



THE EFFECTS OF INNOVATION

COURSE: INNOVATION DEVELOPMENT IN
COMMERCIAL BANKS

PRESENTED BY FARKHOD ODILOV



WHAT IS INNOVATION?

- **INNOVATION** IS THE PROCESS AND OUTCOME OF CREATING SOMETHING NEW, WHICH IS ALSO OF VALUE.
- INNOVATION INVOLVES THE **WHOLE PROCESS** FROM OPPORTUNITY IDENTIFICATION, IDEATION OR INVENTION TO DEVELOPMENT, PROTOTYPING, PRODUCTION MARKETING AND SALES, WHILE ENTREPRENEURSHIP ONLY NEEDS TO INVOLVE COMMERCIALIZATION (SCHUMPETER).

WHAT IS INNOVATION?

- TODAY IT IS SAID TO INVOLVE THE **CAPACITY TO QUICKLY ADAPT** BY ADOPTING NEW INNOVATIONS (PRODUCTS, PROCESSES, STRATEGIES, ORGANIZATION, ETC)
- ALSO, TRADITIONALLY THE FOCUS HAS BEEN ON NEW PRODUCTS OR PROCESSES, BUT RECENTLY NEW **BUSINESS MODELS** HAVE COME INTO FOCUS, I.E. THE WAY A FIRM DELIVERS VALUE AND SECURES PROFITS.

WHAT IS INNOVATION?

- SCHUMPETER ARGUED THAT INNOVATION COMES ABOUT THROUGH NEW COMBINATIONS MADE BY AN ENTREPRENEUR, RESULTING IN
 - A NEW PRODUCT,
 - A NEW PROCESS,
 - OPENING OF NEW MARKET,
 - NEW WAY OF ORGANIZING THE BUSINESS
 - NEW SOURCES OF SUPPLY

DIMENSIONS OF INNOVATION

THERE ARE SEVERAL TYPES OF INNOVATION

- PROCESS, PRODUCT/SERVICE, STRATEGY,

WHICH CAN VARY IN DEGREE OF NEWNESS:

- INCREMENTAL TO RADICAL,

AND IMPACT:

CONTINUOUS TO DISCONTINUOUS

DRIVERS FOR INNOVATION

- FINANCIAL PRESSURES TO REDUCE COSTS, INCREASE EFFICIENCY, DO MORE WITH LESS, ETC
- INCREASED COMPETITION
- SHORTER PRODUCT LIFE CYCLES
- VALUE MIGRATION
- STRICTER REGULATION
- INDUSTRY AND COMMUNITY NEEDS FOR SUSTAINABLE DEVELOPMENT
- INCREASED DEMAND FOR ACCOUNTABILITY
- DEMOGRAPHIC, SOCIAL AND MARKET CHANGES
- RISING CUSTOMER EXPECTATIONS REGARDING SERVICE AND QUALITY
- CHANGING ECONOMY
- GREATER AVAILABILITY OF POTENTIALLY USEFUL TECHNOLOGIES COUPLED WITH A NEED TO EXCEED THE COMPETITION IN THESE TECHNOLOGIES

WHAT IS INNOVATION?


- GARY HAMEL ARGUED THAT TODAY'S MARKET PLACE IS **HOSTILE TO INCUMBENTS**, WHO NOW NEEDS TO CONDUCT **RADICAL BUSINESS INNOVATION**:
 - RADICALLY RECONCEIVING PRODUCTS AND SERVICES, NOT JUST DEVELOPING NEW PRODUCTS AND SERVICES
 - REDEFINING MARKET SPACE
 - REDRAWING INDUSTRY BOUNDARIES

NEW CONDITIONS FOR INNOVATION

- SMALL START-UP ENTREPRENEURS INCREASINGLY DEPEND ON LARGE FIRMS:
 - AS SUPPLIERS OR CUSTOMERS
 - FOR VENTURE FINANCE,
 - FOR EXIT OPPORTUNITIES,
 - FOR KNOWLEDGE (PRODUCTION, MARKETS AND R&D)
 - AND FOR OPENING NEW MARKETS.



