



Analyzing Resources & Capabilities

OUTLINE

- **The role of resources and capabilities in strategy formulation.**
- **The resources of the firm**
- **Organizational capabilities**
- **Appraising the profit potential of resources and capabilities**
- **Putting resource and capability analysis to work—a practical guide**
- **Creating new capabilities.**

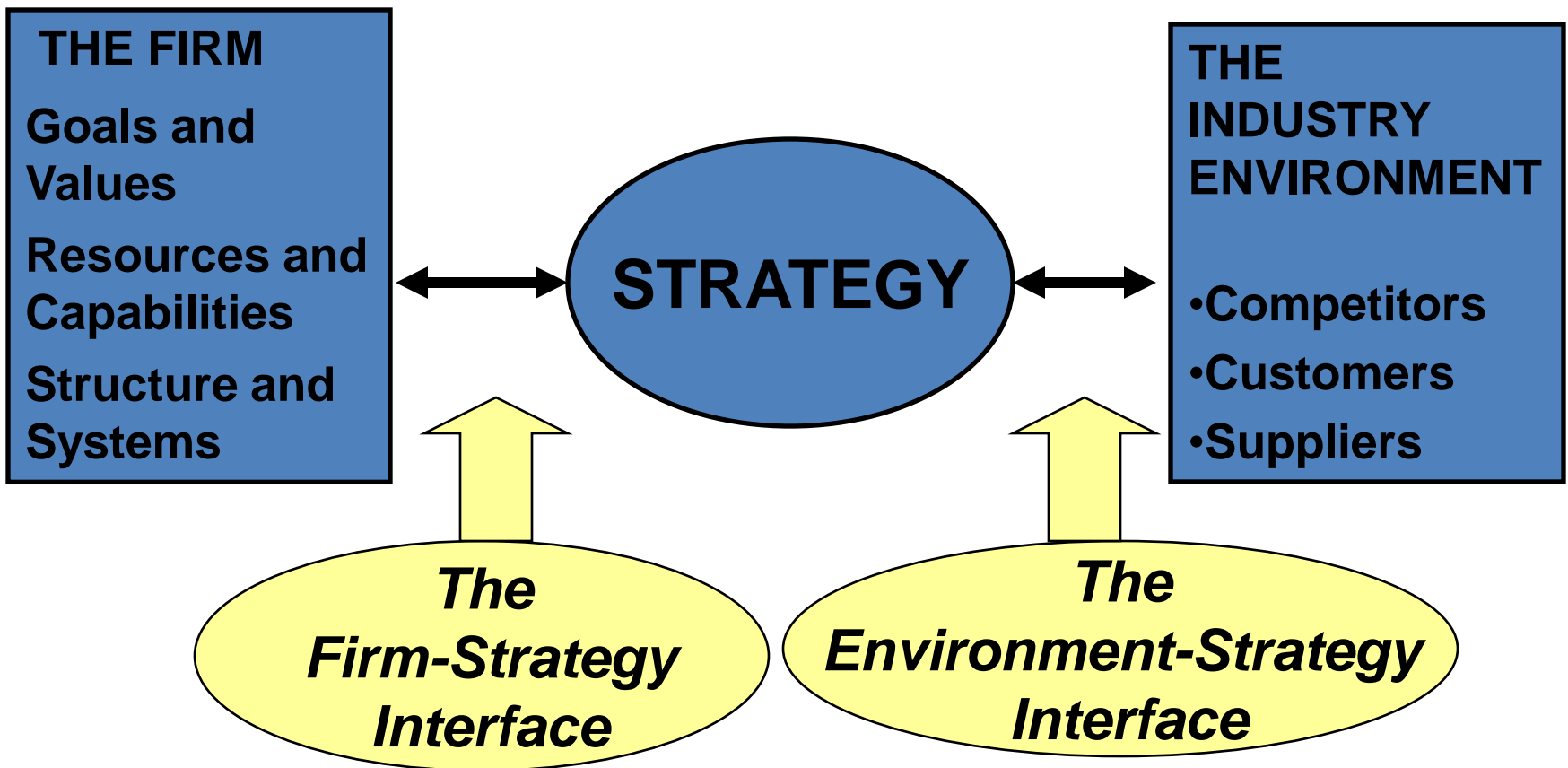


Implication of Industry Analysis for Strategy

- Provides a baseline for sizing up a company's strengths and weaknesses: where does the company stand versus buyers, suppliers, entrants, rivals, and substitutes?
- Strategic action
 - Positioning the company vis-à-vis the current competitive forces...PACCAR, heavy trucks;
 - Anticipating shifts in the forces and exploiting them...Dell; and
 - Shaping the balance of forces to create a new more favorable structure or one that favors the company...Intel



Shifting the Focus of Strategy Analysis: From the External to the Internal Environment



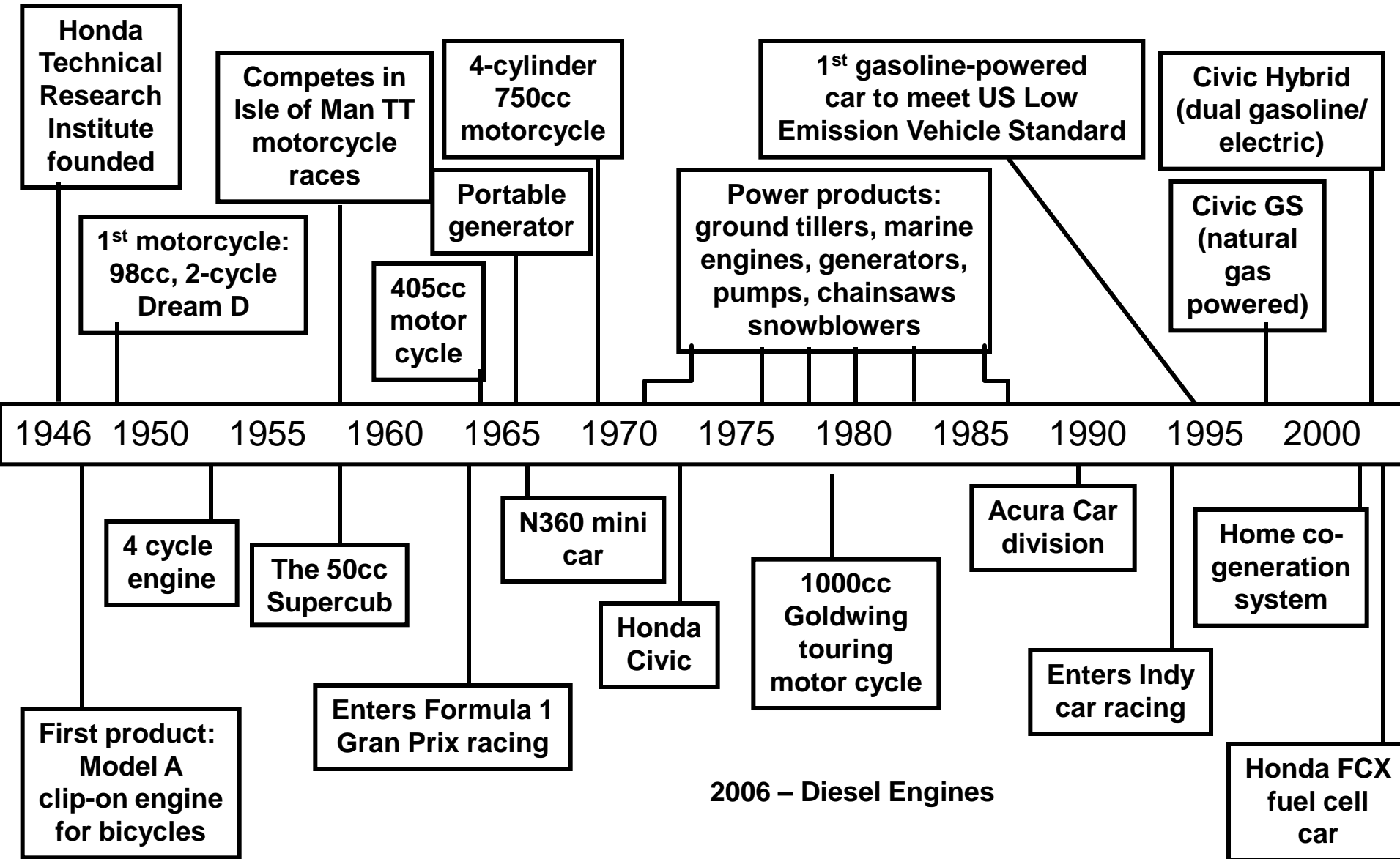


Rationale for the Resource-based Approach to Strategy

- **When the external environment is subject to rapid change, internal resources and capabilities offer a more secure basis for strategy than market focus.**
- **Resources and capabilities are the primary sources of profitability**

