

## Usage Profiles Of Patent Information Among Current And Potential Users

Report On The Main Results Of The Survey

Commissioned by the European Patent Office

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## Foreword

By Curt Edfjäll,  
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The subject-matter of this study is patent information. We are aware of previous surveys concerned with innovation, the use of the patent system and the commercial value of patents. However we are not aware of any previous survey on this scale which deals exclusively with the subject of patent information.

This survey was carried out in an attempt to identify the usage profile of patent information amongst current users. Another aim was to try and contact non-users to discover what it is exactly, that prevents them from using patent information, and what could be done to encourage them to use patent information in the future. The survey was also intended to determine whether "advanced" applications of patent information exist or should be developed, in addition to the "traditional" uses of patent information.

The overriding philosophy in carrying out the study was to give the user a voice in determining the future of the patent information business.

The preparation phase of the survey involved discussion and consultation with representatives of suppliers and users of patent information. Wherever possible their views were incorporated into the design of the survey, data collection and analysis.

Respondents were selected predominantly from lists of industrial, technology-based manufacturing and service companies of all sizes from all technology fields in each country. Since the survey was concerned with patent information, deliberately no attempt was made to make use of patent applicant databases (with the attendant bias) in order to compile the list of respondents.

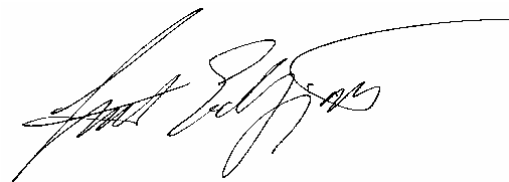
The survey was carried out during the period December 2002 to May 2003, among the member states of the EPC and the candidate states. The survey was also carried out in the USA for comparison purposes. The selection criteria for respondents were the same for all countries. All participants were notified in advance of the

survey by letter and the survey interviews were carried out by telephone, using the 22 languages required.

The results of the survey are to be seen as information which;

- 1) benchmarks the current usage (2003) of patent information in Europe and the USA.
- 2) highlights the particular needs of the new EPC member states.
- 3) identifies the different requirements for patent information in different market sectors and target groups.
- 4) especially identifies particular markets with particular patent information requirements.
- 5) confirms the need for new patent information products and services based on the role of the user in determining the design, supply, and provision of patent information.
- 6) may identify roles for the various patent information suppliers.

We are confident that the results of the survey will be of great interest to patent professionals especially, and also to the wider public. The EPO is of course, interested to receive feedback on any aspects of this report.

A handwritten signature in black ink, appearing to read 'C. Edfjäll', is written over a horizontal line.

C. Edfjäll  
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Munich October 2003



If you would like to send us feedback on this report, or you would like to discuss the possibility of further analysis of the raw data please contact:

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## DEFINITIONS AND GLOSSARY

We define here a number of terms, and describe some concepts which are used throughout the report.

### Patent Information (PI)

Patent information, although superficially a simple concept, is nevertheless rather complex. In order to provide a baseline definition against which we can compare respondents' definitions, we arbitrarily define patent information as:

".....the information contained in patents, and information about patents. Patent information is a resource and archive. Patent information includes technical, commercial, and legal aspects. Patent information allows directed actions to be taken, based on reasoned decisions."

### Patent User

Patent users or users of the patent system are defined as organisations or individuals which have either applied for at least one patent in the past and/or who work with patented technology as licensee or licensor. That is, they have a knowledge of patents as legal instruments, which can be exploited commercially.

### Country groups

It is convenient to discuss the results of the survey according to a priori geographic or territorial definitions.

### EPC20

Accordingly we define the EPC20 group as those member states of the European Patent Convention prior to 30<sup>th</sup> June 2002 i.e.: Austria, Belgium, Switzerland, Cyprus, Germany, Hellenic Republic, Denmark, Spain, Finland, France, Italy, Ireland, Liechtenstein, Luxembourg, The Netherlands, Monaco, Portugal, Sweden Turkey, United Kingdom.

### EPC10

Similarly, we define the group of countries which have acceded to the European Patent Convention since 1<sup>st</sup> July 2002 i.e. Estonia, Bulgaria, Czech Republic, Hungary, Slovenia, Slovakia, Romania. In the EPC10 group we include those countries; Latvia, Lithuania, Poland which may accede to the EPC but have yet to do so.

### Control

We define the USA as the control group with one member only. The USA was included in the study for comparison purposes and as a “standard”

### Clusters

Post-survey cluster analysis revealed three main characteristics of the way companies treat patents and patent information. According to these characteristics the three clusters were designated:

Name of Cluster	Characteristics of Respondents In This Cluster
Experienced	extensive use of patents and patent information, self sufficient
Inexperienced	little use of patents and patent information, do not require further assistance
Interested	limited use of patents, see patent information as important, need assistance with retrieving and understanding patent information

### Respondent Group

Respondents taking part in the survey grouped according to function. The largest group was the manufacturing, technology-based industry group. Smaller groups were the construction

industry, universities, professional associations including intermediaries such as libraries, and European patent attorneys.

### Target Group

A definition of a group according to whether the respondents are users or non-users of the patent system (see "patent user" above) and/or users or non-users of patent information. With this definition there are 4 possibilities

Patent applicants (users) who use patent information.	Non-patent applicants (users) who use patent information
Patent applicants (users) who do not use patent information	Non patent applicants (users) who do not use patent information

### ABBREVIATIONS, INITIALS, SYMBOLS

CATI	Computer assisted telephone interviewing
EPC	European Patent Convention
EPO	European Patent Office
IP	Intellectual Property
IPR(s)	Intellectual Property Right(s)
NPO(s)	National Patent Office(s)
PI	Patent Information
R&D	Research and Development

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# 1 Summary And Conclusions

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## 1.1 Summary

As commissioned by the European Patent Office (EPO), Motivaction International B.V. has carried out research into usage profiles of patent information needs of technology based enterprises in all EPC member states, in future EPC member states and in the United States of America.

It is one of the core activities of a patent granting authority to publish patent documentation, in particular the technical information contained in patent documents. The information made available stimulates innovation, this in turn creates an environment for employment and economic growth.

Until now the patent information user sector has been de facto specialist, but the EPO is moving into a more generalist market to increase patent awareness and access to technical information contained in patent documents.

The user sector is changing from a small focussed entity to a larger more diffuse body. New sectors could include universities, research institutes and small and medium enterprises. Therefore the EPO wishes to understand the current user profile of patent information, with a view to developing a new demand-led generation of patent information services.

To ensure an independent, statistically relevant sample the EPO had no influence on the selection of respondents actually interviewed. Furthermore, for data protection purposes the EPO has no information on the identity of respondents interviewed.

The objectives of the research study can be described as follows:

- to deliver profiles of users and non-users of patent information in a number of selected technical industrial sectors
- to provide information that can be used to develop a new demand led generation of patent information services
- to deliver a clear understanding of the needs and perception of a number of different target groups included in the survey

After a pilot survey in three countries (Germany, France, and the United Kingdom) a telephone survey was conducted in 30 countries in Europe (EPC20, EPC10) and the United States of America (as a control group). A second survey among European patent attorneys was conducted via the Internet. In total, 1904 companies, 443 attorneys and 29 universities were interviewed on the following subjects:

- information on the company/organisation itself
- innovation and the company/organisation's own infrastructure in this respect
- use of patents and patent information
- need for and use of other forms of information
- need for of patent information
- The potential role of the EPO and other suppliers in providing patent information

#### Companies/organisations

The average size of the companies interviewed is rather large (approximately 1.700 employees) but since there is a limited number of extremely big companies (over 100.000 employees) this figure is skewed. 40% of the companies have fewer than 100 employees, 77% fewer than 500 and 3% have more than 1000 employees. Companies in the US are on average larger than those in Europe. Companies in EPC20 countries are bigger than in EPC10 countries. The larger the company is, the smaller the relative size (the proportion of people working) of the Intellectual Property (IP) department. Also, the relative sizes of IP departments are smallest in the control group, followed by the EPC20 member states and then by the EPC10 states. Practically all companies have departments dealing with innovation, The larger companies having more innovation departments.

Companies can be divided into three clusters if we consider their own subjective assessment of innovativeness, their general attitude towards and use of patents and patent information.

The first cluster is experienced and innovative. These companies tend to be bigger than average, located in the EPC20 member states (Austria, Germany, Denmark, France, The Netherlands, Finland) and in the United States. Key concepts in this cluster are innovation, use of patents, use of patent information, no need for further help.

The second cluster is inexperienced; companies in this cluster tend to come from Estonia, Hungary, Lithuania, Luxembourg, Poland, Portugal, Slovenia, Turkey, Sweden and Belgium. This group does not (extensively) use patents or patent information and don't express an intention to be interested in it. Average company size is smaller than in the first group.

The third cluster is the most interesting one (at least in term of this research). This cluster also is the largest. Companies come from Bulgaria, Switzerland, Cyprus, Czech Republic, Greece, Ireland, Italy, Liechtenstein, Latvia, Monaco, Romania, Slovakia and Spain. This group works more with patents, but not with patent information. They would appreciate help in getting information out of patents. Company size is about the same as in the second cluster.

Almost all companies have access to the Internet, not for all employees, but at least for part of the staff.

### Use Of Patents

The use of patents is quite widespread in the sample, over 60% of the companies have (at some time) applied for a patent themselves, over 60% use patents (either as licensee or as licensor).

Use of patents is related to size of the company and country/region. Use of patents is found mostly in countries in North Western Europe and the United States.

Companies from EPC20 member states and the US are more likely to apply for patents in the near future.

### Importance Of And Need For Information

Every organisation indicates the need for information in order to run its business. By far most companies interviewed think information on innovation, competitors and markets is important; of lesser importance is information on their own intellectual property

The need for more information is quite high, less than 20% of the companies indicate having access to all information they need and are in no further need for additional information. The rest need mostly more information on competitors and markets, followed by information on innovation. These needs are greater in the EPC10 member states.

Sources of information are mainly magazines or journals, the Internet and personal contacts. The United States clearly provide the best infrastructure to gather information. Professional organisations have an important role in providing information in the US.

### Use And Need Of Patent Information

While the EPO (as an institution) is well known in the sample, the EPO's patent information services are not. 50% to 70% of the companies are not aware of the EPO's patent information services.

When we ask companies to give a definition of patent information, there are almost no responses going beyond the definition of patents. There is hardly a mention that patent information can be used in a broader sense than the term implies. Knowledge of patent information is apparently low, despite the fact that the vast majority of the companies see patent information as important and the need for patent information is substantial.

There is an enormous variation from country to country concerning access to patent information as well as other information resources. In the US over three-quarters of the respondents have access to patent information, in Cyprus only 2%. In general it seems that access to patent information is better in north western Europe than in eastern and southern Europe, but there are some exceptions. For instance, access levels in the Czech Republic, Hungary, Slovenia and Slovakia are quite high, in Sweden and Liechtenstein access is quite low.

In a minority of countries, companies have access to combined databases containing technical, business and commercial information such as patent information databases. Again, access levels generally show the same regional distribution as with patent information use, but in some countries access levels are higher than could be expected on basis of their region. The Czech Republic, again, shows relatively high levels, but also Bulgaria, Estonia, Hungary, Turkey and Latvia. Awareness levels of these databases are significantly higher than actual access.

The national patent office is mentioned most frequently as preferred supplier, followed by the EPO and commercial providers. esp@cenet is the most frequently used database in Europe.

#### Interest In EPO Patent Information Products And Services

The vast majority of companies interviewed indicate interest in the EPO databases or services. Interest levels are somewhat lower in the US (75%) than in Europe (80%). Companies need help, however, because the applications or developments in patent information that are wanted the most, are those that would make patent information easier to use, or easier to understand.

Companies are most interested in (decreasing order):

- Technology watch,
- Competitor watch
- Market watch,
- Alerting services
- Advisory services

Around 60% of the companies are willing to pay for added-value services.

#### European Patent Attorneys

European patent attorneys know the EPO and its patent information services of course. However, most attorneys do not realise that databases containing patent information also can be used as sources of business or commercial information: almost all attorneys have access to patent information databases, only one third of the attorneys indicate having access to databases combining this with business and commercial information. EPO services are widely used in this group.

Most attorneys would encourage the EPO in developments which would make patent information more accessible.

## 1.2 Conclusions

### Patent Information Is Not Used To Its Full Potential

The main conclusion that can be drawn from the survey is that most companies and especially SMEs have no idea what patent information can do for them. Even attorneys apparently do not see the full potential of patent information. Even if respondents declare an idea of what patent information is, their definitions usually are limited and extend no further than information on patents and (patent granting) procedures. Even companies that use patent information seem to use it in a limited way and go no further than extracting the technical information contained in patents; the extension to a broader sense of marketing information usually is not made.

Companies do not see, therefore, that they can use patent information to monitor competitors and markets. Most companies use marketing information from other sources to do so.

One reason discouraging full use of patent information is that the information is not easily accessible and/or difficult to use. A substantial number of current users as well as non-users indicate the need for help in accessing patent information. Furthermore a number of them would like to see the EPO develop applications that make patent information easier to use, understand and to be more accessible. This would suggest special attention could be given to such aspects as user-friendliness, powerful search engines and so on. It is thought, however, the main reason for not using patent information is the low level of awareness of the existence of patent information and of what can actually be done with patent information.

#### Patent Information Is Considered As Potentially Interesting

Despite this lack of awareness, most companies express the need for information and indicate that the use of (more advanced forms of) patent information would be very helpful. This is true for current users as well as non-users of information. The results suggest, even, that active users of information systems are more aware of information they lack.

Almost all companies indicate that they could use more information on innovation and market watch services than is currently the case.

After explanations on the utility of patent information, most companies become enthusiastic. The user potential of patent information therefore is quite high.

#### Regional Differences

There are clear and obvious regional differences in the way companies consider innovation, information and the interaction of these two. We have made a distinction in the project between 3 geographical groups or regions, EPC20 (member states pre 2002), EPC10 member states (member states acceding to the EPC since 2002 and those yet to do so) and the USA as a control group.

Companies in the United States are obviously better equipped to handle patents and patent information, they are more innovation-minded and seem to have a better (internal and external) infrastructure or culture to handle (patent) information.

Within Europe, a number of countries in the forefront of innovation and patents are noticeable. These countries can be found in north western Europe. They show similar profiles to the companies in the United States: bigger companies mainly having discrete departments that handle innovation and separate IP departments. Most companies work with patents and plan to apply for patents in the future. These companies are relatively active in gathering information. The countries are: Germany, Netherlands, Finland, France, United Kingdom, Switzerland, Belgium, Austria, Denmark, Liechtenstein and Slovenia,

The second group is a mixed one with eastern European, and central European countries: Turkey, Czech Republic, Hungary, Sweden, Monaco, Spain, Slovakia, Bulgaria, Latvia, Italy, Poland, Ireland, Romania, Greece and Luxembourg.

The third group with Lithuania, Estonia, Cyprus and Portugal are the least developed countries as far as patents and patent information is concerned.

#### Criteria For Future Patent Information Products And Services

Patent information should be easily accessible and up-to-date. The preferred medium for distribution is the Internet. However, the survey results show that in countries where the innovation-infrastructure is better developed, companies make more use of conferences, professional organisations and commercial suppliers to obtain their (patent) information. Therefore, it can be hypothesised that these interfaces will fulfil an important role in providing patent information or in helping companies to find the information they need at some time in the future, if not now. This suggests a shift in searching procedures from the Internet to other media. It is therefore suggested not to invest all effort in the Internet, but to diversify effort over several different channels. It is considered that there may be an important role in helping, training and informing not only national patent offices, but professional organisations as well.