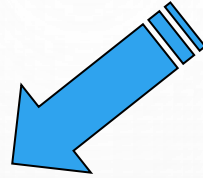
NEW CONDITIONS FOR INNOVATION

- LARGE FIRMS INCREASINGLY DEPEND ON SMALL START-UPS
 - FOR NPD,
 - AS SUPPLIERS OF NEW KNOWLEDGE (WHICH THEY CANNOT DEVELOP THEMSELVES),
 - OR ORGANIZATIONAL RENEWAL, FOR EXPERIMENTATION WITH BUSINESS MODELS,
 - FOR OPENING NEW MARKETS, ETC
- 

NEW DEVELOPMENTS IN INNOVATION RAISES NEW ISSUES AND PROBLEMS

- GREATER EMPHASIS ON **COMMERCIALIZING SCIENTIFIC DISCOVERIES**, PARTICULARLY IN IT AND THE BIO-SCIENCES
- SPEED AND POTENTIAL VALUE OF SCIENTIFIC PROGRESS LEADS TO EMPHASIS ON **SOLID AND WELL-DESIGNED PORTFOLIOS OF RESEARCH PROJECTS**
- UNIVERSITIES AS **ACTIVE** DRIVERS OF INNOVATION: ACADEMIC ENTREPRENEURSHIP AND THE ENTREPRENEURIAL UNIVERSITY
- UNIVERSITY-INDUSTRY PARTNERSHIPS
- INCREASED SEARCH FOR **RADICAL INNOVATION** AND TOP-LINE GROWTH.