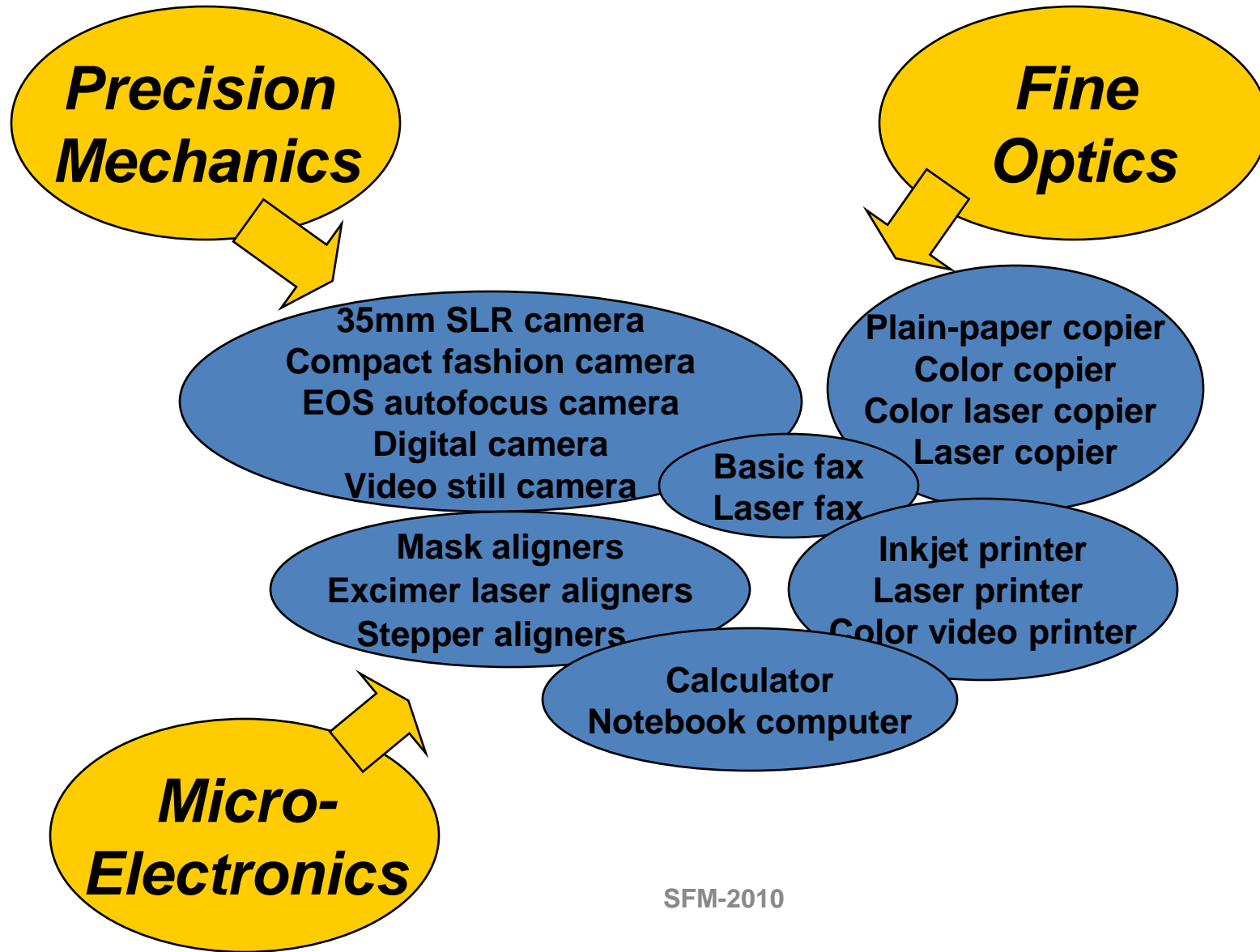


The Evolution of Honda Motor Company

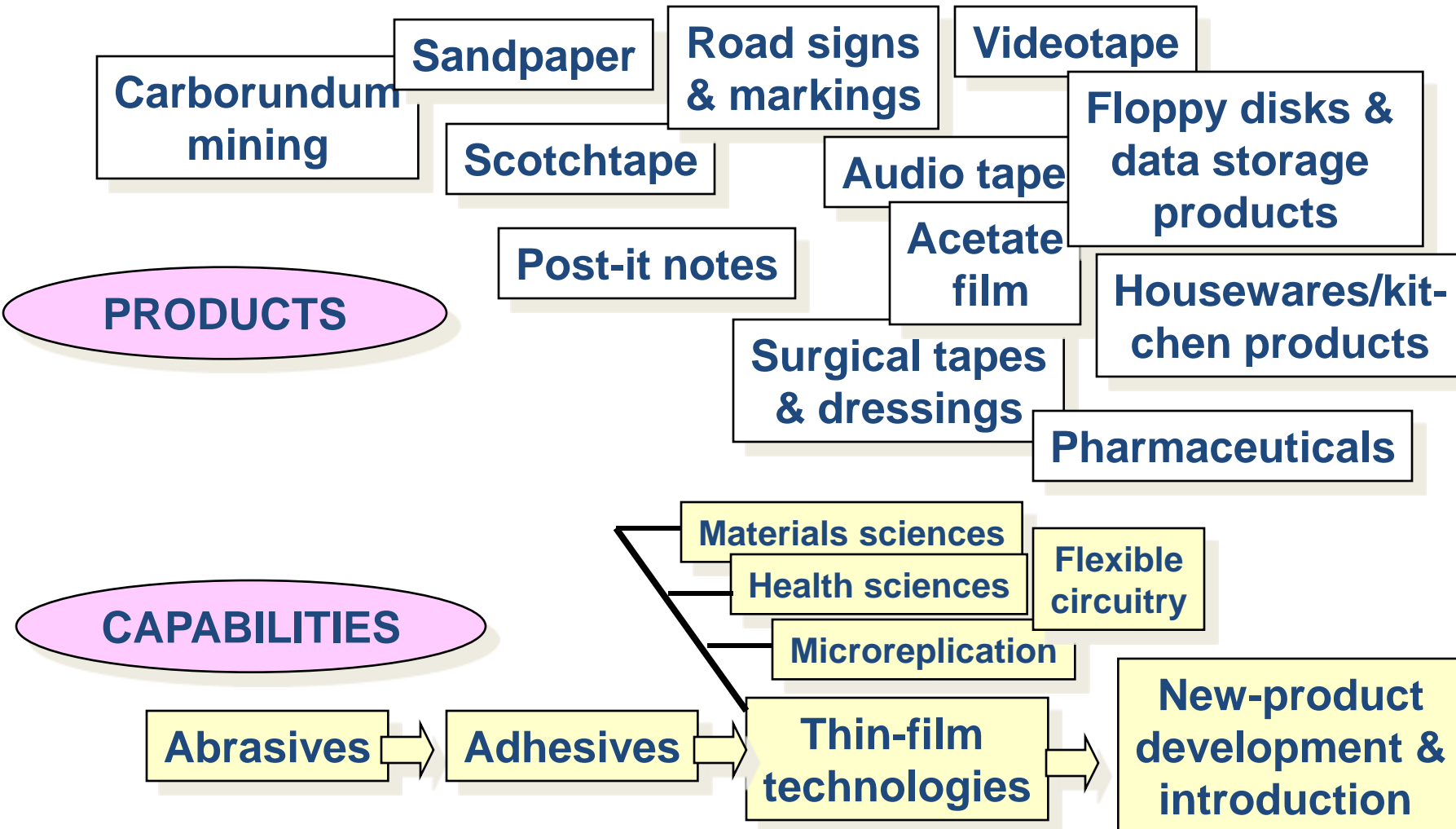


2006 – Diesel Engines

Canon: Products and Core Technical Capabilities



Links between Products & Capabilities: Capability-Based Strategy at 3M



Eastman Kodak's Dilemma

Resources & Capabilities

Chemical Imaging

- Organic Chemistry
- Polymer technology
- Optomechtronics
- Thin-film coatings

Brands

Global Distribution

Businesses

Film

Cameras

Fine Chemicals

Pharmaceuticals

Diagnostics

1980's

1990's

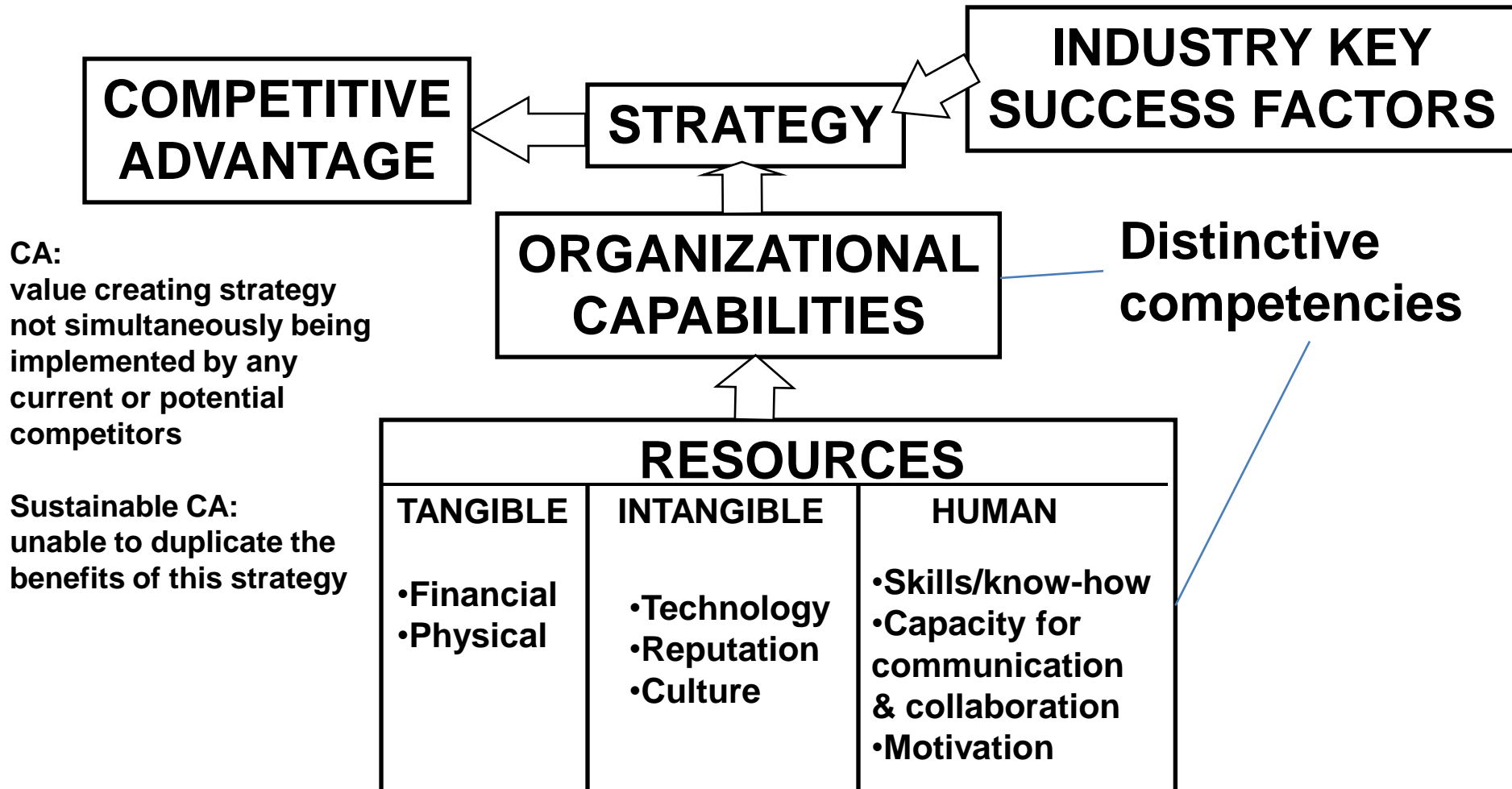
DIVESTS: Eastman Chemical, Sterling Winthrop, Diagnostics

Need to build digital imaging capability

Digital Imaging Products (e.g. Photo CD System; Advantix cameras & film)



The Links between Resources, Capabilities and Competitive Advantage



CA:
value creating strategy
not simultaneously being
implemented by any
current or potential
competitors

Sustainable CA:
unable to duplicate the
benefits of this strategy



Appraising Resources

RESOURCE	CHARACTERISTICS	INDICATORS
Tangible Resources	Financial Borrowing capacity Internal funds generation	Debt/ Equity ratio Credit rating Net cash flow
	Physical Plant and equipment: size, location, technology flexibility. Land and buildings. Raw materials.	Market value of fixed assets. Scale of plants Alternative uses for fixed assets
<u>Intangible Resources</u>	Technology Patents, copyrights, know how R&D facilities. Technical and scientific employees	No. of patents owned Royalty income R&D expenditure R&D staff
	Reputation Brands. Customer loyalty. Company reputation (with suppliers, customers, government)	Brand equity Customer retention Supplier loyalty
Human Resources	Training, experience, adaptability, commitment and loyalty of employees	Employee qualifications, pay rates, turnover.

