



ICT ENTREPRENEUR



*"One becomes an entrepreneur
not by birth but by education
as well as by experience"*

Volkmann 2004



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MODULE 4: FROM IDEA GENERATION TO COMMERCIALIZATION



WHY THIS SUBJECT IMPORTANT FOR YOU



This module is related with the idea generation, development and commercialization process.

At this phase you should leave the conceptual phase of generating ideas, consolidating the most promising ideas, and go to the market in order to present the technological product and test the customers.

AIMS AND OBJECTIVES



1. To identify various sources of ideas for new ventures.
2. To discuss methods available for generating new venture ideas.
3. To discuss creativity and the techniques for creative problem solving.
4. To understand how to transform the idea into business.
5. To discuss the importance of innovation.
6. To understand an opportunity analysis plan.
7. To discuss the aspects of the new product development process and the commercialization

KEY CONTENTS



1. Creativity and new ideas generating
2. Innovation
3. New product development process
4. Commercialization strategy



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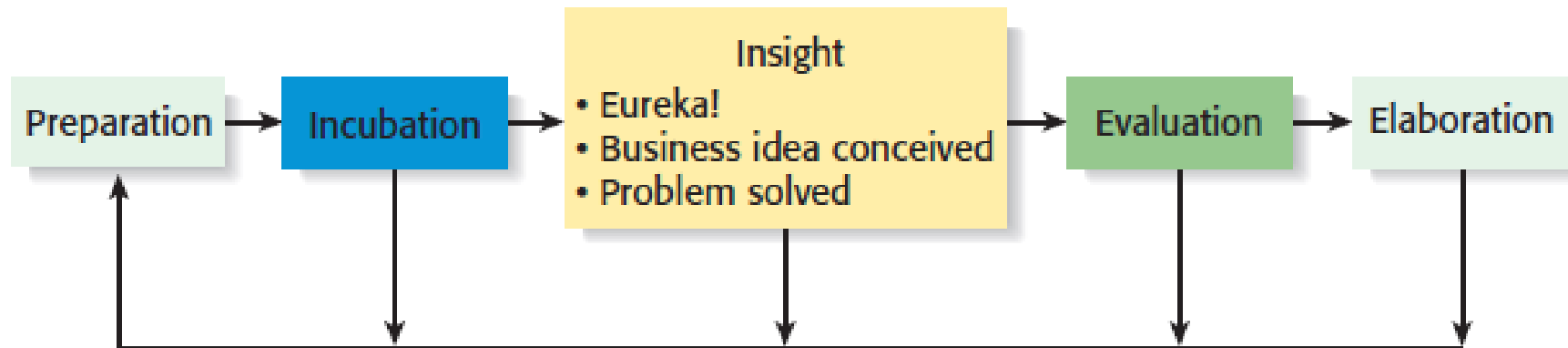
1. Creativity and new ideas generation

CREATIVITY



- Creativity is the process of generating a novel or useful idea.
- Opportunity recognition may be, at least in part, a creative process.
- For an individual, the creative process can be broken down into five stages (see next slide).

