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**STATISTICAL SERVICE**  
1444 Nicosia

FOR OFFICIAL USE							
Serial Number				Activity			Size

## **INNOVATION SURVEY**

### **2000-2002**

#### **INNOVATION SURVEY**

The purpose of this survey is the collection of information, not only relating to new or significantly improved products or processes and other related activities but also about the effects and the benefits of such activities in manufacturing and service industries **during the period 2000-2002**.

The survey is totally harmonized with the definitions, concepts and methodology followed by the Statistical Service of the European Union (Eurostat) on the basis of common questionnaire used for all E.U. country-members and candidate countries. To facilitate international comparisons, the definitions, concepts and methodology of the "Oslo Manual", developed by the Organisation for Economic Co-operation and Development (OECD), are being used.

The survey is carried out in accordance with the Statistics Law, No.15(I) of 2000. Refusal to provide the relevant information or the provision of false, inaccurate or incomplete information renders the respondent liable to the consequences of the Law.

The Statistical Service is obliged, under the provisions of the Statistical Law, to treat all the information collected as confidential. Your replies will be used solely for statistical purposes. No data for any individual enterprise may be published or disclosed to either public bodies or private individuals.

**You are required to answer all questions with the highest degree of accuracy. If you are unable to provide precise figures, you may give the nearest possible estimates.**

**In order to be able to compare enterprises with and without innovative activities, we request all enterprises to respond to all questions, unless otherwise instructed.**

**Name of the enterprise/organization:** \_\_\_\_\_

**Name of person who completed the questionnaire:** \_\_\_\_\_

**Position in the enterprise:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Tel.:** \_\_\_\_\_ **Telefax:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

## **BASIC DEFINITIONS**

There are 3 types of innovation activities:

- **Technological product and process innovations** - (Questions 1 to 11)
  - **Organisational innovation**
  - **Other changes in products and processes**
- (Question 12)

This questionnaire will deal with the first type of innovation activities.

The organisational change counts as innovation only if there is a measurable change in output, such as increased productivity or sales.

### **TECHNOLOGICAL PRODUCT AND PROCESS INNOVATION - (TPP)**

The **technological product and process innovations** comprise implemented technologically new products and processes and significant technological improvements in products and processes.

A TPP innovation has been implemented if:

- **It has been introduced on the market** (product innovation)
- **Used within a production process** (process innovation)

The **product and process innovation**, in this survey, is assessed from the following viewpoints:

**(1) Product innovation (goods or services)** with the following features:

- The new technology leads to a better performance of the good or service
- A broadening of the product or service range is accomplished

**(2) Process innovation:**

- The **process** itself with the following features:

- Become more automated or integrated
- More flexibility is achieved
- Improves the quality and safety
- Protects the environment

- **Logistics and control** in order the new technology to:

- lead to more efficient routing and planning
- achieve more flexibility in distribution
- improve the control of the stock of products

### **Note**

It is important to note that **a product innovation (good or service) for one enterprise could be a process innovation for other and vice versa, in the same or in a different sector of economic activity.**

Examples of technological innovations (product or process), are provided in Annex at the end of the questionnaire (pages14-16)

## General information about the enterprise

An enterprise is defined as the smallest combination of legal units that is an organisational unit producing goods or services. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Telefax: \_\_\_\_\_

Type of activity (describe fully): \_\_\_\_\_

### 0.1 Is the enterprise part of an enterprise group?

Yes ☐ → What is the country of head office of the group? \_\_\_\_\_

No ☐

### 0.2 Did any of the following significant changes occur to your enterprise during the time period 2000-2002?

	Yes	No
Your enterprise was established .....	<input type="checkbox"/>	<input type="checkbox"/>
Turnover increased by 10 % or more due to merger with another enterprise or part of it.....	<input type="checkbox"/>	<input type="checkbox"/>
Turnover decreased by 10 % or more due to sale or closure of part of the enterprise.....	<input type="checkbox"/>	<input type="checkbox"/>

### 0.3 What is your enterprise's most significant market? *(Please tick the most appropriate alternative)*

Local/regional -(inside of your district area limits) ..... ☐

National -(whole Cyprus)..... ☐

International | -(inside European Union) ..... ☐

                  | -(outside European Union) ..... ☐

### 0.4 Please indicate what is the average lifetime of your enterprise's most important product (good or service) before it is replaced or being significantly modified:

Less than 1 year	<input type="checkbox"/>	7 - 9 years	<input type="checkbox"/>
1 - 3 years	<input type="checkbox"/>	More than 9 years	<input type="checkbox"/>
4 - 6 years	<input type="checkbox"/>	Impossible to answer	<input type="checkbox"/>

## Innovation

An **innovation** is a new or significantly improved product (good or service) introduced to the market or the introduction within your enterprise of a new or significantly improved process. The innovation is based on the results of new technological developments, new combinations of existing technology or utilisation of other knowledge acquired by your enterprise.

