

## BUSINESS MARKETING / 09

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*Based on Dr. W.G. Biemans' Business marketing management, Prof. Ph. Kotler's Principles of marketing / Strategic marketing management and miscellaneous designer's lecturing materials*



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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**

- **Invention**: a new technology or product that may or may not deliver benefits to customers.

- **Innovation**: an idea, a service, product or technology that has been developed and marketed to customers *who perceive it as a novelty or as something new.*

Innovation involves the process of identifying, creating and delivering new product or new service values that did not exist before in the marketplace.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**

- Companies can obtain **new products in 2 ways**:

- through **acquisition**: by buying another company, a patent or a license to produce another company's (or another person's) product. In most cases this has to do with the rising costs of developing and introducing new products.

- through **new product development** (of original new products, product improvements, product modifications and new brands) in the company's own R & D department.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
  - **New product development:** the development of original products, product improvements, product modifications and new brands through the firm's own R & D efforts.



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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
  - **Product / technology succession:** the development of most technologies occurs through some form of succession or technology follow-up.
    - **3 typical forms of technology succession, are:**
      - **technological product succession;**
      - **accumulative succession;**
      - **segment-wise succession.**

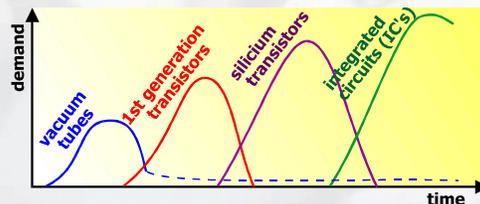
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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
  - **technological product succession:** this happens when a new kind of technology supersedes a former type of technology, such as frequently takes place in the electronics industry. This often involves a *technology push*, as at first the demand for the new product hardly exists.



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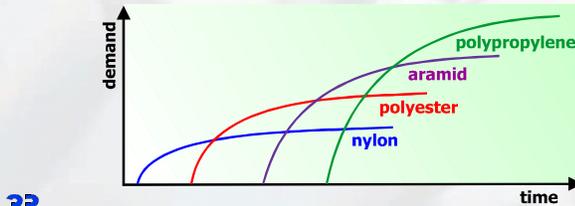
## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**

- **accumulative succession:**

this happens when successive variations of a certain product occur, based on the same technology. For example: the man made fibre industry.



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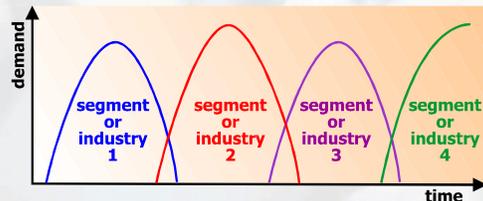
## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**

- **segment-wise succession:**

this occurs when a certain technology has been developed for a particular segment or industry, which in time becomes saturated, and whereby the technology or application continues in other segments or industries. Example: automation.



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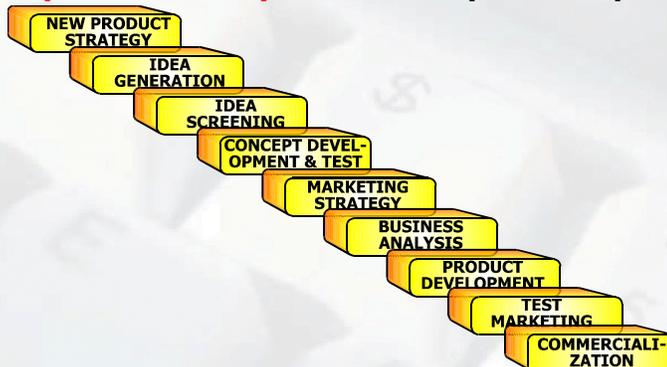
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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**