Firms with the Highest Ratios of Market Value to Book Value

(December 2005)

<i>Company</i>	<i>Valuation ratio</i>	<i>Country</i>	<i>Company</i>	<i>Valuation ratio</i>	<i>Country</i>
Yahoo! Japan	72.0	Japan	Coca-Cola	7.8	US
Colgate-Palmolive	20.8	US	Diageo	7.4	UK
Glaxo Smith Kline	13.4	UK	3M	7.3	US
Anheuser-Busch	12.6	US	Nokia	6.7	Finland
eBay	11.2	US	Sanofi-Aventis	6.3	France
SAP	10.8	Germany	AstraZeneca	5.9	UK
Yahoo!	10.7	US	Johnson & Johnson	5.7	US
Dell Computer	10.0	US	Boeing	5.7	US
Sumitomo Mitsui Financial	8.8	Japan	Eli Lilly	5.6	US
Procter & Gamble	8.4	US	Cisco Systems	5.5	US
Qualcomm	8.3	US	Roche Holding	5.5	Switz.
Schlumberger	8.2	US	L'Oreal	5.3	France
Unilever	8.1	Neth/UK	Altria	5.2	US
PepsiCo	8.0	US	Novartis	5.1	Switz.



The World's Most Valuable Brands, 2006

<i>Rank</i>	<i>Company</i>	<i>Brand value (\$bn.)</i>	<i>Rank</i>	<i>Company</i>	<i>Brand value (\$bn.)</i>
1	Coca-Cola	67.5	11	Mercedes Benz	20.0
2	Microsoft	59.9	12	Citi	20.0
3	IBM	53.4	13	Hewlett-Packard	18.9
4	GE	47.0	14	American Express	18.6
5	Intel	35.6	15	Gillette	17.5
6	Nokia	26.5	16	BMW	17.1
7	Disney	26.4	17	Cisco	16.6
8	McDonald's	26.0	18	Louis Vuitton	16.1
9	Toyota	24.8	19	Honda	15.8
10	Marlboro	21.2	20	Samsung	15.0

Source: Interbrand

Identifying Organizational Capabilities: A Functional Classification

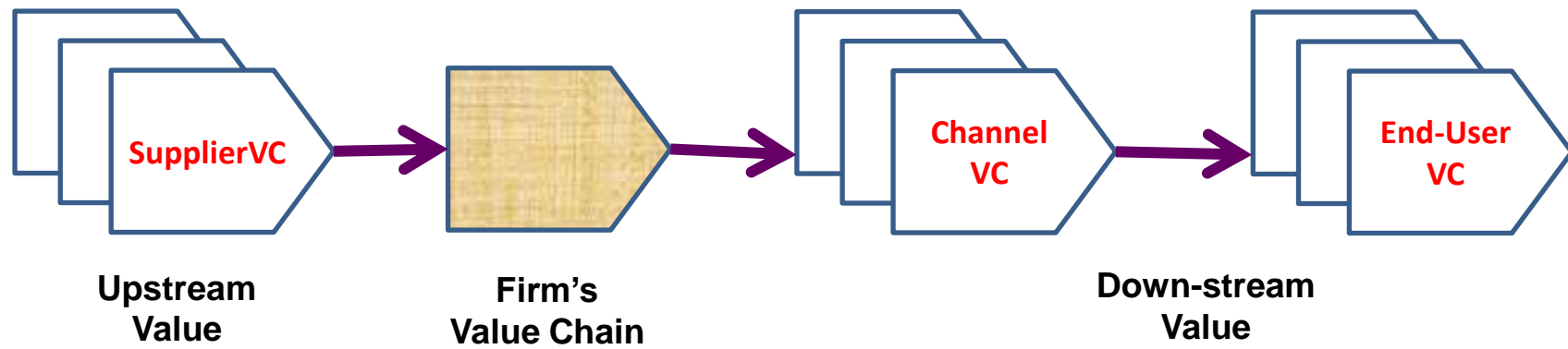
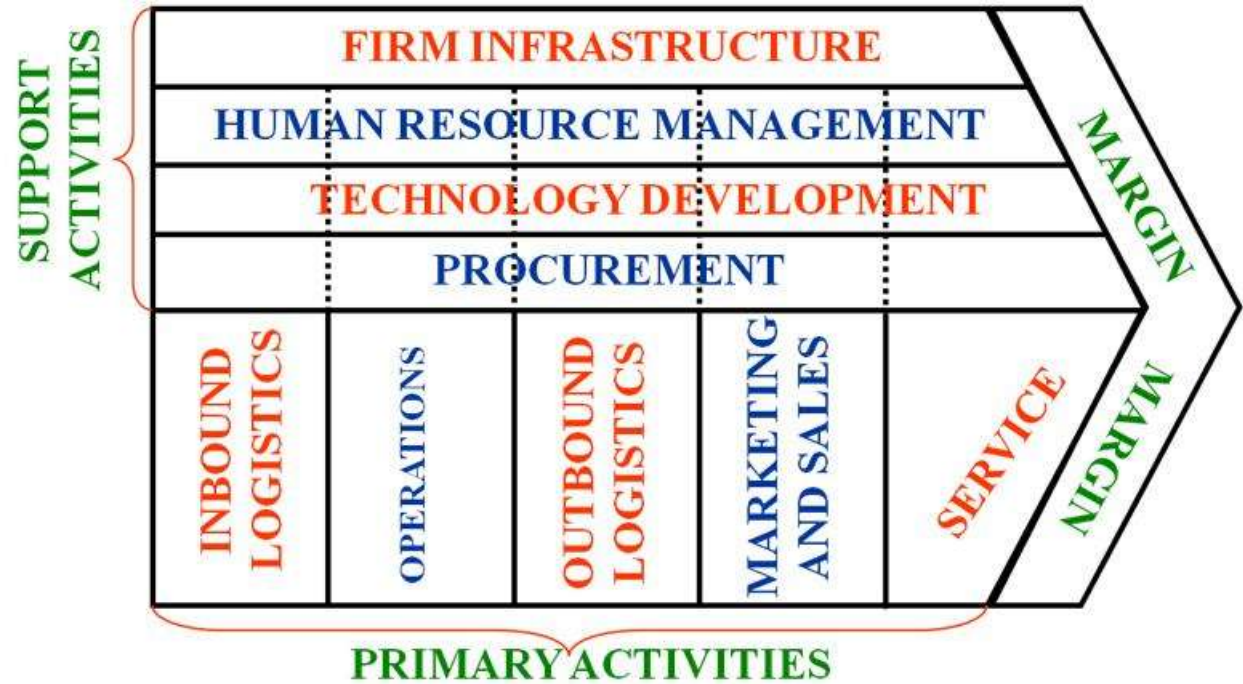
FUNCTION	CAPABILITY	EXEMPLARS
Corporate Management	Financial management Strategic control Coordinating business units Managing acquisitions	ExxonMobil, GE IBM, Samsung BP, P&G Citigroup, Cisco
MIS	Speed and responsiveness through rapid information transfer	Wal-Mart, Dell Capital One
R&D	Research capability Development of innovative new products	Merck, IBM Apple, 3M
Manufacturing	Efficient volume manufacturing Continuous Improvement Flexibility	Briggs & Stratton Nucor, Harley-D Zara, Four Seasons
Design	Design Capability	Apple, Nokia
Marketing	Brand Management Quality reputation Responsiveness to market trends	P&G, LVMH Johnson & Johnson MTV, L'Oreal
Sales, Distribution & Service	Sales Responsiveness Efficiency and speed of distribution Customer Service	PepsiCo, Pfizer LL Bean, Dell Singapore Airlines Caterpillar



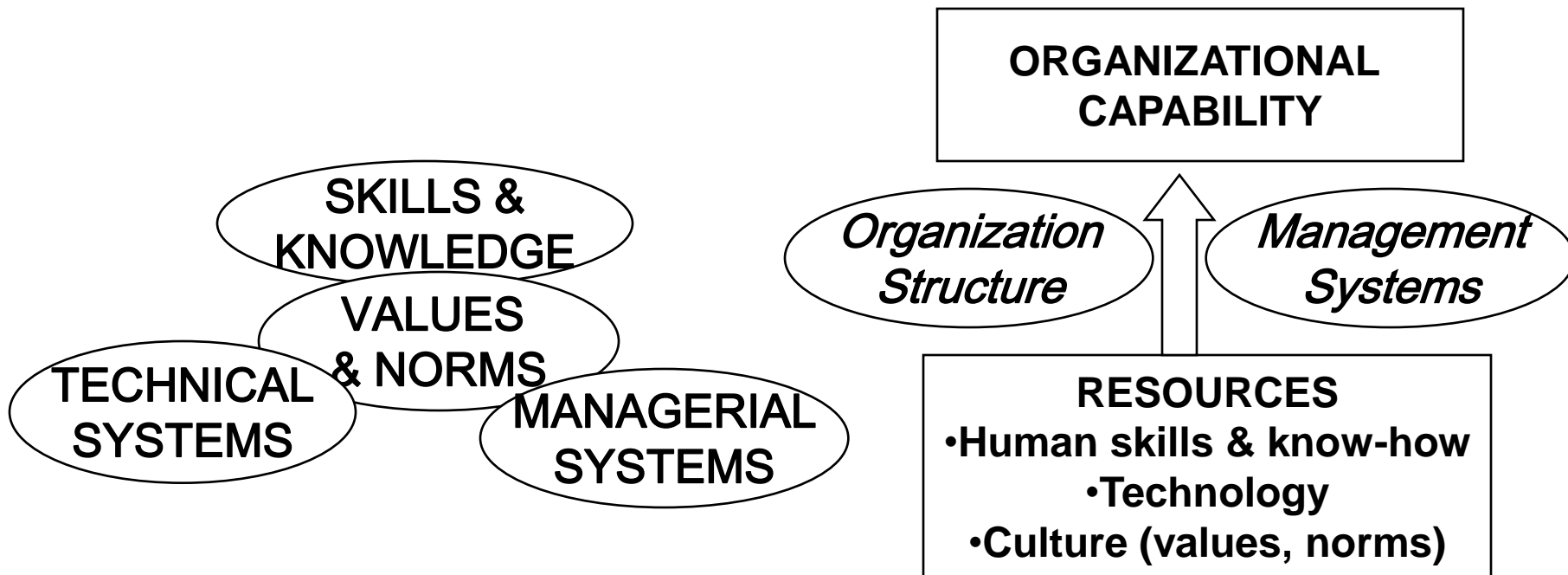
The Value Chain: The McKinsey Business System