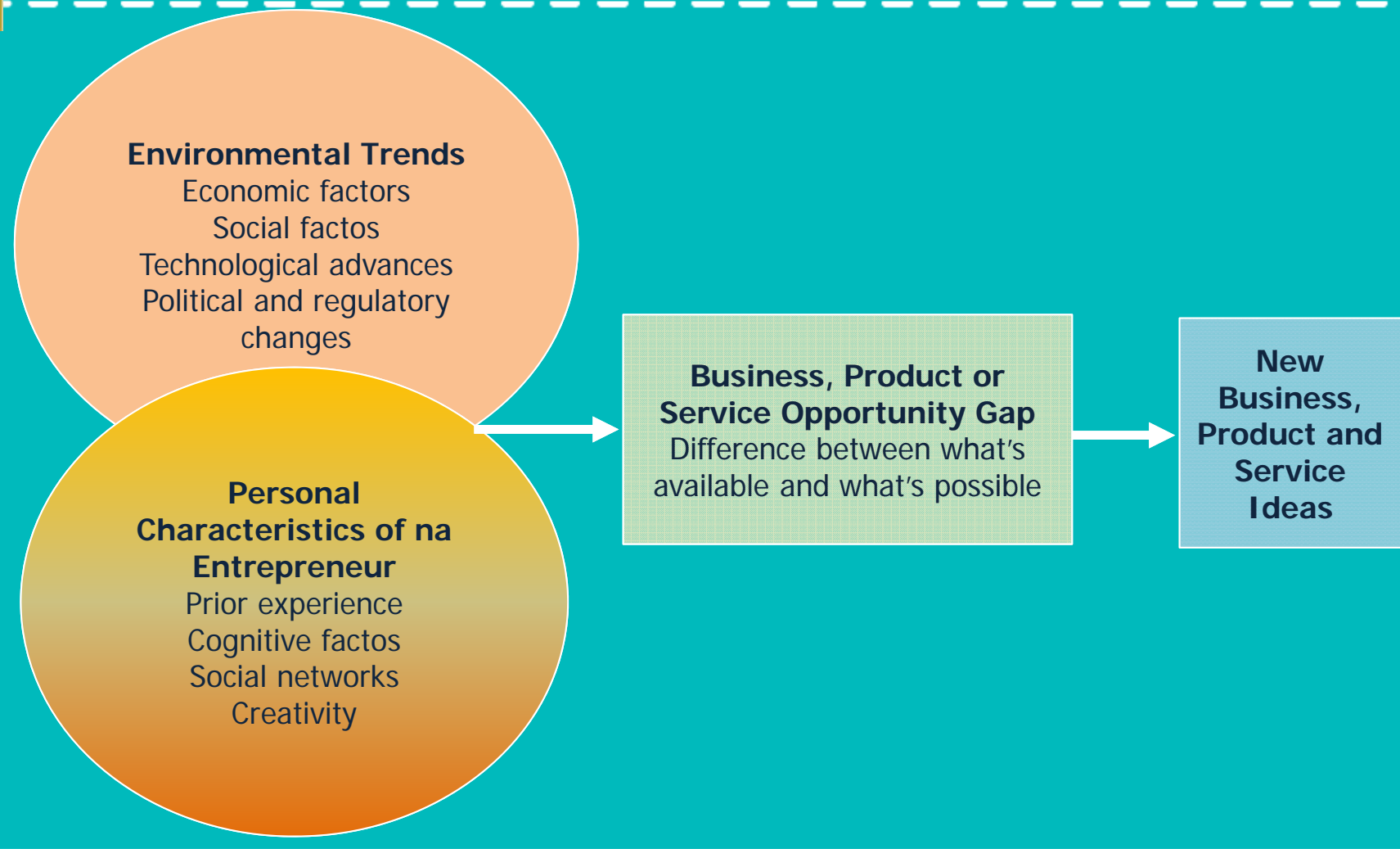
FIVE-STEPS TO GENERATING CREATIVE IDEAS



When we are developing new ideas, we have to have in mind the trends.

Examples: green trend, clean-energy trend, organic-orientation trend, economic trend, social trend, health trend, and Web trend.

Depicts the connection between an awareness of emerging trends and the personal characteristics of the entrepreneur.



SOURCES OF NEW IDEAS



- Study an industry
- Search the patent literature
- Talk to customers
- Look into university opportunities
- Investigate government sources
- Find new value in existing technology

SOURCES OF NEW IDEAS



CONSUMERS

- Informally monitor potential ideas and needs
- Formally arrange for consumers to express their opinions.

EXISTING PRODUCTS AND SERVICES

- Analysis uncovers ways to improve offerings that may result in a new product or service.

DISTRIBUTION CHANNELS

- Channel members can help suggest and market new products.

SOURCES OF NEW IDEAS (Cont.)



Federal Government

- Files of the Patent Office can suggest new product possibilities.
- New product ideas can come in response to government regulations.

Research and Development

- A formal endeavor connected with one's current employment.
- An informal lab in a basement or garage.

SCREENING TECHNOLOGY OPPORTUNITIES



**Gauge
technology
readiness**

**Determine
intellectual
property
status or
potential
for IP**

**Identify
potential
market
applications**

**Estimate
resource
requirements**

**Determine
potential
risks &
challenges**

**Select
technology
opportunity**

METHODS OF GENERATING NEW IDEAS



Focus Groups

- A moderator leads a group of 8 to 14 participants through an open, in-depth discussion in a directive or nondirective manner.
- An excellent method for generating and screening ideas and concepts.

METHODS OF GENERATING NEW IDEAS (CONT.)



Brainstorming

- Allows people to be stimulated to greater creativity.
- Good ideas emerge when the brainstorming effort focuses on a specific product or market area.
- Rules of brainstorming:
 - No criticism.
 - Freewheeling is encouraged.
 - Quantity of ideas is desired.
 - Combinations and improvements of ideas are encouraged.

METHODS OF GENERATING NEW IDEAS (CONT.)



Reverse Brainstorming

- A group method that focuses on the negative aspects of a product, service, or idea as well as ways to overcome these problems.
- Care must be taken to maintain group morale.

Brainwriting

- A form of written brainstorming.
- Participants write their ideas on special forms or cards that circulate within the group.

METHODS OF GENERATING NEW IDEAS (CONT.)



Forced Relationships

- Developing a new idea by looking at product combinations.
- A five step process which focuses on generating ideas from relationship patterns between elements of a problem.

Collective Notebook Method

- Developing a new idea by group members regularly recording ideas.

METHODS OF GENERATING NEW IDEAS (CONT.)



Gordon Method

- Method for developing new ideas when the individuals are unaware of the problem.
- Solutions are not clouded by preconceived ideas and behavioral patterns.

Checklist Method

- Developing a new idea through a list of related issues.

Free Association

- Developing a new idea through a chain of word associations.

METHODS OF GENERATING NEW IDEAS (CONT.)



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Attribute Listing

- Developing a new idea by looking at the positives and negatives.

Big-Dream Approach

- Developing a new idea by thinking without constraints.

Parameter Analysis

- Developing a new idea by focusing on parameter identification and creative synthesis.

METHODS OF GENERATING NEW IDEAS (CONT.)



Problem Inventory Analysis

- Consumers are provided with a list of problems and are asked to identify products that have those problems.
- Results must be carefully evaluated as they may not actually reflect a new business opportunity.