National patent offices could play an important role in raising awareness and in making patent information more easily accessible. (In most countries the national patent office is considered a preferred supplier.).

Patent information has an image problem: it is seen as inaccessible, difficult to understand and expensive, especially by SME's. These companies are willing to use patent information, but lack the resources to do so.

#### Target Groups

There are 4 different target groups that could be distinguished in the survey that may be of interest in targeting information in future marketing or promotion campaigns:

#### Patent Applicants (Users) Who Use Patent Information Products

This group clearly uses various forms of information and is well organised in processing this information. These companies are also well aware that they do not have all of the information they could possibly need. They show a high level of interest in getting more out of patent information. This group mainly uses patent information to extract technical information, Commercial information and information on competitors from patent documents is of less importance to this group. There may be important reasons for this:

- There are resources other than patent information (such as marketing journals etc.);
- Patent information is seen as a source of technical information only.
- Inability to extract commercial information and competitor information from patents

Most of these companies know the EPO, have access to various databases and can be reached relatively easily (by – for instance – informing them via the EPO's website). The primary goal for this group is alerting them to the information available and helping them or showing them how (on-line perhaps) to extract the information needed.

#### Patent Applicants (Users) Who Do NOT Use Patent Information :

This group is mainly found in Europe and these companies also have set up an internal infrastructure to process different kinds of information. Companies in this group are on average smaller, but seem more active in gathering information. The group certainly is open to other information than just technical information and may well be open to help from outside parties in making information accessible. It seems that a reason for non-usage is lack of awareness of the existence of patent information. But interest levels are high. The first goal in reaching this group should be aimed at raising awareness, on the existence, sources, retrieval and applications of patent information. The NPOs could be helpful in making patent information accessible.

#### Non-Patent Applicants (Users) Who Use Patent Information:

The smallest group, mainly found in Eastern Europe. This group is less active in gathering information than the first two groups, but may be reached relatively easy by using websites of the EPO and NPO's. This group uses patent information relatively often in the inventing stages, and not for legal purposes. Reasons for the lack of further use of the patent system are not clear.

#### Non-Patent Applicants (Users) Who Do NOT Use Patent Information:

This group is mainly found in Europe. The companies are relatively small and a minority have a department involved in intellectual property. Patent



information is considered important and the majority of respondents in this group are interested in patent information services, most frequently during inventing stages, not for legal purposes. Since there is no established relationship between these companies and suppliers of patent information, this group may prove to be the most difficult to reach. They receive their information by using journals, personal contacts, conferences and the Internet.

## 2 Introduction

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The European Patent Office (EPO), commissioned Motivaction International B.V. to carry out research into usage profiles of patent information needs in all EPC member states, in future EPC member states and in the United States of America.

### 2.1 The European Patent Office (EPO)

The European Patent Office (EPO) is an international patent-granting authority established under the European patent Convention (EPC), which was signed in Munich on 5 October 1973 and came into force on 7 October 1977. The EPO has its headquarters in Munich, a branch in The Hague, and sub-offices in Berlin and Vienna.

The EPO was established as a result of exemplary co-operation between the states of Europe in the industrial property field. Until 30 June 2002 The European patent Organisation, for which the European patent Office acts as executive arm, comprised 20 member states: all the EU countries plus Cyprus, Liechtenstein, Monaco, Switzerland and Turkey. From 1 July 2002 ten countries from eastern and central Europe (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) have had the opportunity to accede to the EPC. Currently Latvia, Lithuania and Poland have not acceded to the EPC.

The EPO grants European patents under a unitary and centralised procedure. By filing a single patent application in any of the three official languages - English, French or German - an applicant can obtain patent protection in as many EPO member and extension states as he wants.

Once a patent is granted, it becomes the legal responsibility of the countries designated by the applicant in his application, and in each of them affords the same protection as a national patent. It is valid for 20 years, although extensions are possible for patents relating to pharmaceutical and plant protection products.

In return for patent protection, the applicant is required to disclose his idea to the public. As a result, patent applications contain some of the most up-to-date information on technical innovations.

## 2.2 Research Objectives

The objectives of the research study can be summarised as follows:

- to deliver profiles of users and non-users of patent information in a number of selected technical industrial sectors
- to provide information that can be used to develop a new demand led generation of patent information services
- to deliver a clear understanding of the needs and perceptions of a number of different target groups identified in the survey
  - patent users who use patent information products
  - existing users of patent information products, but who are not patent users
  - potential users of patent information and who are potential patent users
  - potential users of patent information, but who are not likely to become patent users

## 2.3 Research Method

### 2.3.1 Pilot survey

During the preparation phase a draft questionnaire was developed in close co-operation between ITM/Motivaction and the EPO. As standard research practice, Motivaction carried out a pilot survey with 50 respondents in a number of different languages to test the quality and content of the questionnaire. This was done with a disparate, but representative group of respondents. On the basis of the results of this pilot phase, the questionnaire was refined in close co-operation with the EPO. This final version of questionnaire was translated into all necessary languages by the EPO.

### 2.3.2 Main Survey

Participants were informed by letter in advance of the interviews. The actual interviews in the scope of the main survey were conducted by telephone using CATI (Computer Assisted Telephone Interviewing) from three locations:

- Interviews in the United Kingdom, France, Spain, Italy, Belgium, Sweden, Turkey, the French and Italian speaking parts of Switzerland and Netherlands and the USA were conducted from Motivaction's call centre in Amsterdam, the Netherlands.
- Interviews in Austria, Bulgaria, Cyprus, Czech Republic, Denmark, Finland, Germany, Hellenic Republic, Hungary, Liechtenstein, Poland, Portugal, Romania, Slovakia, Slovenia and the German speaking part of Switzerland were conducted from the call centre of Motivaction's Euronet partner, Triconsult, in Vienna, Austria
- Interviews in Estonia, Latvia and Lithuania were conducted from the call centre of Motivaction's Euronet partner Romir Monitoring in Moscow, Russia.

All interviews were conducted in the native language of the respondent by native speaking, trained interviewers. All potential respondents received an advance letter by the EPO to alert them.

Lists of potential respondents were obtained by Motivaction using current commercial databases (Survey Sampling and Kompass). Since it is impossible to interview all companies, the selection agency was asked to select a representative sample for the survey.

A subsidiary survey was carried out amongst the community of European patent attorneys. In this case password-protected questionnaires in English, French and German, were posted on the Internet. Attorneys were invited to complete this questionnaire on-line.

## 2.4 Target groups

A number of target groups can be distinguished.

Target groups for marketing/promotion purposes

First of all we can distinguish the groups as mentioned in the research objectives and subsequently identified according to survey responses:

- patent applicants who use patent information
- existing users of patent information, but who are not patent applicants (users)
- potential users of patent information and who are potential patent applicants (users)
- potential users of patent information, but who are not likely to become patent applicants (users)

Respondent Groups

The second distinction that can be made is based on the type of company or organisation interviewed

- SME's (patent applicants as well as potential applicants)
- Large industry (patent applicants as well as potential applicants)
- Universities
- Professional associations, consultants, independent specialists, etc.
- Patent Attorneys
- 

Country Groups - Regions - Geographical Areas

The third distinction is based on geography. 31 countries were included in the survey. These countries were grouped according to those member states before 30<sup>th</sup> June 2002 (EPC20) those acceding to the EPC after 30<sup>th</sup> June 2002 (EPC10 including those countries yet to accede) and the USA.

Individual Countries

A fourth, finer, geographical distinction can be made on the basis of the 31 individual countries in which the survey took place.

## 2.5 Statistical Reliability

In an ideal world an entire population would be interviewed for a survey and the entire population would be willing to co-operate in a survey. This is usually not the case, mostly for practical and financial reasons. This means that usually just a (small) proportion of the target population will be interviewed for a survey. This small proportion is termed the "sample".

There is always a risk that results found in a sample will differ from the results that would have been found if the entire population had been interviewed. Since a sample only forms a subset of the entire population, special care needs to be taken to ensure the sample is representative for the entire population. The usual way to do so is to select at random potential respondents from the population. At random means all companies have an equal chance to be included in the sample. Lists of companies were obtained from commercial providers specialised in drawing representative samples. From these lists the CATI system ensures that companies are contacted at random as well.

Since only a representative subset of the population has been interviewed, results found in this subset can differ slightly from the results that would have been found if the whole population were interviewed. This is the reason why in the case of survey results, margins of probability are used. These margins indicate the upper and lower boundaries of the result that would have been obtained if the whole population were interviewed.

An example can explain this. We find that 43% of the companies in EPC20 member states have an intellectual property department. If the whole population were interviewed, the percentage found would most likely lie between 40% and 46%.

## 2.6 Report

In this report the main results are presented. In the analysis a number of so-called independent variables have been identified. On the basis of these variables respondents have been split into groups. These variables are:

- country group (EPC20 members, EPC10 members and control group (USA))
- country
- company size
- patent users versus non users
- patent information users versus non users

Data analyses are presented in figures, tables and text throughout this report,

## 3 Company profiles

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### 3.1 Introduction

In this chapter, information is given on profiles of the companies that were interviewed. Lists of companies were obtained by commercial list brokers (SampleAnswers and Kompass). A selection was made on Standard Industry Codes (SIC codes) or its national equivalents, these codes are used (by chambers of commerce) to categorise a company into a given type of industry. The selection was made on manufacturing industries, universities, professional associations and patent attorneys. Results for patent attorneys will be reported in a separate chapter. No prior distinction was made on company size.

### 3.2 Industry types

Table 3.1 summarises the distribution of activities of the four groups of respondents; industry, professional associations, patent attorneys and universities.

Table 3.1

	EPC20	EPC10	USA
	%	%	%
manufacturing of industrial products	25	17	21
manufacturing of IT products/ software	2	7	6
manufacturing car/ train/ aircraft components	7	4	11
manufacturing of electronic products	9	6	6
chemical manufacturing	6	7	5
engineering/ construction	9	10	1
producing pharmaceutical products	2	0	3
provide information (library) college/ university	1	2	2
manufacturing aerospace equipment	1	1	8
producing medical devices	2	2	2
mechanical equipment	14	13	5
manufacturing consumer goods	17	11	10
design (general)	2	1	1
don't know/no answer	8	31	2
other	7	0	16
Total number of companies	1199	503	202

All industrial sectors were covered, mechanical, chemical/pharmaceutical, electronics, and construction.

### 3.3 Company Sizes

#### 3.3.1 Size Of Companies Overall

The average company size is approximately 1700 employees<sup>1</sup>, but since a relatively small number of very big companies are included in the sample, this result is skewed. The nature of the survey itself may cause bias, very small enterprises might not consider themselves to be a suitable group for a survey like this and might be reluctant, or even refuse, to participate. Nevertheless, we

<sup>1</sup> the number of employees world wide.

see that almost 40% of all companies are smaller than 100 employees, 77% smaller than 500 and 3% over 1000. American companies are on average bigger than European companies, EPC20 member state companies are bigger on average than EPC10 member state companies. See table 3.2

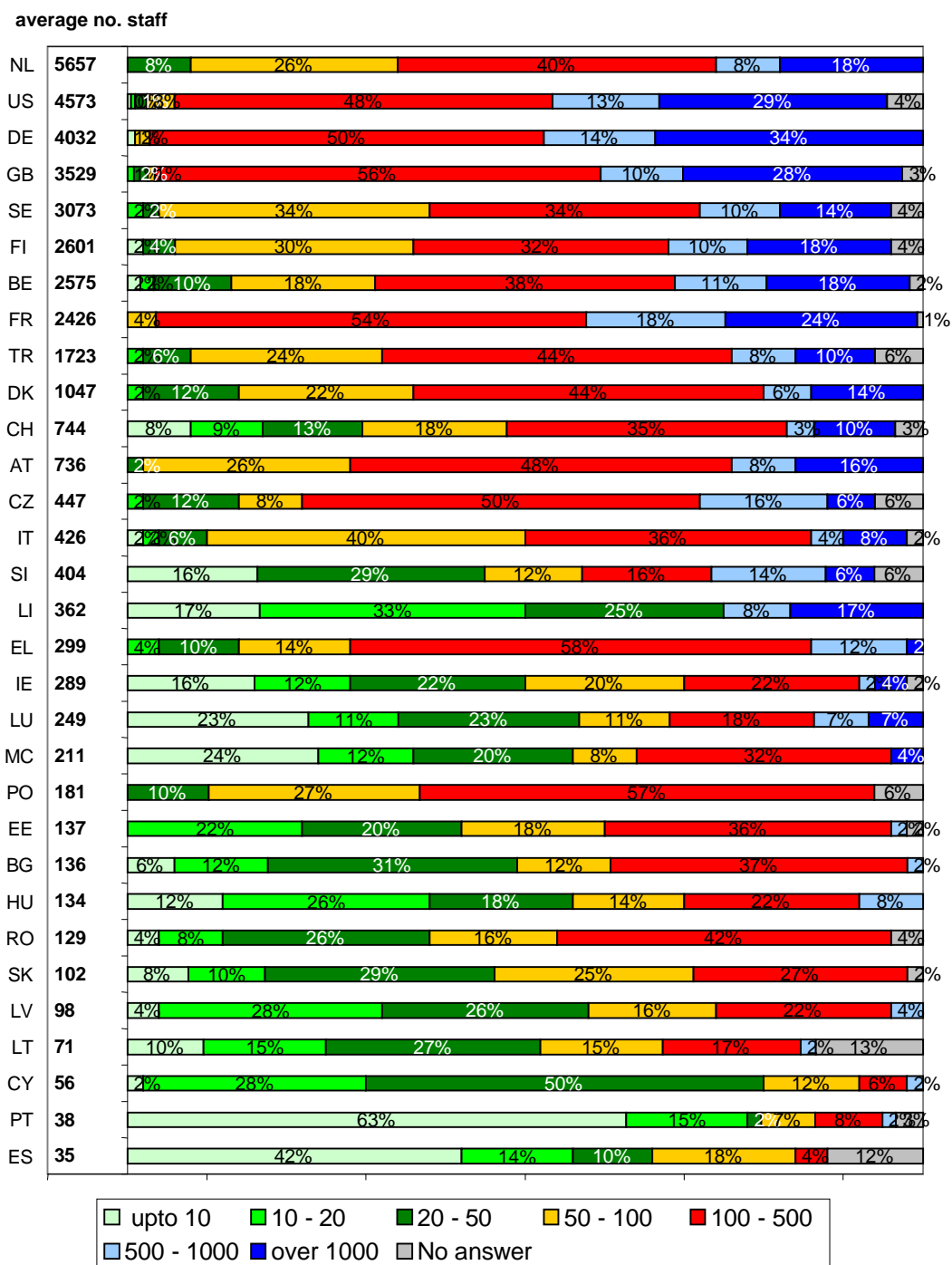
Table 3.2 Company sizes

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
Average	1857	181	4573
up to 10 employees	8%	6%	1%
10 – 20	5%	12%	1%
20 – 50	9%	23%	2%
50 – 100	15%	17%	4%
100 – 500	38%	33%	48%
500 – 1000	8%	5%	13%
over 1000	15%	1%	29%
No answer	2%	4%	5%

Five companies (three in Europe, two in the USA) report over 100.000 employees (all companies reporting over 100.000 employees have been manually checked if possible). If we discount returns from these companies then the average size drops from 1703 to 1396 employees. Companies in the USA remain more than twice as big as European ones.

There are, however, differences within Europe as well. The Netherlands, for instance has on average the biggest companies (the biggest company in the Netherlands has 175.000 employees), Spain the smallest. Figure 3.1 shows average company size by country.

