

# **Session 1 (GLS/JW)**

## **Introduction To Product Innovation & The Course**

**Week 1 (Friday)**

**MAST4001 & MASTG003**

STUDENT HANDOUTS

To be distributed in class

# **Welcome to Product Innovation in Organisations**

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# Today's Agenda

- **Tell you who we are**
- **Give you an overview of the course**
- **Discuss assessments/assignments**
- **Introduce you to the key concepts of NPD/ Innovation**



# Who are we?

**Gillian Lacey-Solymar**  
**New Product Development**



- **PPE Oxford**
- **MBA INSEAD**
- **McKinsey and Co**
- **BBC**
- **UCL**

**Jane Walker**  
**Decision making in  
organisations**



- **MBA City University**
- **PGCE Greenwich**
- **BT**
- **Coussins Associates**
- **UCL**

# Aims and Objectives

- **Aims** - The purpose of the course is to introduce the product innovation process within organisations, and identify key factors which influence success.
- **Objectives** - By the end of this course students will be able to leverage the tools and techniques to embark on a new product idea and gain authorisation within the organisation for its development.



# Course Outline

<b>Session</b>	<b>Date</b>	<b>Title</b>
<b>1</b>	<b>6 Oct</b>	<b>Intro to product innovation &amp; the course (GLS)</b>
<b>2</b>	<b>13 Oct</b>	<b>Organisation capabilities (JW)</b>
<b>3</b>	<b>20 Oct</b>	<b>Innovation &amp; creativity (GLS)</b>
<b>4</b>	<b>27 Oct</b>	<b>Influencing strategies – the rational organisation (JW)</b>
<b>5</b>	<b>3 Nov</b>	<b>NPD within the organisation (GLS)</b>
<b>READING WEEK – NO SESSIONS</b>		
<b>6</b>	<b>17 Nov</b>	<b>Influencing judgement (JW)</b>
<b>7</b>	<b>24 Nov</b>	<b>Market research (GLS)</b>
<b>8</b>	<b>1 Dec</b>	<b>Dealing with different agendas (JW)</b>
<b>9</b>	<b>8 Dec</b>	<b>Marketing the idea (GLS)</b>
<b>10</b>	<b>15 Dec</b>	<b>Dealing with closed minds (JW)</b>

# Assessment

- **Exam – 60%**
- **Assignments - 30%**
  - 15% Market research
  - 15% Influencing decision-making
- **Class participation – 10%**



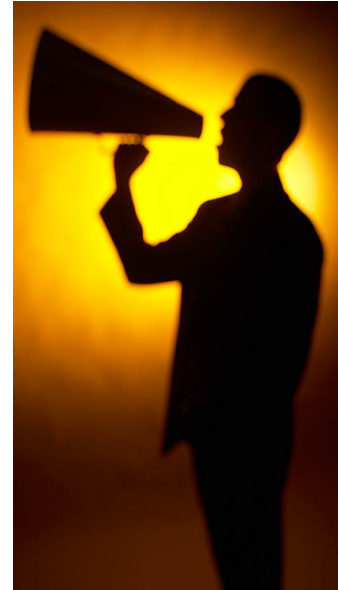
# **Class participation : Rationale**

- **Practice for communication in the ‘real world’**
  - **helps you to think on your feet**
  - **builds skills in unthreatening environment**
- **Enlivens lectures**
- **Permits learning from each other**
- **Common practice in business schools**



# **Class Participation – Views From Previous Students**

- **‘definitely a plus point...it makes you want to be involved in class discussions’**
- **‘interaction between your peers is as important as with the lecturer’**
- **‘helps things to sink in’**
- **‘it’s the best way to learn...lose fear of expressing yourself’**
- **‘contribution to finding the answer made learning much easier’**
- **‘many people brought unusual responses – good fun!’**
- **‘good practice for the future’**



# Class participation criteria

- Talking *per se* does not earn you credit.
- The following do:
  - insightful comments/questions
  - well prepared cases
  - building on others' points
  - *constructive* criticism of others' points



# Coursework Guidelines

- **How to submit**
- **Header sheet & declaration**
- **Assessment criteria**
- **Late submissions**
- **Referencing & bibliography**
- **Plagiarism**