- **New product development:** development steps



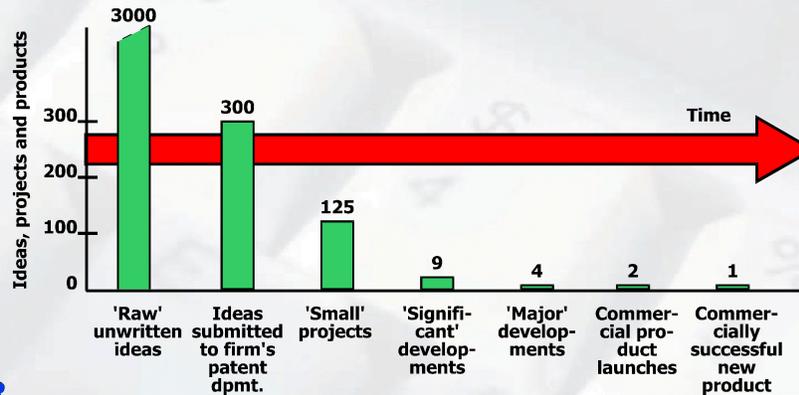
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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

#### ● Inventions, innovations, product development



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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

#### ● Inventions, innovations, product development

##### ○ Why new products fail: 1/7

- **Insignificant point of difference:** a distinctive point of difference is essential for a product to defeat competitive ones, through having superior characteristics that deliver unique benefits to the customer.

Often new products are introduced and the customer does not rate the point of difference as important enough to give up competing products (**General Mills'** 'Fingos', 'the cereal made to eat with your fingers!' (?) ).

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

#### ● Inventions, innovations, product development

##### ○ Why new products fail: 2/7

- **Incomplete market and product definition before product development starts:** ideally, a new product needs a precise **protocol**, determining a **well-defined target market**, **specific customers' needs, wants and preferences**, and **what the product will be and do**.

When such a protocol is not followed, new products may fail, such as in the case of **Apple's** hand-sized Newton computer which, in contrast to other hand-held organizers, could not be hooked up to desktop computers.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
- **Why new products fail:** 3/7
  - **Too little market attractiveness:** referring to the ideal situation every firm looks for: **a large target market with high growth and real buyer need**. However, the target market is often too small and/or competitive to recover the R & D-, production- and marketing-expenses. In the early 1990's **Kodak**, for instance, introduced an UltraLife lithium battery, and although it was seen as a major breakthrough, it was only available in the 9-volt size.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
- **Why new products fail:** 4/7
  - **Poor execution of the marketing mix:** for example, when consumers do not know how to operate a product, or how it should be used. **Coca-Cola** once introduced their **Minute Maid Squeeze-Fresh** frozen orange juice concentrate in a squeeze bottle. Due to the mess that occurred while using this new product, consumers eventually stopped buying it.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
- **Why new products fail:** 5/7
  - **Bad timing:** some innovations are just ahead of their time, and are introduced before a large enough group of customers is ready to buy them, or before the cost structure allows producing the product at a reasonable profit level, or both. **HDTV** is a good example; while the first HDTV broadcast was in 1996, it was not until the mid-2000's that a critical mass of HDTV broadcasters occurred. Obviously, many consumers held off purchasing an HDTV until enough programming was available.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
  - **Why new products fail:** 6/7
    - **No economical access to buyers:** as can be seen in the supermarkets, that can sometimes carry over 30.000 different products. With more than 35 new products being introduced each day, competition is all about the **fight for shelf space**. Naturally many small manufacturers simply do not have the money to gain effective exposure for their products.

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## PRODUCT DEVELOPMENT & PLC

### Innovation & new product development

- **Inventions, innovations, product development**
  - **Why new products fail:** 7/7
    - When looking at the following products, try to figure out why they failed in the marketplace:
      - **BIC's** disposable ladies underwear
      - **Harley-Davidson** perfume
      - **Heinz** natural cleaning vinegar
      - **Smith & Wesson** mountain bikes
      - **Chiquita** fruitjuice popsicles
      - **Frito-Lay** sodapop
      - **Virgin Cola**



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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **New product strategy**
  - **Goals of new-product strategy:**

A new-product strategy achieves **4 main goals:**

    - it **gives direction** to the new-product team, and **focuses team effort**;
    - it helps to **integrate functional or departmental efforts**;
    - it allows **tasks to be delegated** to new-product team members;
    - it **stimulates pro-active**, not reactive, **management** in situations where agreement on strategies is required.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **New product strategy**
  - **Use of product innovation statements:**
    - Successful innovative companies are placing more emphasis upon the use of product innovation statements: a **product innovation charter (PIC)**.