Figure 3.1 Company Sizes - By Country



### 3.3.2 (Relative) Size Of Intellectual Property Departments

Companies in EPC20 member states have an average of almost 7 people working in departments involved in the field of intellectual property. In EPC10 member states this average is 3.6 and in the US 12.5. It is more interesting, however, to see what proportion of the staff is involved in the field of intellectual property.

Companies in EPC20 states have an average of 50 people per 1000 employees (5%) working in the field of intellectual property, in EPC10 states this is 102 (10%) and in the US 31 (3%). This is striking because, the level of innovativeness, intellectual property infrastructure/culture, the general attitude towards innovation and patent information etc. seems to be inversely related to the relative size of the intellectual property department. 17% of the companies in EPC20 states have no persons working in the field of intellectual property, 15% of the companies in EPC10 member states and 4% of the companies in the US.

On the basis of company size, the relative IP department size seems to be inversely related to the average company size as well. In companies smaller than 10 employees, almost 20% of the staff seems to be working in the field of IP, in companies over 1000 employees less than 0.5%.

This is logical since the basic tasks have to be fulfilled by at least one individual in an IP department, independently of the company size.

Figure 3.2 Relative Size Of The Department Involved In IP- According to Company Size

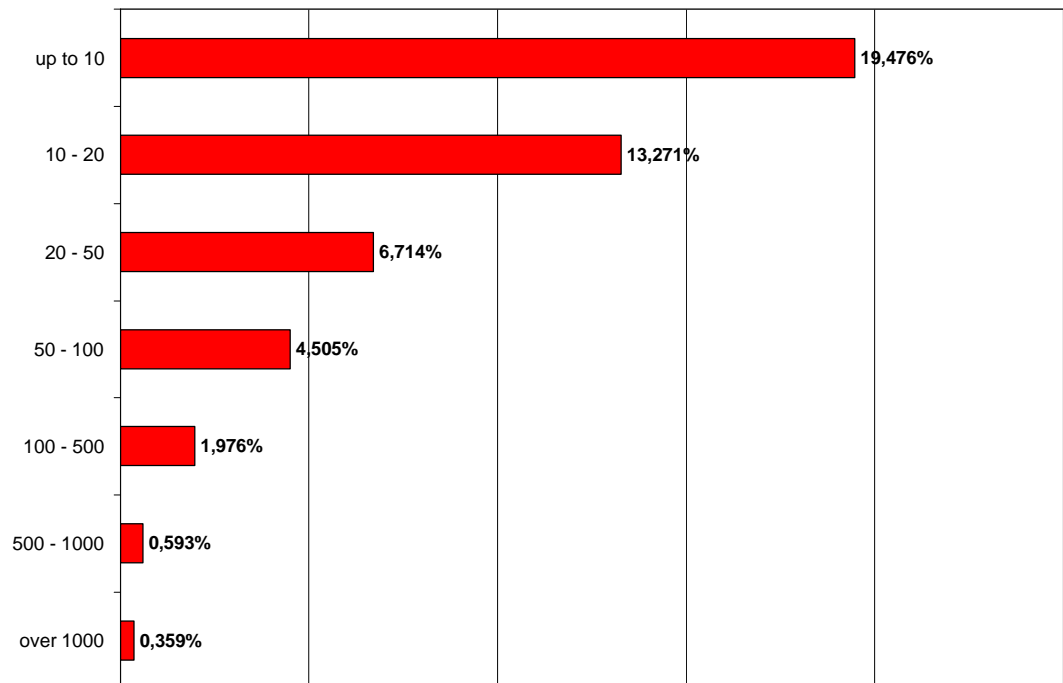
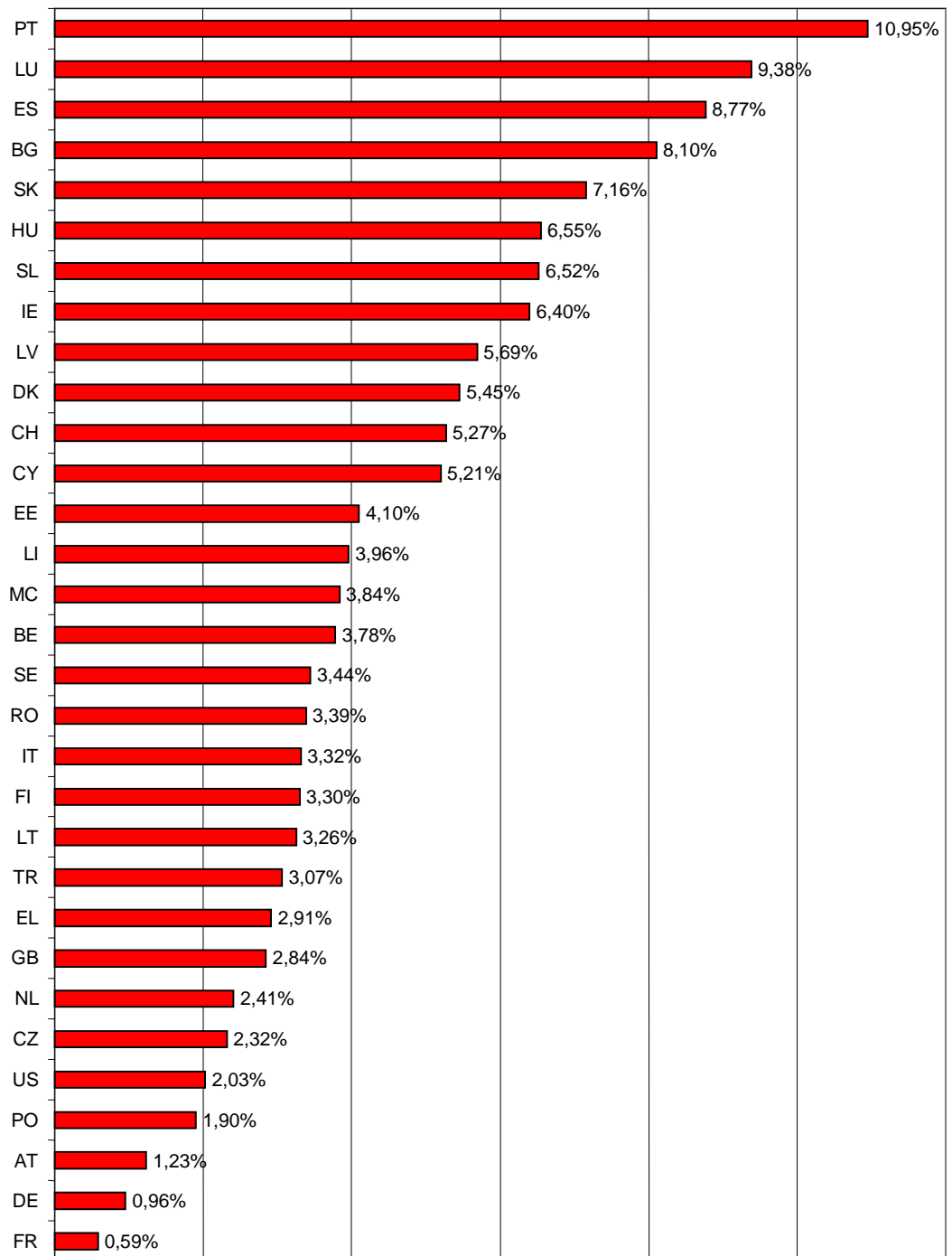


Figure 3.3 Relative Size Of The Department Involved In IP- By Country



### 3.4 Departments Involved In Information

Several questions concern the way companies handle information from the outside world. Firstly, we asked if companies are structured with departments involved in

R&D,  
innovation or product development,  
intellectual property  
monitoring competitors and markets.

Results from this question show clear differences between the USA, EPC20 member states and EPC10 countries.

The US is clearly better equipped than Europe, especially in the fields of R&D, innovation and intellectual property. This also may depend on the smaller average size of the European companies, but even if we restrict size to e.g. companies with less than 500 employees, the US shows higher percentages in innovative departments than Europe.

Table 3.3 Organizational Structure-Departments Present-By Country

	<b>R&amp;D</b>	<b>Innovation</b>	<b>Monitoring</b>	<b>Intellectual Property</b>	<b>None</b>
AT	80%	80%	74%	46%	6%
BE	89%	79%	72%	48%	7%
CH	81%	88%	73%	40%	5%
CY	56%	78%	90%	48%	2%
DE	90%	91%	76%	50%	4%
DK	86%	92%	70%	48%	2%
FR	89%	82%	81%	53%	2%
GB	89%	88%	77%	52%	2%
EL	98%	92%	92%	46%	
IE	64%	66%	58%	26%	16%
IT	76%	76%	54%	36%	16%
LI	67%	67%	50%	25%	25%
LU	61%	61%	66%	27%	14%
MC	72%	72%	60%	24%	8%
NL	96%	96%	84%	60%	
PT	7%	17%	10%	12%	66%
SE	74%	86%	72%	30%	4%
FI	82%	82%	84%	40%	4%
ES	76%	84%	66%	38%	8%
TR	86%	84%	74%	58%	
<b>Average EPC20</b>	<b>78%</b>	<b>80%</b>	<b>71%</b>	<b>43%</b>	<b>8%</b>
BG	71%	82%	86%	39%	
CZ	82%	86%	82%	62%	6%
EE	34%	48%	48%	20%	38%
HU	56%	66%	56%	18%	16%
LT	13%	29%	67%	10%	23%
LV	24%	84%	74%	30%	12%
PO	43%	78%	73%	37%	8%
RO	46%	64%	72%	64%	10%
SK	73%	77%	79%	48%	10%
SL	71%	65%	82%	43%	8%
<b>Average EPC10</b>	<b>51%</b>	<b>68%</b>	<b>72%</b>	<b>37%</b>	<b>13%</b>
<b>USA</b>	<b>84%</b>	<b>83%</b>	<b>74%</b>	<b>69%</b>	<b>5%</b>

It was to be expected that with increasing size of a company, the number of companies with innovation departments would increase as well. This is generally true. See Table 3.3

Table 3.4 Organizational Structure-Departments Present-By Company Size

	<b>R&amp;D</b>	<b>Innovation</b>	<b>Monitoring</b>	<b>IP</b>	<b>None</b>
Up to 10	35%	42%	40%	28%	40%
10 - 20	36%	58%	57%	24%	21%
20 - 50	59%	71%	69%	32%	8%
50 - 100	67%	73%	66%	24%	13%
100 - 500	78%	84%	77%	46%	5%
500 - 1000	91%	88%	79%	63%	1%
over 1000	95%	90%	86%	77%	1%
No answer	76%	74%	72%	59%	9%

#### 3.4.1 Staff Involved In Monitoring Technical Developments And Patents

A second set of questions involved departments or groups of individuals keeping up-to-date with technological information, and patents and patent information.

91% of the companies in the EPC20 member states have at least one group of people monitoring technical information. In EPC10 states this fraction is 84% and in the US 100%. In EPC20 countries, 66% of the companies report that there is at least one group involved in patent information, in EPC10 countries this is 52% and in the US 61%.

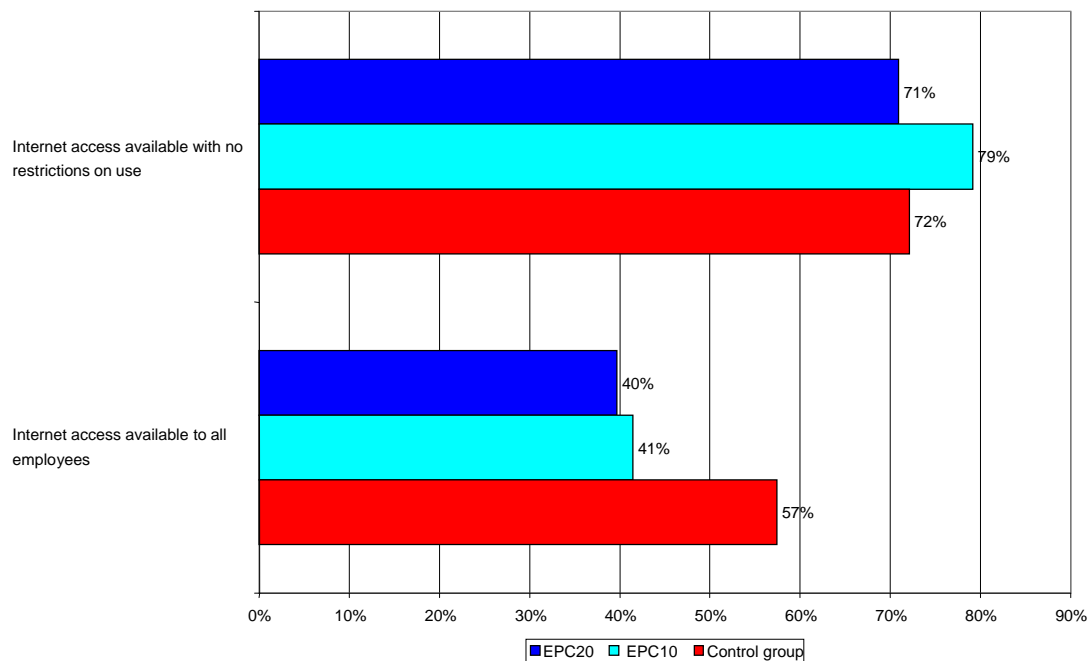
It is obvious that companies in the US are more capable and have the infrastructure to stay up-to-date than European companies. There is a significant difference between EPC20 member states and the new EPC10 countries, but if we correct for the size of the company, most differences disappear. It can be concluded that the infrastructure/culture for innovation is better developed in the US than in Europe.

#### 3.4.2 Company Infrastructure

Most information on patents is directly accessible by the Internet. Therefore we have included some questions on the availability of the Internet in companies. Questions were if Internet is available and how many people have access. Furthermore we have asked some questions on workstations dealing with patents and patent information.

Over 70% of all companies have unrestricted access to the Internet, but not for all employees.

Figure 3.4 Internet Access-By Region



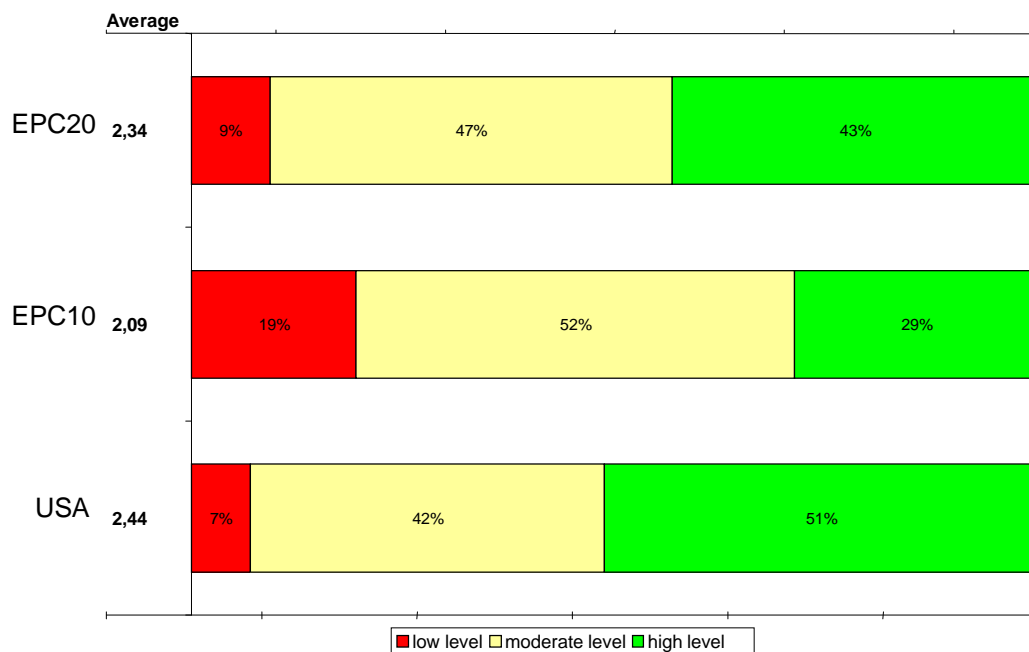
Almost 25% of the companies have no workstations mainly dealing with patents or patent information, 57% of the companies have 1 to 10 stations, 8% have 10 to 50 and 2% have more.