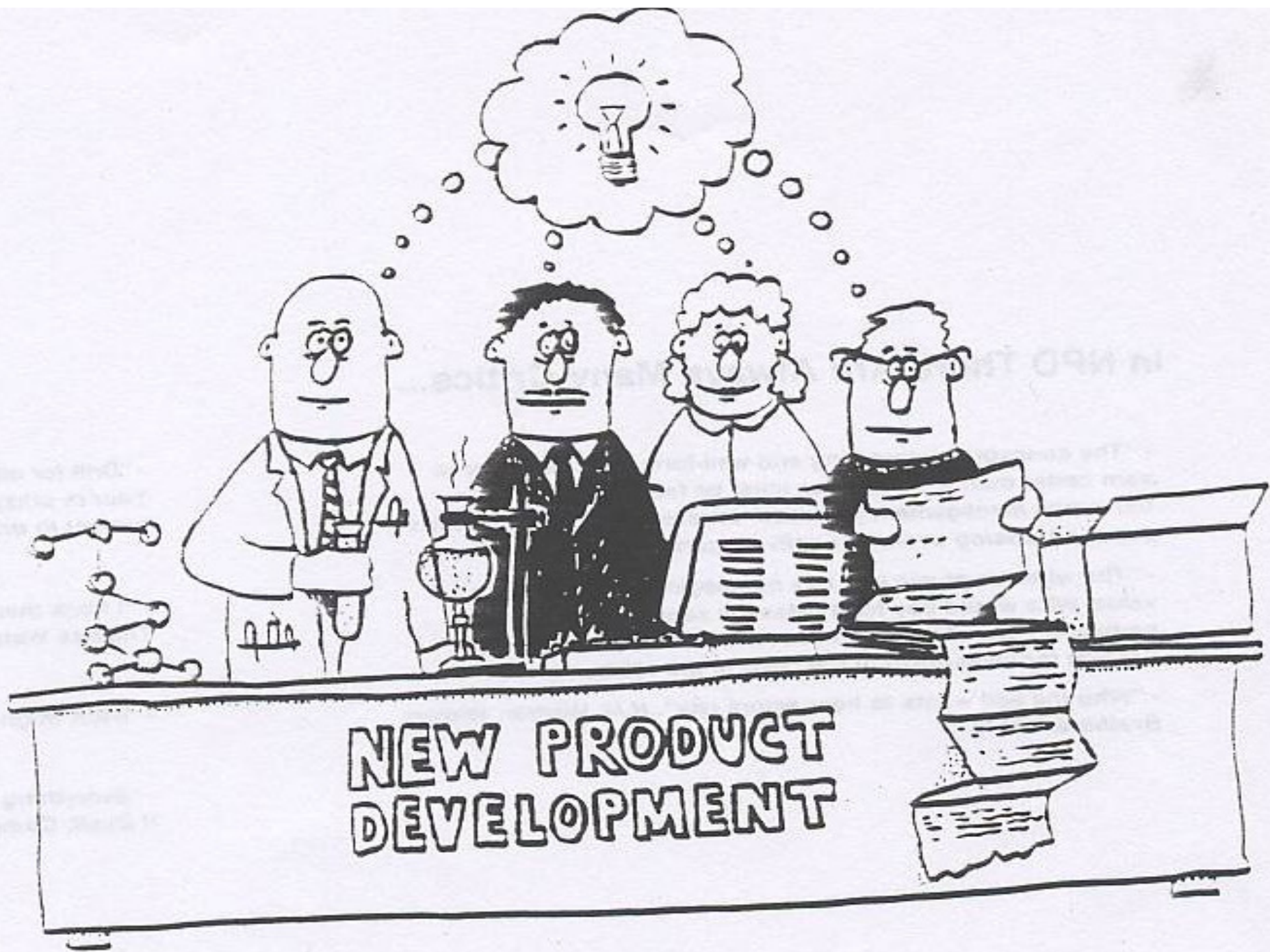




## Lecture 1

# New Product Development & Dynamics of Innovation

## Introduction

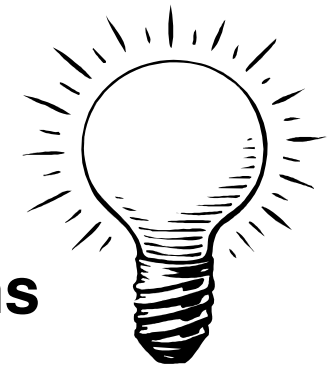


**NEW PRODUCT  
DEVELOPMENT**

# **NPD: Aims of the Course**

## **To Present:**

- **The challenges & practicalities of innovation.**
- **The concept that inventions may be the result of a single genius, but innovations require the involvement of many.**
- **Ideas on directions your career may take.**
- **Opportunities to make presentations and express views in a low risk environment.**



# Introduction to NPD: Everything You Ever Wanted To Know About NPD, But Were Afraid To Ask

**Which Qualities are Needed to Excel at NPD?**

**WHEN IS IT IMPORTANT?**  
**WHY BOTHER TO STUDY IT?**

What is NPD?

**HOW DO YOU PROTECT YOUR NPD IDEA?**

**WHY DOES NPD MATTER?**

What is its aim?

**HOW IS IT DONE?**

*What's my role in the process?*

**WHAT DISTINGUISHES SUCCESSFUL NPD?**

WHO DOES IT?

## Key Contention

INNOVATION IS

*FASCINATING*

BUT

*TOUGH*

# Products/Innovations Which Have Changed Lives

Chemotherapy  
Nuclear Bomb  
The Wheel  
Radar  
The Pill  
Washing Machine  
IVF  
Cars  
iPod  
Computers  
Telephone  
Electricity  
Penicillin  
Printing Press  
Space Rockets  
Brain Scanner  
Aeroplanes  
Contact Lenses

# (New) Products/Ideas Which Have Changed Lives

*Homeopathy*

*Thatcherism*

**Expressionism**

**Christianity**

New Labour?