EXERCISE 1 – Focus Group



Topic of Discussion:

1. Organization of household information
2. Wasting time in traffic

EXERCISE 2 – Problem Inventory Analysis



Identify the products that have the following problems:

- 1.** Impossibility to use
and/or
- 2.** Take advantage of the product to the end

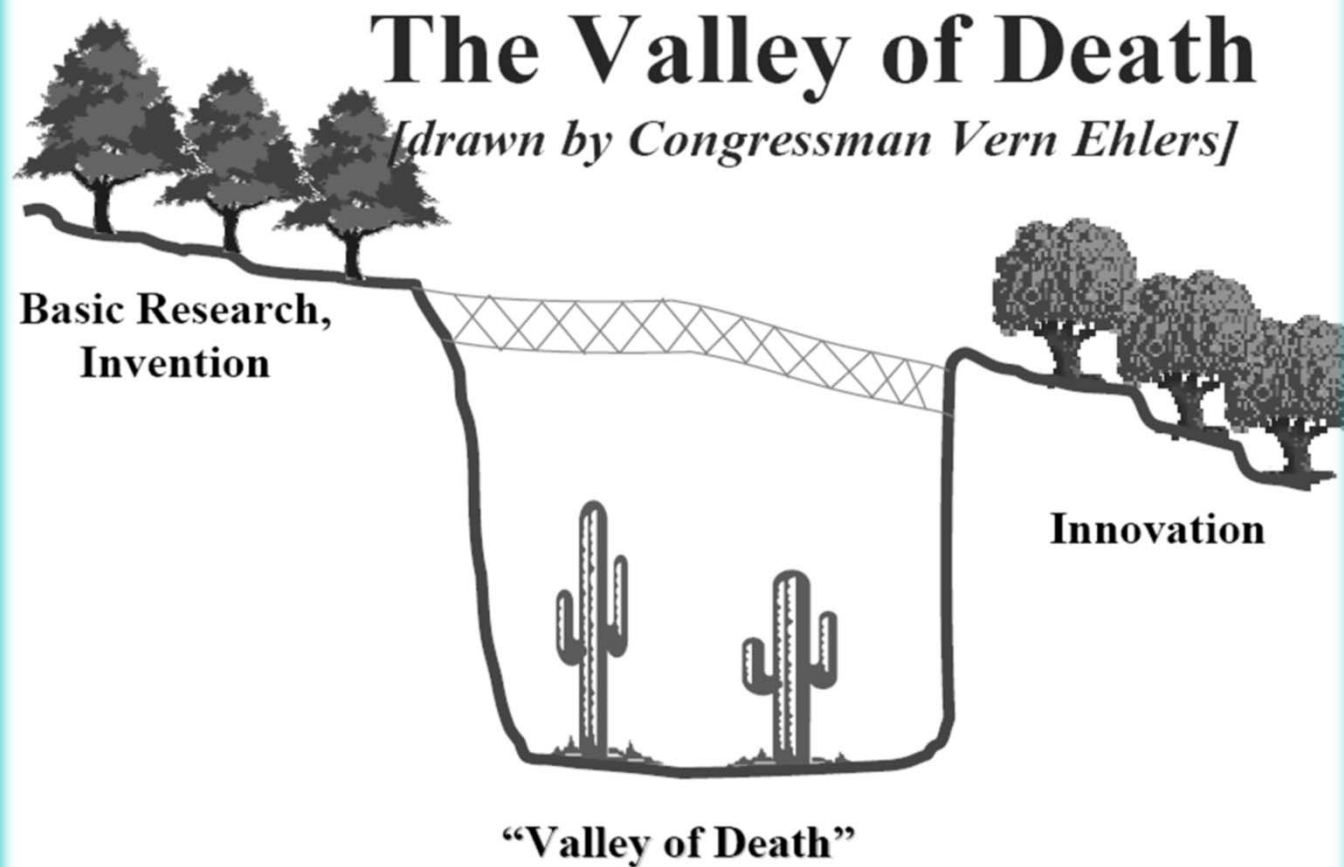
How can these problems can reflect a new business opportunity?