Identifying Organizational Capabilities: Value Chain



The Architecture of Organizational Capability



Dorothy Leonard “Core Capabilities & Core Rigidities”

A modified view



A Hierarchy of Capabilities: A Telecom Manufacturer

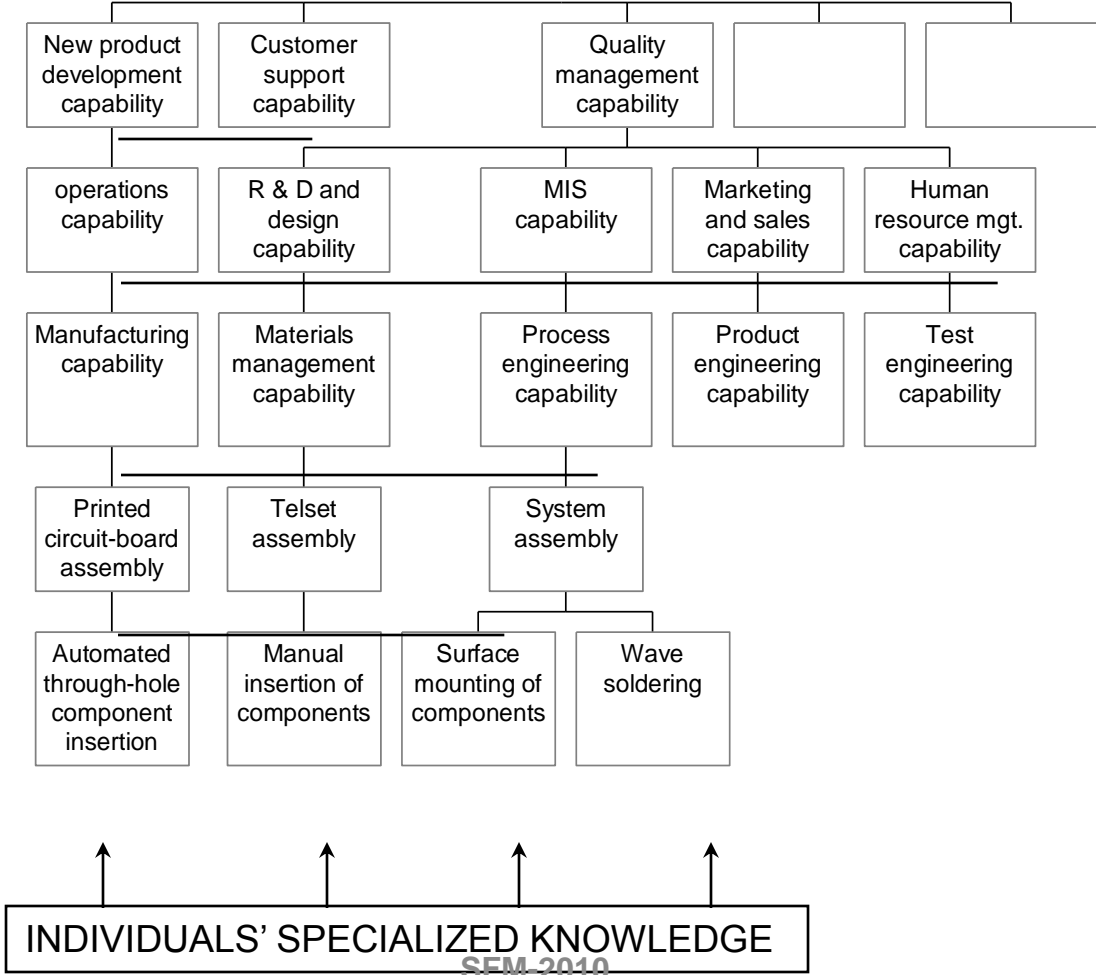
CROSS FUNCTIONAL CAPABILITIES

BROAD FUNCTIONAL CAPABILITIES

ACTIVITY RELATED CAPABILITIES
(Operations related only)

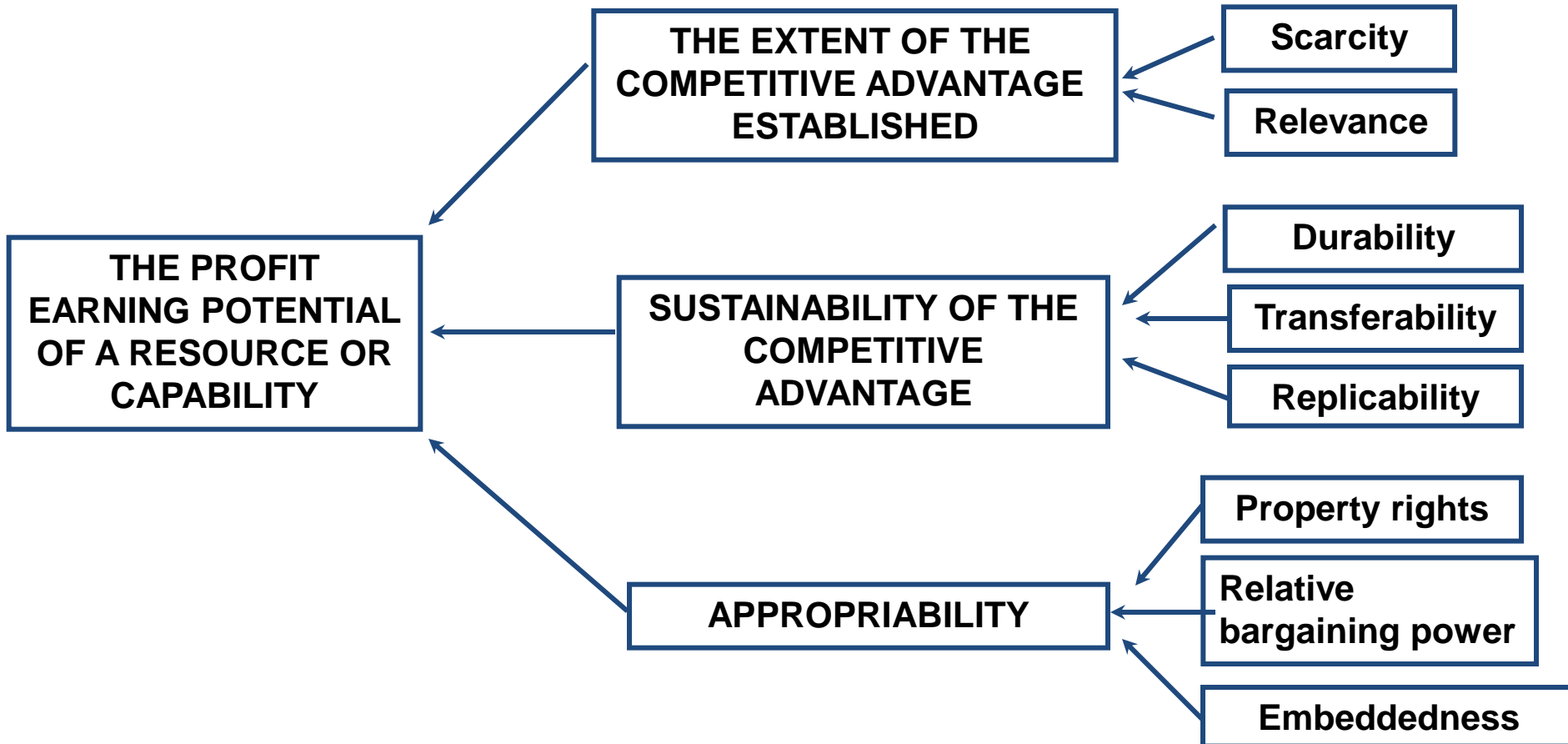
SPECIALIZED CAPABILITIES
(Manufacturing related only)

SINGLE-TASK CAPABILITIES (Only those related to PCB assembly)



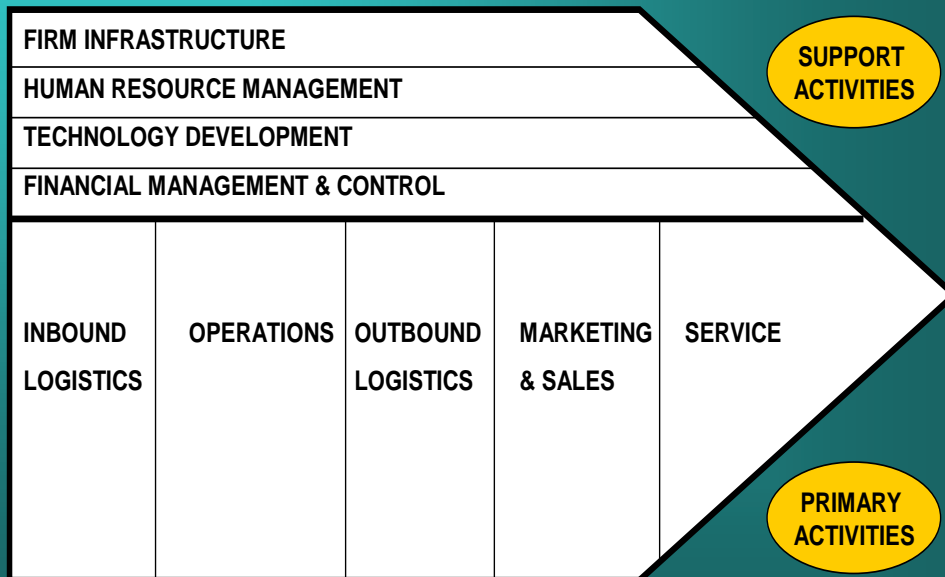


The Rent-Earning Potential of Resources and Capabilities



Two approaches to identifying an organization's resources and capabilities

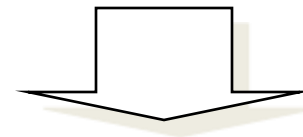
Starting from the inside



Starting from the outside

Key Success Factors

- How do customers choose?
- What do we need to survive competition?