TECHNOLOGY INNOVATION



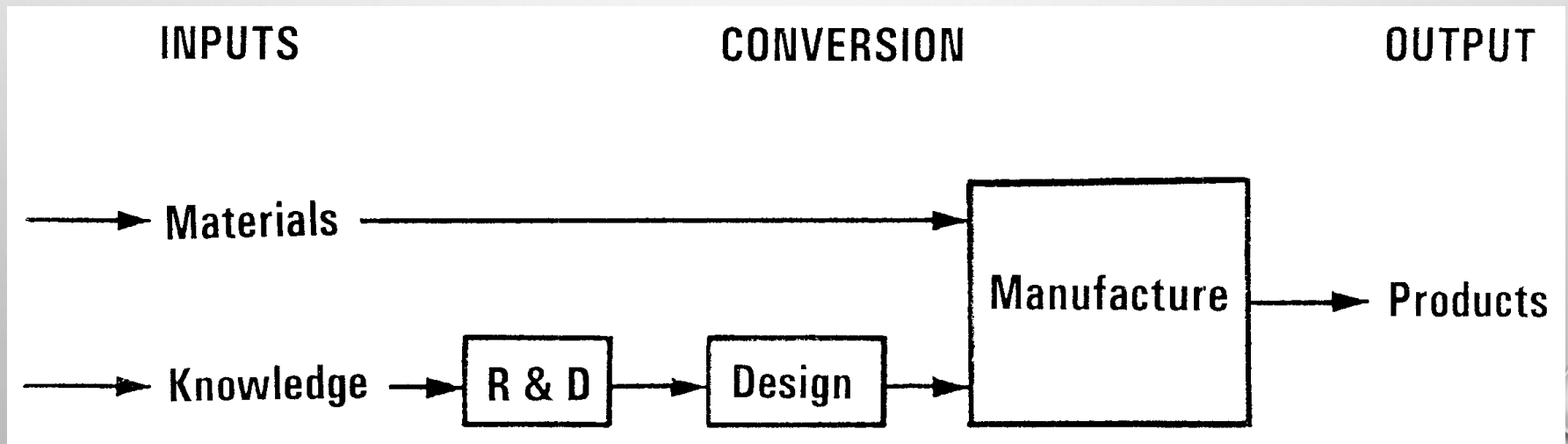
TECHNOLOGICAL INNOVATION PROCESSES

APPROACHES TO INNOVATION CONCEPTS

TECHNOLOGICAL INNOVATION

PRODUCT-ORIENTED CONVERSION PROCESS

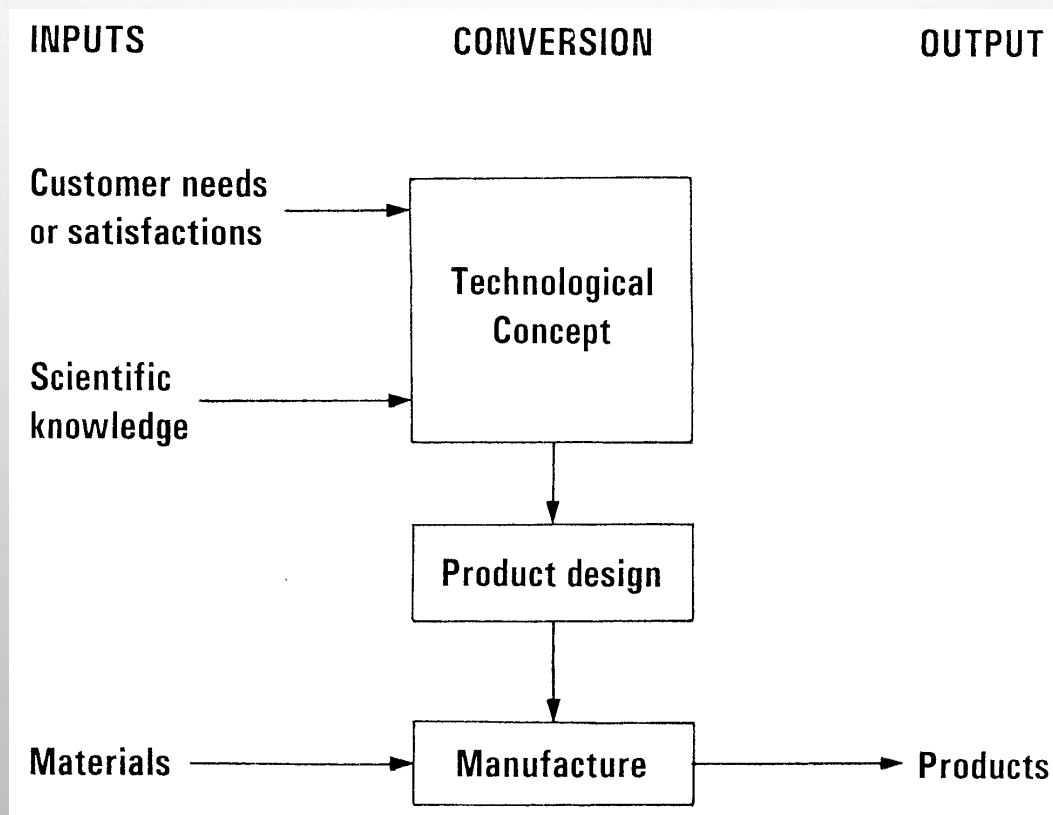
(PRE-WW II, PER TWISS)



TECHNOLOGICAL INNOVATION

TECHNOLOGY/MARKET-ORIENTED CONVERSION PROCESS

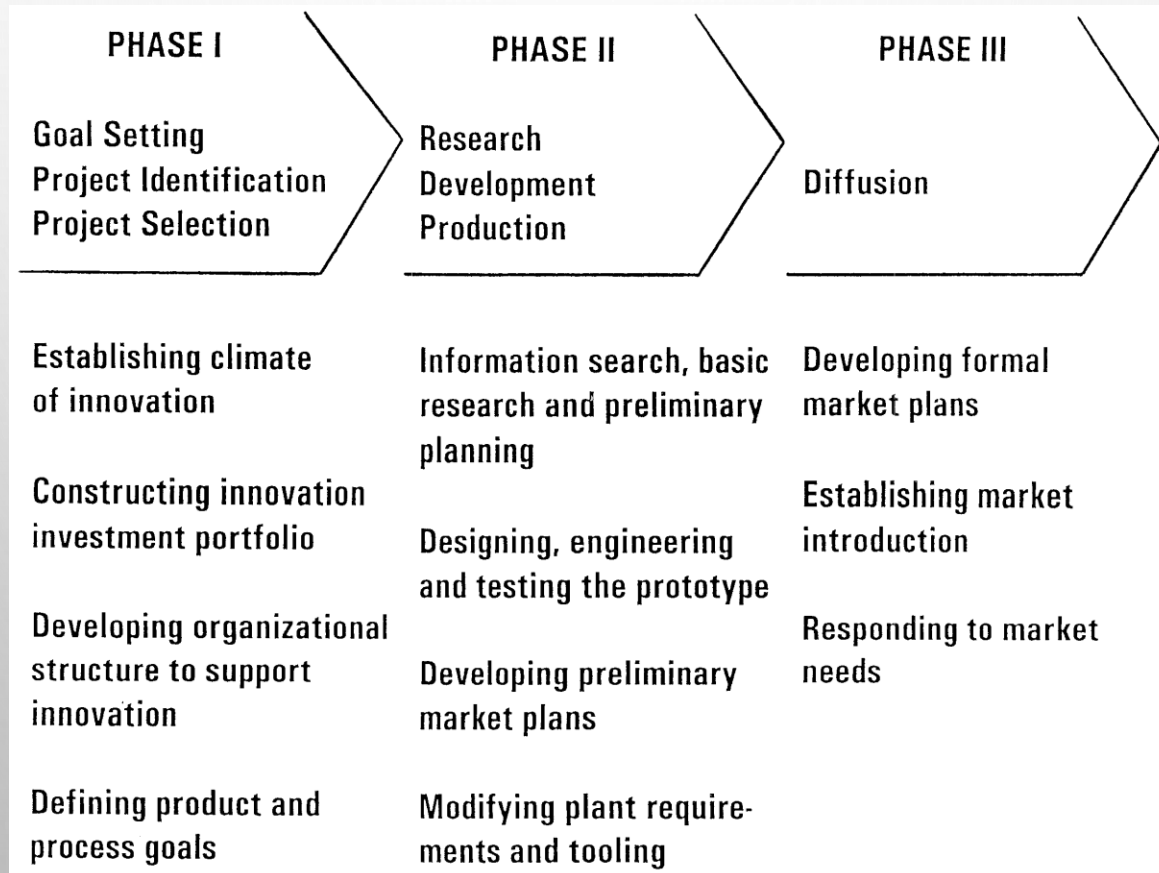
(POST-WW II, PER TWISS)