### 1. Product innovation

**Product innovation** is a good or service which is either new or significantly improved with respect to its fundamental characteristics, technical specifications, incorporated software or other immaterial components, intended uses, or user friendliness.

The innovation should be **new to your enterprise**. **It has not necessarily to be new to the market.** It does not matter whether the innovation was developed by your enterprise or by another enterprise.

Changes of a solely aesthetically nature, and **purely selling** of innovations wholly produced and developed by other enterprises, shall **not be included**.

#### 1.1 During the period 2000-2002, did your enterprise introduce onto market any new or significantly improved products (goods or services) for your enterprise?

Yes ☐ → Who developed these products? *(Please tick the most appropriate alternative)*

Mainly your enterprise or enterprise group.....	<input type="checkbox"/>
Your enterprise in co-operation with other enterprises, universities or institutions.....	<input type="checkbox"/>
Mainly other enterprises, universities or institutions.....	<input type="checkbox"/>

No ☐ → Go to question 2

#### 1.2 Please give a short description of what is new or significantly improved with your most important product (good or service) innovation.

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#### 1.3 Please estimate how your turnover <sup>1</sup> in 2002 was distributed between

- New or significantly improved products (goods or services) introduced during the period 2000–2002.....	<input type="text"/>	<input type="text"/>	<input type="text"/>	%
- Unchanged or only marginally modified products (goods or services) during the period 2000–2002 <sup>2</sup> .....	<input type="text"/>	<input type="text"/>	<input type="text"/>	%
Συνολικός κύκλος εργασιών το 2002	1	0	0	%

#### 1.4 During the period 2000-2002, did your enterprise introduce new or significantly improved products (goods or services) not only new for your enterprise, but also new for your enterprise's market?

Yes ☐ → Please estimate the contribution of these products in total turnover <sup>1</sup> in 2002  %

No ☐

<sup>1</sup> **For Credit institutions:** Interests receivable and similar income  
**For Insurance services:** Gross premiums written

<sup>2</sup> Products wholly developed and produced by others shall be included here

## 2. Process innovation

**Process innovation** includes new and significantly improved production technology, new and significantly improved methods of supplying services and of delivering products. The outcome should be significant with respect to the level of output, quality of products (goods/services) or costs of production and distribution.

The innovation should be **new to your enterprise**.

**Your enterprise has not necessarily to be the first to introduce this process.**

It does not matter whether the innovation was developed by your enterprise or by another enterprise.

**Purely organisational or managerial changes shall not be included.**

### 2.1 During the period 2000-2002, has your enterprise introduced any new or significantly improved production processes including methods of supplying services and ways of delivering products?

Yes ☐ → Who developed these processes? *(Please tick the most appropriate alternative)*

Mainly your enterprise or enterprise group.....	<input type="checkbox"/>
Your enterprise in co-operation with other enterprises, universities or institutions.....	<input type="checkbox"/>
Mainly other enterprises, universities or institutions.....	<input type="checkbox"/>

No ☐ → Go to question 3

### 2.2 Please give a short description of what is new or significantly improved with your most important process innovation.

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## 3. Not yet completed or abandoned innovation activities

### 3.1 By the end of 2002, did your enterprise have any ongoing activities to develop or introduce new or significantly improved products (goods or services) or processes that were not yet completed, including any Research & Development (R&D) activity?

Yes ☐

No ☐

### 3.2 During the period 2000-2002, did your enterprise have any activities to develop or introduce new or significantly improved products (goods or services) or processes that were abandoned, including any R&D activity?