### 3.5 Company Clusters And Profiles

#### 3.5.1 Level Of Innovativeness

Almost all companies interviewed consider themselves to be moderately or highly innovative. This – of course – has to do with the nature and subject of the survey and with the definition of the sample.

Figure 3.5 Level Of Innovativeness- By Region



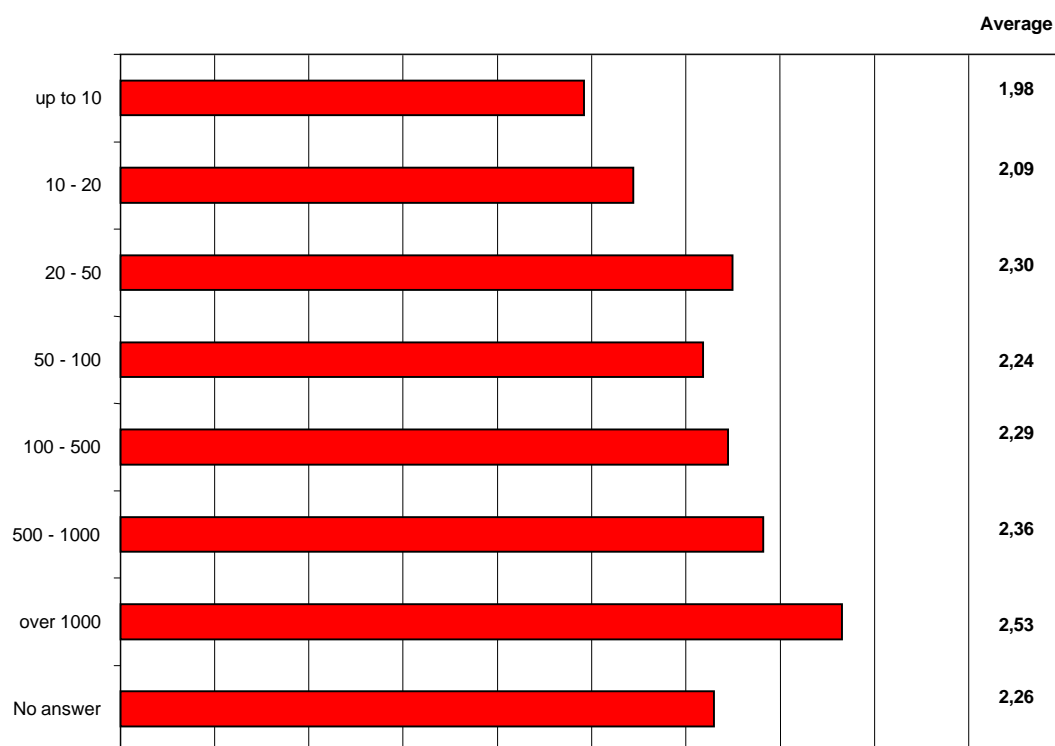
In figure 3.5 and 3.6 the average score for innovativeness averaged across the companies interviewed in the different regions has been computed by giving the response “low level of innovativeness” 1 point, a “moderate level” 2 points and a “high level” 3 points.

In each case it is the respondent’s own subjective opinion of innovativeness which is taken into account

American companies consider themselves to be more innovative than European ones do. In Europe, companies in EPC20 member states consider themselves to be more innovative than companies in EPC10 member states do. We should keep in mind that the respondents used their own subjective definition of innovation, and their own subjective evaluation of innovativeness in answering this question.

On the basis of company size, a more diffuse picture emerges. In general it seems that bigger companies see themselves as more innovative than smaller companies see themselves (keep in mind that smaller companies have relatively bigger IP departments). A reason may be that bigger companies are more likely to work with patents and thus consider themselves to be more innovative.

Figure 3.6 Level Of Innovativeness - By Company Size



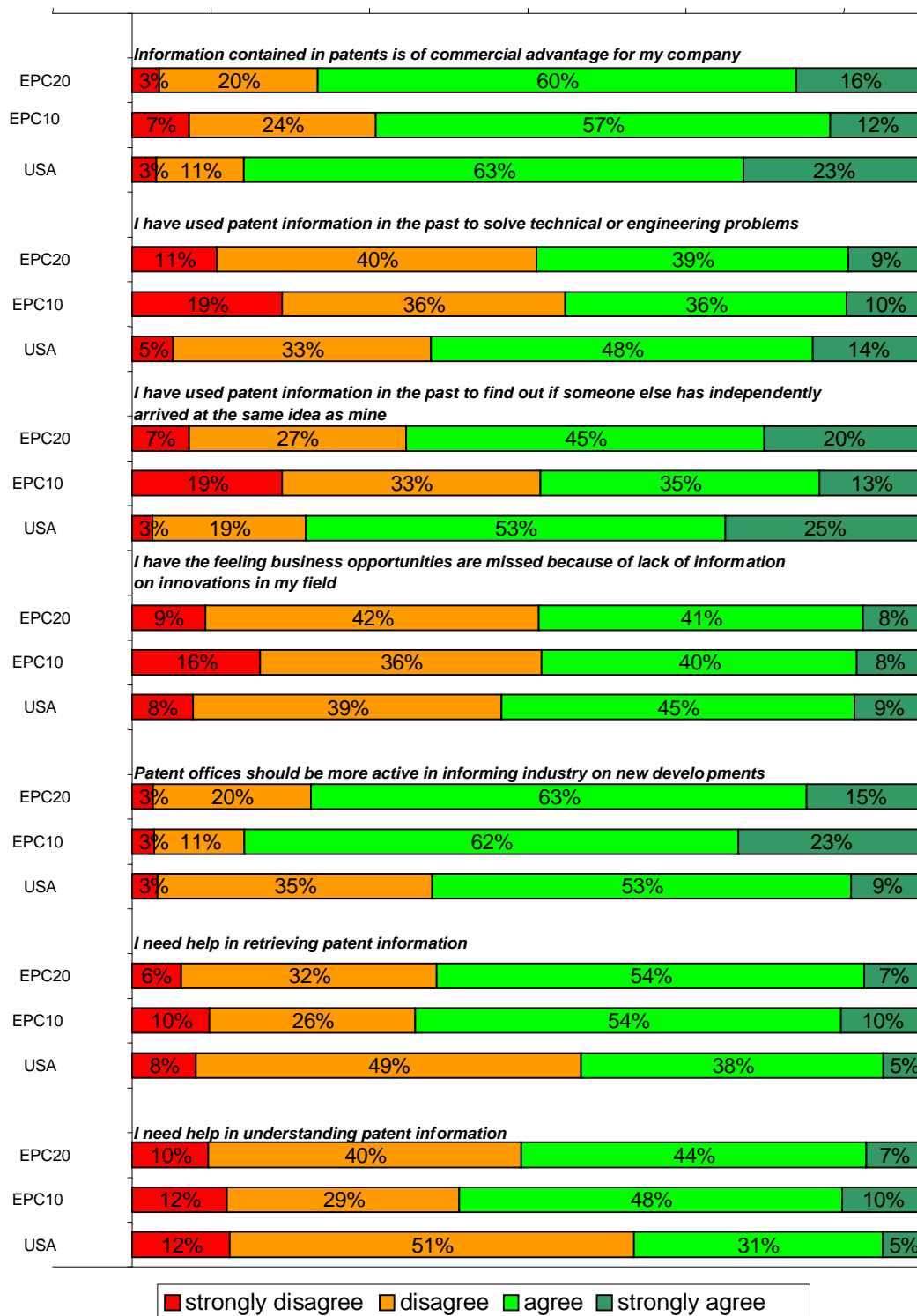
Companies of over 1000 employees are almost always innovative. If we consider just the SME's, we see that innovation is more or less evenly distributed over company sizes, but companies with 20 to 50 employees seem slightly more innovative than the categories above and below.

In interpreting these figures, we should keep in mind that these figures are highly subjective, since it refers to a company's own evaluation of level of innovativeness. According to this assessment, companies from Turkey and Cyprus consider themselves as most innovative, those from Romania and Portugal as least. The lowest numerical average value calculated (1.8) in the case of Portugal indicates that even here, the majority of companies consider themselves at least moderately innovative

### 3.5.2 Attitudes Towards Patent Information

All companies were asked to evaluate a number of statements which were meant to give more insight into the company's attitude towards patent information. In figure 3.7 responses to these statements stress the differences between Europe and the US once more:

Figure 3.7 Attitudes Towards Patent Information-By Region



As we can see, American respondents show the highest scores on all items that could be generalised as “dealing with patent information in a strategic way”. These items are:

- “Information contained in patents is of commercial advantage for my company”,
- “I have used patent information in the past to solve technical or engineering problems” and
- “I have used patent information in the past to find out if someone else has independently arrived at the same idea as mine”.

This would suggest that in the USA dealing with patents and patent information can be seen as an integral part of the companies’ policy. In Europe this is less the case. European companies seem still to be struggling to use this information in a strategic way. Or, European companies are less aware of what they can actually do with patents and patent information.

### 3.5.3 Company Profiles

With the use of a cluster analysis we have investigated if we can identify groups (clusters) of companies that share common attitudes towards patents and patent information. This cluster analysis reveals 3 groups:

- A group already dealing with patents and in no need of help: we call this group the “experienced” group.
- The second group shows low involvement, they don’t use patents and patent information and do not need help: for present purposes this is termed the “inexperienced” group.
- The third group is dealing with patents (but not as frequently as the first group), sees that patent information is important but need help to get the information they need. For the present this group is termed the “interested” group.

27% of the companies could not be clustered this way.

Based on these analyses we can draw up some characteristics for each cluster.

In cluster 1, (31% of the whole sample) the experienced cluster we find predominantly companies from Austria, Germany, Denmark, France, The Netherlands, Finland, the United Kingdom and the United States. The companies are big, consider themselves more innovative (3.5 on a scale of 1 to 5). two thirds of the companies have an IP department, and almost all companies have other departments involved in innovation as well (on average they have 2.6 departments). 90% of the companies in this cluster work with patents 70% work with patent information as well.

In cluster 2 (26% of the whole sample), the inexperienced cluster, we find companies from Estonia, Hungary, Lithuania, Luxembourg, Poland, Portugal, Slovenia, Turkey, Sweden and Belgium. These companies are smaller than in the "experienced" group cluster 1 and are less innovative (average 3.2 on the scale of 1 to 5). 26% of these companies have an IP department, and 84% have at least one department involved in innovation (on average they have 1.8 departments). Over 50% of the companies in this cluster do not work with patents or patent information, another 22% work with patents but not with patent information.

In cluster 3 (43% of the whole sample), the interested cluster is (in the perspective of this survey) the most interesting one. It is the biggest group as well. We find companies from Bulgaria, Switzerland, Cyprus, Czech Republic, Greece, Ireland, Italy, Liechtenstein, Latvia, Monaco, Romania, Slovakia and Spain. The average size of the companies is similar to those in cluster 2. They see themselves as moderately innovative (average 3.3 on the scale of 1 to 5). 45% of these companies have an IP department, 92% have at least one department involved in innovation (on average they have 2.3 department). Over 40% of the companies in this cluster work with patents and patent information, another 26% work with patents, but not with patent information. 26% of the companies in this cluster neither work with patents or with patent information.

Table 3.5 Clusters And Company Sizes

	experienced group	inexperienced group	interested group
up to 10	2,2%	8,7%	6,9%
10 - 20	2,8%	10,2%	6,4%
20 - 50	6,9%	16,0%	11,2%
50 - 100	10,2%	19,6%	12,2%
100 - 500	36,6%	30,0%	44,6%
500 - 1000	8,9%	6,4%	9,2%
over 1000	29,4%	5,6%	8,0%
No answer	3,0%	3,6%	1,6%
	• = 100%	• = 100%	• = 100%
Number of companies	462	393	641

Table 3.6 Clusters And Regions

	EPC20	EPC10	Control group
Experienced cluster	25,6%	14,5%	40,6%
Inexperienced cluster	19,4%	26,6%	12,9%
Interested cluster	34,4%	33,4%	30,2%
No clustering possible	20,6%	25,4%	16,3%
	• = 100%	• = 100%	• = 100%
Number of companies	1199	503	202

Table 3.7 Clusters And Industry Types

	experienced group	inexperienced group	interested group
manufacturing of industrial products	28,7%	30,1%	26,7%
manufacturing of IT products/ software	3,2%	6,9%	3,4%
manufacturing car/ train/ aeroplane components	9,3%	6,9%	8,1%
manufacturing of electronic products	8,4%	6,9%	11,1%
chemical manufacturing	11,4%	5,1%	9,9%
engineering/ construction	8,9%	8,4%	7,6%
producing pharmaceutical products	5,0%	1,8%	3,5%
provide information (library)	2,1%	2,1%	1,0%
college/ university	1,8%	2,1%	1,2%
manufacturing aerospace equipment	2,3%	,3%	1,5%
producing medical devices	3,4%	2,4%	2,9%
mechanical equipment	14,6%	11,3%	15,9%
manufacturing consumer goods	9,8%	18,8%	17,8%
design (general)	,2%	1,2%	2,3%
other	9,3%	6,3%	5,4%
Number of companies	462	393	641

### 3.6 Summary: Company Profiles

There seems to be a difference between Europe and the United States where innovativeness is concerned. American companies seem more "innovation minded" than European companies. It seems they have an internal infrastructure or culture that is much more "patent oriented", they seem to allocate more resources and the whole issue of patent and patent information is

better developed. Even if we correct for company size, the difference between Europe and the US remains.

In contrast with this, on average the number of people in the US dealing with patents and patent information within a given company is less than in Europe (corrected for company size). The reason for this is unclear, but – as we will see further – a reason may be that the national infrastructure on patent/innovation information is better than in Europe. There may be more (external) organisations involved, more or better magazines, more professional organisations etc. This may result in a more efficient way of handling the whole subject in American companies and thus result in the differences found in Europe.

Between EPC20 and EPC10 countries we also find differences. In general we can say that in EPC20 member states the general attitude and infrastructure is more positive, but if we correct for the size of the company many differences disappear.

The larger the company is, the more innovative it sees itself. This is in contrast with the relative size of the IP department. These departments are relatively bigger in smaller companies (in the smallest category almost 20% of the staff is involved in the field of IP) and smaller in bigger companies. This also may have to do with more efficiency and specialisation in bigger companies.

## 4 Current use of patents

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### 4.1 Introduction

In this chapter we investigate the current use of patents. In this case use means the company is a patent applicant or a patentee or a licensee or a licensor.

### 4.2 Patent Applicants

62% of all companies report having applied for a patent in the past, either at the EPO, or at another patent office. 35% of the companies report having applied for a patent at the EPO as well as at another office, 4% at the EPO but NOT at another office, 18% at another office but NOT at the EPO. Again, we see that American companies are more active than European ones.