A PIC emphasizes on the firm's **reasons for innovation**, the **product/market/technology** to focus on, the **various goals to be achieved** (such as market share, profitability, etc.), and **guidelines regarding the commercial innovativeness** of a new product.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea generation**
  - **Sources of ideas:**

New-product ideas are mostly generated by **customers (consumers)**, **employees**, basic **R&D**, and by **competitors**.
  - **Customer suggestions:**

Companies often analyse consumer complaints or problems to discover new-product opportunities. They may even pose complaints to a random group of consumers in order to identify these opportunities.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea generation**
  - **Sources of ideas:**
    - **Customer suggestions:**

Example: After listening to growing concerns about cholesterol and fat in their food, **McDonald's** reformulated its milkshakes with a low-fat mixture and introduced a low-fat hamburger.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea generation**
  - **Sources of ideas:**
    - **Employee / co-worker suggestions:**

Employees might be encouraged to suggest new product ideas through suggestion boxes or contests. The idea for **General Mill's \$ 350 million / year 'Nature Valley Granola Bars'** came when one of their marketing managers saw employees bringing granola (a kind of cereal) to work in plastic bags.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea generation**
  - **Sources of ideas:**
    - **Research and Development breakthroughs:**

R&D is also a good source of new product ideas, although the costs can be huge. **Sony** is seen as one of the world's leaders in new-product development in electronics. Their scientists and engineers produce an average of 4 new products each business day, eventually leading to some highly innovative products, such as their **Walkmans, Discmans, Playstations**, etc.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea generation**
  - **Sources of ideas:**
    - **Competitive products:**

New-product ideas can also be found by analysing the competition. The **Mariott Corporation**, for instance, had a 6-person intelligence team travel through the USA to assess the competition's strengths and weaknesses on all hotel aspects. Marriott then budgeted \$ 500 million for a new economy hotel chain, **Fairfield Inns**.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Idea screening**

- **Reducing the number of ideas:**

- The purpose of idea generation is to create a large number of ideas (**Sony**). The intention of the following stages is **to reduce this number of ideas**.

Idea screening, therefore, involves screening new-product ideas in order to keep good ideas and to drop poor ideas as soon as possible.

**2 major mistakes** might occur in this stage: a **drop-error**, which involves dropping a good idea, and a **go-error**, which involves keeping a bad idea, both for the wrong reasons.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Concept development and testing**

- **Difference between idea, concept and image:**

- **Product idea:** an idea for a possible product that the company can see itself offering to the market.
- **Product concept:** a detailed version of the new-product idea, stated in significant consumer terms.
- **Product image:** the way consumers perceive an actual or potential product.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Concept development and testing**

- **Concept development:**

- A product idea can be turned into several concepts. Let us, for instance, examine, a large food processing company that has an idea concerning the production of a nutritional powder which can be added to milk, in order to increase the milk's nutritional value and taste.

The first question is: **who will use this product?**  
The powder could be aimed at infants, children, teenagers, young or middle-aged adults, or older adults.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Concept development and testing**
  - **Concept development:**
    - The second question is: *what primary benefit should this product provide?* Taste? Energy?
    - The third question is: *when will people consume this product?* During breakfast? Lunchtime? Late evening?
    - Answering these questions provides several concepts, for example:
      - **Concept 1:** an instant breakfast drink for adults, seeking an easy breakfast solution
      - **Concept 2:** a tasty snack drink for children to drink as a midday refreshment, etc.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Concept development and testing**
  - **Concept testing** (also known as: **market testing**)
    - This involves presenting the product concept to appropriate target consumers and getting their responses.

These concepts can be **presented symbolically or physically**. The more the tested concepts resemble the final product or experience, the more dependable concept testing is.