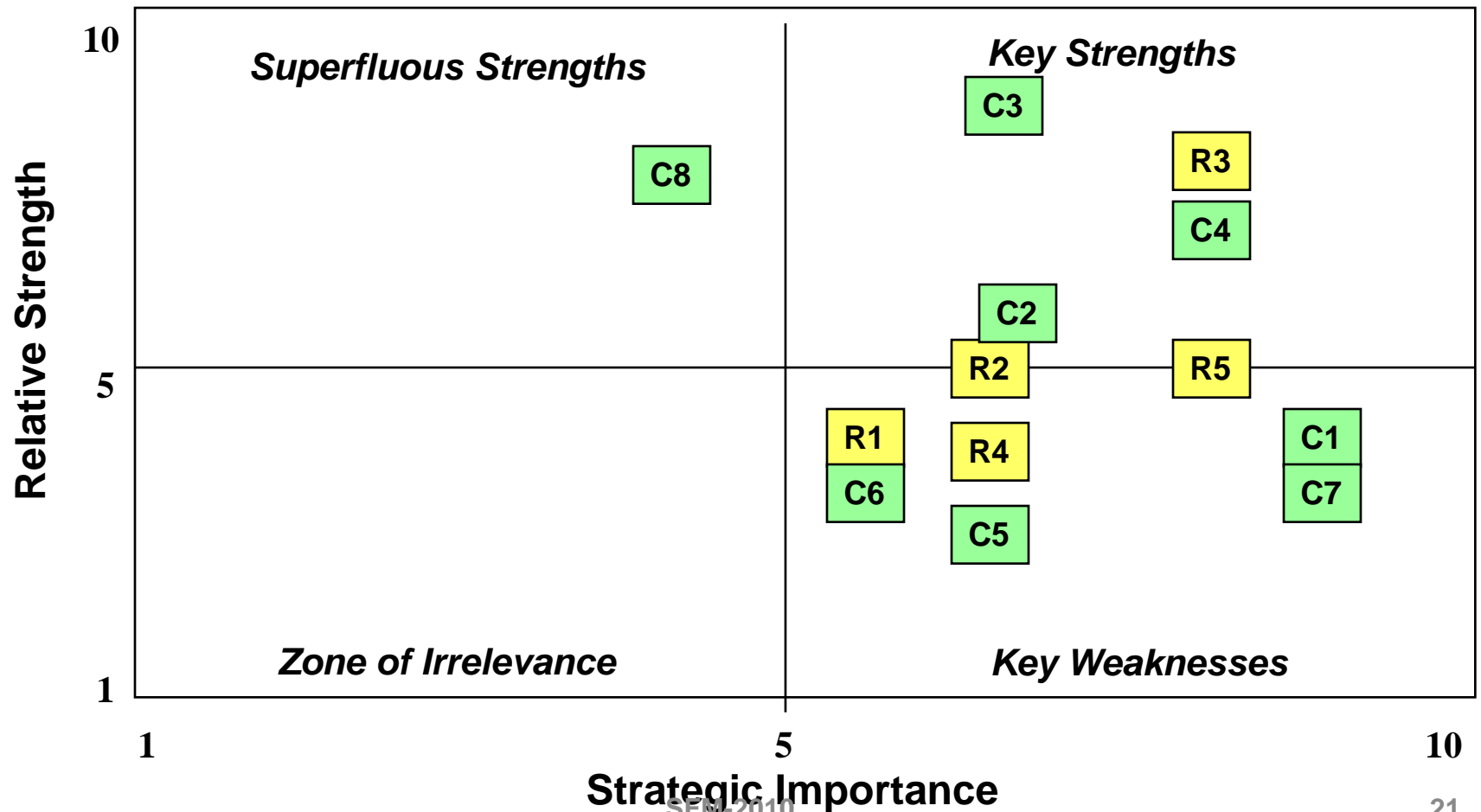
What resources & capabilities do we need to deliver these KSFs?

Assessing a Companies Resources and Capabilities: The Case of VW

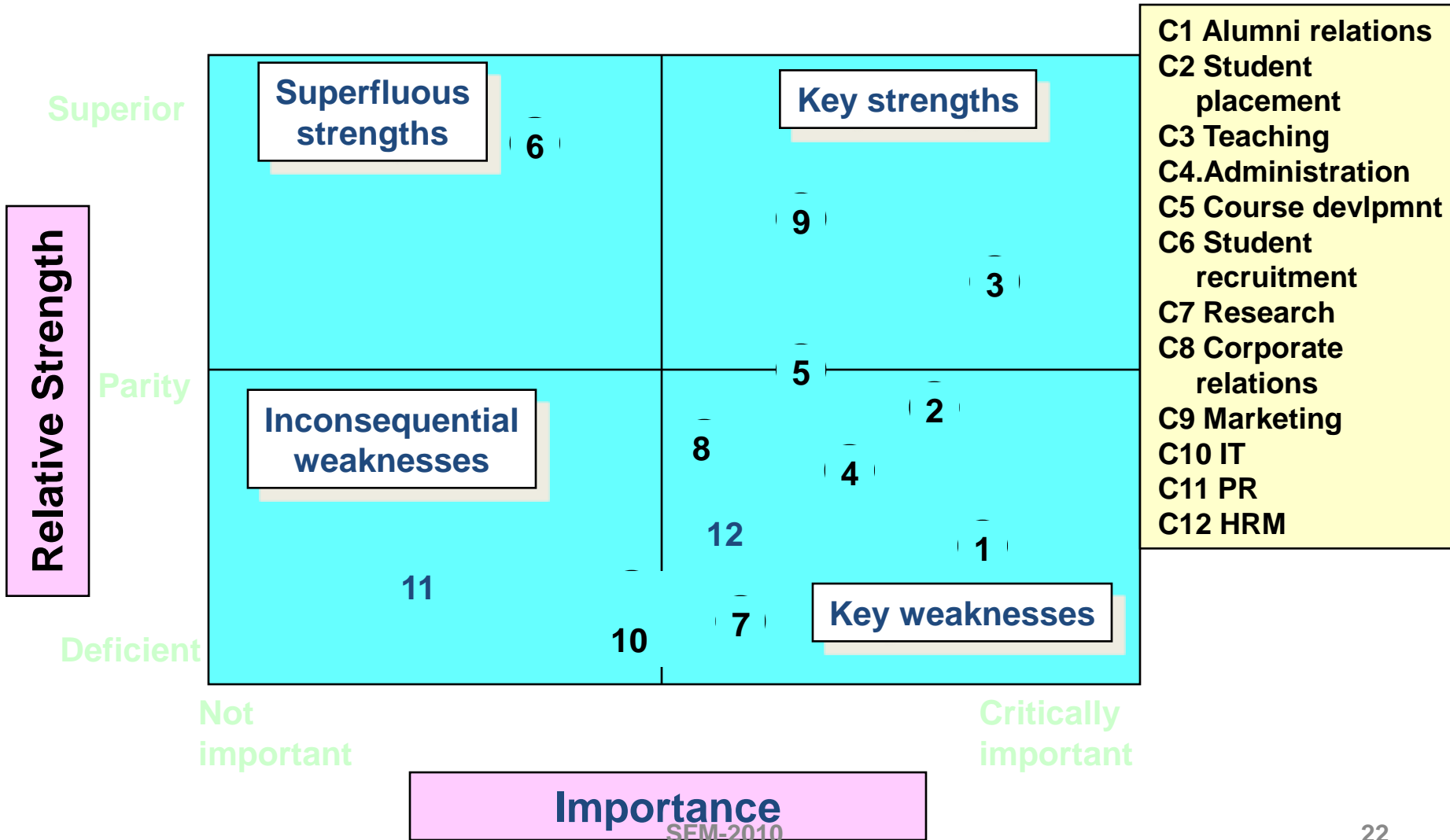
RESOURCES	<i>Importance</i>	<i>VW's Relative Strength</i>	CAPABILITIES	<i>Importance</i>	<i>VW's Relative Strength</i>
R1. Finance	6	4	C1. Product development	9	4
R2. Technology	7	5	C2. Purchasing	7	5
R3. Plant and equipment	8	8	C3. Engineering	7	9
R4. Location	7	4	C4. Manufacturing	8	7
R5. Distribution	8	5	C5. Financial management	6	3
			C6. R&D	6	4
			C7. Marketing & sales	9	4
			C8. Government relations	4	8

Appraising VW's Resources and Capabilities

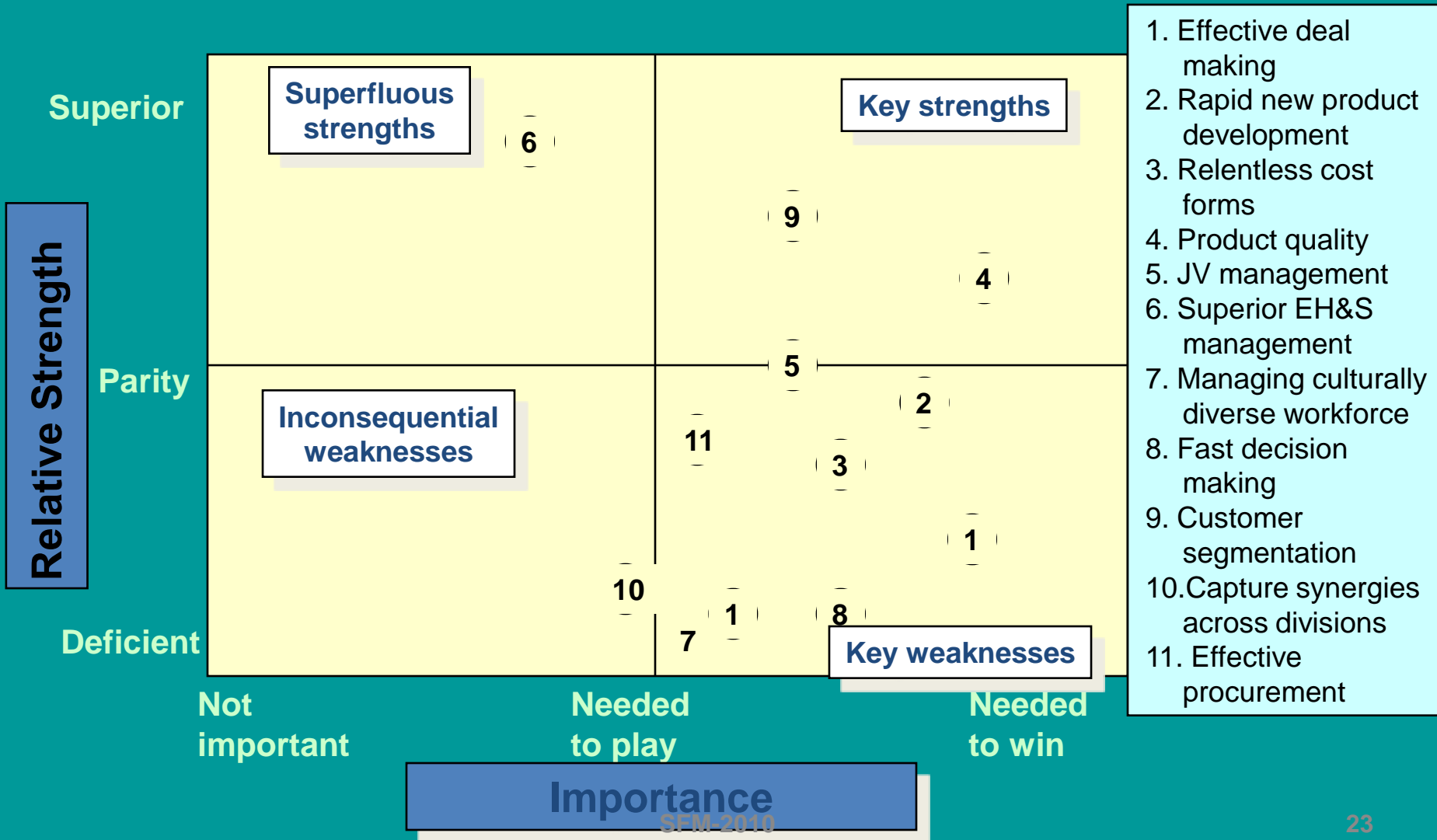
(Hypothetical only)



