

ANNEX I

QUESTIONNAIRE FOR THE FULL SCALE SURVEY

EUROPEAN INVENTORS' SURVEY 2003

This questionnaire is part of a research project aimed at improving our knowledge of the invention process, the incentives and rewards to the European inventors, and the value of their patents.

*These are critical issues for the European economy and society today, as also highlighted by the enclosed two letters from the Deputy Director General of the **European Commission** and the vice President of the **European Patent Office** supporting this initiative.*

The questionnaire, which takes about 15 minutes, was submitted to about 25,000 inventors located in six European countries: France, Germany, Italy, the Netherlands, Spain, the UK.

You have been selected as one of the inventors located in these countries and listed in one or more patents granted by the European Patent Office with priority date in years 1993-1996.

According to the law (cite the "privacy-law" in your country), the information that you provide will never be disclosed publicly in ways that permit your identification, nor any details of your answers will be disclosed to your current or former employers.

We appreciate your help in filling out the questionnaire. We will inform you about our main research findings by posting our results on the web-site of the project to be organised very soon.

The research group that manages this questionnaire is composed of six units listed below. You have been contacted by the unit in your country. Any query regarding the questionnaire should be directed to the project team in your country, and not to the European Commission or the European Patent Office.

Sant'Anna School of Advanced Studies

(Prof. Alfonso Gambardella)
P.zza Martiri della Libertà 33
56127 Pisa, Italy

Universitat Pompeu Fabra

(Prof. Walter Garcia-Fontes)
Ramon Trias Fargas 25-27
08005 Barcelona, Spain

Université de Lyon 2

(Prof. Christian Lebas)
14, avenue Berthelot
69363 LYON cédex 07

Eindhoven University of Technology

(Prof. Bart Verspagen)
P.O. Box 513 (DG 1.21)
5600 MB Eindhoven, NL

Ludwig-Maximilians-Universität

(Prof. Dietmar Harhoff)
Kaulbachstr. 45/II
80539 München

SPRU

(Prof. Aldo Geuna)
University of Sussex
Brighton BN1 9RF, UK



EUROPEAN COMMISSION
RESEARCH DIRECTORATE-GENERAL

The Deputy Director-General

Brussels, November 2002
RTD-K/3/UM/gl D(2002) n° 547543

Dear Sir or Madam,

You are no doubt aware that the European Commission attaches great importance to analysing both subjects related to research and innovation policy and to actions undertaken by the European Union in the area in recent years.

While technology is crucial for the economic and social growth of Europe, very little is known about the invention process, the incentives and rewards for inventors, or what determines (and can enhance) the value of the European patents.

What better way to obtain this information than asking the inventors themselves!

This is why I am asking for your help in filling out the enclosed questionnaire which is being sent to a very large number of inventors in France, Germany, Italy, the Netherlands, Spain, and the UK. The research underlying this questionnaire is being funded by the Commission and carried out by six leading research groups in economics from six top universities in these countries.

The high academic standing of these groups should guarantee the quality of the project, the confidentiality of the information, and the quality and independence of the resulting policy recommendations.

By replying you will be contributing to a unique research project, which has never been performed before on such a scale, and which will provide invaluable insights into how to improve the innovation process, and related policies, in Europe.

Sincerely Yours,

Hugh RICHARDSON



Europäisches
Patentamt

European
Patent Office

Office européen
des brevets

Generaldirektion 5
Fach/Internationale
Angelegenheiten
Der Vizepräsident

Directorate-General 5
Legal/International
Affairs
The Vice-President

Direction générale 5
Questions juridiques/
Affaires internationales
Le Vice-Président

EP/0200023-0-0000 München

EP/0200023-0
D-80200 München
+49-89-2399-5000
T: 823-656-epnu-d
Fax: +49-89-2399-5003

Telnet/Internet/Intranet

Date/Day/Date

November 2002

Dear Sir /Madam,

As you know, the patent system is a strong driver in the innovation process. A patent not only grants legal protection of an innovative idea, but also provides real economic value to the proprietor. Although this concept is widely known, the methods and processes by which the value of a patent is determined or perceived are not standard. As innovation is one of the determinants of economic growth, it would be useful to understand more about how the value of a patent feeds back into the innovation process.

The European Patent Office agrees that these questions merit further study and welcomes the initiative of the European Commission to conduct a survey on the value of European Patents. The survey will provide new information on the innovation process and its role in economic development.

We strongly urge you, therefore, to contribute to this important study, by taking a little time to complete the enclosed questionnaire.

The European Patent Office looks forward to seeing the final results of the survey, as it will add to our overall understanding of the innovation process and the role of patents within it.

Thank you.