Figure 4.1 Patent Applicants - By Region

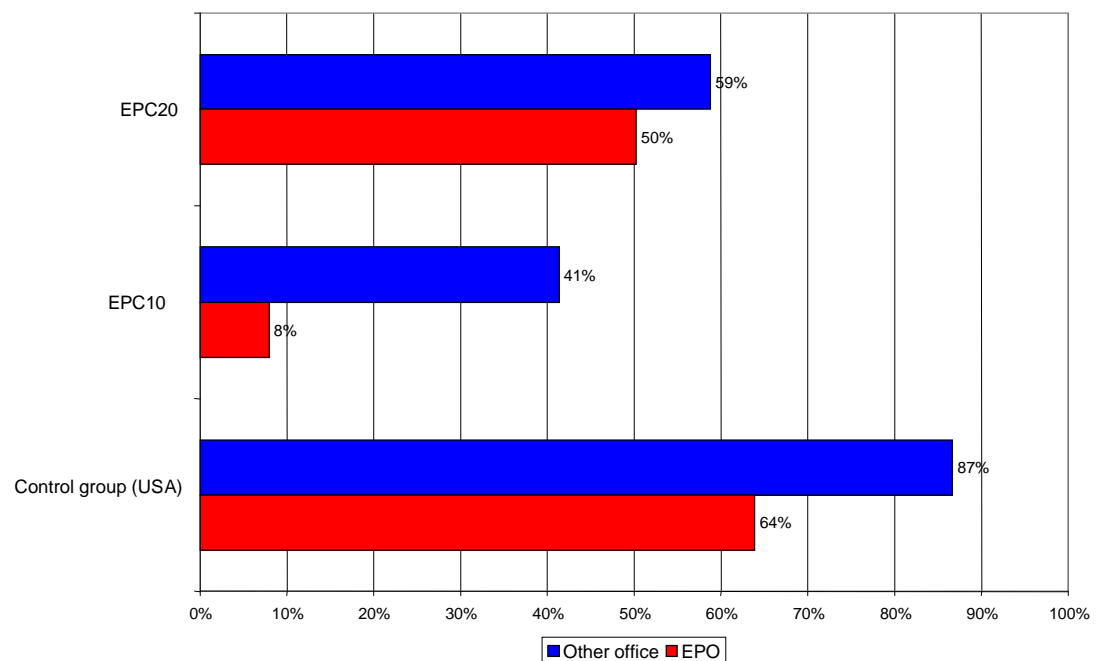
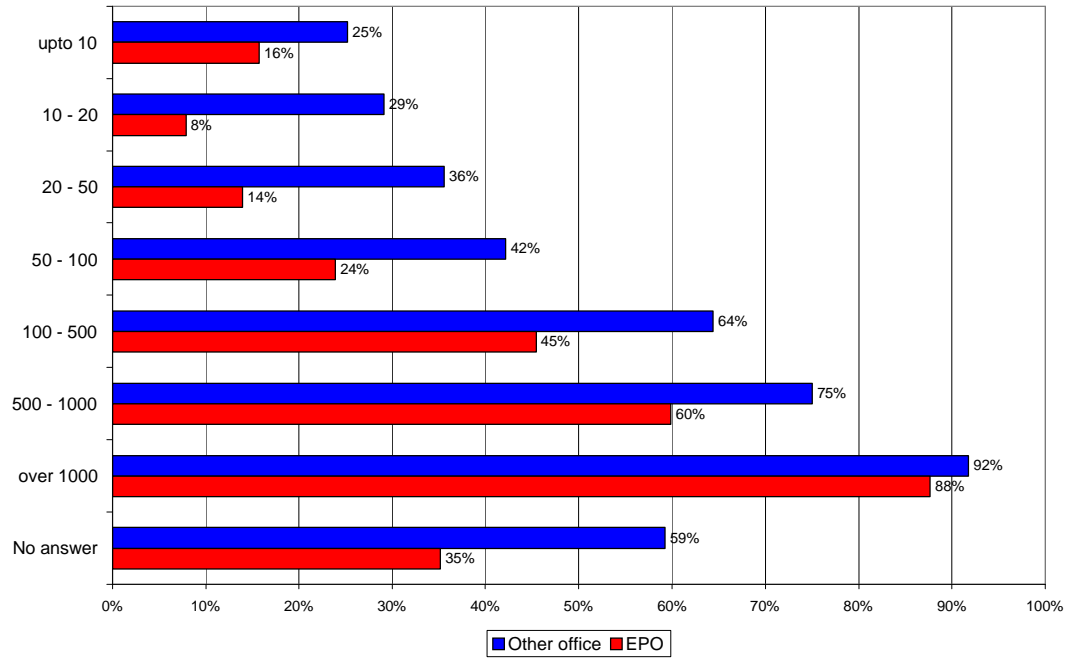


Figure 4.2 shows that larger companies are more likely to have applied for a patent than smaller ones, however, over 25% of the smallest companies in the sample have applied for a patent .

Figure 4.2 Patent Applicants - By Company Size



If we look at the number of companies producing patented products a similar picture emerges. American companies are more active in working with their own patented products and are more active in producing products under licence. The likelihood of litigation is higher.

Figure 4.3 Patent Users - By Region

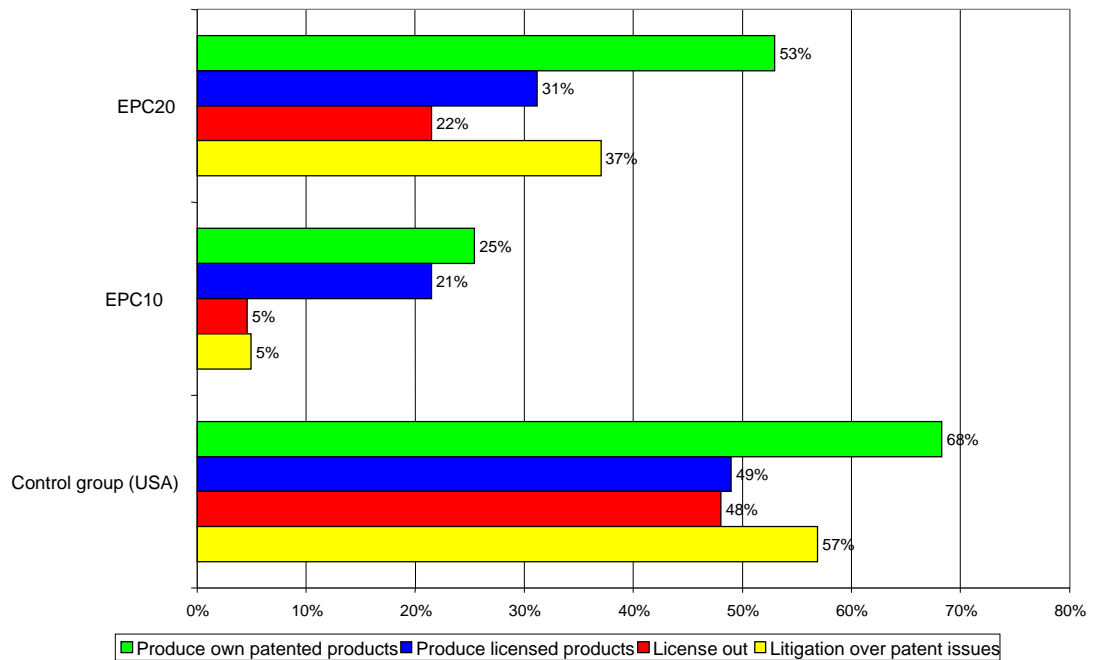
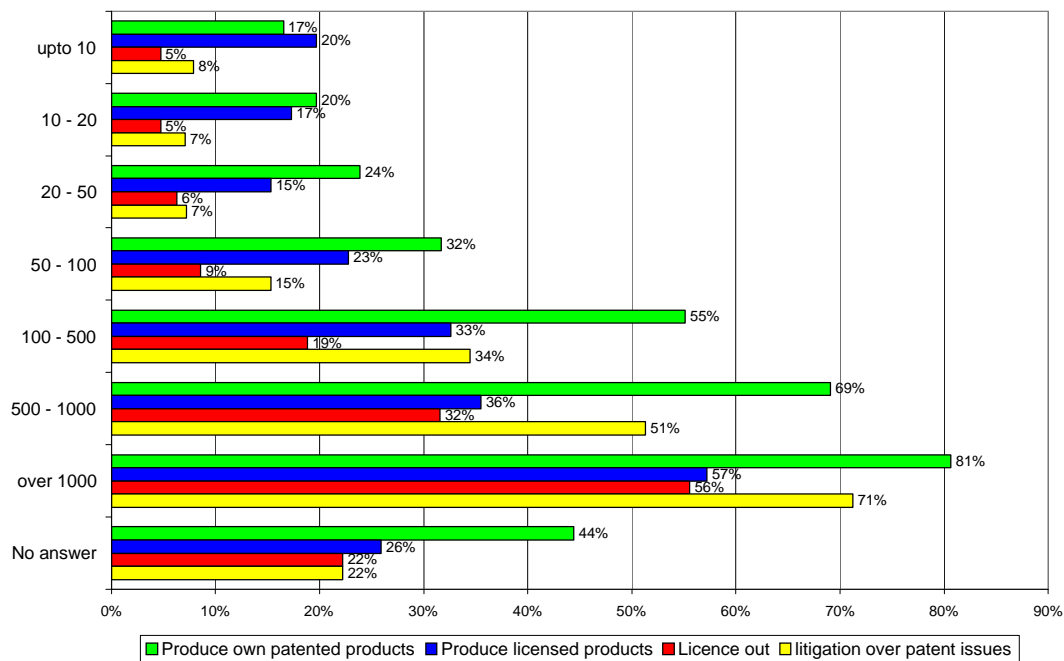
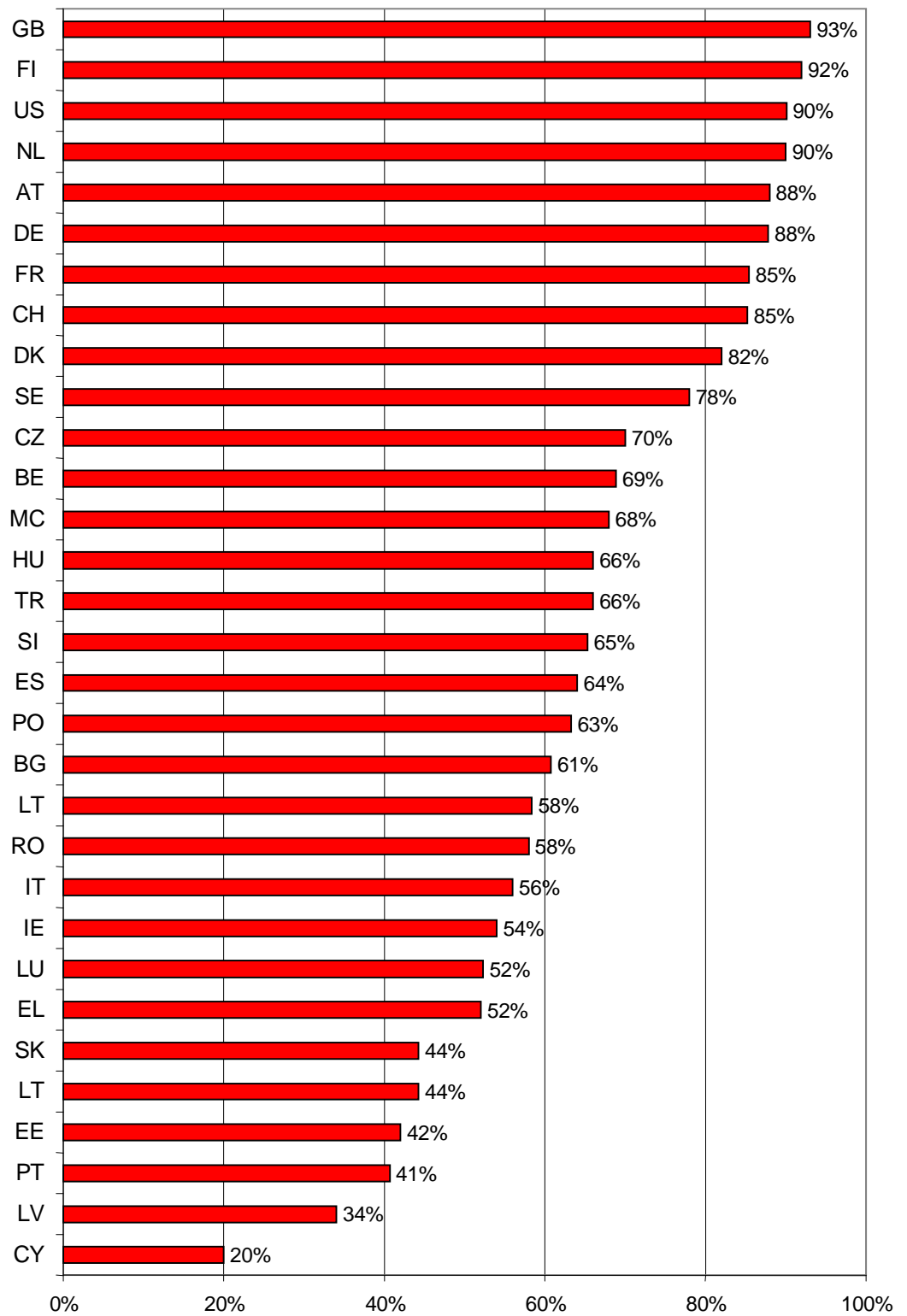


Figure 4.4 Patent Users - By Company Size



The use of patents is quite widespread in the sample. American respondents tend to make much more and broader use of patents, have the infrastructure and are more oriented towards the patenting system.

Figure 4.5 Patent Users - By Country



### 4.3 Likelihood Of Patenting In The Future

American respondents are most likely to apply for a patent at the EPO in the future, followed by companies in the EPC20 states and then by companies in the EPC10 countries which are the least likely to apply for patent protection at the EPO.