Appraising the Capabilities of a Business School (illustrative only)



Amoco's Appraisal of Organizational Capabilities (illustrative only)



Distinctive Capabilities as a Consequence of Childhood Experiences

<i>Company</i>	<i>Capability</i>	<i>Past History</i>
Exxon	Financial management	Exxon's predecessor, Standard Oil (NJ) was the holding co. for Rockefeller's Standard Oil Trust
RD/ Shell	Coordinating decentralized global empire	Shell a j-v formed from Shell T&T founded to sell Russian oil in China, and Royal Dutch founded to exploit Indonesian reserves
BP	"Elephant hunting"	Discovered huge Persian reserves, went on to find Forties Field and Prudhoe Bay
ENI	Deal making in politicized environments	The Enrico Mattei legacy; the challenge of managing government relations in post-war Italy
Mobil	Lubricants	Vacuum Oil Co. founded in 1866 to supply patented petroleum lubricants

Approaches to Capability Development

- 1) **Acquire and develop the underlying resources. Especially human resources**
 - Externally (hiring)
 - Internally through developing individual skills
- 2) **Acquire/access capabilities externally through acquisition or alliance**
- 3) **Greenfield development of capabilities in separate organizational unit (IBM & the PC, Xerox & PARC, GM & Saturn)**
- 4) **Build team-based capabilities through training and team development (i.e. develop *organizational routines*)**
- 5) **Align structure & systems with required capabilities**
- 6) **Change management to transform values and behaviors (GE, BP)**
- 7) **Product sequencing (Intel , Sony, Hyundai)**
- 8) **Knowledge Management (systematic approaches to acquiring, storing, replicating, and accessing knowledge)**

Product Sequencing to Build Capabilities: Hyundai

Capabilities

- Assembly
- Production engineering
- Local marketing

- Auto styling & design
- Casting & forging
- Chassis design
- Tooling
- Body production
- Export mktg.

- FWD engineering
- CAD/CAM
- Assembly control systems
- Advanced component handling

- Hydrodynamics
- Thermodynamics
- Fuel engineering
- Emission control
- Lubrication
- Kinetics & vibration
- Ceramics
- Electronic control systems

- Large-scale design integration
- Global logistics
- Lifecycle engineering

Products

SKD CKD
Ford Cortina

Pony

Excel

'Alpha'
engine

Accent
Avante
Sonanta

1968

1970

1974

1985

1994-95

SPM-2010

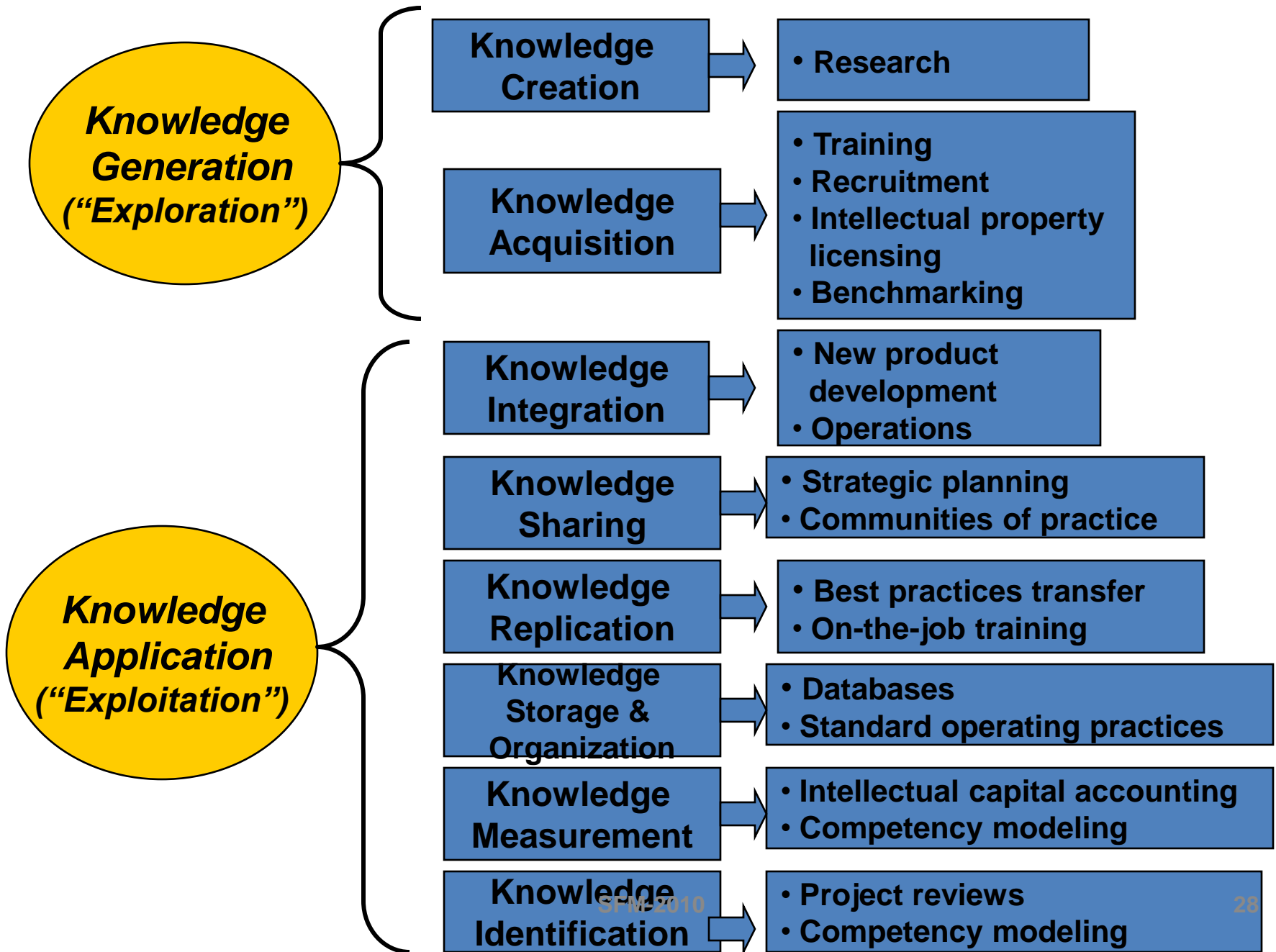
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Knowledge Management and the Knowledge-based View of the Firm

OUTLINE

- 1) Why the surge of interest in knowledge management (KM)?
 - kn. as the key resource of the firm
 - giving us a better understanding of management
- 2) What is KM?
- 3) What progress have we made, what are the key gaps, which areas are likely to add most value?
- 4) Developing strategy: Exploiting strengths, protecting and eliminating weaknesses
- 5) Building the capability base: Can it be done? How?
- 6) What can be learn from Knowledge Management?
- 7) Implications for organizational structure.

Knowledge Processes within the Organization



Nonaka's Knowledge Conversion Matrix

Tacit
Knowledge

TO

Explicit
Knowledge

Tacit
Knowledge

SOCIALIZATION
Sharing of tacit knowledge among individuals and from the organization to the individual

EXTERNALIZATION
The articulation and systematization of tacit into explicit knowledge. Use of metaphor to communicate tacit concepts

FROM

Explicit
Knowledge

INTERNALIZATION
Instructions and principles are converted into intuition and routines

COMBINATION
A key role of information systems is to combine different units of information and other forms of explicit knowledge