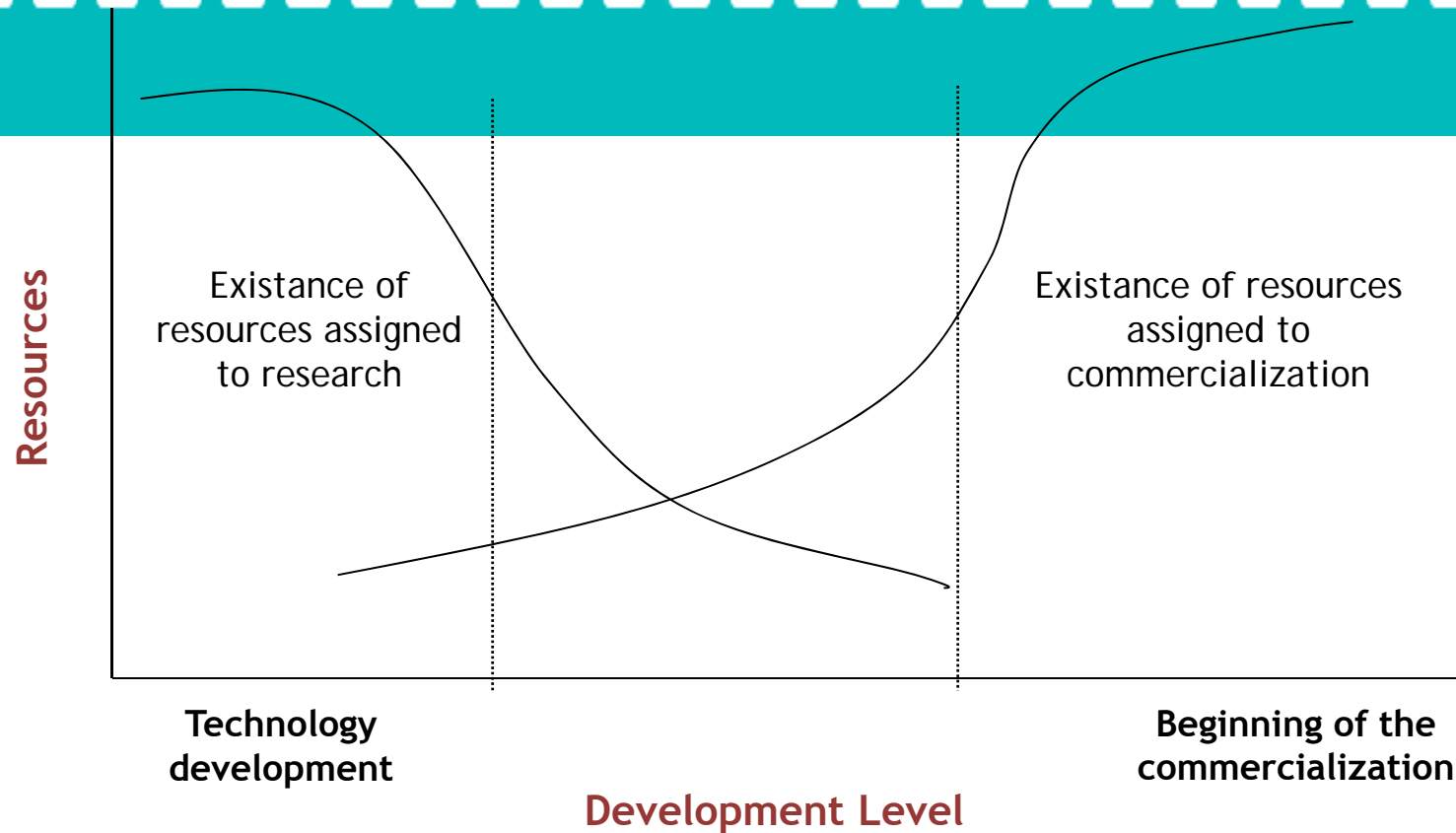
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2. Innovation

THE VALLEY OF DEATH



Many times research based in good ideas can't pass through the so called
"Valey of Death"



Decision space between the discovery of a new product and its development, and the subsequent commercialization.

It's important to understand that:



INVENTION \neq INNOVATION

An innovation is a useful invention that gets to the market. If it doesn't generate Money, it's not innovation, it's just a novelty, and novelty is irrelevant in the business world.

Innovation is a
strenght that shapes
the future!

WHAT IS INNOVATION?



- Producing something new
- Commercializing or extracting value from ideas
- Schumpeter's five types of innovation
 1. New product or substantial change in existing product |
 2. New process |
 3. New market |
 4. New sources of supply |
 5. Changes in industrial organization
- Incremental innovation = improvements on existing products
- Disruptive innovation = game changers

EXERCISE 1



Comment on this quote from Marshall McLuhan:

“Invention is the mother of all needs”

EXERCISE 2

Give the example of one invention and one innovation

Characteristics of Successful Innovators



TYPES OF INNOVATION



Breakthrough

- Fewest number of innovations.
- Establishes the platform on which future innovations in an area are developed.
- Should be protected by patents, trademarks, and copyrights.

Technological

- Occurs more frequently; not at the same level of breakthrough inventions.
- Offers advancements in the product/market area.
- Needs to be protected.

TYPES OF INNOVATION (Cont.)



Ordinary

- Occurs most frequently.
- Extends a technological innovation into a better product or service or one that has a different market appeal.
- Usually come from market analysis and pull, not technology push.

DEFINING A NEW INNOVATION



Newness can be:

- In the consumer concept.
- A change in the package or container.
- Slight changes or modifications in the appearance of the product. (Industrial market)

Companies also add products to their line that are already marketed by other companies (products are new to the manufacturer but not the consumer).

Classification of new products



Consumer's view point:

- The continuum proposed by Thomas Robertson is based on the disrupting influence that use of the product has on established consumption patterns.
 - Continuous innovations.
 - Dynamically continuous.
 - Discontinuous innovations.

This approach is consistent with the marketing philosophy that "satisfaction of consumer needs" is fundamental to a venture's existence.

Classification of new products



Firm's view point:

- Distinction can be made between new products and new markets.
- Situations with a new technology and a new market are the most complicated and pose the highest degree of risk.



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3. NEW PRODUCT DEVELOPMENT PROCESS

Product Planning and Development Process



Establishing Evaluation Criteria

- Criteria should be established at each stage of the product planning and development process.
- It should be all-inclusive and quantitative in nature.
 - Market opportunity.
 - Competition.
 - Marketing system.
 - Financial factors.
 - Production factors.
- Criteria should evaluate the idea in terms of:

The innovation strategy spells out management's priorities for new product opportunities.