Yes ☐

No ☐

**Note: Enterprises with no recent innovation activity**  
(ie. answered **No** to each of the questions 1.1, 2.1, 3.1 and 3.2), should now go to question 10.1b. (page 14)

## 4. Innovation activity and expenditure in 2002

### 4.1 Did your enterprise engage in the following innovation activities in 2002?

Please tick «yes» for the following innovation activities if applied by your enterprise in 2002 by implementing new or significantly improved products (goods/ services) or processes based on science, technology or other knowledge areas. Subsequently, give an estimate of the related expenditures in 2002, including not yet completed or abandoned innovation activities. Tick «no» for activities not undertaken in 2002.

#### If yes

Please estimate innovative expenditure in 2002, included personnel and related investment expenditures (no depreciation)

Yes

No

In Cyprus pounds

#### Intramural Research and Experimental Development (R&D)

All creative work undertaken within your enterprise on a systematic basis in order to increase the stock of knowledge, and the use of this stock of knowledge to devise new applications, such as new and improved products (goods/ services) and processes (including software research)

☐
☐

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#### Acquisition of R&D (extramural R&D)

Same activities as above, but performed by other companies (including other enterprises within the group) or other public or private research organisations

☐
☐

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#### Acquisition of machinery and equipment

Advanced machinery, computer hardware specifically purchased to implement new or significantly improved products (goods/services) and/or processes

☐
☐

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#### Acquisition of other external knowledge

Purchase of rights to use patents and non-patented inventions, licenses, know-how, trademarks, software and other types of knowledge from others for use in your enterprise's innovations

☐
☐

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#### Training

Internal or external training for your personnel directly aimed at the development and/or introduction of innovations

☐
☐

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#### Market introduction of innovations

Internal or external marketing activities directly aimed at the market introduction of your enterprise's new or significantly improved products (goods/services), (may include preliminary market research, market tests and launch advertising, but exclude the building of distribution networks to market innovations)

☐
☐

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#### Design, other preparations for production/deliveries

Procedures and technical preparations to realise the actual implementation of products (goods/services) and process innovations not covered elsewhere

☐
☐

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.000

**Total innovation expenditure in 2002:**

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## 5. Intramural Research and Experimental Development (R&D)

If you have Intramural R&D activities:

» Answer **Yes** in the **Question 4.1** Intramural Research and Experimental Development (R&D)

### 5.1 How many persons were involved in intramural R&D activities within your enterprise in 2002? (in Full Time Equivalent)

The **Full-time Equivalent (F.T.E.)** expresses the total time devoted to research by a person **during one year**. One F.T.E. may be thought of as one **person-year** which corresponds to **one person working full-time on R&D during one year**. Thus, a person who normally spends 30% of his time on R&D and the remaining 70% on other activities should be considered as  $30/100 = 0,3$  person-years. Three persons who spend 30%, 50% and 80% of their time on R & D activities correspond to  $0,3 + 0,5 + 0,8 = 1,6$  persons-years.

Persons in full time equivalent :

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### 5.2 How did your enterprise engage in R&D during 2000-2002?

Continuously

Occasionally

## 6. Effects of innovation during 2000-2002

The result of innovation activity may have different effects for your enterprise. For the various alternatives, please indicate the degree of impact **at the end of 2002** by innovation activity undertaken by your enterprise during the period 2000-2002.

### EFFECTS

### Degree of impact

High Medium Low

Not  
relevant

#### Product oriented

Increased range of goods or services.....  
Increased market or market share.....  
Improved quality in goods or services.....


#### Process oriented

Improved production flexibility.....  
Increased production capacity.....  
Reduced labour costs per produced unit.....  
Reduced materials and energy per produced unit.....


#### Other effects

Improved environmental impact or health and safety aspects.....  
Met regulations or standards.....


## 7. Sources of information for innovation during the period 2000-2002

The main sources of information needed for suggesting new innovation projects or contributing to the implementation of existing projects are asked in this question.

*Please indicate the degree of importance attached to various alternative information sources*

INFORMATION SOURCE	Importance (if used)			Not used	
	High	Medium	Low		
<b>Internal sources</b>	Within the enterprise.....				
	Other enterprises within the enterprise group.....				
<b>Market sources</b>	Suppliers of equipment, materials, components or software.....				
	Clients or customers.....				
	Competitors and other enterprises from the same industry.....				
<b>Institutional sources</b>	Universities or other higher education institutes .....				
	Government or private non-profit research institutes.....				
<b>Other sources</b>	Professional conferences, meetings, journals.....				
	Fairs, exhibitions, internet.....				