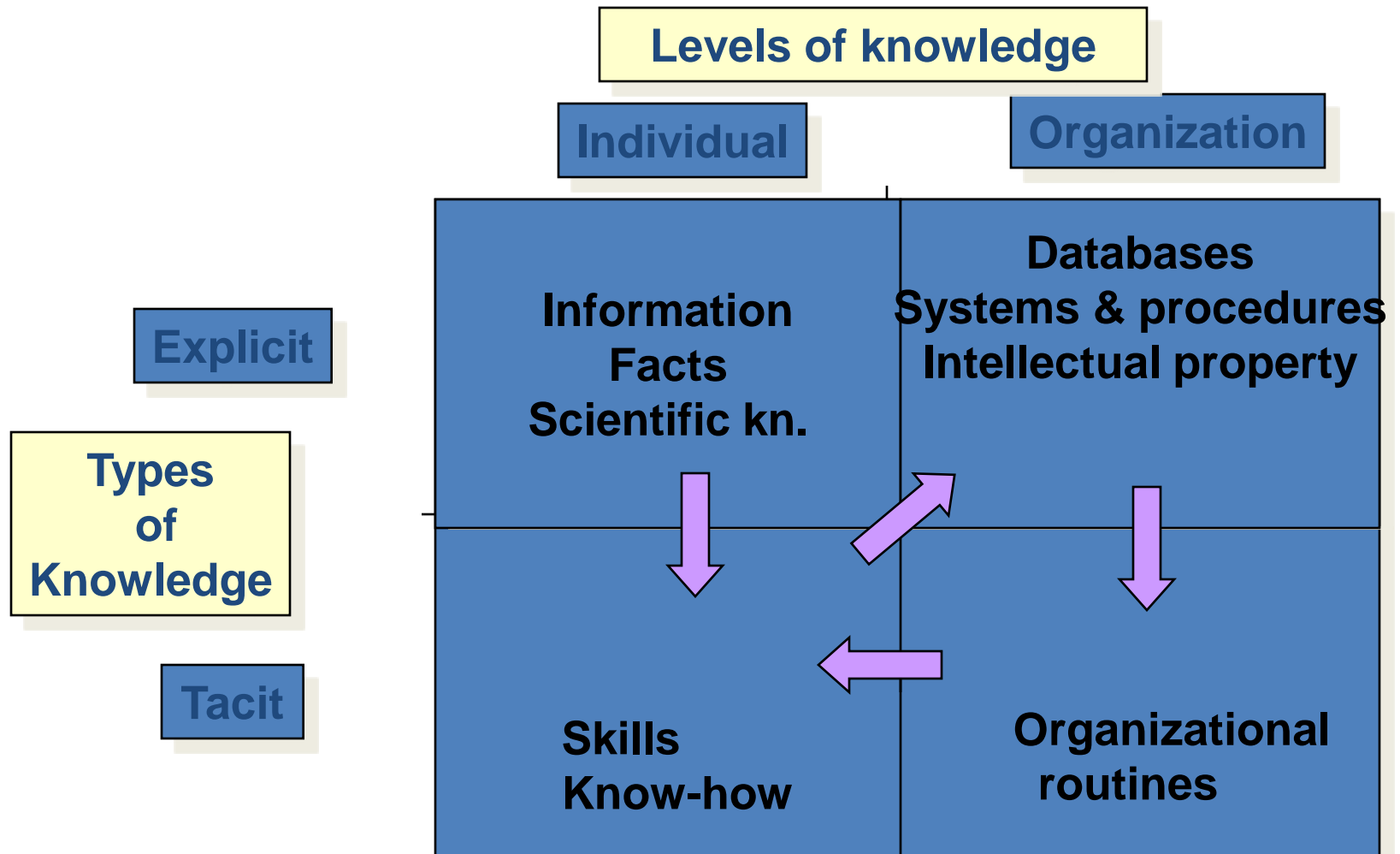
What is Knowledge Management?



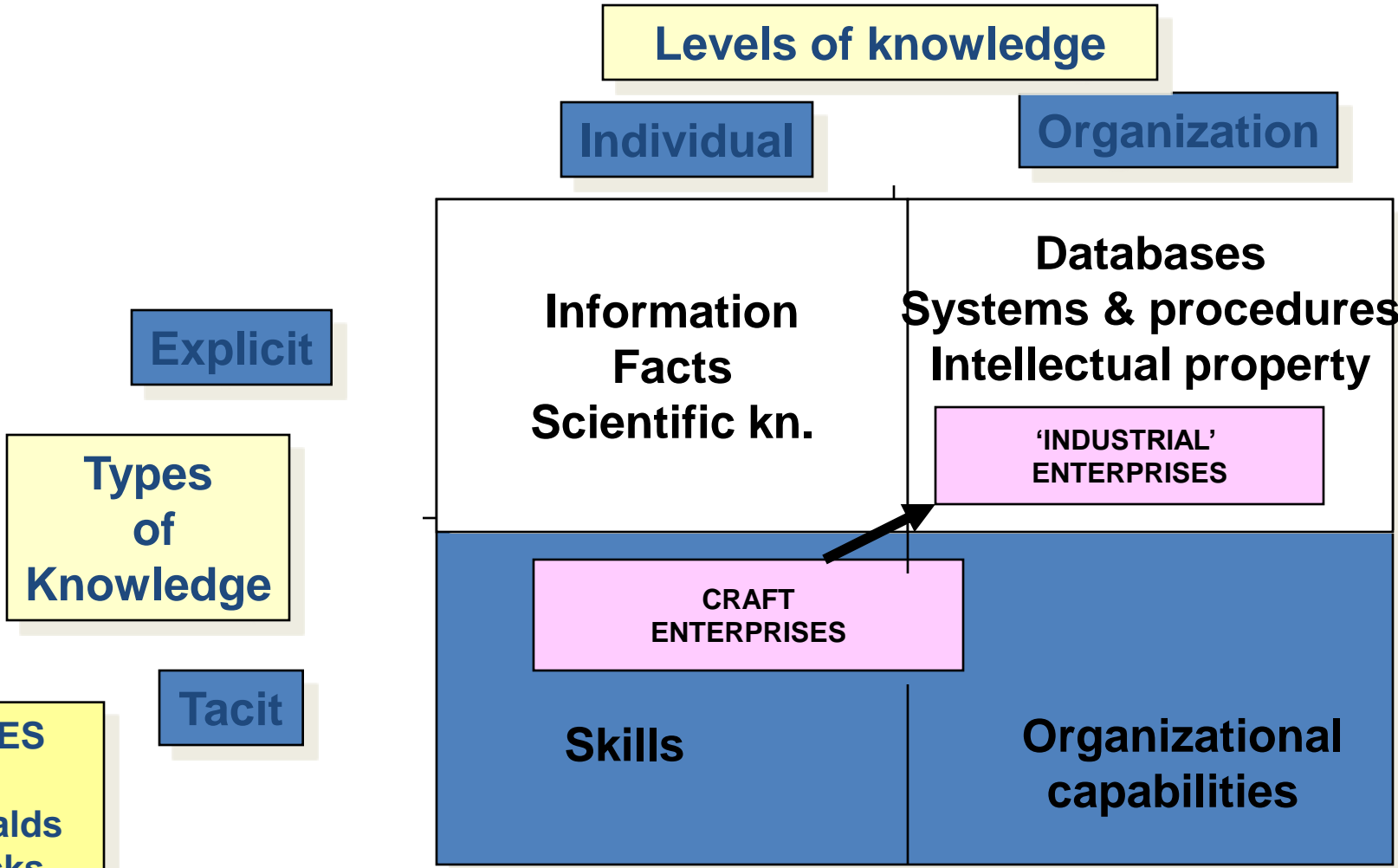
Definition:

“The systematic leveraging of information and expertise to improve organizational innovation, responsiveness, productivity and competency.” (Lotus division of IBM)

Types & Levels of Knowledge (and Knowledge Conversion)