Universal  
suffrage

*Mass  
Production*

*Education*

**Communism**

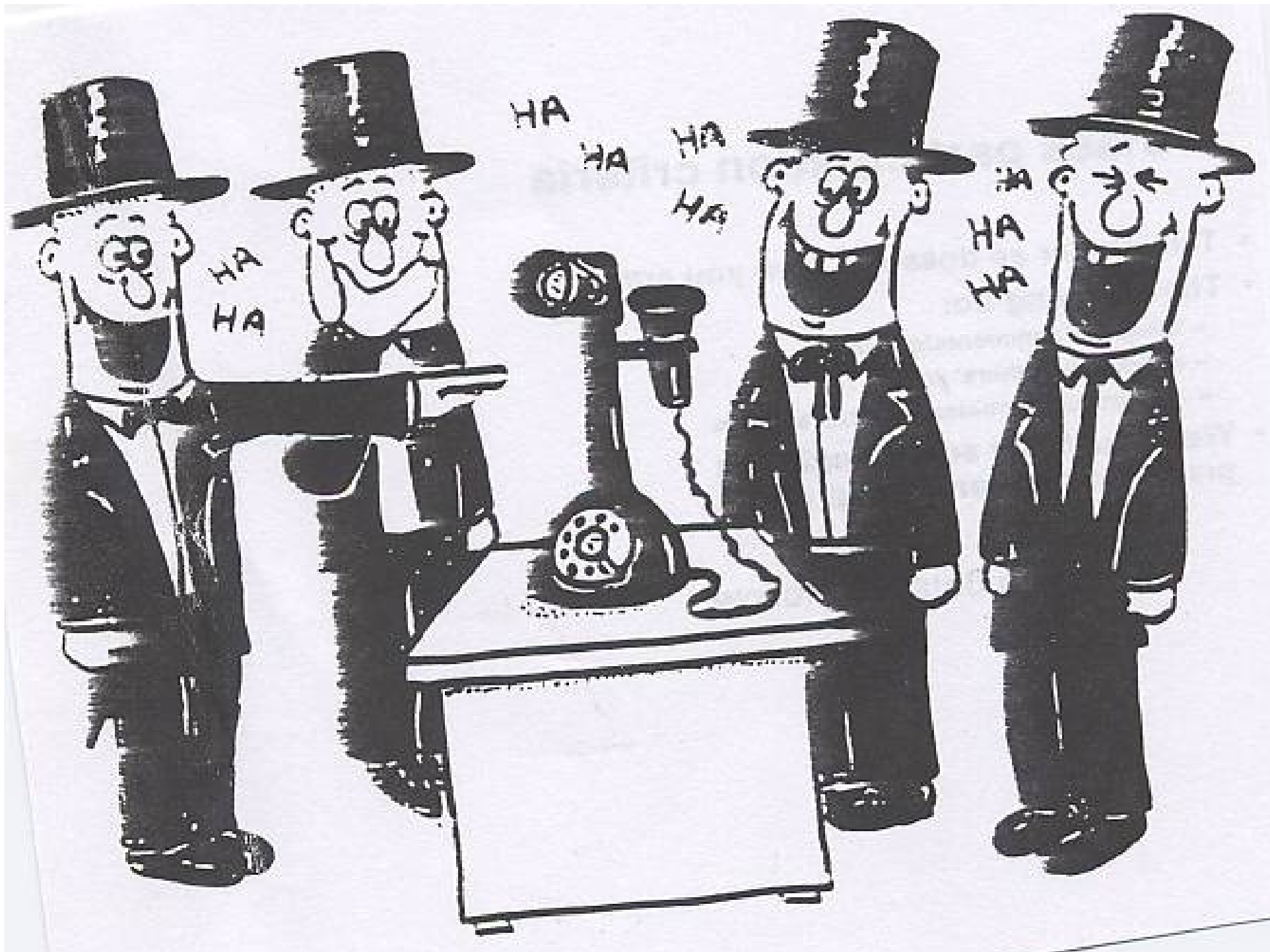
*Final  
Solution*

**Nouvelle  
Cuisine!**

Slavery

**Green  
movement**

**Cloning**



**- “This telephone’ has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us”. *Western Union Internal Memo, 1876.***



# **In NPD There Are Always Many Critics...**

**-“The concept is interesting and well-formed but in order to earn better than a ‘C’ the idea must be feasible”.**

**-- “The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular”.**

**-- “Who the hell wants to hear actors talk”.**

# **In NPD There Are Always Many Critics...**

- **“The concept is interesting and well-formed but in order to earn better than a ‘C’ the idea must be feasible”. *A Yale university management professor in response to Fred Smith’s paper proposing overnight delivery service.***
- **“The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular”. *David Sarnoff’s associates in response to his urgings for investment in the radio in the 1920s.***
- **“Who the hell wants to hear actors talk”. *H.M. Warner, Warner Brothers, 1927.***

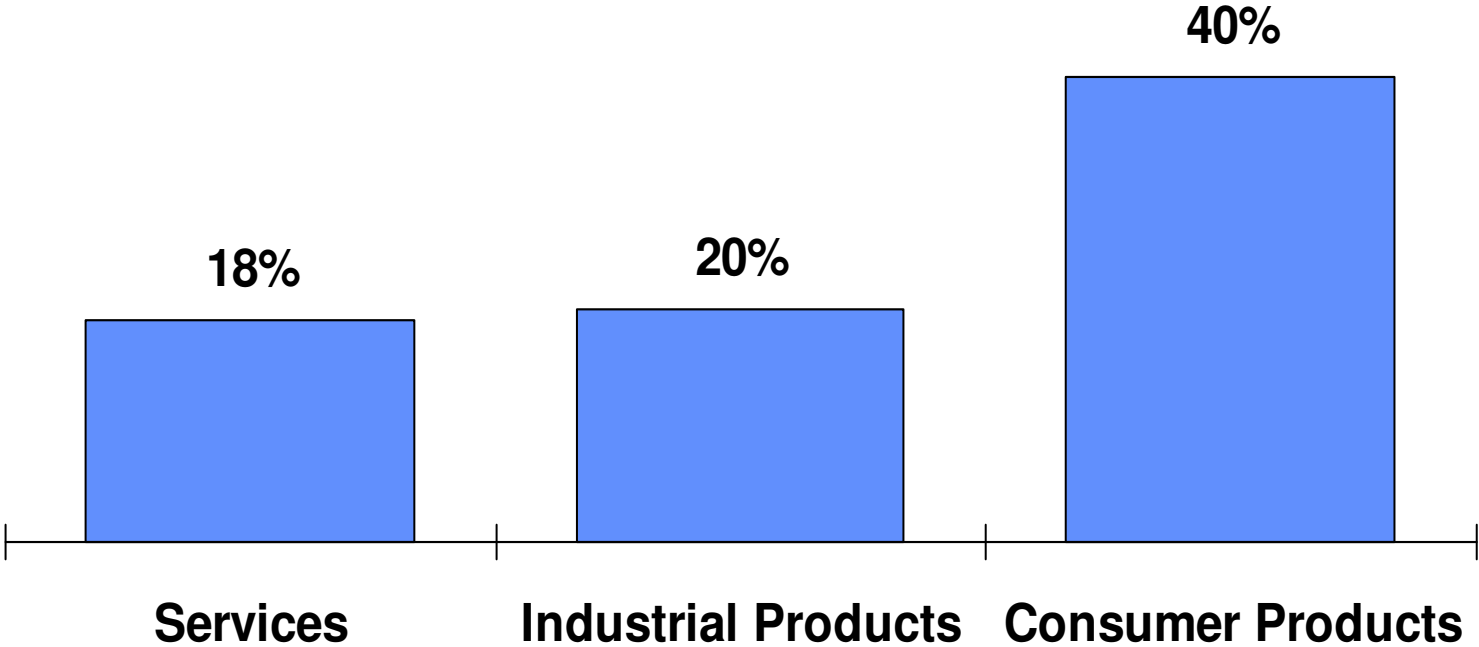
## **....Even for Fantastic Ideas**

- “Drill for oil? You mean drill into the ground to try and find oil? You're crazy”.**
- “I think there is a world market for maybe 5 computers”.**
- “Everything that can be invented, has been invented”.**

