrapid

Public transport fare management

Parking guidance system

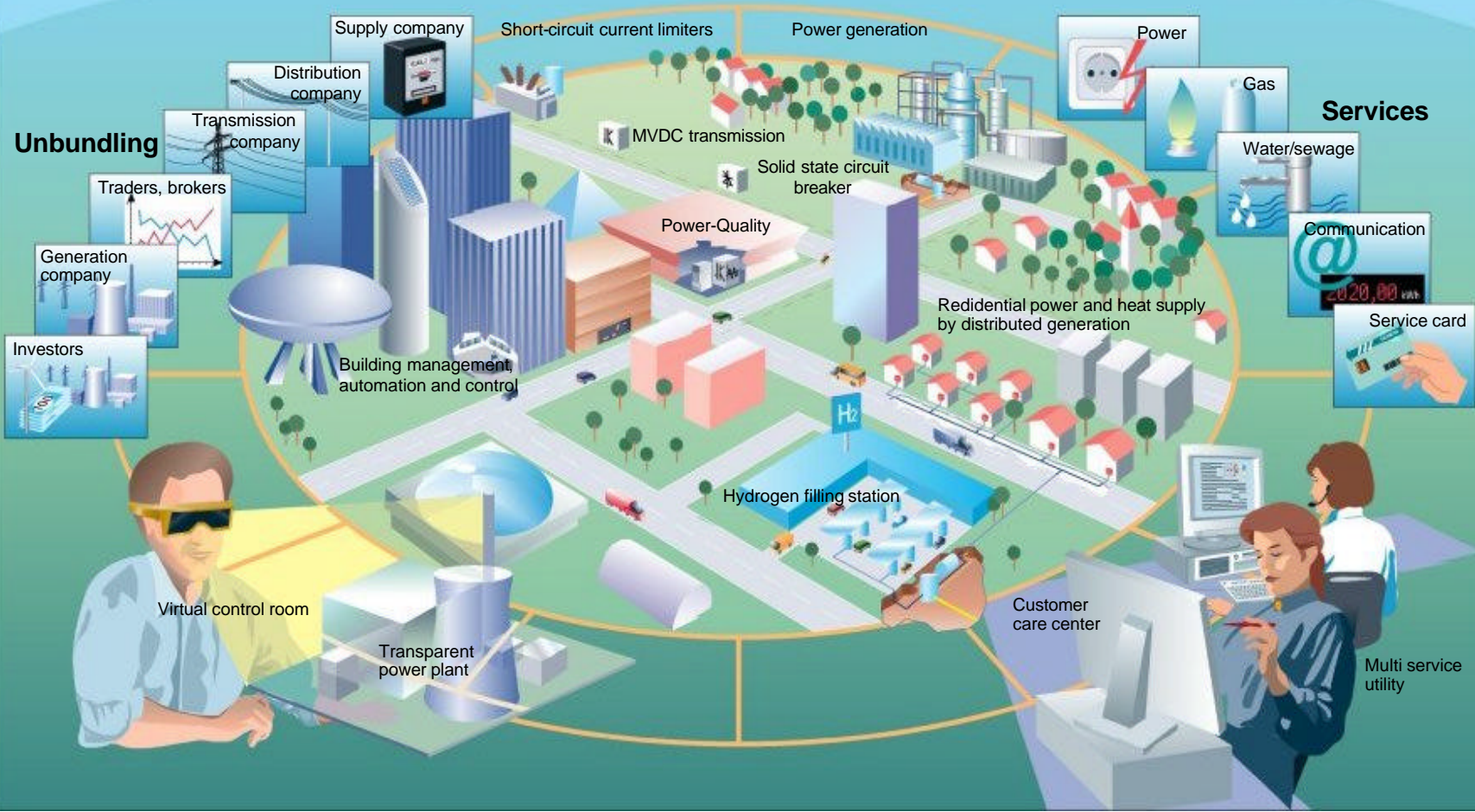
Smart safety systems

Environmentally-friendlier fuels

Dynamic passenger information

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# Picture of the Future *Power*