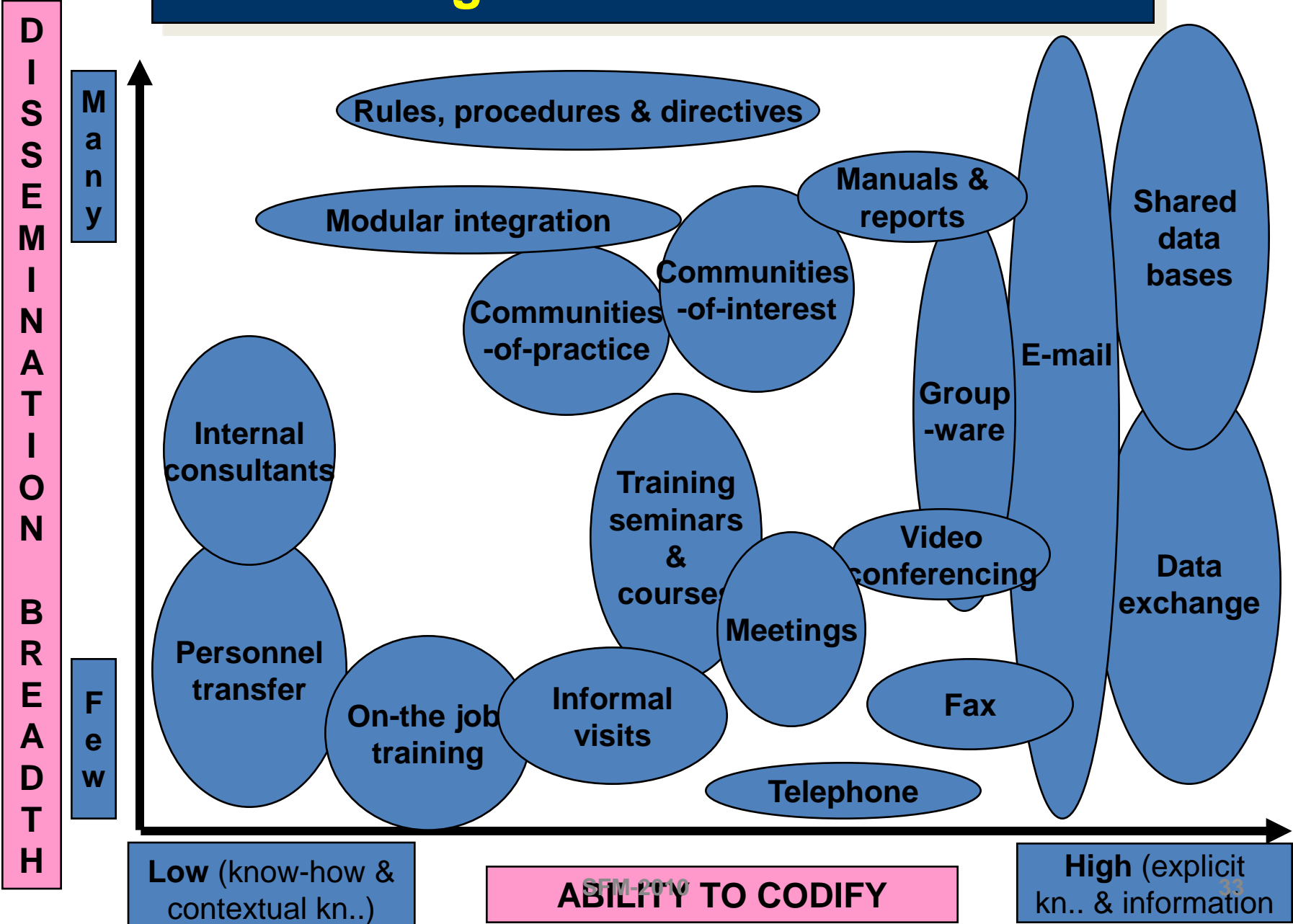


Replication through Knowledge Systematization



- EXAMPLES**
- Ford
 - McDonalds
 - Starbucks
 - Accenture

Knowledge Transfer Mechanisms

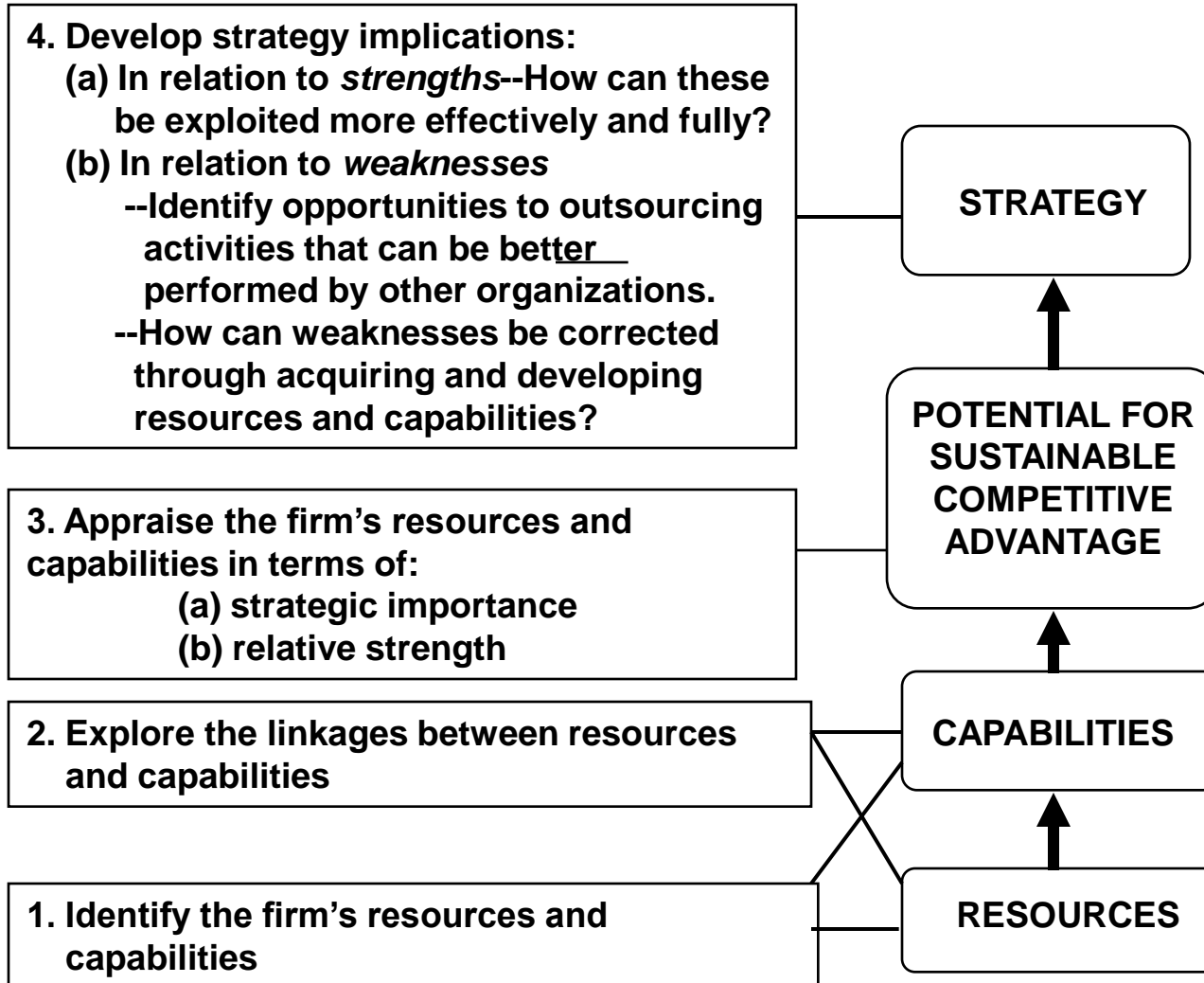


Designing a Knowledge Management System

- ***What kn. processes which are critical to creating value & competitive advantage?***
 - Dow: creating and exploiting patents
 - McKinsey & Co.: sharing kn. & retaining experienced consultants
 - Accenture: systematization.)
- ***What are the characteristics of the relevant kn.?***
- ***What mechanisms are needed for the generation and application of the relevant kn.?***
- ***What organizational conditions need to be in place in order for knowledge management mechanisms to work?***
 - Organizational structures
 - Incentives to contributors and users
 - Behavioral norms and values



Summary: A Framework for Analyzing Resources and Capabilities





Tata Indica: 1995-1998

- From 48 months and Rs 12750 crores to 31 months and Rs.1700 crores, breaking even within 18-24 months
- Appraise competency gaps & closing the same by
 - Stretching resources
 - Accumulating resources
 - Concentrating resources
 - Complementing resources



Resources: in 5 Categories

Tata Indica

- Financial: Rs. 1500 crores as against 12,750 crores (R1)
- Physical: Manufacturing facilities – (R2)
- Technological: Engineering Research Center (ERC) (R3)
- Reputational : strong Tata brand (R4)
- HR: Design team (R5)



Capabilities

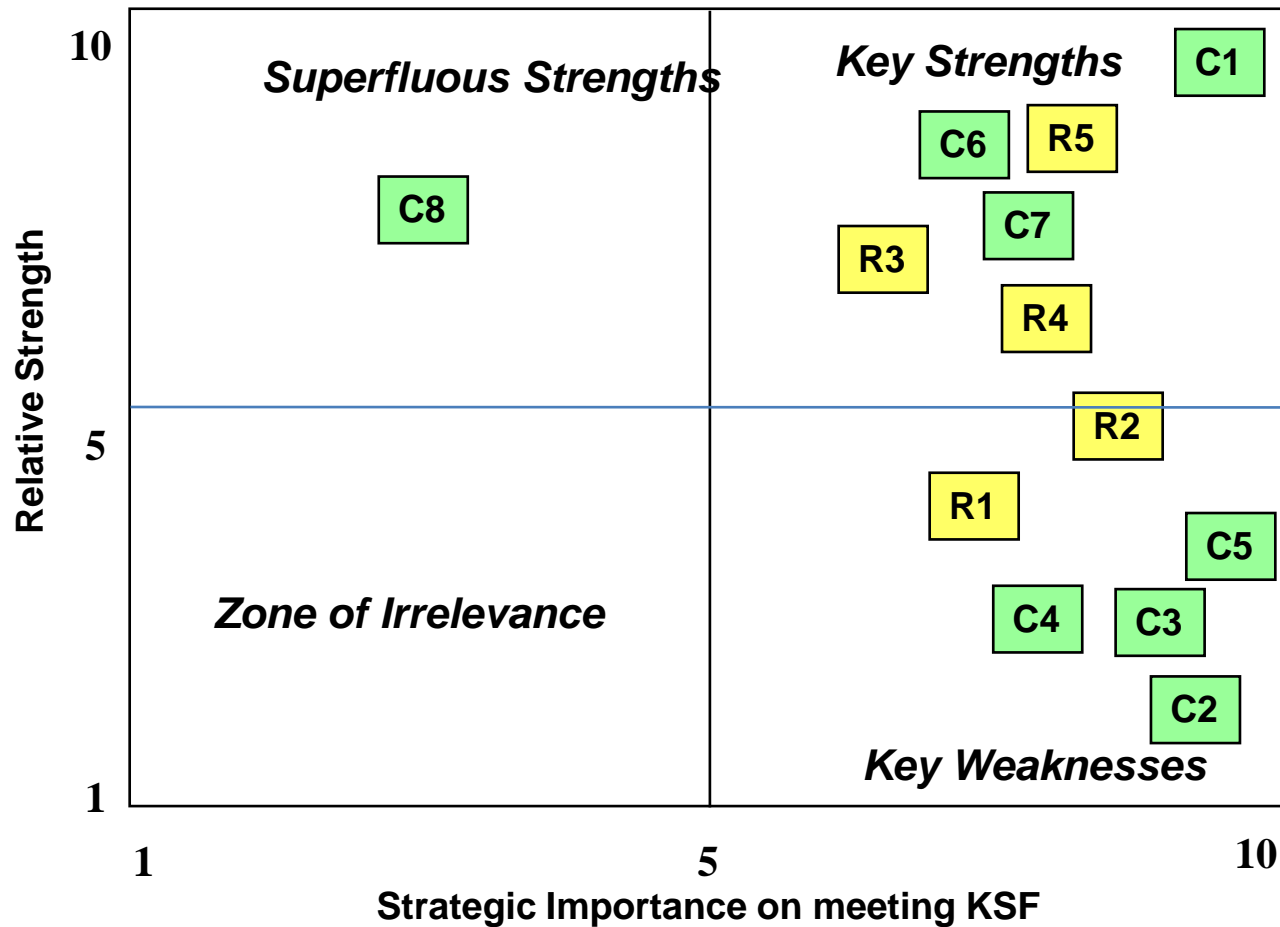
- What a firm can do as a result of resources working together
- Tata Indica
 - C1: Leadership of Ratan Tata, Tata culture
 - C2 – Designing: MPFI, Monocoque body design, interior, frequency
 - C3 – Manufacturing: small engines, machine tools, vendor network, assembly line
 - C4 – Marketing: sales & service network, customer knowledge, passenger culture
 - C5: Supply chain management



KSF: Passenger Car Industry As Perceived by Ratan Tata

- From an integrated truck manufacturer to an Automobile integrator - SCM;
- From a product driven company to competence-centric company;
- From an engineering-oriented operation to a strategy-fixation enterprise;
- From an inward-focused company to a partnership-powered company;
- from a local company to a global corporation;
- from an efficient organization to a world-class organization

Tata Indica



C1: Leadership of Ratan Tata, Tata culture

C2 – Designing: MPFI, Monocoque body design, interior, frequency

C3 – Manufacturing: small engines, machine tools, vendor network, assembly line

C4 – Marketing: sales & service network, customer knowledge, passenger culture

C5: Supply chain management



By stretching resources

- Engine manufacturing facilities and skills utilized to manufacture engine for small cars
- Paint shop for Mercedes used to paint *Indica*
- Ability to work in teams, applied to designing and manufacturing commercial vehicles was utilized in the course of the *Indica* project.
- Organizational culture that permitted experimentation was of use in the Indica project as well. The design team first experimented with developing its own models of the *Indica* before approaching IDEA. This helped them identify the specific area where they needed the inputs.
- Basic capability built over time to develop new products in a short space of time was used to develop Indica



By accumulating resources

- Machine tool division resources applied to modify second hand plants.
- Robots shipped in basic form and then programmed and fitted in-house.
- Mercedes relationship utilized to acquire second hand presses from them.
- Later machine tool facilities were used to modify these machines.
- One new press two second-hand presses modified to suit requirements.
- Dies and fixtures were manufactured reducing costs.
- Investment in TACO (Tata Auto Comp Systems)



By concentrating resources

- The skills of designers, costing experts and manufacturing personnel were made to converge, resulting in low procurement costs and effective value-chain configuration.
- Throughout the duration of the project, the resource leverage effort was focused on meeting the specific attributes laid down by Ratan Tata himself.