## **....Even for Fantastic Ideas**

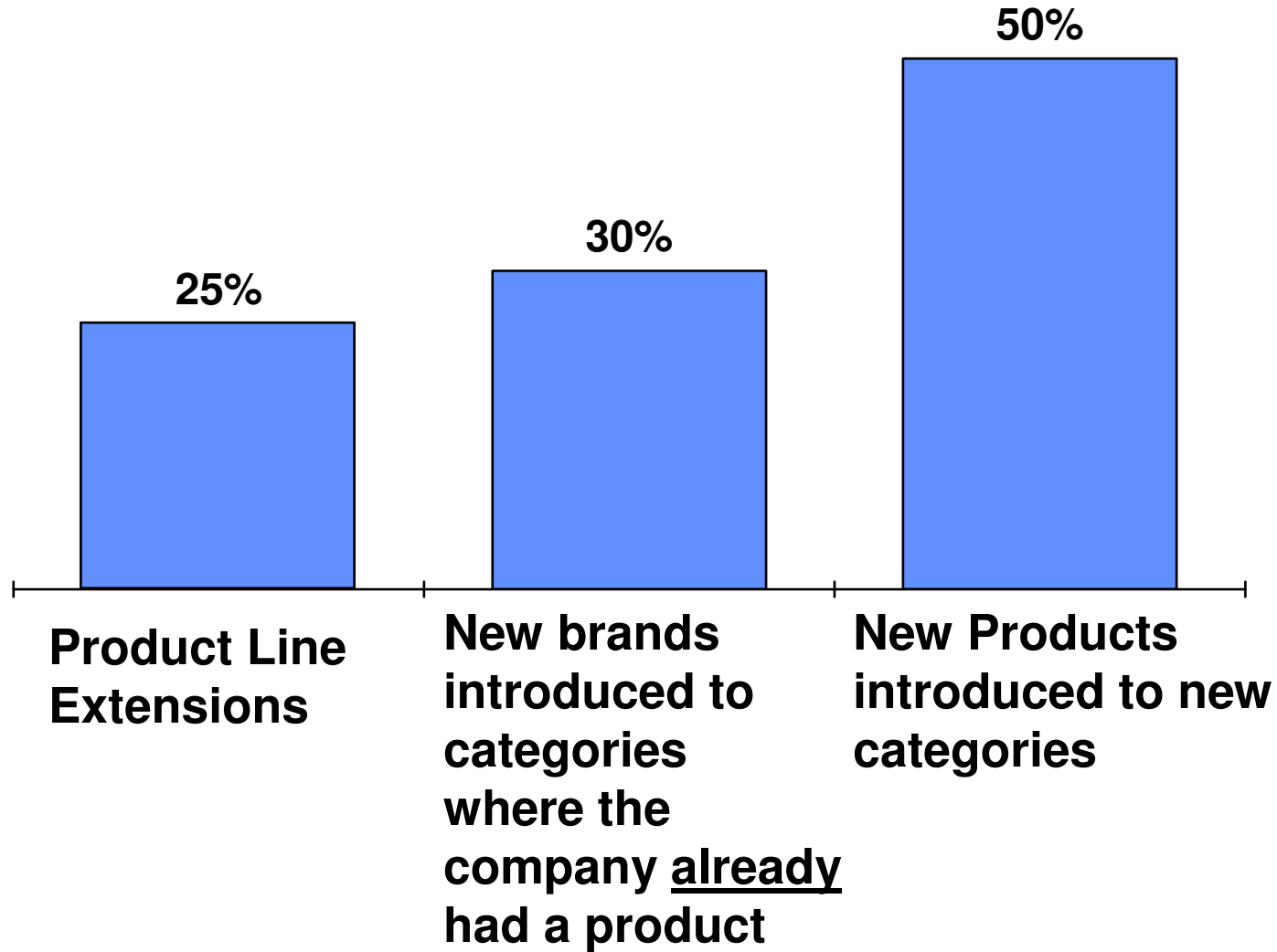
- **“Drill for oil? You mean drill into the ground to try and find oil? You're crazy”. *Drillers whom Edwin L. Drake tried to enlist to his project to drill for oil, 1859.***
- **“I think there is a world market for maybe 5 computers”. *Thomas Watson, Chairman of IBM, 1943.***
- **“Everything that can be invented, has been invented”. *Charles H Duell, Commissioner, US Office of Patents, 1899.***

# Failure Rate of New Products by Industry



Source: Hopkins & Bailey

# Failure of New Products by Product Types



# Prominent NPD Failures



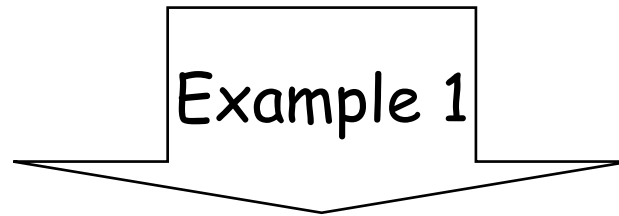
<b>Product</b>	<b>Company</b>	<b>Fin. Loss</b>	<b>Sector</b>
<b>Edsel</b>	<b>Ford</b>	<b>&gt;\$100m</b>	<b>Automotive</b>
<b>Rotary Engine</b>	<b>GM</b>	<b>&gt;\$100m</b>	<b>Automotive</b>
<b>Conform</b>	<b>Du Pont</b>	<b>\$100s m</b>	<b>Leather substitute</b>
<b>Happy Face</b>	<b>Gillette</b>	<b>\$ millions</b>	<b>Cleansing Cream</b>
<b>Alto P.C.</b>	<b>Xerox</b>	<b>\$ millions</b>	<b>Computing</b>
<b>Premium</b>	<b>RJR Nabisco</b>	<b>\$250m+</b>	<b>Cigarettes</b>
<b>Polarvision</b>	<b>Polaroid</b>	<b>\$100m+</b>	<b>Instant “Movies”</b>
<b>New Coke</b>	<b>Coca Cola</b>	<b>\$ millions</b>	<b>Soft Drinks</b>
<b>Darsani</b>	<b>Coca Cola</b>	<b>\$ millions</b>	<b>Purified water</b>

# DotCom Casualties: Examples

- boo.com
- garden.com
- quepasa.com
- foodoo.com
- govworks.com
- ibelieve.com
- pets.com
- clickmango.com
- boxman.com
- CDNow.com
- urbanfetch.com
- bagsoftime.com
- urwired.com
- thestreet.co.uk