## 8. Public funding of innovation

Public funding includes financial support in terms of grants and loans, including a subsidy element, and loan guarantees. Ordinary payments for orders of public customers shall not be included.

### 8.1 Did your enterprise receive any public financial support for innovation activities during the time period 2000-2002?

From:	Yes	No
Local or regional authorities.....		
Central government (including institutions working on behalf of central government) e.g. Research Promotion Foundation, Institute of Energy, Institute of Technology Specify→ .....		
European Union.....		

### 8.2. Has your enterprise received funding from the 5<sup>th</sup> (1998-2002) Framework Programme for Research and Experimental Development (R&D)?

Yes ☐

No ☐



## 9. Innovation co-operation during the period 2000-2002

**Innovation co-operation** means active participation in joint Research and Experimental Development (R&D) and other innovation projects with other organisations (either other enterprises or non-commercial institutions). It does not necessarily imply that both partners derive immediate commercial benefit from the venture. Pure contracting out of work, where there is no active collaboration, is not regarded as co-operation.

### 9.1 Did your enterprise have any co-operation arrangements on innovation activities with other enterprises or institutions during 2000-2002?

Yes ☐

No ☐ → Go to question 10

### 9.2 Please indicate the type of organisation and location

You may tick more than one category

Type of co-operation partner	National	E.U. (1) EFTA (2)	EU-CC (3)	USA	Japan	Other
Other enterprises within your enterprise group						
Suppliers of equipment, materials, components or software						
Clients or customers						
Competitors and other firms from the same industry						
Consultants						
Commercial laboratories /R&D enterprises						
Universities or other higher education institutes						
Government or private non-profit research institutes						

**(1) European Union (E.U.):** (Belgium, Denmark, Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden and the United Kingdom)

**(2) European Free Trade Association countries (EFTA):** (Iceland, Liechtenstein, Norway, Switzerland)

**(3) EU Candidate countries (EU-CC):** (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovak Republic, Slovenia Republic and Turkey)

## 10. Hampered innovation activity

### 10.1a. During the period 2000-2002 was any of your innovation activity?

- |  |     |                          |    |                          |
|--|-----|--------------------------|----|--------------------------|
| • seriously delayed? .....                             | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| • prevented to be started? .....                       | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| • burdened/cumbered with other serious problems? ..... | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |

Go to question 10.2

## Absence of innovation activity

### 10.1b. During the period 2000-2002 were any of the following reasons relevant for your firm not having any innovation activity at all:

- |   |     |                          |    |                          |
|---|-----|--------------------------|----|--------------------------|
| • no need due to prior innovations? ..... | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| • no need due to market conditions? ..... | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |
| • factors impeding innovation? .....      | Yes | <input type="checkbox"/> | No | <input type="checkbox"/> |

## Factors hampering innovation activity

### 10.2 If your enterprise experienced any hampering factors during the period 2000-2002, please grade the importance of the relevant factors

(you may tick more than one factor if necessary)

#### HAMPERING FACTORS

#### Degree of importance

High Medium Low

Not relevant

#### Economic factors

- Excessive perceived economic risks.....
- Innovation costs too high.....
- Lack of appropriate sources of finance.....

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

#### Internal factors

- Organisational rigidities within the enterprise.....
- Lack of qualified personnel.....
- Lack of information on technology.....
- Lack of information on markets.....

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

#### Other factors

- Insufficient flexibility of regulations or standards.....
- Lack of customer responsiveness to new goods or services.....

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>
<input type="checkbox"/>

## 11. Patents and other protection methods

**11.1a During the period 2000-2002, did your enterprise, or enterprise group, apply for at least one patent to protect inventions or innovations developed by your enterprise?**

			<b>Total Goods / services / processes</b>
Yes	<input type="text"/>	→ Please indicate the number of patent applications <sup>3</sup> .....	<input type="text"/>
No	<input type="text"/>		<input type="text"/>

**11.1b Did your enterprise, or enterprise group, has any valid patents at the end of 2002 protecting inventions or innovations developed by your enterprise**

			<b>Total Goods / services / processes</b>
Yes	<input type="text"/>	→ Please indicate the number of valid patents .....	<input type="text"/>
No	<input type="text"/>		<input type="text"/>