Yours sincerely,



Professor Dr. Manuel Desantes
Vice-president

– *Questionnaire* –

Name of the Inventor(s):

Title of Patent:

Abstract:

EPO Patent ID number (application):

EPO Patent ID number (publication):

Year of application at EPO:

Applicant(s):

Countries in which the patent was granted:

PCT Application:

Notice:

In answering this questionnaire, please always refer to this particular patent, unless stated otherwise

SECTION A: PERSONAL INFORMATION

- A.1. Country of birth _____
- A.2. Year of birth _____
- A.3. Country of residence _____
(when the research leading to the patent was performed)
- A.4. Gender Male Female

SECTION B: EDUCATION

- B.1. When the research leading to this patent was conducted, your highest degree was: (Check one box near the relevant answer)
- Secondary School or lower University Master or equivalent
- High School Diploma University PhD or equivalent
- University BA or equivalent

- B.2. Please also indicate:

The year in which this degree was earned _____

The country in which it was earned _____

For University BA or higher, the discipline in which the degree was earned
(e.g. mechanical engineering, biochemistry) _____

(in case of more than one degree, please indicate only the most important for the patent)

SECTION C: EMPLOYMENT & MOBILITY

The following questions seek to document the mobility and careers of inventors.

Employment at the time of the invention

C.1 When the research leading to this patent was performed, your employment position was

Employed by *(please provide the name of your employer)*

Self-employed *(if applicable, please provide the name of your business)*

Student *(please specify the name of the institution and whether undergraduate or graduate)*

Other *(please specify)*

C.2 What would best describe the type of organisation above? *(check just one box)*

Large Firm (more than 250 employees) Government Research Organisation

Medium firm (100-250 employees) University and education

Small firm (less than 100 employees) Other Government

Hospital, Foundation, or Private Other *(please specify)*

Research Organisation

C.3 Is this organisation also *(one of)* the applicant(s) of the patent?

Yes

No

C.4 In which year did you join this organisation or start your business if self-employed? _____

Employment before the invention

C.5 What was your previous employment position?

Employed by *(please provide the name of your employer)*

Self-employed *(if applicable, please provide the name of your business)*

Student *(please specify the name of the institution and whether undergraduate or graduate)*

Other *(please specify)*

C.6 What would best describe the type of organisation above?

Large Firm (more than 250 employees) Government Research Organisation

Medium firm (100-250 employees) University and education

Small firm (less than 100 employees) Other Government

Hospital, Foundation, or Private Other *(please specify)*

Research Organisation

C.7 In which year did you join this organisation or start your business if self-employed? _____

C.8 If you were working for another employer prior to joining the employer where the invention was made, was the previous employer in the same industry? Yes No

Employment after the invention

C.9 How many times did you change your employer/organisation after the one of the patent in question C1?

I did not change employer *(please go to Section D)*

1

2

3

More than 3

C.10 What was your employment position after the one of the patent in question C1? *(If you changed more than once please indicate the one right after the patent)*

Employed by *(please provide the name of your employer)*

Self-employed *(if applicable, please provide the name of your business)*

Student *(please specify the name of the institution and whether undergraduate or graduate)*

Other *(please specify)*

C.11 What would best describe the type of organisation above?

Large Firm (more than 250 employees) Government Research Organisation

Medium firm (100-250 employees) University and education

Small firm (less than 100 employees) Other Government

Hospital, Foundation, or Private Research Organisation Other *(please specify)*

C.12 In which year did you join this organisation or start your business if self-employed? _____

Current employment

C.13 Is the employer you are working for now in the same industry as the one you were affiliated with when the invention was made?

Yes

No

SECTION D: THE INVENTION PROCESS

If you're the only inventor listed in the patent, go to question D.4

- D.1** Were one or more of your co-inventors listed in this patent employed by organisations other than your primary employer at the time of the invention (in question C.1)? Yes No
(If No, go to question D.4)

- D.2** Which organisations did your co-inventors belong to? *(Can check more than one box below)*

- | | |
|---|---|
| <input type="checkbox"/> Large Firm (more than 250 employees) | <input type="checkbox"/> Government Research Organisation |
| <input type="checkbox"/> Medium firm (100-250 employees) | <input type="checkbox"/> University and education |
| <input type="checkbox"/> Small firm (less than 100 employees) | <input type="checkbox"/> Other Government |
| <input type="checkbox"/> Hospital, Foundation, or Private Research Organisation | <input type="checkbox"/> Other <i>(please specify)</i> |
-

- D.3** Was any of your co-inventors not employed by *(one of)* the applicant(s) of the patent? Yes No

- D.4** Was there a formal or informal collaboration between your employer/organisation and other partners for the research leading to this patent? Please also include collaborations with applicants to this patent.
(By formal we mean collaborations involving well defined contracts among the parties)
 Yes No

If yes, please list the following information:

Name of partners	Objective of the collaboration	Formal	Informal
_____	_____	<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"/>

D.7 We are interested to find out in which region or city the invention was actually made. Please enter the zip code of the location where the invention was made and the name of the town or city and of the state.