# **But new product development remains crucial**

**Universal business mantra: Innovate or die**



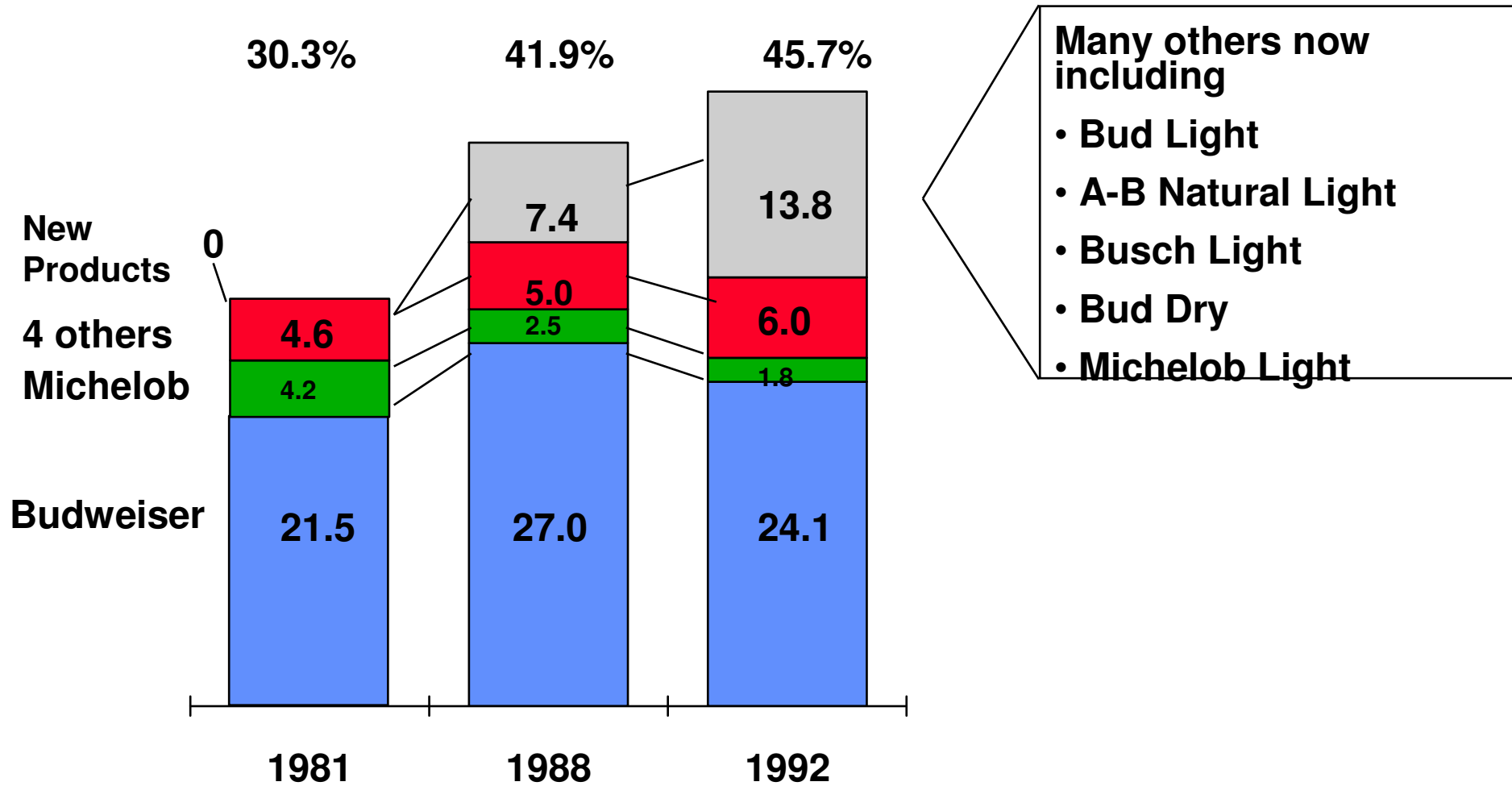
**“We expect new product vitality or the percent of company sales from products launched within the last 3 years, to double from its current level to over 30%.”**

**Mark D Ketchum, President and CEO Rubbermaid,  
April 2006**

## **...and most CEOs remain obsessed with NPD/Innovation**

- **“My priority will be to recreate the excitement and spirit of innovation that has evolved into the Sony brand over the past 6 decades.**  
*Sir Howard Stringer, Chairman and CEO, Sony June 2005 “In fiscal year 2005*
- **“The Disney team reinforced its position as an industry leader in quality, creativity and innovation, while generating double-digit earnings growth for our shareholders.”**  
*Robert A. Iger, President and CEO, Disney, Dec 2005*
- **“Due to the highly volatile and competitive nature of the PC and consumer electronics industries... the Company must continually introduce new products and technologies..”**  
*Apple Annual Report, March 2005*
- **“We've strengthened our innovation team considerably this year... This year we improved or introduced around 3,000 food products”**  
*Justin King, CEO Sainsbury's 2006 Annual Report*

## Example 2: Anheuser-Busch Market Share Increase



# What is NPD?

- **NPD= New product development is the research, development, conceptualisation, manufacture, marketing and launch of goods or services or processes not previously available on the market.**
- **NPD ≠ Narcissistic personality disorder (“An overly grandiose state of mind that deviates markedly from the expectation of the individual's culture, is pervasive and inflexible ... and leads to distress or impairment.”)**

# What is NPD?

## New

Can be entirely new product or simply a refinement of an existing product. (e.g. “new improved” washing powder)

## Product

A good or service which a customer (end consumer or intermediary) is willing to pay for (or a process that reduces cost)

## Development

Conceptualisation, research, design, manufacture, marketing and launch

# Innovation vs Invention

## Dictionary Definitions

### *Innovation*

#### Definition 1

- The act of introducing something new.
- Something newly introduced.

#### Definition 2

- a new device or process created by study and experimentation [syn: invention]

### *Invention*

#### Definition 1

- A new device, method, or process developed from study and experimentation: *the phonograph, an invention attributed to Thomas Edison.*
- A discovery; a finding. The act of introducing something new.

#### Definition 2

- A new device or process created by study and experimentation [syn: innovation]

*Definition 1: The American Heritage® Dictionary of the English Language, Fourth Edition*

*Definition 2: WordNet ® 1997 Princeton University*

# **Innovation vs Invention – possible definition**

**Innovation is the process of making an invention a usable (possibly commercial) reality**

**An innovation is an invention  
made real**

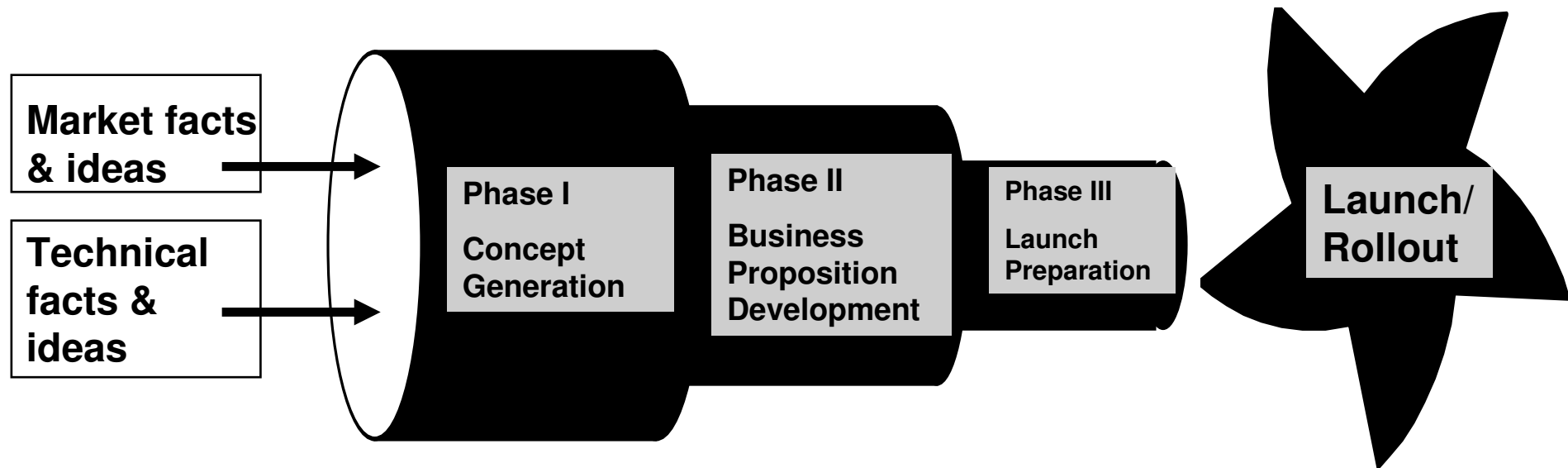
# **Innovation vs Invention**

**Innovation is not a single action but a total process of interrelated sub-processes. It is not just the conception of a new idea, nor the invention of a new device, nor the development of a new market. The process is all these things acting in an integrated fashion.**