TECHNOLOGICAL INNOVATION

THREE-PHASE PROCESS

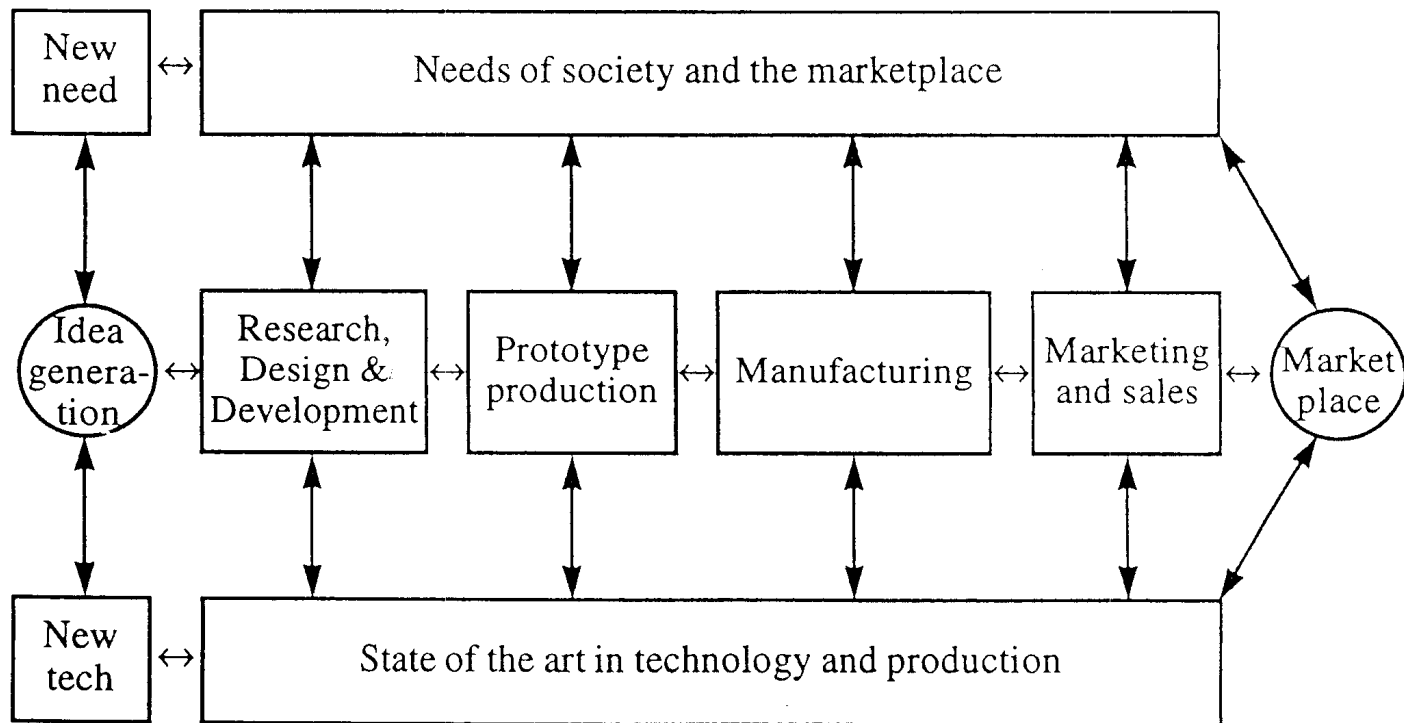
(BY EARLY 1980S, PER WALCOFF)