1

Set specific New Product Objectives.

2

Communicate the role of New Products throughout the organization.

The Innovation Strategy Spells Out Management's Priorities for New Product Opportunities



3

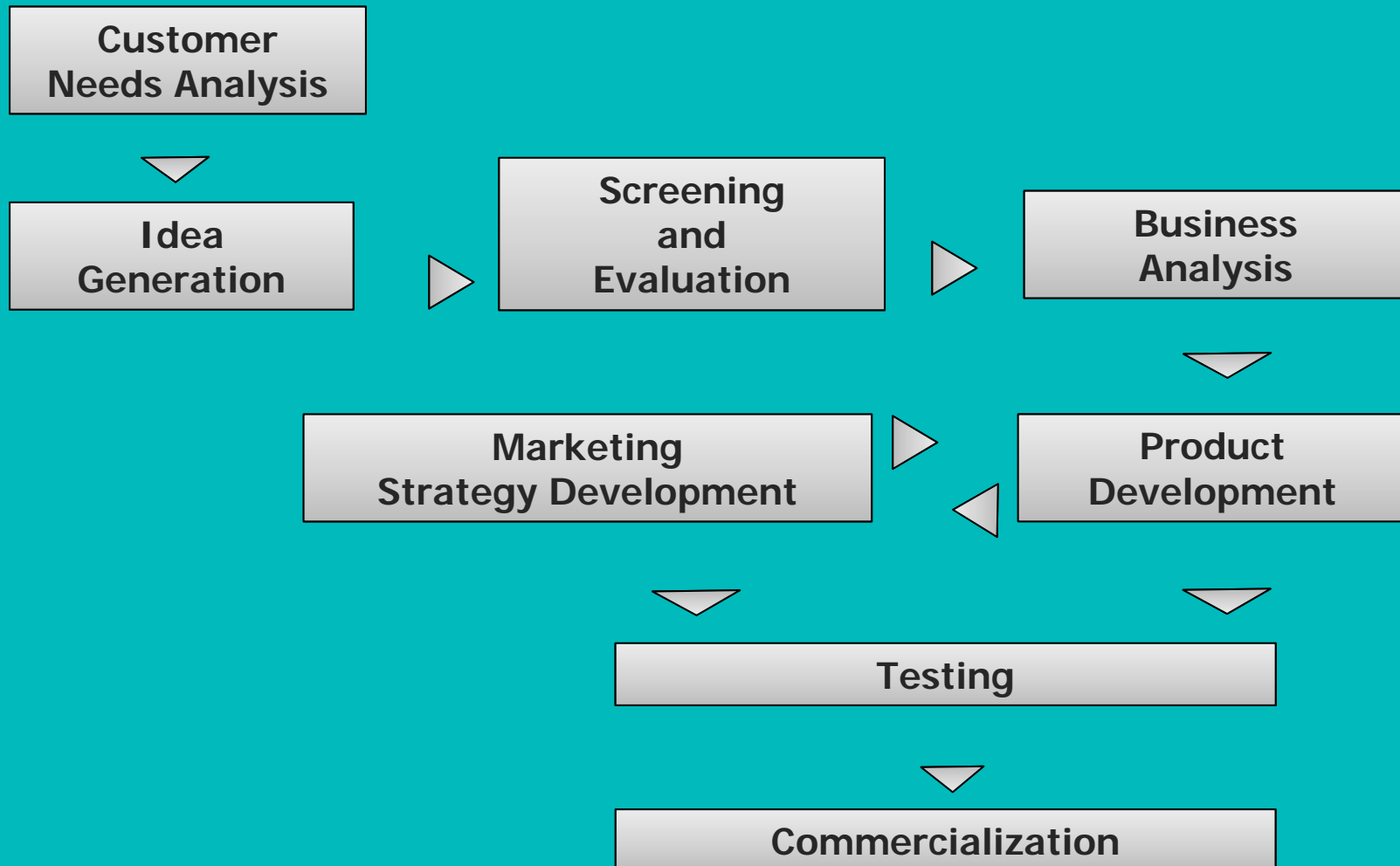
Define areas of strategic focus:

- Product scope;
- Markets;
- Technologies.