**11.1c What percentage of your turnover in 2002 was covered by patent applications or patents valid at the end of 2002 owned by your enterprise or enterprise group?**

Share of turnover in 2002:	<input type="text"/>	<input type="text"/>	<input type="text"/>	%	Impossible to answer	<input type="text" value="-7"/>
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**11.2 During the period 2000-2002, did your enterprise, or enterprise group, make use of any of these other methods to protect inventions or innovations developed in your enterprise?**

		<b>Yes</b>	<b>No</b>
<b>Formal methods</b>	Registration of design patterns.....	<input type="text"/>	<input type="text"/>
	Trademarks.....	<input type="text"/>	<input type="text"/>
	Copyright.....	<input type="text"/>	<input type="text"/>
<b>Strategic methods</b>	Classified and Secrecy.....	<input type="text"/>	<input type="text"/>
	Complexity of design.....	<input type="text"/>	<input type="text"/>
	Lead-time advantage on competitors.....	<input type="text"/>	<input type="text"/>

<sup>3</sup> Patent application/patent for the same invention to different patent offices shall only be counted as one patent application/patent.

## 12. Other important strategical and organisational changes in your enterprise

This questionnaire has so far only dealt with new and significantly improved products (goods and services) and processes. This final question refers to other creative improvements that might have been undertaken by your enterprise

**12.1 Did your enterprise during the period 2000-2002 undertake any of the following activities?**

		Yes	No
<b>Strategy</b>	Implementation of new or significantly changed corporate strategies.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>Management</b>	Implementation of advanced management techniques within your enterprise.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>Organisation</b>	Implementation of new or significantly changed organizational structures.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>Marketing</b>	Changing significantly your enterprise's marketing concepts/strategies.....	<input type="checkbox"/>	<input type="checkbox"/>
<b>Other changes</b>	Significant changes in the aesthetic appearance or design or other subjective changes in at least one of your products.....	<input type="checkbox"/>	<input type="checkbox"/>

### COMMENTS - REMARKS

[illegible]

## Basic economic information on the enterprise

(Only units located in the country in which you are reporting should be included)

### 0.5 Total turnover<sup>4</sup> from market sales of goods and services

Including exports and taxes except VAT  
(in Cyprus Pounds)

In year 2000

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.000

In the year 2002

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.000

### 0.6 Exports goods and services

(in Cyprus Pounds)

In year 2000

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.000

In the year 2002

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.000

### 0.7 Gross investments in tangible goods<sup>5</sup>

(in Cyprus Pounds)

In year 2000

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.000

In the year 2002

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.000

### 0.8 Number of employees<sup>6</sup>

In year 2000

--	--	--	--

In the year 2002

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Expected change for year 2004

No change	
Reduction	
Increase	

#### 0.8.1 Total number of employees

%

**Of which:** With Higher education  
(graduated from tertiary education)

University, College, ATI, TEI

#### 0.8.2 Total

In the year 2002

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Expected change for year 2004

No change	
Reduction	
Increase	

#### 0.8.3 of which: Female

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<sup>4</sup> **For Credit institutions:** Interests receivable and similar income  
**For Insurance services:** Gross premiums written

<sup>5</sup> Acquisition of machinery and equipment, building and land

<sup>6</sup> Annual average. If not available, number of employees at the end of the year can be used

## **WHAT IS CONSIDERED AS TECHNOLOGICAL INNOVATION**

Some examples of technological innovations (product or process), are provided herebelow by sector:  
(note that this list of examples is indicative and not exhaustive)

### **INDUSTRY**

#### **Product innovation (good or service)**

- Modules for life-science area and bio-engineering products
- Introduction of chipcard
- Introduction of telematics or the control and safety systems (ABS, ESP) in motor vehicles
- Remote maintenance
- Products for protection from any kind of radiation
- Microwave-ceramic and surface wave filters for mobile communication

#### **Process innovation**

- Sensor-based measuring of exhaust fumes particles
- Sensor-based measuring of products quality
- Minimisation systems for stocks of the products which count and control them
- New processes of chemical and other products based on different raw materials
- Electronic clearing systems (collection and pay with electronic way)
- Introduction of any computer-assisted/based/aided methods for product development (e.g. automated line of production)
- Introduction of finite-elements simulation programmes for control and optimisation of final or intermediate component parts of production or products
- Usage of e-commerce and web-related services