Figure 4.6 Likelihood Of Applying For A Patent At The EPO - By Region

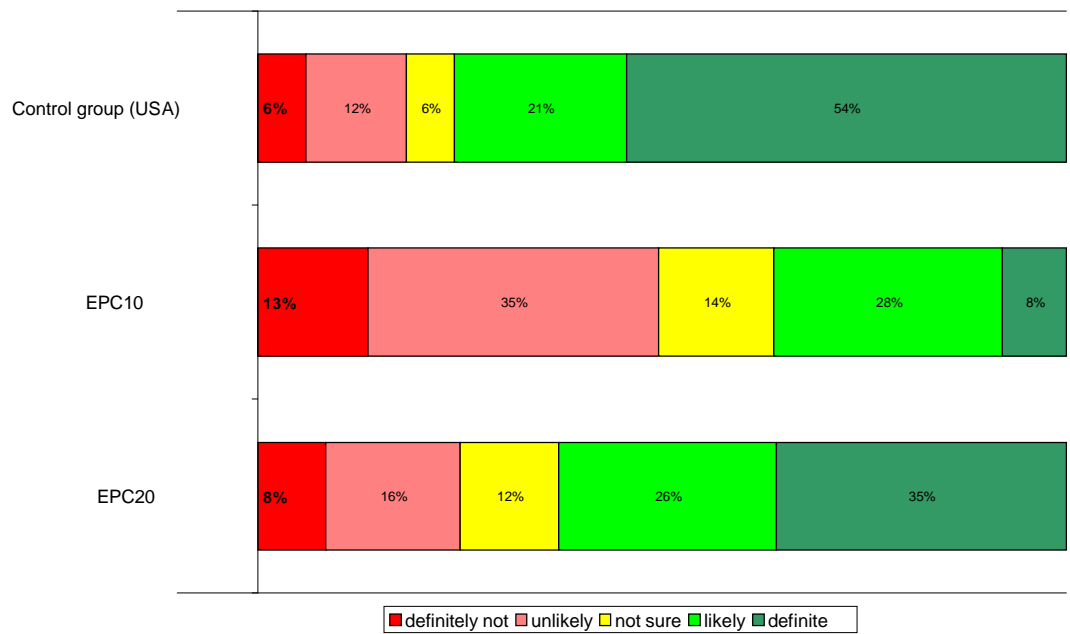
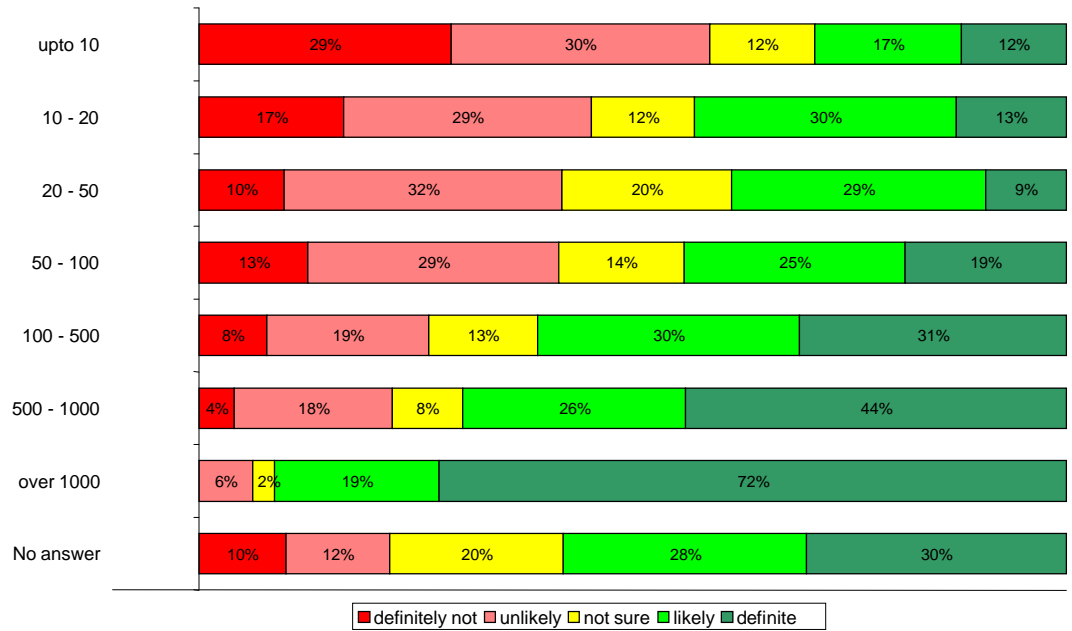


Figure 4.7

Likelihood Of Applying For A Patent At The EPO - By Company Size



#### 4.4 Familiarity With The EPO

The EPO is known by the vast majority of the companies, even in the newest EPC10 member states. Figures 4.8 and 4,9 show levels of familiarity with the EPO by region and by company size respectively

Figure 4.8 Level Of Familiarity With The EPO - By Region

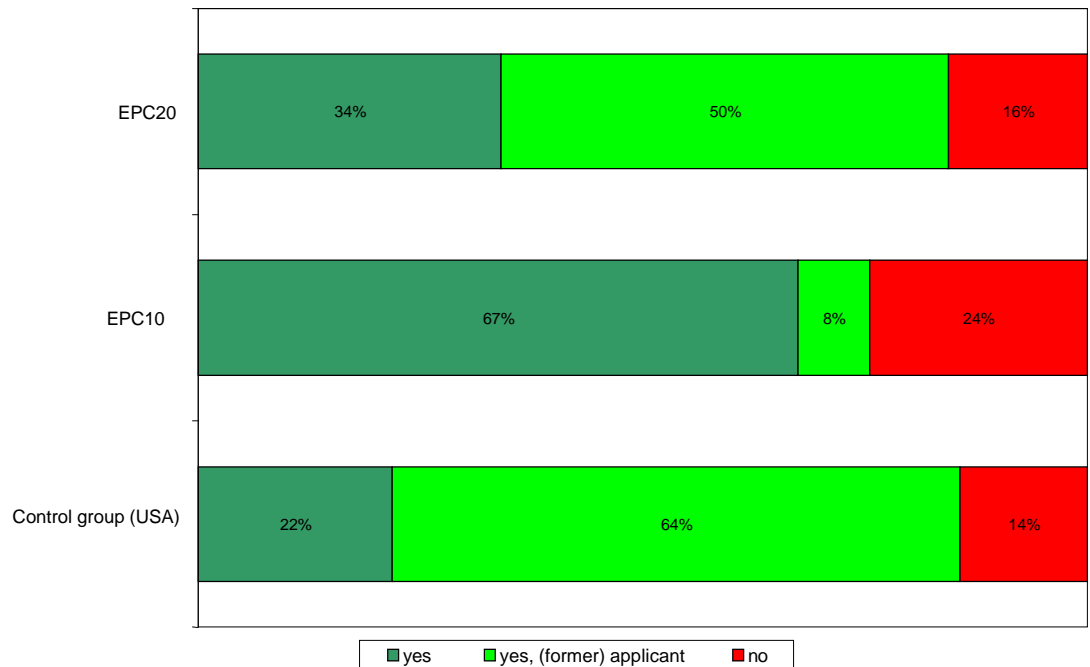
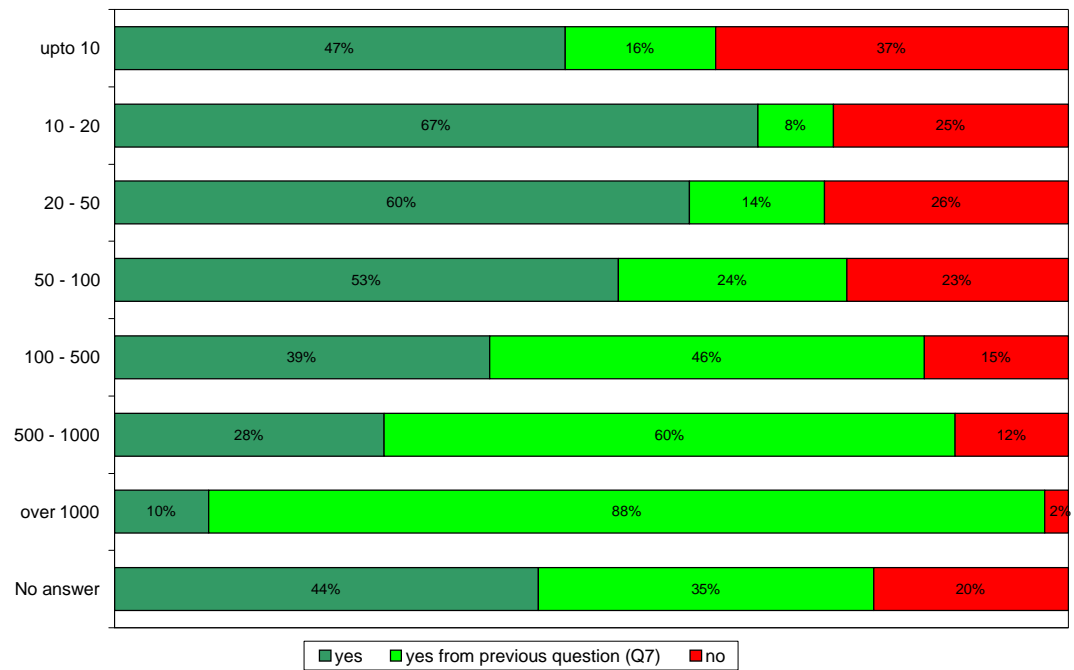
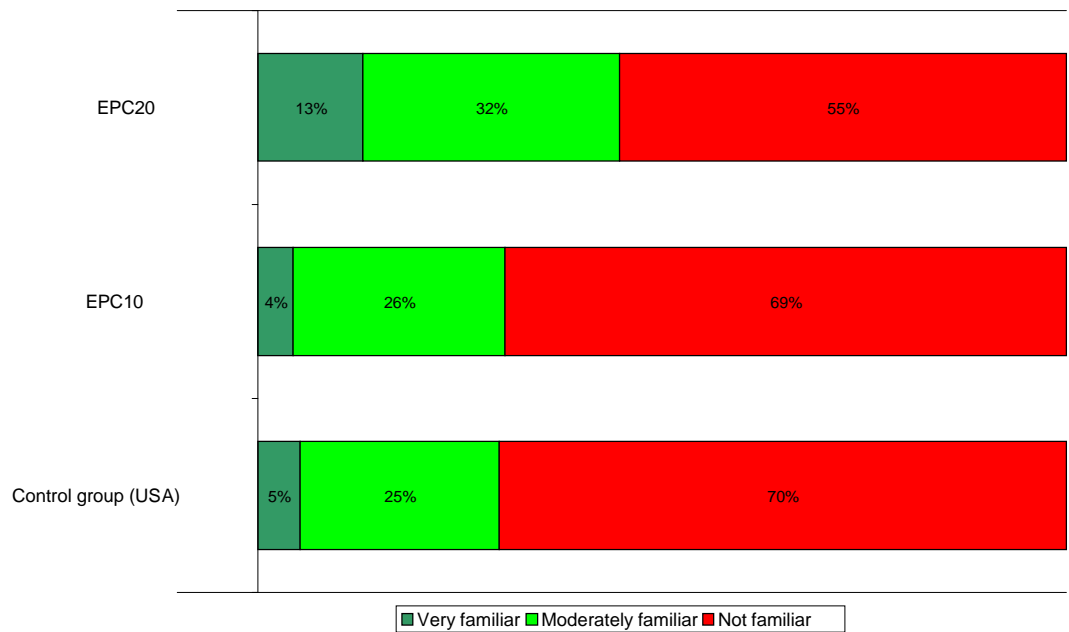


Figure 4.9 Level of familiarity with the EPO - By Company Size



However, the EPO patent information services are not very well known. On the question how familiar a respondent is with patent information services of the EPO, 50% to 70% of the companies seem not familiar with this EPO service. Figures 4.10, 4.11, 4.12 show the level of familiarity of the EPO's patent information service, by region, by company size and by country respectively.

Figure 4.10 Level Of Familiarity With EPO's Patent Information Services - By Region



We can say that while awareness of the existence of the EPO is high among all target groups, awareness of the patent information services of the EPO is not. Companies within the EPC20 member states, however, are more aware of the EPO's patent information services than the other country groups.

Figure 4.11 Level Of Familiarity With EPO Patent Information Services - By Company Size

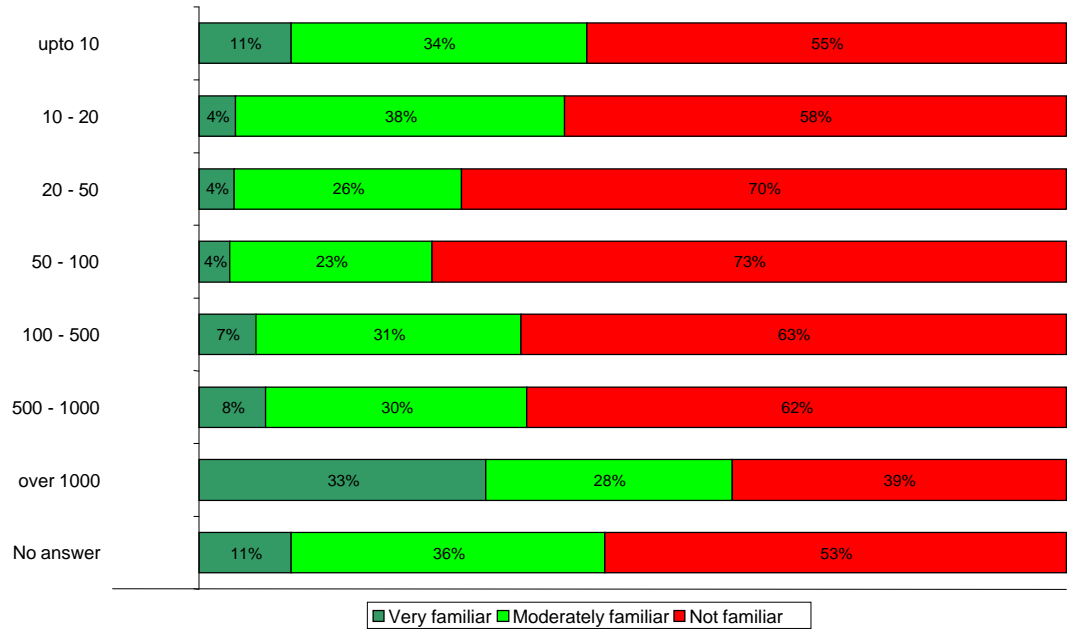
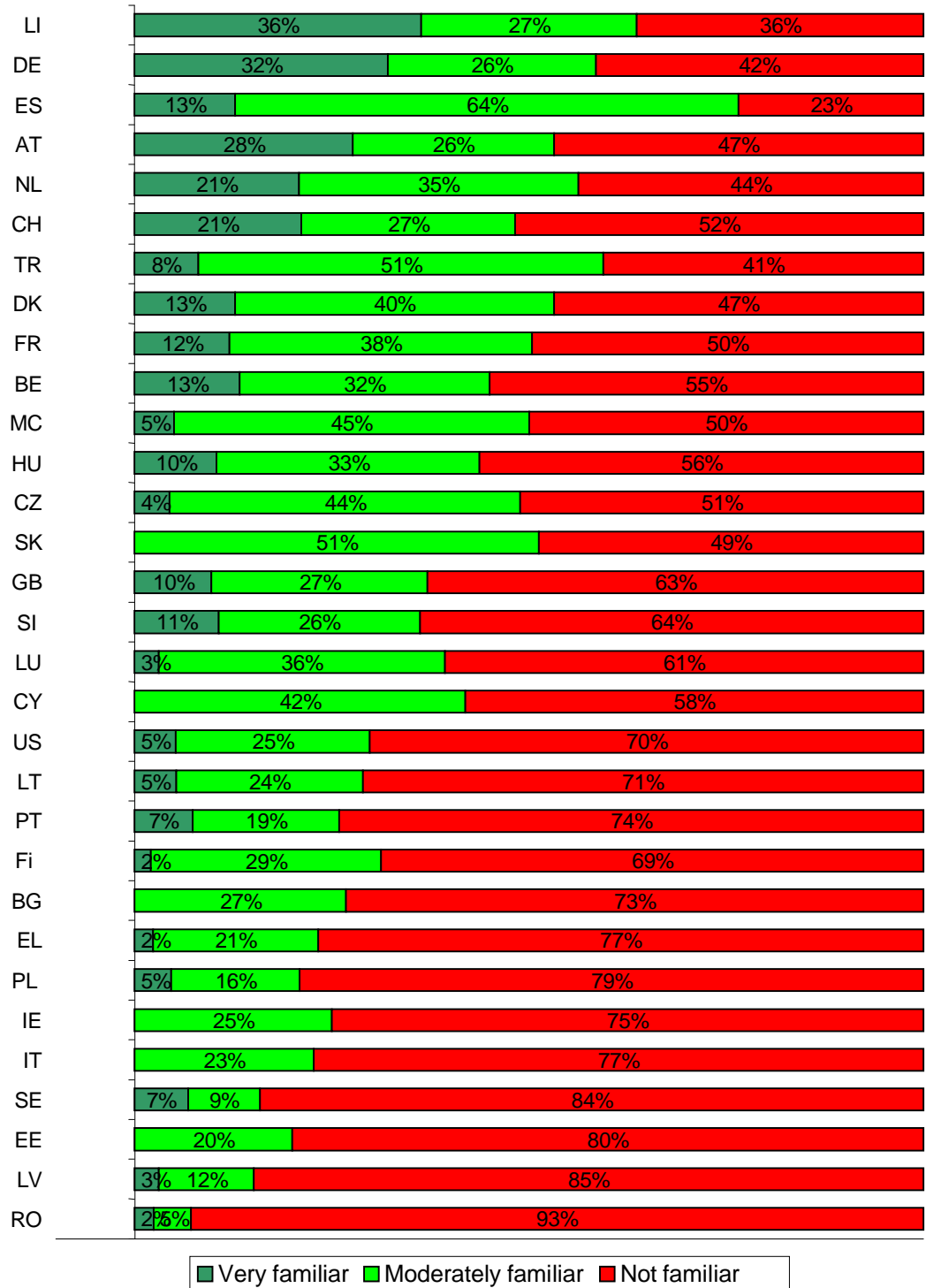