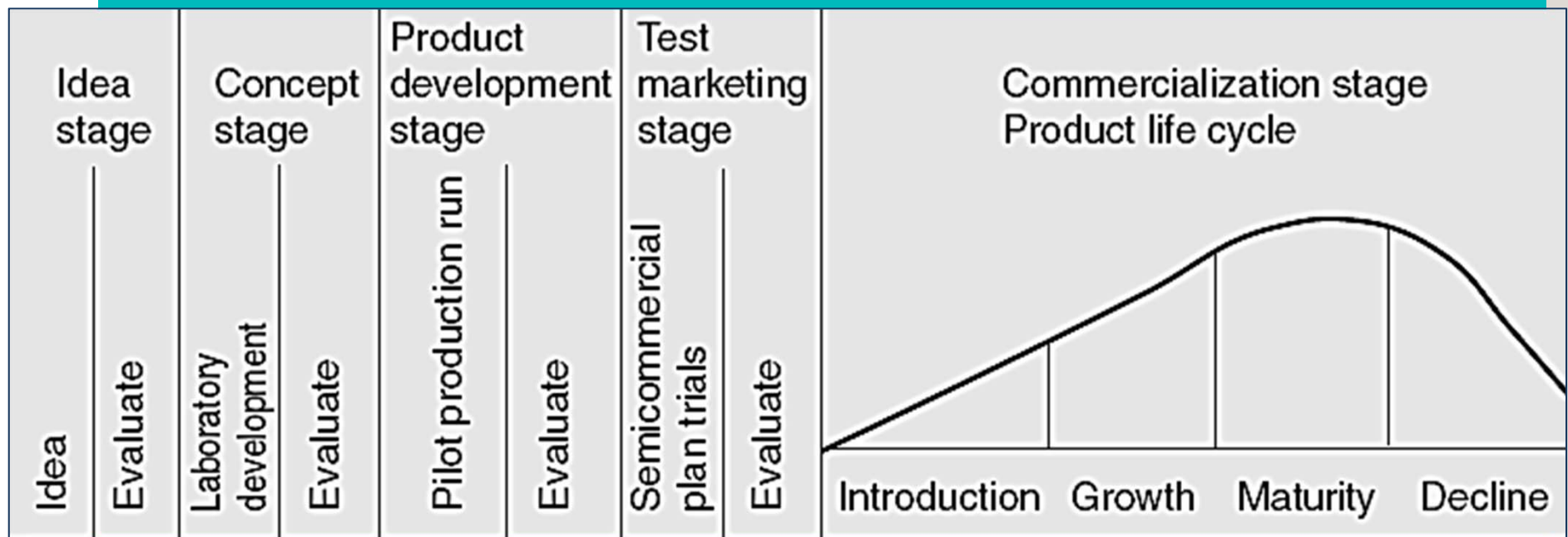
4

Include longer term discontinuous projects in the portfolio along with incremental projects.

New Product Planning Process



PRODUCT PLANNING AND DEVELOPMENT PROCESS



IDEA STAGE



- Promising ideas should be identified and impractical ones eliminated.
- Evaluation method – Systematic market evaluation checklist.
- Determine the need for the new idea as well as its value to the company.

IDEA SEARCH



Targeted or open-ended?

How extensive and aggressive?

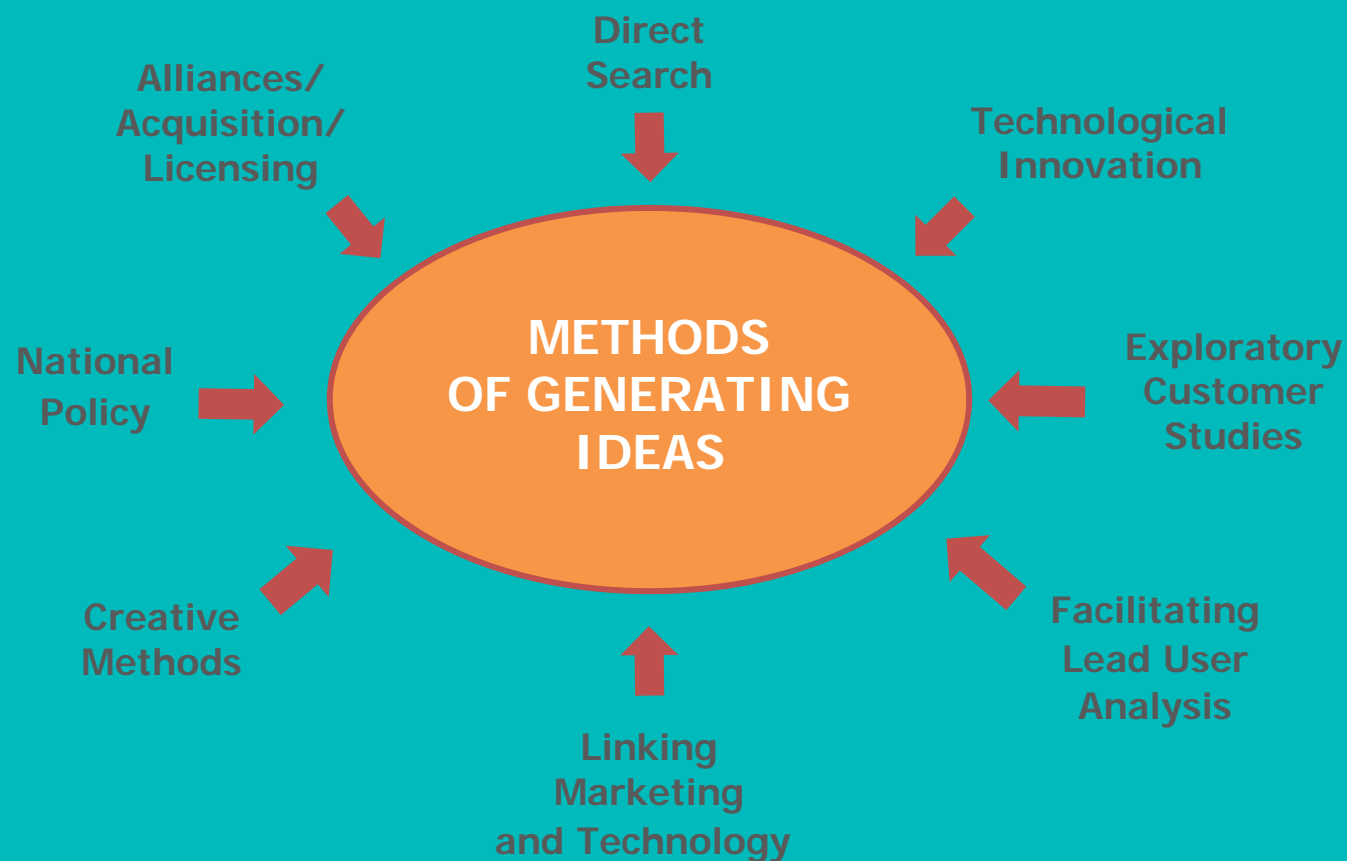
How can new ideas be obtained from customers?