CORPORATE TECHNOLOGY

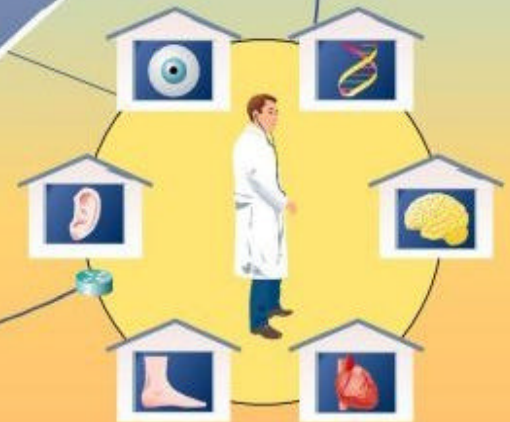
# Picture of the Future *Health*

## Internet Intermediaries

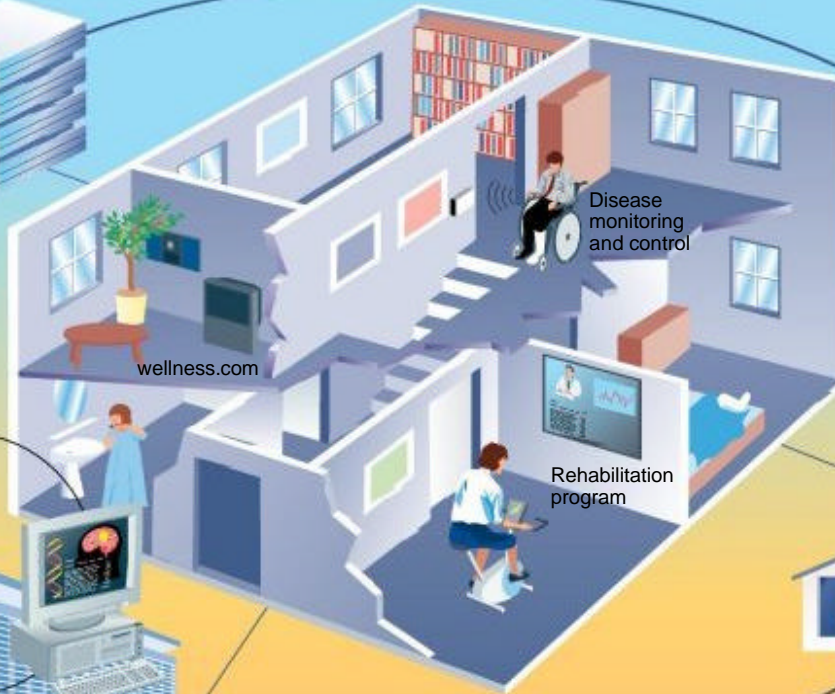
Health information & management systems



## Primary care physicians



## Care at home



Disease monitoring and control

Rehabilitation program

wellness.com

Integrated patient data

## Insurance companies



Economical optimization of cost and health



## Totally digital hospital

3D-scan data acquisition and diagnosis support



Roboter-assisted tele operation, minimally invasive



CORPORATE TECHNOLOGY



# Mission of Corporate Intellectual Property and Functions

- Protection of **Intellectual Property Rights**, including company names and trademarks, and protection of intellectual know-how, thus contributing to corporate competence and excellence
- Technical **Standardization and Regulation**, including testing, certification, and general issues; representation of these corporate issues to associations, standardization organizations, authorities and other external partners
- **Technical, scientific, and market oriented information** and its procurement.  
Provision of internal databases and external information services via a company wide network
- **Quality Management**: Definition of principles of corporate quality; development and approval of programs for quality improvement, as well as definition of standards
- **Environmental Affairs & Technical Safety**: Establishment of basics of corporate positions and their execution, incl. technical support and consulting to the corporation; audits, coordination

# Corporate Technology - Locations Worldwide