TECHNOLOGICAL INNOVATION

COUPLING PROCESS

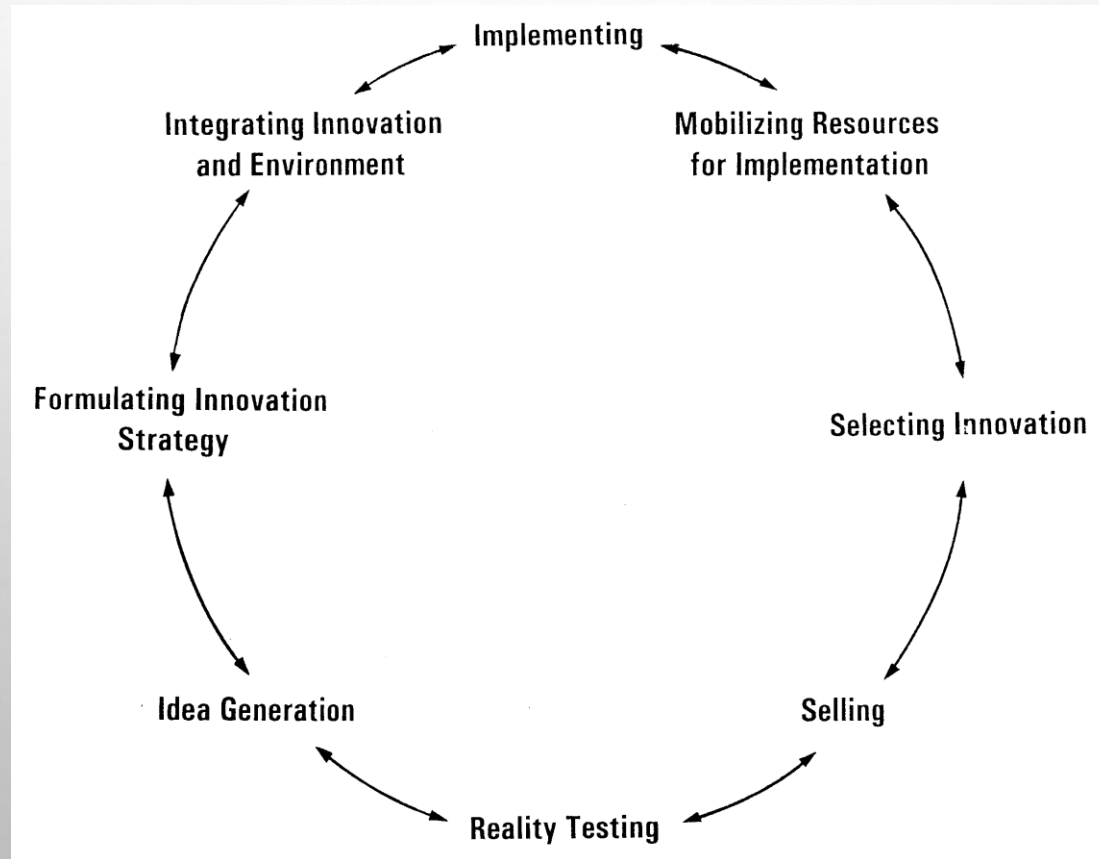
(BY EARLY 1980S, PER ROTHWELL)



TECHNOLOGICAL INNOVATION

INTEGRATIVE PROCESS

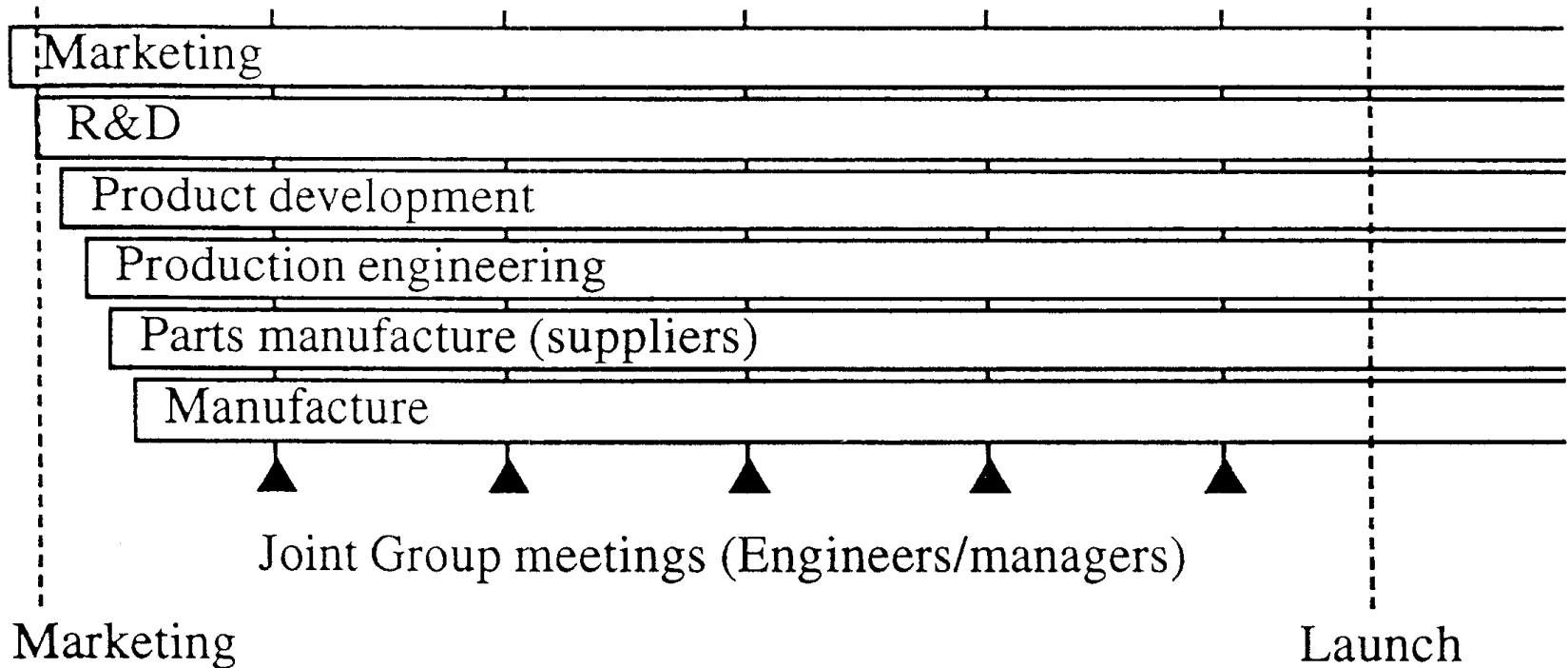
(LATE 1980S, PER KAMM)