What specific sources are best for generating a regular flow of new product ideas?

Where will responsibility for the new product ideas search be placed?

What are the potential threats from alternative (or disruptive) technologies?

METHODS OF GENERATING IDEAS

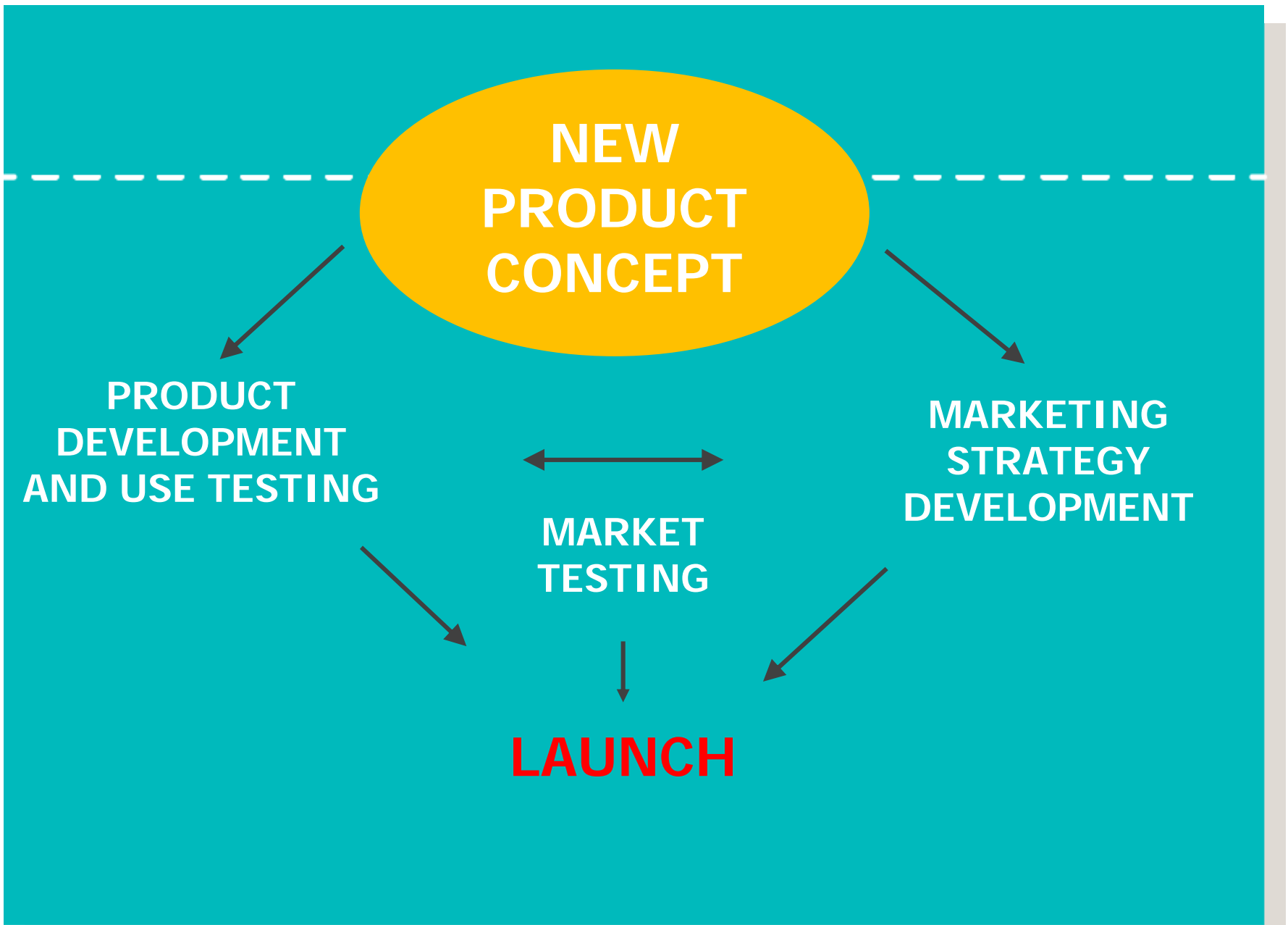


PRODUCT PLANNING AND DEVELOPMENT PROCESS



Concept Stage

- Refined idea is tested to determine consumer acceptance which can be measured through the conversational interview method.



Does it have the
required attributes?



Verify
claims



**PURPOSE OF
USE TESTS**

Ideas for
improvements



Identify use
situations

PRODUCT PLANNING AND DEVELOPMENT PROCESS



Product Development Stage

- Consumer reaction to the product/service is determined.
- A consumer panel is given a product sample and preference is determined through methods such as multiple brand comparisons, risk analysis, etc.