Postcode: _____ City Name: _____

County: _____

D.8 We are interested to find out in which kind of urban or rural environment the invention was made. Please tick the most appropriate box:

The invention was made ...

- in a city with more than 1 million inhabitants.
- in a city with 500.000 to 1 million inhabitants
- in a city with 100.000 to 500.000 inhabitants
- in a city with 50.000 to 100.000 inhabitants
- in a city with 10.000 to 50.000 inhabitants
- in a city with fewer than 10.000 inhabitants
- in a rural area

D.9 Which of the following *scenarios* best describes the creative process that led to your invention? (*Check only one box near the relevant answer*)

- The invention was the targeted achievement of a research or development project
- The invention was an expected by-product of a research or development project, not directly related to the main target of the project
- The invention was an unexpected by-product of a research or development project, not directly related to the main target of the project
- The idea for the invention was directly related to your normal job (which is not inventing), and was then further developed in a (research or development) project
- The idea for the invention came from pure inspiration/creativity or from your normal job (which is not inventing), and was *not* further developed in a (research or development) project (was patented without further research or development costs) (*If you check this, please skip questions D.10 and D.11*)
- Other (*please specify*) _____

D.10 How many man-months did the research leading to the patent require?

- | | |
|--|--|
| <input type="checkbox"/> Less than 1 man-month | <input type="checkbox"/> 13-24 man-months |
| <input type="checkbox"/> 1-3 man-months | <input type="checkbox"/> 25-48 man-months |
| <input type="checkbox"/> 4-6 man-months | <input type="checkbox"/> 49-72 man-months |
| <input type="checkbox"/> 7-12 man-months | <input type="checkbox"/> more than 72 man-months |

D.11 What is your best estimate of the total costs (*in Euro*) of the research leading to this patent up to the date of application? (*Do not include legal fees or any other fees related to the patent application*) _____

D.12 Which of the following would best describe the financing of the research leading to this patent? (*can check more than one box below*)

- Internal funds of the patent applicant (*including his subsidiaries*)
- Funds from any other unaffiliated organization joining the project
- Funds from financial intermediaries of any kind (*banks, other financial institutions, etc.*)
- Government Research Programmes or other government funds
- Other (*please, specify*) _____

D.13 Why was it decided to patent the invention as it was, as opposed to developing it further by devoting additional resources? (*can check more than one box below*)

- The invention is good enough as it is
- The aims initially targeted for this invention were satisfied
- Further improvements could have been achieved, but estimated costs were beyond the resources (*budget*) available
- Further improvements seemed beyond existing technological opportunities
- Further improvements (*could have*) resulted in another invention that could be patented separately
- The invention had to be patented quickly, because your organisation was aware of other inventors, research groups or firms that were working on inventions in the same field

D.14 Did the invention build in a substantial way on other inventions that you knew? Yes No I do not know

(If No or don't know, go to Question D.16)

D.15 Was this previous invention one that had been made in the same organization? Yes No I do not know

D.16 We define a "family of patents" as a group of patents which crucially depend on each other in terms of their value, or in a technical way. Was the patent in question part of a family of patents?

Yes No I do not know

(If No or don't know, go to Section E)

D.17 Please indicate how many patents were part of the patent family

1-2 3-5 6-10 11-20 >20

I do not know

D.18 How many man-months did the research leading to the whole family of patents require?

Less than 1 man-month

25-48 man-months

1-3 man-months

49-72 man-months

4-6 man-months

73-96 man-months

7-12 man-months

97-120 man-months

13-24 man-months

more than 120 man-months

D.19 What is your best estimate of the total costs (*in Euro*) of the research leading to the whole family of patents up to the date of application? (*Do not include legal fees or any other fees related to the patent application*) _____

SECTION E: INVENTORS' REWARDS

We understand that the questions in this Section may sound "intrusive" as they deal with personal compensations. Yet, they are crucial to understand the rewards of the inventors and to devise innovative schemes to encourage the production of inventions. We invite you to answer openly. Recall that the information that you provide in this questionnaire will never be disclosed in ways that would identify you or associate your name with your answers.