**Paul Trott**

***Innovation Management and New Product Development***

## How is it Done?



### Activities

- Gather ideas
- Conduct demand research
- Develop project briefs
- Build total proposition
- Determine, test, refine components (packaging, name, etc)
- Organise logistics
- Prepare marketing campaign
- Brief salesforce
- Launch marketing campaign
- Distribute product
- Monitor progress

# What is a “New” Product?

<b>New to Company</b>	<b>Yes</b>	<b>Me-Too Product</b>	<b>New to World</b>
	<b>No</b>	<b>Product Improvement</b>	<b>Repositioning</b>
		<b>No</b>	<b>Yes</b>
		<b>New to Market</b>	

# What is its Aim?

## Immediate Aim

To develop products that:

- Customers want to buy
- Manufacturing can produce at reasonable cost
- Fit the company's image and strategy

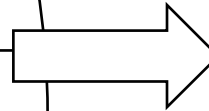
## Complementary Aim

To:

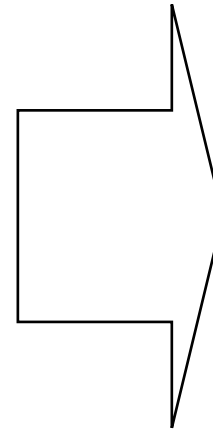
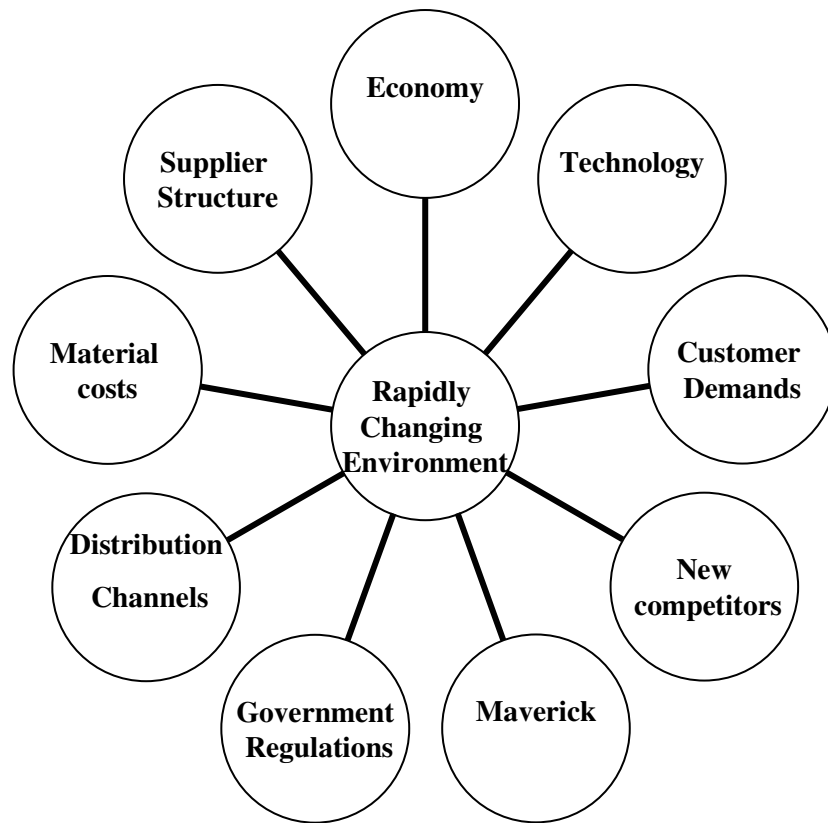
- Raise the company image
- Bring together functions which do not usually mix
- Learn new ways of working
- Test out leaders of the future

## Ultimate Aim

To maximise benefits (e.g. profit size, reputation) for the organisation which develops the product