Figure 4.12 Level Of Familiarity With EPO Patent Information Services By Country



## 5 Importance of and need for information

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### 5.1 Introduction

This chapter concerns the role and need for information in order for companies to keep up to date. Patent information can play an important part in the portfolio of information which companies use. Central questions are:

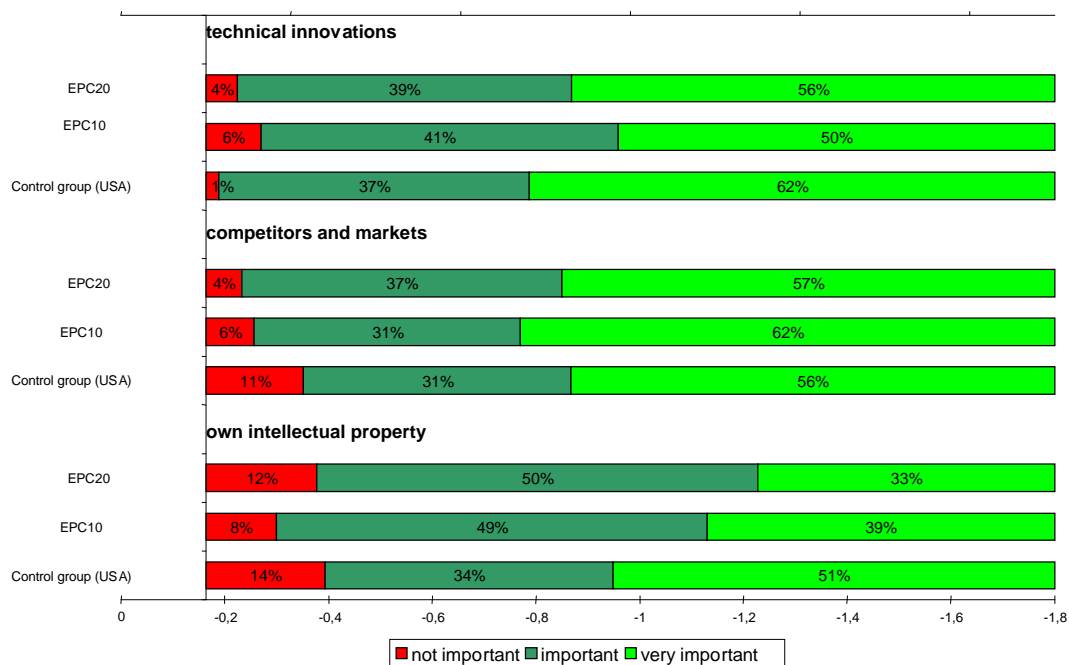
- How important is it for a company to keep up to date with current developments?
- What information do companies actually use?
- How do they gather that information?
- Do they or could they use more information?
- If so, what sorts of information could they use?

### 5.2 Importance of information

All respondents were asked how important it is for them to keep themselves informed on technical innovation, on competitors and markets and on their own intellectual property.

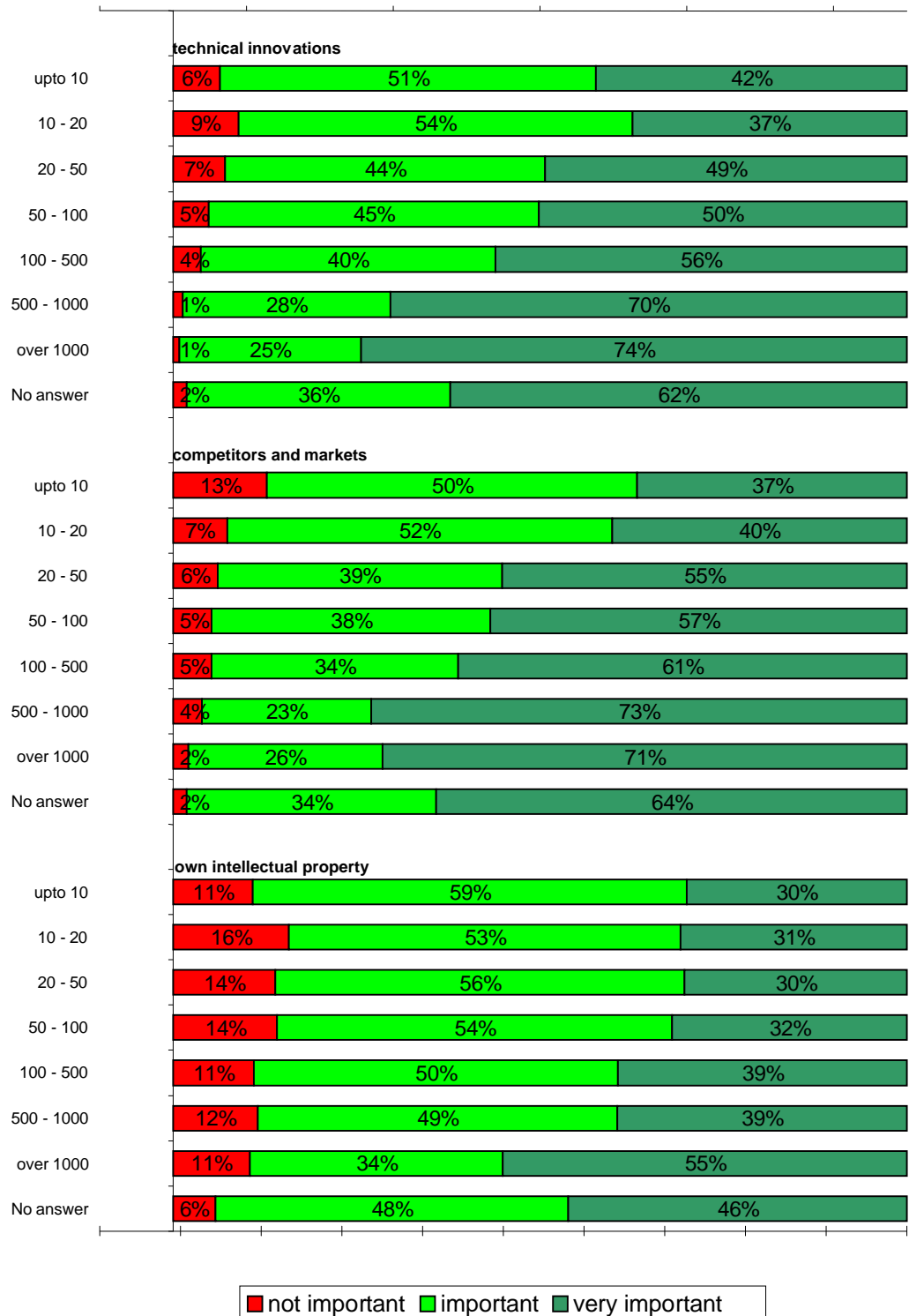
Intellectual property is seen as the least important aspect of these three, especially in the EPC20 member states. However, even this aspect is of importance to at least 80% of all respondents.

Figure 5.1 Importance Of Information - By Region



It is striking that companies in EPC10 member states attach more value to their own intellectual property than those in EPC20 member states, although we have seen that they are less oriented towards patenting and innovation. Once again, we see the American respondents leading the way: more oriented towards innovation, more importance attached to their own intellectual property and a corresponding level of importance towards market watch.

Figure 5.2 Importance Of Information - By Company Size



Using analyses of variance, we have found that companies with an IP department value (patent) information significantly more than companies who don't have an IP department. On the other hand, the use of patent information does not necessarily mean that people also tend to find information on innovations, competitor watch and intellectual property more important. These types of information are most important for companies involved with valuing their own intellectual property.

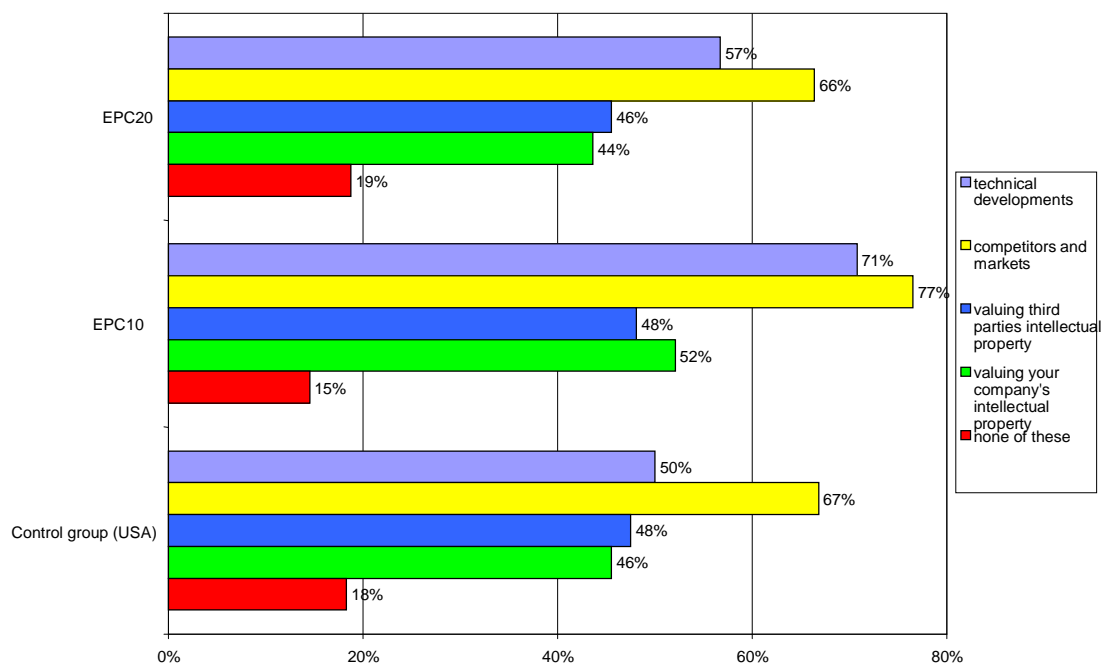
We have also found some interesting correlations involving country group. Information on technical innovations and competitors and markets tend to be valued more by companies in EPC10 countries, who don't have an IP department but do use patent information. This group values these types of information just as high, or even higher than companies who have an IP department. This effect can be explained in terms that nearly 50% of the EPC10 countries belong to the third cluster (see chapter 3). This cluster uses patents but needs help using patent information. They have the intention to use more information, but don't have the means to do so.

We also found an correlation between country group, the use of patent information use and the presence of IP departments, concerning valuing own intellectual property. This correlation however, must be interpreted carefully. When countries in the EPC20 countries do not have an IP department, there is little interest in valuing their own intellectual property. The situation is reversed in the USA.. Currently there is no obvious explanation for this difference.

### 5.3 Information Need

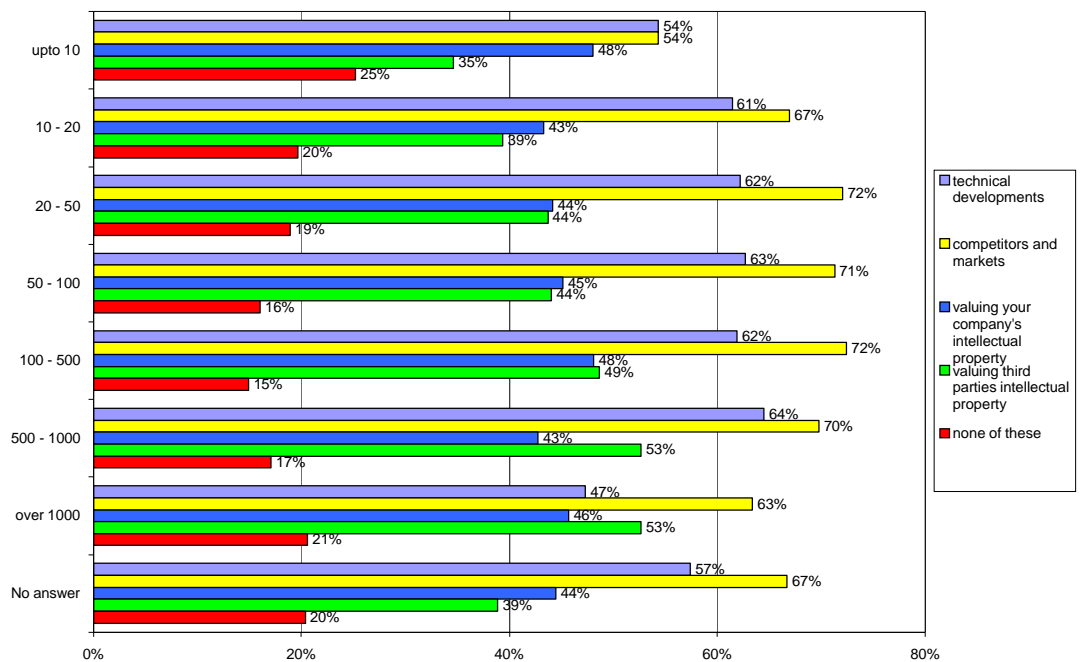
Regarding the kind of information the respondent would need, 15% to 19% of the companies apparently have access to all the information they need. For the rest, information on competitors and markets is the most important in terms of need. In EPC10 member states the need for information on technological development is significantly higher than in the rest of Europe and the US. The need for information on (own and third party) intellectual property is more or less the same in all three areas. The need for information that would enable the valuation of the company's own intellectual property is about as high as the need for valuing third party's intellectual property.

Figure 5.3 Need For Information - By Region



There is a substantial need for information on technical developments, but also on market trends, and competitors' products/activities.

Figure 5.4 Need For Information - By Company Size



Companies with an IP department not only find information more important than companies without IP departments, but also need more information on technical innovations, valuing own intellectual property and valuing the intellectual property of third parties.

We also found country dependence concerning the need for information on technical innovations and valuing one's own intellectual property. The need for these types of information is highest for EPC10 countries. These results match the results we have found concerning the importance of information. EPC10 countries largely need more information because they lack a good infrastructure to use information on IP.

#### 5.4 Information Sources - Methods Of Keeping Up-To-Date

Magazines and journals are the most important sources of information, followed by personal contacts, the Internet, access to databases, exhibitions, and professional associations. Professional associations and exhibitions play a more prominent role as information sources in the USA than in Europe.

Table 5.1 Information Sources - Keeping Up-To-Date

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
magazines/journals	67%	62%	65%
Internet sites	55%	62%	48%
personal contacts	53%	64%	43%
databases	45%	57%	41%
exhibitions/conferences	36%	15%	49%
professional associations	34%	18%	50%
books	25%	21%	27%
libraries	15%	11%	19%
other	7%	4%	9%
don't know/no answer	5%	4%	3%
Number of respondents	1199	503	202

Professional organisations, libraries, and exhibitions in the USA are important sources of information. The corresponding infrastructure in EPC20 countries is better developed than in the new EPC10 countries. This may be the cause of a heavier reliance on the Internet in EPC10 member states.