Today, some companies are even using **virtual reality** to test product concepts.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Marketing strategy development**
  - **Marketing strategy statement:**

This is a statement of the **planned strategy for a new product** that outlines:

    - 1/ **the intended target market, the planned product positioning, and the sales, market share and profit goals for the first few years;**
    - 2/ **the product's planned price, distribution and marketing budget for the first year;**
    - 3/ **the planned long-run sales, profit goals and marketing mix strategy.**

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Marketing strategy development**
  - **Marketing strategy statement example** (part 1):
    - Examining the food processing company example:  
the **target market** for the instant breakfast drink could be: families with children who are receptive to a new, convenient, nutritious and inexpensive form of breakfast.  
The product might be **positioned** at the higher-price, higher-quality end of this breakfast drink category.  
The **aim** is to sell 500.000 boxes in the first year, and 750.000 in the second.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Marketing strategy development**
  - **Marketing strategy statement example** (part 2):
    - The product could be offered in various fruit tastes, in boxes containing 6 sachets, at a retail price of **\$ 1,49 per box**.  
During the introduction, **retailers** will get one case of 48 boxes free for every 4 cases bought. Free samples will be distributed door to door.  
**Total sales promotion budget: \$ 2,1 million.**  
**Advertising budget: \$ 5 million**, and a further **\$ 150.000** might be spent on **marketing research** to buy consumer- and retail-panel information.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Marketing strategy development**
  - **Marketing strategy statement example** (part 3):
    - The company could intend to **win a 30% market share** and realize an after-tax return on investment of 10%. The **price** will initially be set at a high level and lowered gradually to expand the market and meet competition.  
The **total sales promotion budget** will be boosted each year by about 15%; **marketing research** will be reduced to \$50.000 annually following the first year.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Business analysis**
  - **Business analysis:**
    - This is a **review of the sales, costs and profit projections** for a new product to find out whether these factors satisfy the company's objectives. If so, the product proceeds to the actual product development stage.  
In order to estimate sales, the company will look at the sales history of similar products, and will conduct surveys of market opinion. This enables the company to estimate minimum and maximum sales, in order to assess the range of risk, and to calculate the estimated costs.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Actual product development**
  - **From paper to physical prototype:**
    - Until this stage, the product may have existed only as a word description, a drawing or maybe a crude simulation.  
  
In this stage R&D or the engineering department will develop the product concept into a physical product. This is the stage that generally calls for a **major jump in investment**.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Test marketing**
  - **Test marketing:**  
involves the stage of the new-product development process in which the product and marketing program are **tested in more realistic market conditions**, for instance in a shopping mall, or by placing the product in a couple of comparable retail shops in a certain vicinity.  
The costs of test marketing can be very high, and it doesn't guarantee success.  
Companies usually use one of 3 approaches:
    - **standard test marketing**
    - **controlled test marketing**
    - **simulated test marketing.**

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Test marketing**
  - **Standard test marketing:**
    - this involves finding a **small number of representative cities**, and conducting a full marketing campaign in these cities, including store audits, consumer and distributor surveys. The objective is to forecast sales and profits, find potential product problems and to fine-tune the marketing program.
    - Standard test marketing can **cost a lot of money** and **a lot of time** (sometimes 3 to 5 years). Moreover, it **provides competitors lots of insight** in the new product before being launched on a larger scale.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Test marketing**
  - **Controlled test marketing:**
    - this involves **monitoring controlled panels of stores** that have agreed to carry new products for a fee. Monitoring is conducted by market research firms, such as **Nielsen** or **GfK**, who offer store-by-store, week-by-week reports on the sales of tested products.
    - Controlled test marketing **usually costs less money than standard test marketing**, and can be **conducted more quickly**. However, this type of testing also **allows competitors to study the companies new product** before it is rolled out.

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## PRODUCT DEVELOPMENT & PLC

### New product development process

- **Test marketing**
  - **Simulated test markets:**
    - Because of the time, cost, and confidentiality problems of real world test marketing, firms often turn to **simulated (laboratory) test markets**. This technique simulates a full-scale test market, but in a limited manner, for instance, run in a simulated shopping environment within a market research center.
    - This type of testing overcomes some of the disadvantages of the other 2 types of testing, and usually costs much less. However, many marketers think it is **not as accurate or reliable** as larger, real world testing.