### **WHOLESALE TRADE**

#### **Product innovation**

- Inclusion of ecological products in the range of goods
- New kinds of certification services
- Inclusion of additional services: combine services “in one hand” (e.g. technical and consulting services or testing, examination and certifying of services)
- Pick-up service for customers or consulting and ordering at point of sale (PoS)
- Remote maintenance
- Sale via internet (e-commerce)
- Electronic clearing systems (collection and pay with electronic way)
- Direct selling to final customer

#### **Process innovation**

- Methods of tracking and tracing of shipments
- Development and introduction of digital distribution channels
- Laptops for sales persons as direct acquisition support
- Electronic clearing systems (collection and pay with electronic way)
- Digital product labelling e.g. scanner barcodes
- Reconstruction/reorganization of sales rooms, if this enables easier shopping for customers
- Receipts per PC which include more information on bills
- Electronic catalogues (e.g. CD-ROM)

- Call-centre solutions
- Enterprise own service workshop or garage
- Training of skilled labour to offer specially trained consulting services to customers
- New distribution information systems
- Interlinked data processing systems and computer network software
- Enabling of direct feedback channels customer-producer
- Customer care centre to co-ordinate all customer request

## **FINANCIAL SERVICES**

### **Product innovation**

- New or significantly improved insurance services (e.g. introduction of modular life insurance concepts, new occupational invalidity insurance, etc.)
- Introduction of asset based securities and cat-binds
- Introduction of central cards for direct clearing with hospitals

### **Process innovation**

- Banking services via telephone or internet (e-bank)
- The introduction of “smart cards” and multipurpose plastic cards
- Telephone controlling tools
- New or improved software or PC networks
- Application of new methods of risk diversification
- Opto-electronic document archiving
- The “paperless” back-office, where all documents are scanned for entry into computers
- Improved premium clearing systems
- Policing at the point of sale
- Introduction of new rating or scoring methods

## **OTHER SERVICES**

### **Product innovation**

- Ticket automates with EC cash or pay card
- New pay method (cash or credit card) and receipt with the amount calculated & printed also in Euro (€)
- Remote maintenance of software and remote consulting
- Development of flexible customer software
- Supply of new multimedia applications
- New logistic services and computer-assisted/based/aided logistic software packages

### **Process innovation**

- Electronic data interchange
- Computer aided design (CAD) and CAD projecting
- Introduction of multimedia applications (e.g. for training, eliminating the need for a human instructor)
- Electronic bank and bank services (e-bank)
- Improvement of computer networks and of network monitoring systems
- Application of thermographics to evaluate technical systems
- Internet based runtime tracing and satellite navigation systems (GPS)
- Introduction of digital transmission systems

## **WHAT IS NOT A TECHNOLOGICAL INNOVATION**

The web-related services and e-commerce are technological innovations, but only creating an information site without on-line services is not an innovation.

The ISO-certification is only an innovation when it is directly related to the introduction of new or improved processes.

It is important to make discrimination between Technological Product & Process innovation and the other two types of innovation (Organisational and Other changes in products & processes).

The **organisational innovation** in the enterprise includes the:

- introduction of significantly changed organisational structures
- implementation of advanced management techniques
- implementation of new or substantially changed corporate strategic orientations

The organisational change counts as innovation only if there is a measurable change in output, such as increased productivity or sales.

Whereas the complete reorganisation of the enterprise is “Organisational innovation” the reorganisation of its production facility can be considered as technological innovation (the introduction of *just-in-time systems*, should be treated as process innovation as it has a direct on the production of the products for the market.

The **Other changes in products & processes** include changes which:

**(1) are insignificant, minor, or do not involve a sufficient degree of novelty**

- ceasing of use a process or to market a product
- changes resulting purely from changes in factor prices
- simple replacement or update of a product
- custom production
- seasonal and other cyclical changes
- product differentiation (retitling or repackaging) in order to reach a new part of the market

**(2) make “other creative improvements” where the novelty does not concern the use or objective performance characteristics of the products or in the way they are produced or delivered but rather their aesthetic or other subjective qualities**

- improvement of products (goods or services) making them more attractive to the purchasers
- changes which largely depends on fashion
- general changes of aesthetic nature

### **FOR OFFICIAL USE**

Enumerator: ..... Date: .....

Examined by: ..... Date: .....

Final checking of questionnaire by:

..... Date: .....