E.1 Did you receive any personal monetary compensation expressly offered because of the production of this patent? Yes No
(If No, go to Question E.4)

E.2 Was this a *permanent* or *transitory* increase in income?
(Permanent = e.g. increases in salary, career advances with implied raise, flow of rents from licensing the patent or exploiting it in a new firm; Transitory = e.g. fees, bonuses, prizes, license fees or similar obtained once)
 Permanent Transitory Both

E.3 What share of your annual income did this compensation amount to?
(Indicate percentage) _____

E.4 How important are to you the following rewards for patenting? *(1=not important; 5=very important)*

	1	2	3	4	5
- Monetary rewards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Career advances and opportunities for new/better jobs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Prestige/reputation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Innovations increase the performance of the organisation I work for	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Satisfaction to show that something is technically possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Benefits in terms of working condition as a reward by the employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
- Others <i>(please specify)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- E.5 How many European patent applications (including the one of this patent) list you as an inventor so far? _____

SECTION F: VALUE OF THE PATENT

Sometimes the inventors do not have exact information about the value of their patents, but they usually have an idea about it. Your “informed guesses” would then be perfectly suitable answers in this section. At the same time, we welcome you to consult with anyone in your company or institution who you think would know better. The questions in this section are crucial to understand how to increase the value of the European patents. Once again, this information will never be disclosed in ways that would enable anyone to identify you or your patent.

- F.1 In comparison with other patents in your industry or technological field, how would you rate the economic and strategic value of this patent?
- Top 10%
 - Top 25%, but not top 10%
 - Top 50%, but not top 25%
 - Bottom 50%
- F.2 Has the applicant/owner ever used this patent for commercial or industrial purposes?
- Yes No Not yet, but still investigating the possibilities
- F.3 Has this patent been licensed by (*one of*) the patent-holder(s) to an independent party?
- Yes No No, but willing to license
- F.4 Has this patent been exploited commercially by yourself or any of your co-inventors by starting a new company? Yes No

F.5 How important were the following reasons for patenting this invention?

	1	2	3	4	5
Commercial exploitation (<i>obtain exclusive rights to exploit the invention economically</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Licensing (<i>obtain exclusive rights to license the invention in order to generate licensing revenues</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cross-licensing (<i>improve your bargaining position in the trading of your own patent rights in exchange for other firms' patent rights</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prevention from imitation (<i>protect present or future inventions by patenting the "findings around"</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blocking patents (<i>avoid that others patent similar inventions</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reputation (<i>patents as an element of evaluation of the inventors/research unit</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (<i>please specify</i>) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

F.6 Was this patent ever litigated in a court? (*By litigation, we mean court proceedings other than opposition or appeal at the European Patent Office*)

Yes No

F.7 This is a hypothetical question. "Suppose that on the day in which this patent was granted, the applicant had all the information about the value of the patent that is available today. In case a potential competitor of the applicant was interested in buying the patent, what would be the minimum price (in Euro) the applicant should demand?"

- | | |
|---|---|
| <input type="checkbox"/> Less than € 30.000 | <input type="checkbox"/> € 3 million to € 10 million |
| <input type="checkbox"/> € 30.000 to € 100.000 | <input type="checkbox"/> € 10 million to € 30 million |
| <input type="checkbox"/> € 100.000 to € 300.000 | <input type="checkbox"/> € 30 million to € 100 million |
| <input type="checkbox"/> € 300.000 to € 1 million | <input type="checkbox"/> € 100 million to € 300 million |
| <input type="checkbox"/> € 1 million to € 3 million | <input type="checkbox"/> More than € 300 million |

(If the patent is not part of a family, i.e. you answered No or Don't Know to question D.16 above, please skip question F8 below and go to "Your Remarks" at the end of the questionnaire)

F.8 You have already indicated a hypothetical value of the patent in F.7 above. Please give below your best guess about the hypothetical value of the whole family of patents.

- | | |
|--|---|
| <input type="checkbox"/> Less than € 30.000 | <input type="checkbox"/> € 10 million to € 30 million |
| <input type="checkbox"/> € 30.000 to € 100.000 | <input type="checkbox"/> € 30 million to € 100 million |
| <input type="checkbox"/> € 100.000 to € 300.000 | <input type="checkbox"/> € 100 million to € 300 million |
| <input type="checkbox"/> € 300.000 to € 1 million | <input type="checkbox"/> € 300 million to € 1 billion |
| <input type="checkbox"/> € 1 million to € 3 million | <input type="checkbox"/> € 1 billion to € 3 billion |
| <input type="checkbox"/> € 3 million to € 10 million | <input type="checkbox"/> More than € 3 billion |

YOUR REMARKS

Please indicate your e-mail address if you are interested in receiving the final report of this research:

_____@_____