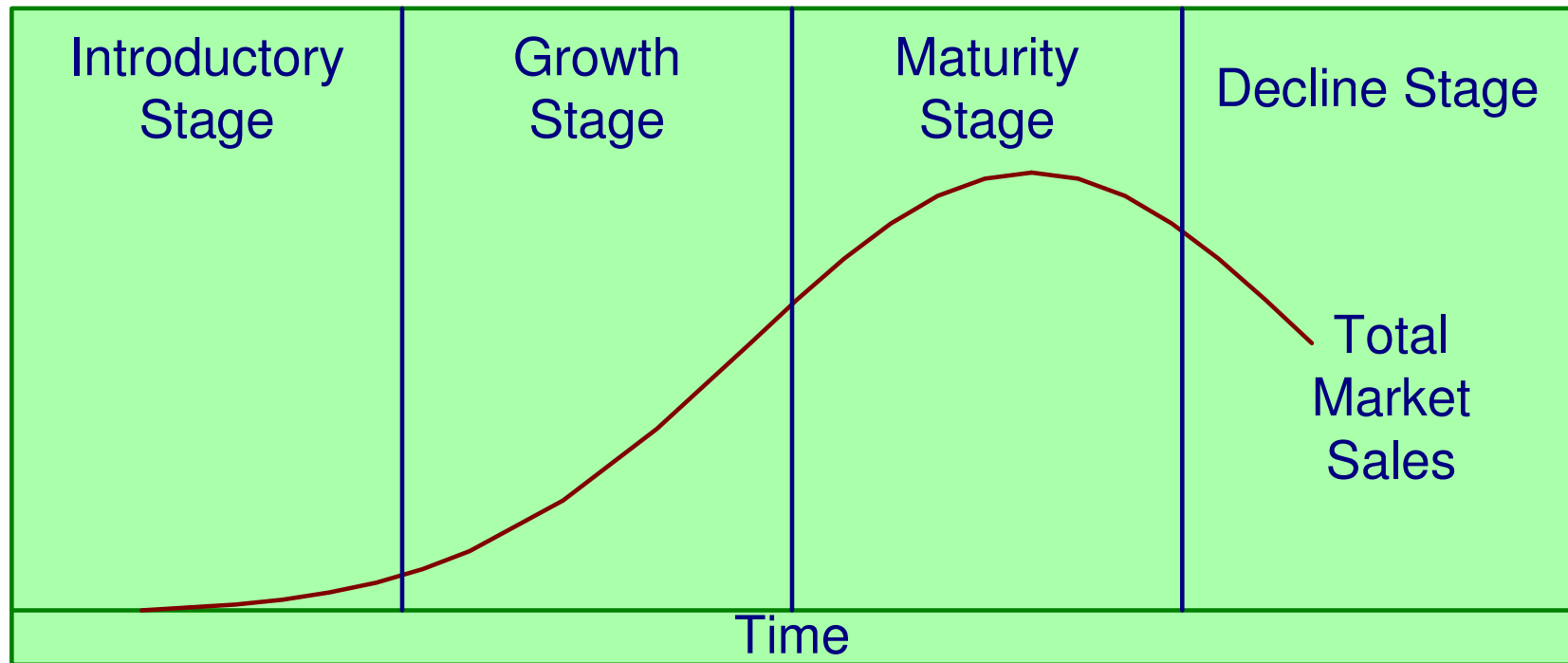


# When is NPD Vital?

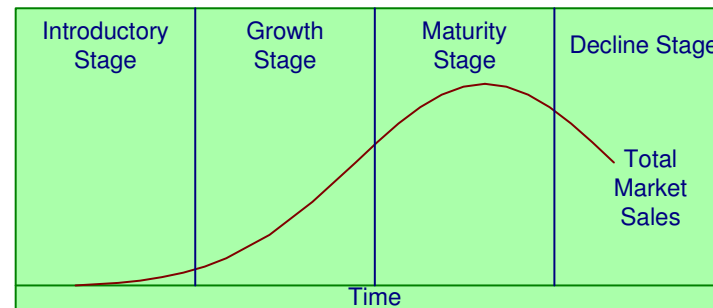


**Shortening  
product life-  
cycles and  
need for new  
products to  
maintain  
cashflow**

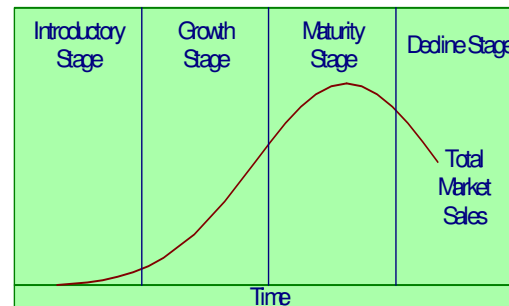
# Product Life Cycle



# Shortening Product Life Cycle



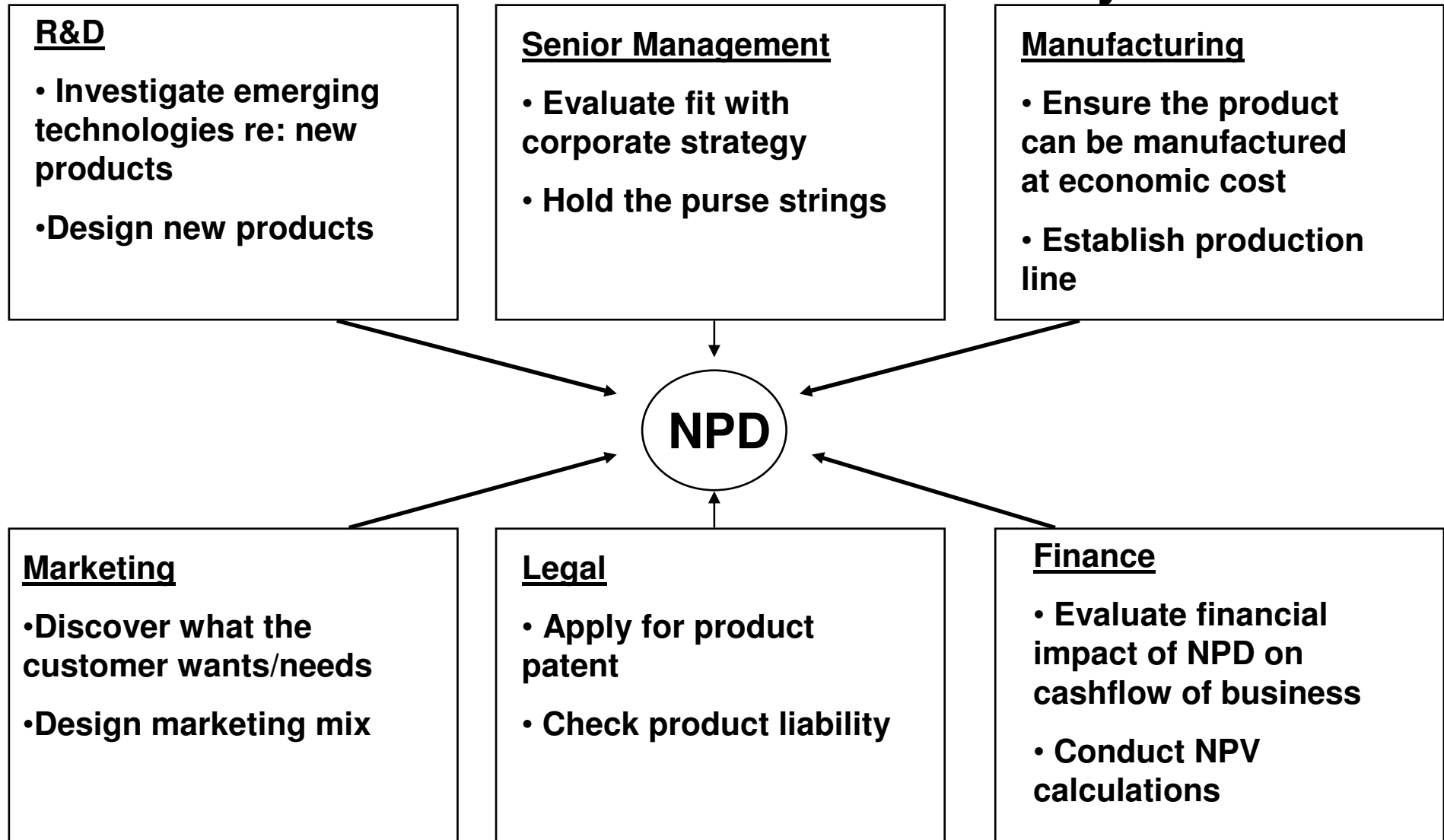
**Old PLC**



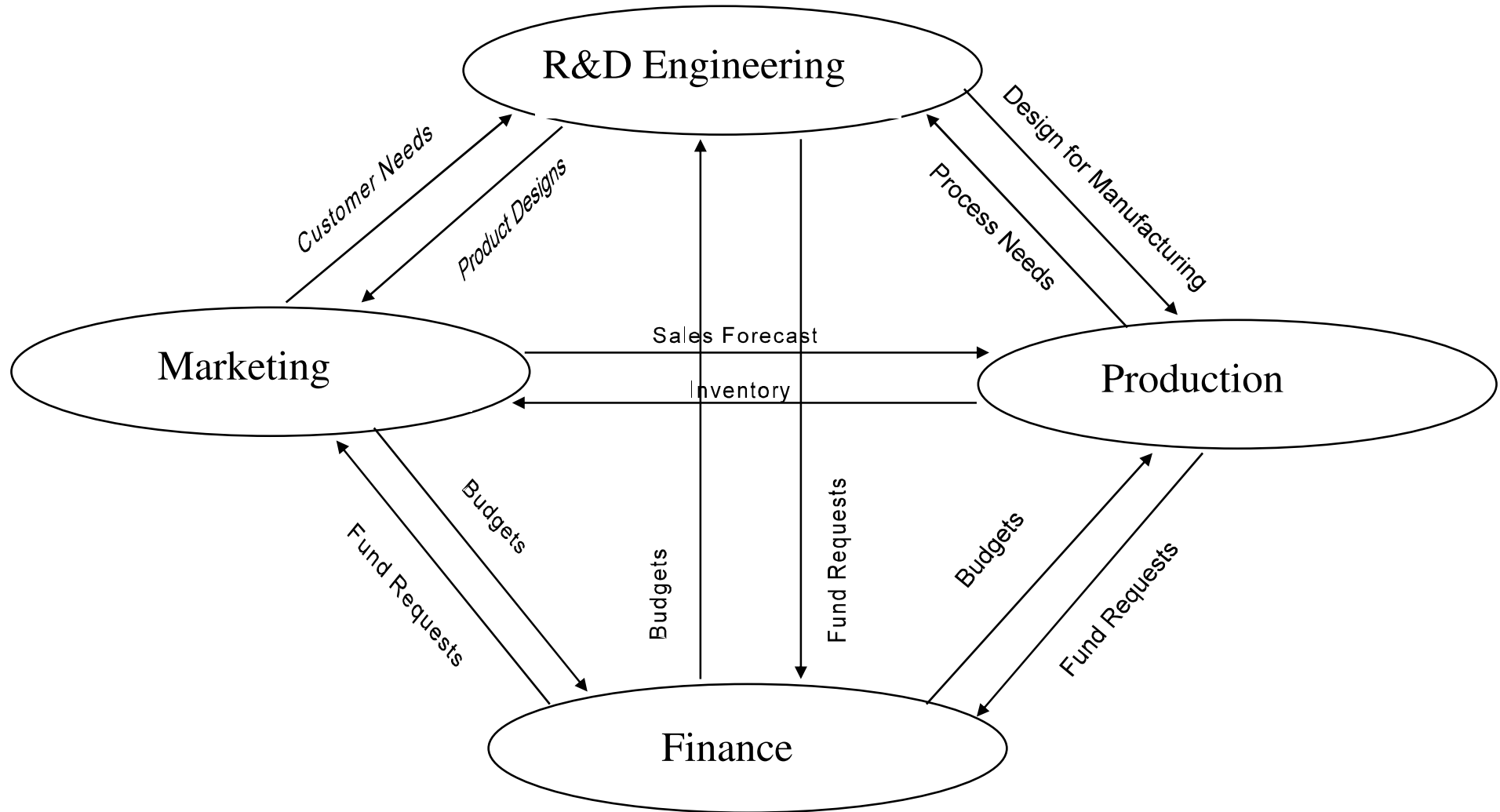
**New PLC**

**Example: Sony used to enjoy 3 year lead on competitors. Now companies like Panasonic/Matsushita can copy within 6 months**

# Who Does NPD and What Do They Do?

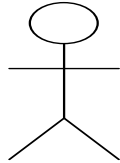


# Who Does It and What Do They Do? - Textbook View



# Which Qualities are Needed to Excel at NPD?

## Personal



**Curious, probing mind**

**“Out of the box” thinking**

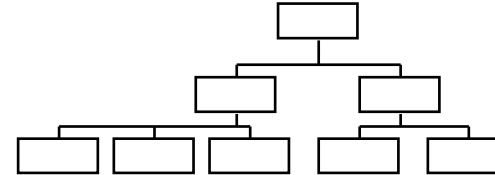
**Team - personality**

**Tolerance of ambiguity**

**Ability to cope with pressure**

**Eagerness to learn**

## Institutional



**Clearly defined goals and parameters**

**Encouragement of experimentation**

**Tolerance of failure**

**Support of team culture**

**Multifunctional not sequential teams**

**Backing of top management but “hands off” approach**

**Built in instability**

**Institutionalising “lessons learned”**

# **Why Should I Care About NPD?**

**It hones your innovative skills/instincts.**

**Anything new that looks to the future tends to be more dynamic and fun than anything static**

**It's your chance to make a difference (maybe?)