TECHNOLOGICAL INNOVATION

INTEGRATIVE PARALLEL PROCESS

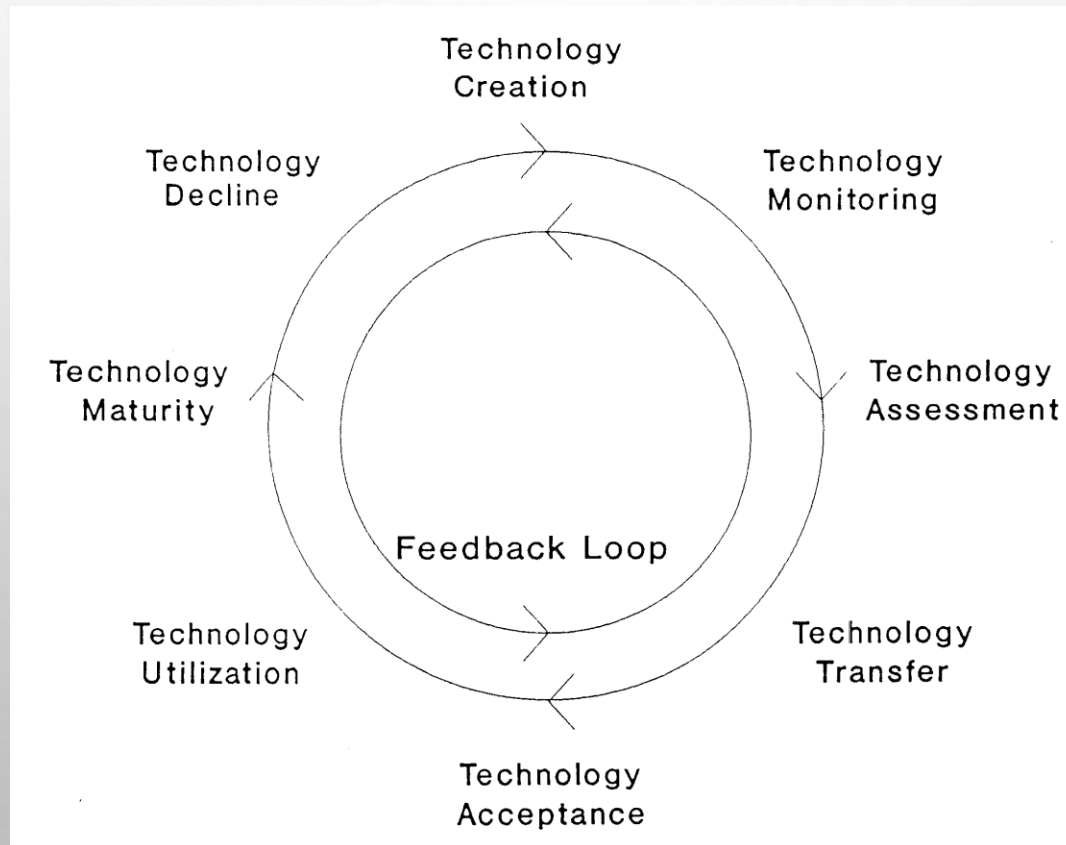
(LATE 1980S, PER GRAVES)