PRODUCT PLANNING AND DEVELOPMENT PROCESS



DEVELOPMENT OF THE NEW PRODUCT INCLUDES

PRODUCT
DESIGN

PACKAGING
DESIGN

DECISIONS TO MAKE OR
PURCHASE PRODUCT
COMPONENTS

PRODUCT DEVELOPMENT PROCESS

PRODUCT
SPECIFICATIONS

INDUSTRIAL
DESIGN

USE TESTS

PROTOTYPE

PROCESS DEVELOPMENT

PRODUCT PLANNING AND DEVELOPMENT PROCESS



Test Marketing Stage

- Increases certainty of successful commercialization.
- Actual sales reflect consumer acceptance.

PRODUCT PLANNING AND DEVELOPMENT PROCESS



Marketing Strategy Decisions

- Market Targeting
- Positioning Strategy

Marketing Testing Options

- Simulated Test Marketing
- Scanner – Based Test Marketing
- Conventional Test Marketing
- Testing Industrial Products
- Selecting Test Sites
- Length of the Test
- External Influences

MARKET STRATEGY: Who are our customers?



Test Marketing Stage

- Focus on assessing customers' articulated and unarticulated needs;
- Focus less on technology and more on customer value;
- Identify key market segment(s) rather than diluting efforts across multiple segments.

MARKET STRATEGY: Who are our customers?



Avoid tyranny of the “served” market

- Excessive focus on serving current customers

Adopt bifocal vision

- Simultaneous focus on current AND future customers

Search for “blue ocean” strategies

- New market space
Base-of the-pyramid markets

MARKET STRATEGY: What Value?



Products, services and technologies are mere vehicles for value creation

- They do not have intrinsic value in and of themselves

Requires understanding the customer

- Value of products, services, and technologies

Requires understanding competitors' value propositions

- Look beyond direct competitors
- Include competition from outside existing industry boundaries ("product form competition")

MARKET STRATEGY: How to create & deliver value?



Requires:

- Right competencies
- Appropriate structures/systems
- Good decisions in distribution, pricing, and promotion
- Flexibility

EXERCISE 1



Minimum Viable Product

Product (MVP) – see doc file




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4. COMMERCIALIZATION STRATEGY



The crucial element of a firm's commercialization strategy is whether it **competes** or **cooperates** with established firms.



The differences in the commercialization environment faced by start-up innovators create the different competitive dynamics in high-technology sectors.

Key elements of the commercialization environment:



- Intellectual property regime
- Established firm ownership over complementary assets
(e.g. manufacturing expertise, distribution channels)

Availability
of formal
intellectual
property

Expertise in
regulation
and
distribution

Effective
commercializa
tion strategy
for most
biotechnology
innovation

CHOOSING THE COMMERCIALIZATION STRATEGY



1

The firm evaluates the relative cost and profitability of pioneering a new value chain compared to leveraging an established value chain.

2

The innovator assesses its ability to control the fundamental knowledge after the established firm becomes aware of the new technology.

An effective commercialization strategy accounts for the interaction between these 2 key dimensions of the commercialization environment

1

The level of control over complementary assets

2

The knowledge embedded in innovation

**Next Figure illustrates the framework,
highlighting four potential cases.**

THE COMMERCIALIZATION STRATEGY FRAMEWORK



Do incubent's complementary assets contribute to the value proposition from the new technology?

Can innovation by the start-up preclude effective development by the incumbent?	Do incubent's complementary assets contribute to the value proposition from the new technology?	
	NO	YES
NO	The Attacker's Advantage	Reputation-Based Ideas Trading
YES	Greenfield Competition	The "Ideas" Factory

THE ATTACKER'S ADVANTAGE



- Level playing field between start-ups and established market leaders.
- While competitive commercialization does not require duplicative investment by the start-up, the new technology can be easily imitated once the market leader recognizes the nascent threat.

IDEAS FACTORIES



- The start-up innovator needs to undertake duplicative investments to compete and to negotiate with the market leader
- Effective commercialization strategy here results in the emergence of “ideas factories” – technological leaders focusing on research and commercializing through reinforcing partnerships with more downstream players.
- A key determinant of the return on innovation will be the degree of bargaining power controlled by the start-up innovator.

REPUTATION-BASED IDEAS TRADING



- When the disclosure problem is severe but incumbents possess critical complementary assets, there is a potential for gain through the market for ideas. However, a contracting solution is difficult to achieve.
- A market leader can encourage start-up innovation in this environment market by committing to avoid the temptation of expropriation. The key to commitment is reputation.
- A market leader offering a “fair” return to innovators can develop a reputation over time.

GREENFIELD COMPETITION



- This is a favorable position for the start-up innovator, since returns on the product market will be high (imitation is difficult), but potential market power offers substantial bargaining power with potential partners.
- In this environment, start-up innovators face tremendous opportunities.
- Note that such a favorable environment is the exception and not the norm.

EXERCISE 1



E-Waiter

Case study analysis – see doc file

VIDEOS



Think idea generation

[\[LINK\]](#)

Methods to create good ideas:

Where good ideas come from

[\[LINK\]](#)

Innovation

[\[LINK\]](#)

THANK YOU!



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