**

**“If it's good for the organisation, it's good for me” (a.k.a. youthful enthusiasm)**

**It's likely to be good for your career to be associated with a new product success (a.k.a. hard nosed determination)**

# **NPD Questions: Rudimentary Answers**

<b>What is NPD?</b>	<ul style="list-style-type: none"><li>- 'New' doesn't necessarily mean earth-shattering</li><li>- Product doesn't necessarily mean "product" (service, process, etc)</li></ul>
<b>Why should an organisation do it?</b>	<ul style="list-style-type: none"><li>- At first sight it looks terrifying</li><li>- But it is critical for profits and long term survival (let alone all the complementary benefits)</li></ul>
<b>When is it vital?</b>	<ul style="list-style-type: none"><li>- When the environment is changing rapidly</li><li>- That means that product life cycles are shortening, and existing products become obsolete rapidly</li></ul>
<b>Who does it and what do they do?</b>	<ul style="list-style-type: none"><li>- Multiple departments within an organisation</li><li>- Interactivity is the key</li></ul>
<b>What qualities do you need to excel?</b>	<ul style="list-style-type: none"><li>- Probing mind and team personality</li><li>- Organisation with creative culture</li></ul>
<b>Why should I care</b>	<ul style="list-style-type: none"><li>- Benefits in terms of job satisfaction and advancement</li></ul>