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle



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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

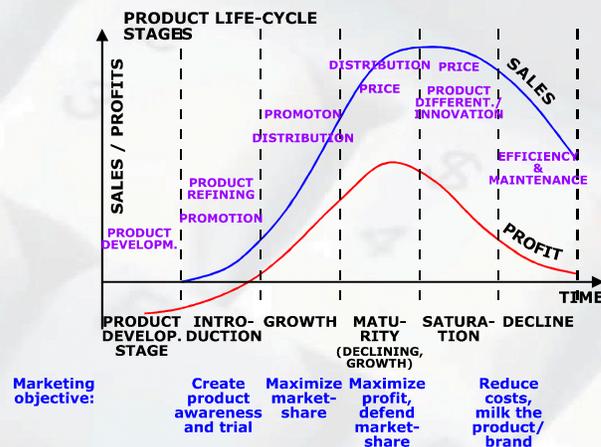
- **Product life cycle aspects**
  - **PLC:**
    - **the (graphical display of) the sales development of a certain product in the course of time**
    - **in general: PLC's tend to become shorter**
    - **factors that have affected the PLC-concept:**
      - **trend developments:** preferences, styles
      - **technological advances:** from LP-record to CD, from 8mm film to DVD-movie making, etc.
      - **the increase of prosperity:** more money, higher quality levels, better standards of living, etc.

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle



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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**
  - **1st stage: product development (Kotler):**
    - 1/ **exploration phase:** gathering of idea's (R&D, sales, marketing, customers, suppliers, etc.)
    - 2/ **screening phase:** evaluation of idea's
    - 3/ **concept testing** (elaboration on paper regarding product idea, product concept and product image)
    - 4/ **strategy development phase:** development of marketing strategy
    - 5/ **business economics analysis:** the business analysis
    - 6/ **development of the physical product,** the real thing
    - 7/ **testmarketing** ('P's', marketing program, etc.)
    - 8/ **product introduction:** commercial launch

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**
  - **2nd stage: product introduction:**
    - stage in which new product should catch on
    - slow growth due to buying resistance / reluctance, and unawareness and/or limited obtainability
    - marketing activities aimed at *innovators* and *early adopters*
    - large initial and running-in costs due to promotional activities
    - high risk of not catching on and not reaching success.

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**
  - **3rd stage: (rapid) growth stage:**
    - this stage will have been reached as soon as initial buyers start to repeat their purchasing.  
Total demand = initial + replacement demand
    - start-up problems have been overcome; the product is being accepted by the targeted market(s)
    - marketing activities are aimed at the *early adopters*
    - increasing competition, which leads to more emphasis on the brand and further product improvements
    - still high costs, regarding promotions and distribution (getting product more obtainable), resulting in relatively low profits and relatively low market share.

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**

- **4th stage: maturity:**

- this stage is characterized by *diminishing growth*
- the market for this product is still growing, but more slowly, and involving increasing competition (imitations), creating fierce market share battles
- emphasis on intensification of distribution
- price reductions, or product enhancement at same pricing
- during this stage, maximum penetration (or: possession) ratio will be achieved
- continuing segmentation

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**

- **5th stage: saturation:**

- the competition has caught up on technological backlog
- competing is aimed at conquering the replacement market
- there are more promotion costs involved; amount of sales and market share stay more or less constant; decreasing turnover and profits
- price reductions, or product enhancement at same pricing
- emphasis on lean production (cash-cow!)
- no further increase of penetration
- possible slight increase of additional demand

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## PRODUCT DEVELOPMENT & PLC

### PLC: Product life cycle

- **Product life cycle aspects**

- **6th stage: decline:**

- further decrease of sales; possibility of losses occurring
- possible moment to eliminate the product (dog!)
- causes: new products on the market that are technologically more advanced, and increasing competition from cheaper producing countries
- possible occurrence of wrongful corporate image ("this firm sells old-fashioned or obsolete products")
- possible delay of new product development
- problem: how long should this obsolete or weakened product be maintained?

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### PLC: Product life cycle

- **Product life cycle aspects**
  - **Possibilities to prolong the PLC (Levitt):**
    - by stimulating more frequent use of the product by the current users
    - by encouraging more varied use of the product by the current users
    - by creating new markets
    - by developing new applications of the product.