TECHNOLOGICAL INNOVATION

INTEGRATIVE SYSTEM PROCESS

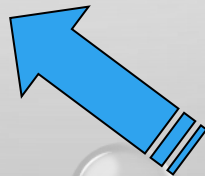
(EARLY 1990S, PER BURSIC & CLELAND)



TECHNOLOGY INNOVATION

TECHNOLOGICAL INNOVATION PROCESSES

APPROACHES TO INNOVATION CONCEPTS



APPROACHES TO INNOVATION CONCEPTS

SYSTEMATIC INNOVATION (DRUCKER)

“... SYSTEMATIC INNOVATION ... CONSIST OF THE PURPOSEFUL AND ORGANIZED SEARCH FOR CHANGES, AND IN THE SYSTEMATIC ANALYSIS OF THE OPPORTUNITIES SUCH CHANGES MIGHT OFFER ...”

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-1)

- 1) The unexpected
- 2) Incongruity
- 3) Process need
- 4) Industry/market structure
- 5) Demographics
- 6) Perception
- 7) New knowledge

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-2)

1) THE UNEXPECTED

The product, process, etc. for which there were no great expectations yet it did very well; the product process, etc. for which there was every reason to expect success yet it failed; an unanticipated market opens up.

2) INCONGRUITY

When demand grows steadily but profitability does not; some portion of a process that seems awkward; when producers, suppliers, etc. have arrogant beliefs about what is needed or wanted.

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-3)

3) PROCESS NEED

Task-focused; perfecting a process that already exist, replacing a link that is weak, redesigning a process around new knowledge, making possible a process by supplying the missing link.

4) INDUSTRY/MARKET STRUCTURE

Rapid growth of an industry; viability of the traditional market definition and segmentation; convergence of technologies; the way business is done is changing rapidly.

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-4)

5) DEMOGRAPHICS

Changes in the population; its size, composition, employment, educational status, age structure, income, etc.

6) PERCEPTION

When a change in perception takes place, the facts do not change, but their meaning does.

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-5A)

7) NEW KNOWLEDGE

The “super-star” of entrepreneurship and innovation; the knowledge is not necessarily scientific or technical; amongst history-making innovations, knowledge-based innovations rank high.

CHARACTERISTICS OF KNOWLEDGE-BASED INNOVATIONS

- (1) The longest lead time of all innovations (e.g., 25-30 years)
- (2) Almost always based on the convergence of several different kinds of knowledge

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-5B)

7) NEW KNOWLEDGE (CON'T)

SPECIFIC REQUIREMENTS OF KNOWLEDGE-BASED
INNOVATION:

- (1) Careful analysis of all of the necessary factors
- (2) A clear focus on the strategic position
- (3) Ability to learn and practice entrepreneurial management

APPROACHES TO INNOVATION CONCEPTS

SOURCES OF INNOVATIVE OPPORTUNITY

(DRUCKER-5C)

7) NEW KNOWLEDGE (CON'T)

UNIQUE RISKS OF KNOWLEDGE-BASED INNOVATION:

- (1) The window of opportunity for establishing a position is small
- (2) A “shake-out” sets in as soon as the window of opportunity closes
- (3) There must be receptivity to the knowledge-based innovation

APPROACHES TO INNOVATION CONCEPTS

INNOVATION DIMENSIONS

FORM

FUNCTION

EXTENT

TIMING

APPROACHES TO INNOVATION CONCEPTS

INNOVATION DIMENSIONS

FORM

Generation or adoption of:

- Technology
(product, process service)
- Market
(users, buyers, clients)
- Organization
(structure, function)

APPROACHES TO INNOVATION CONCEPTS

INNOVATION DIMENSIONS

FUNCTION

Improves quality

Reduces cost

Performs new functions

Enhances current market attractiveness

Increases current market offerings

Enters market not currently served

Improves learning curve

Enhances economies of scale

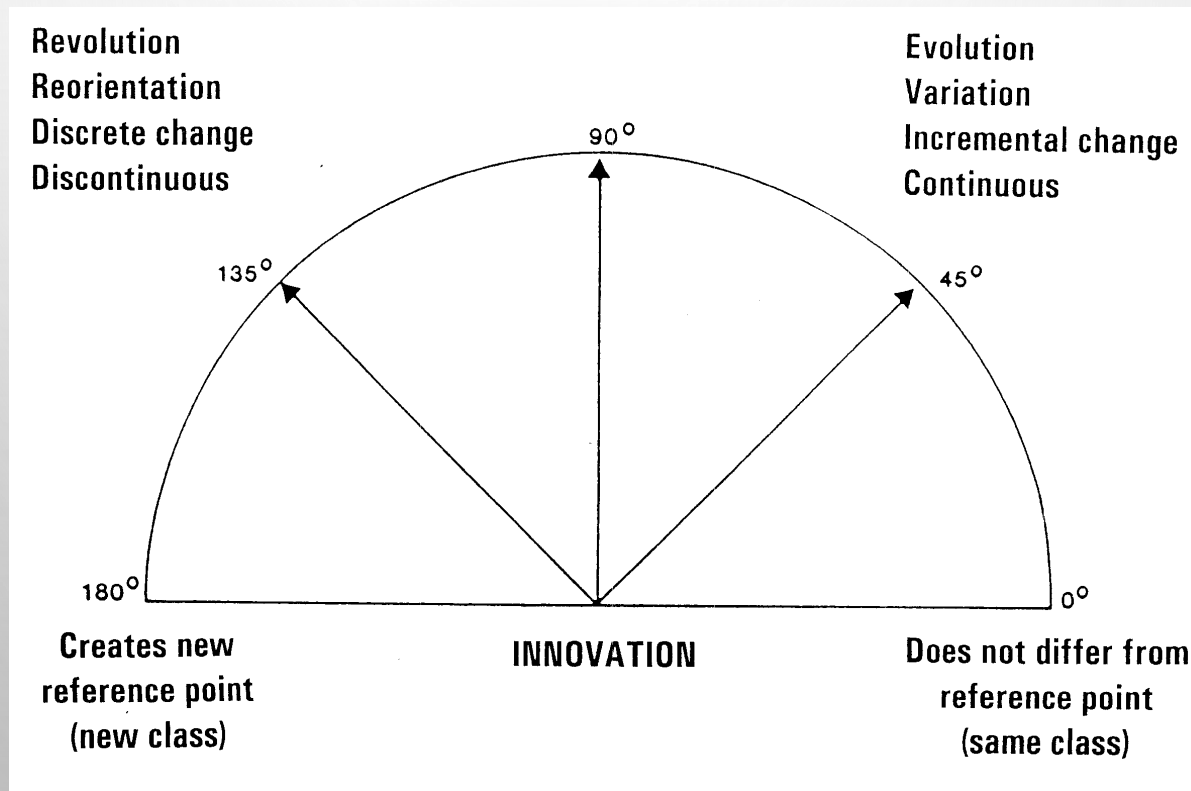
Permits production of better-quality offering

Enhances human growth and potential

APPROACHES TO INNOVATION CONCEPTS

INNOVATION DIMENSIONS

EXTENT



APPROACHES TO INNOVATION CONCEPTS

INNOVATION DIMENSIONS

TIMING

(introduction or adoption)

First-to-market

Quick second

Quick third

Late follower

REFERENCES:

- MERTON, R.C. (1992). FINANCIAL INNOVATION AND ECONOMIC PERFORMANCE, JOURNAL OF APPLIED CORPORATE FINANCE, 4(4), 12-22.
- VAN HORNE, J.C. (1980). OF FINANCIAL INNOVATIONS AND EXCESSES, JOURNAL OF FINANCE, 40(3), 621-36.
- SCOTT FRAME AND LAWRENC WHITE (2002), TECHNOLOGICAL CHANGE, FINANCIAL INNOVATION AND DIFFUSION IN BANKING, WORKING PAPER 2002, FEDERAL RESERVE BANK OF ATLANTA.
- SOLOMON TADESSE (2005), FINANCIAL DEVELOPMENT AND TECHNOLOGY, WORKING PAPER NO. 749, UNIVERSITY OF MICHIGAN.
- SOLOW, ROBERT M., (1957). TECHNICAL CHANGE AND THE AGGREGATE PRODUCTION FUNCTION, REVIEW OF ECONOMICS AND STATISTICS, 39 (AUGUST), 312-320.
- VAN HORNE, JAMES. OF FINANCIAL INNOVATIONS AND EXCESSES. JOURNAL OF FINANCE. VOLUME 40(3), JULY 1985. PP 621-636.
- MILLER, MERTON H. "FINANCIAL INNOVATION: ACHIEVEMENTS AND PROSPECTS." JOURNAL OF APPLIED CORPORATE FINANCE. VOLUME 4, WINTER 1992. PP 4-12.
- JOSH LERNER (2006), THE NEW FINANCIAL THING: THE ORIGINS OF FINANCIAL INNOVATIONS, JOURNAL OF FINANCIAL ECONOMICS 79 ,223–255
- SCHUMPETER, JOSEPH A., (1950), CAPITALISM, SOCIALISM, AND DEMOCRACY, 3RD ED.: HARPER & BROTHERS, NEW YORK (1) (PDF) FINANCIAL INNOVATION AND DEVELOPMENT OF COMMERCIAL BANKS IN SRI LANKA. AVAILABLE