## 6 Use Of And Need For Patent Information

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### 6.1 Introduction

In this chapter we investigate awareness of information resources in which patent information is contained. We also investigate respondent knowledge, use application and potential interest.

Secondly, we investigate which criteria databases and information systems should meet in order to be of interest.

### 6.2 Definition of Patent Information

All respondents were asked to give their definition of patent information. The responses given as the definition of patent information are mostly generic in character.

Table 6.1 Definition Of Patent Information

	EPC20	EPC10	USA
information on patents (general)	14%	16%	12%
information on the process to get your patent filed/ guidelines	13%	7%	11%
information on existing patents (in our field)	33%	12%	31%
information on ownership of patent	6%	11%	13%
a searchable database for patent information	14%	6%	22%
legal information as to applying with a patent office	6%	13%	8%
issue dates	2%	1%	1%
information on the history of technology	4%	3%	1%
status of patents	6%	8%	6%
content of patents/ description of an invention	13%	23%	8%
explanation of the term 'patent'	9%	3%	11%
other	13%	0%	13%
don't know/no answer	8%	34%	4%
Number of respondents	1068	428	193

There is hardly anyone who can give a definition that is broader than explaining the term "patent", almost no one knows for instance that patent information could be defined as information on the history of technology. Generally the knowledge of what the term "patent information" means or could mean is quite limited.

### 6.3 Awareness Of Databases Containing Technical, Business And Commercial Information

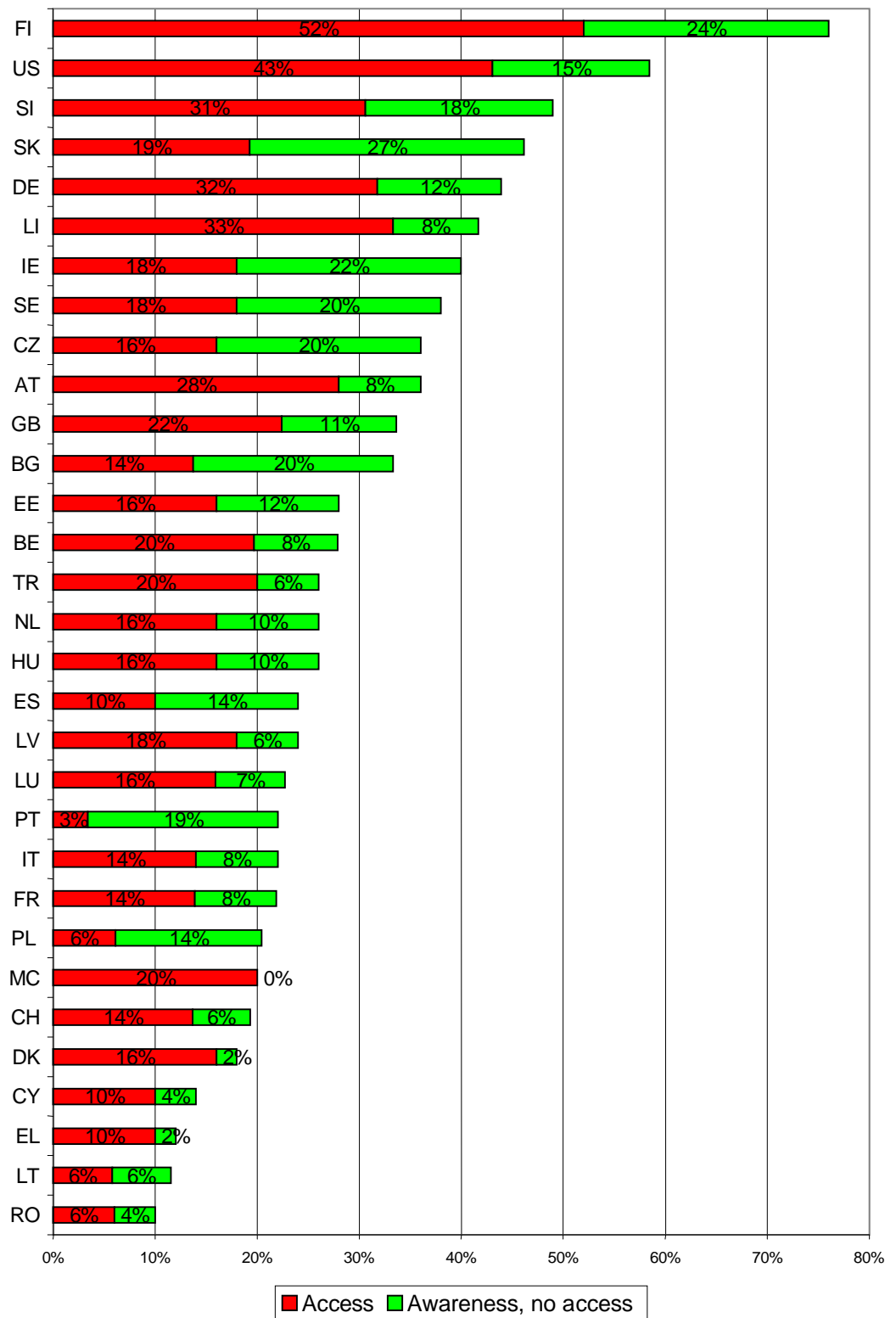
As we have seen before, over 60% of the companies interviewed have at least applied for patent protection in the past. Furthermore 88% of the companies interviewed currently work with patents (as licensors or licensees). We assume that these companies use (or have used) patent information, or at least should have some knowledge of intellectual property.

We also have seen that the vast majority is not, or hardly aware of the EPO's patent information services. We have asked if respondents are aware of existing databases "combining technological, business and commercial information". This was a deliberately leading question which was intended to make the respondents aware that such information can be extracted from patent information. About one third of all companies is aware that such "combined" databases exist. Awareness levels are significantly higher in the US (almost 60%) than in Europe (around 30%).

Awareness of these combined databases increases with company size, in the smallest category (up to 10 employees) awareness level is 21%, in the second group the level increases to 27%. In the three categories above this (so in companies with 20 to 500 employees) awareness is 29%, In companies with 500 to 1000 employees awareness in 38% and in the largest companies awareness is 51%.

Figure 6.1 shows, per country, the percentage of companies that have access to these databases (in red) and the percentage of companies that are aware of the existence of these databases, but have no access to them (in green).

Figure 6.1 Awareness And Access To Databases - By Country



By inspection, awareness levels are unexpectedly high in some countries such as Slovenia and Slovakia where awareness levels are higher than in countries like Germany and the United Kingdom.

### 6.3.1 Providers of databases

The most widely known (Internet) database is the USPTO web site (due to a high proportion of American respondents), followed closely by esp@cenet. Knowledge of the EPO products is predictably highest in EPC20 member states. A vast proportion of the companies that are aware of patent database systems, cannot recall any names of specific databases or services. Knowledge levels in EPC10 member states are not very high.

In Europe generally, esp@cenet is known to 11% of the companies in EPC20 member states and 4% in the EPC10 countries. For DEPATISnet these figures are significantly lower with 5% and 1% respectively.

Table 6.2 Awareness of database providers  
Base: is aware of databases

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
USPTO web site	28%	12%	57%
esp@cenet	39%	14%	19%
DEPATISnet	16%	4%	5%
Nerac	1%		17%
Derwent	5%		2%
Dialog	3%		6%
Lexis Nexis			5%
IBM	1%		
INPI	1%		
other	21%	12%	25%
don't know/no answer	36%	64%	19%
Number of respondents	349	143	118

Of all the respondents who have mentioned a database or service on the previous question, over 90% actually has access to these databases or services. Access increases according to company size.

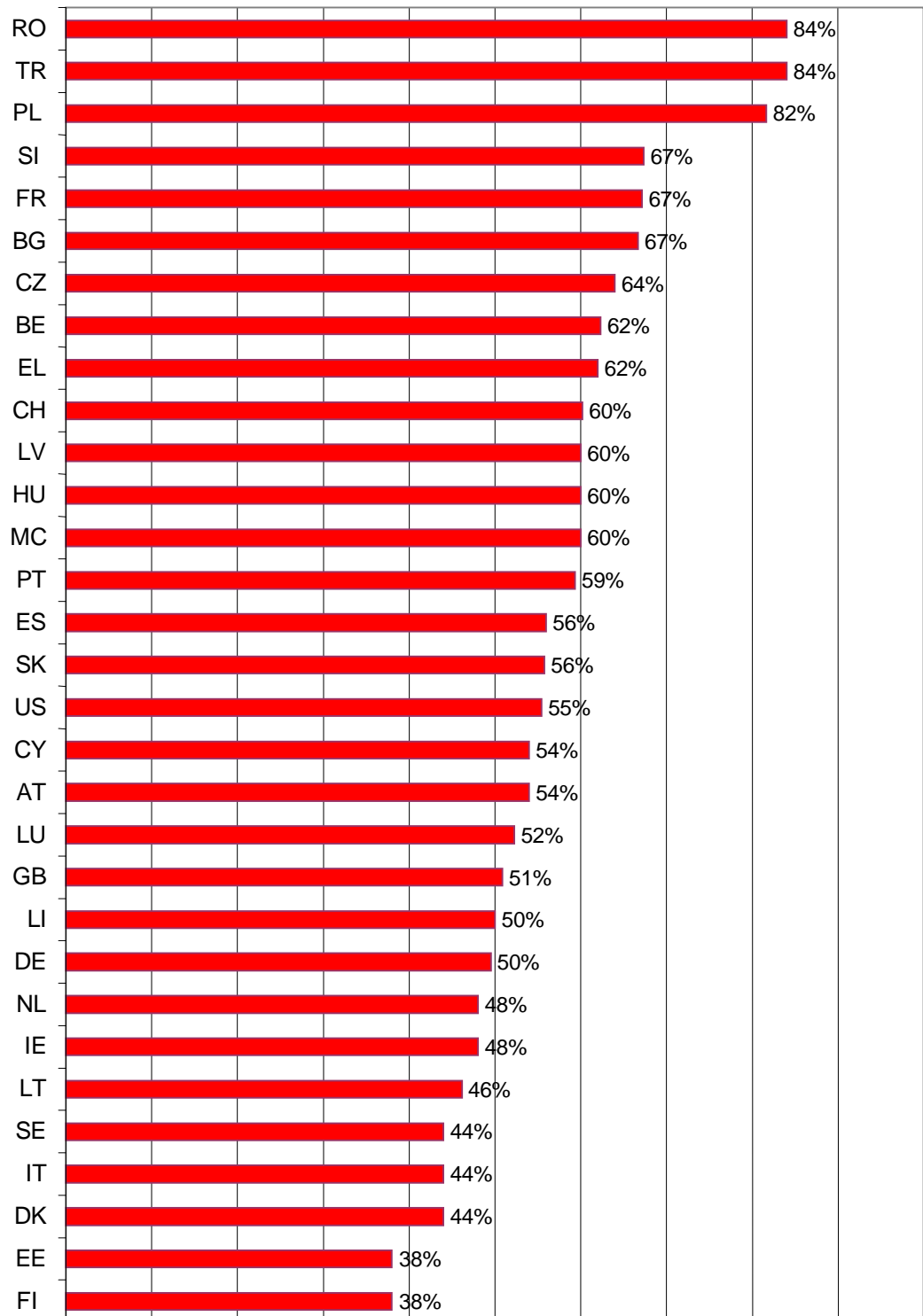
## 6.4 Need for Patent Information

In chapter 4.3 we discussed various sorts of information companies need. Two commercial activities directly concern patent information these are: valuing ones own intellectual property and valuing third party's intellectual property and we make a list per country. It seems that the need for patent information is greater in less innovative countries and lower in more innovative ones. There



are exceptions, however. France, Belgium and Switzerland, for example, show high levels of need. Italy and Ireland on the other hand show low levels of need.

Figure 6.2 Need For Patent Information - By Country



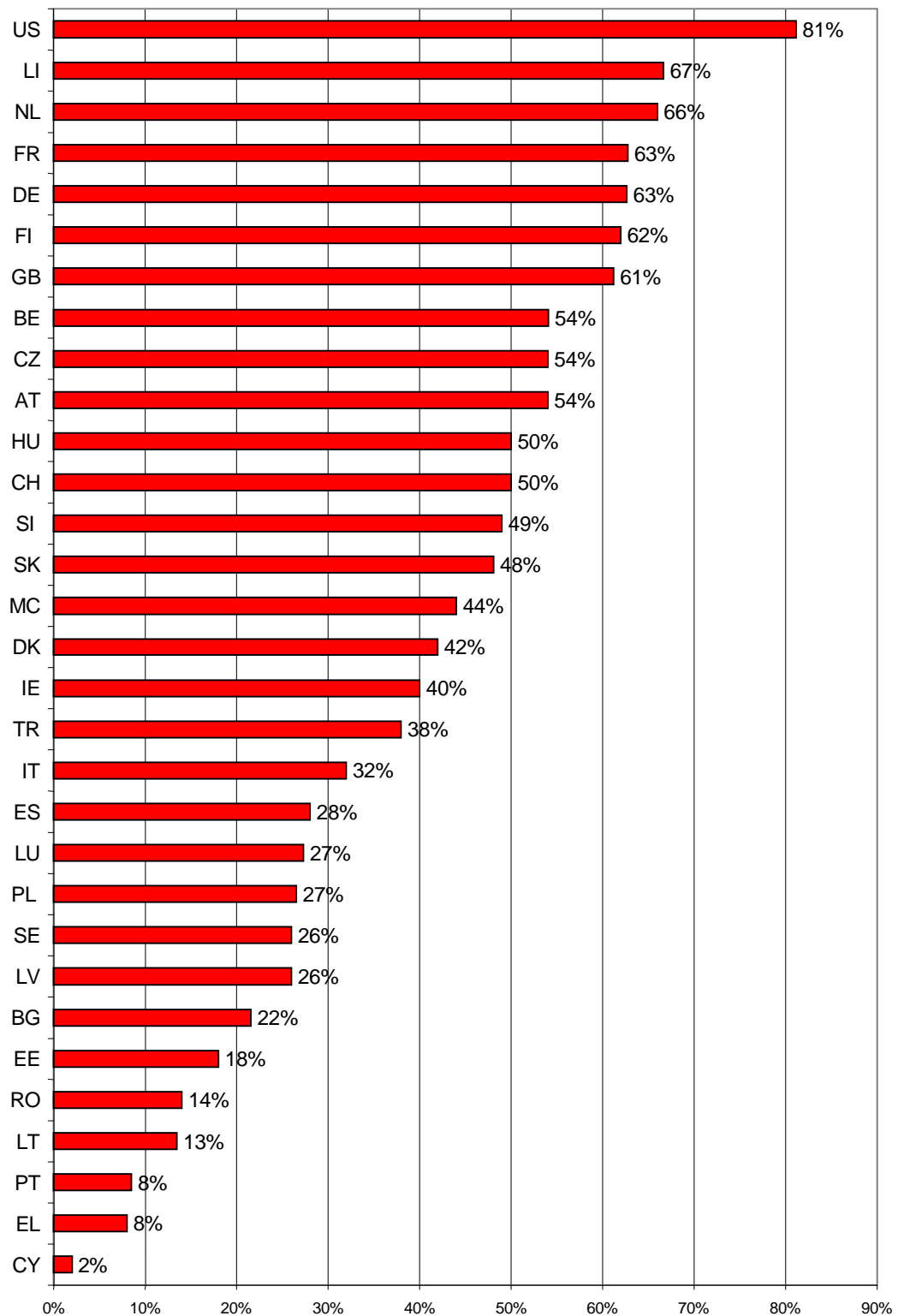
The need for patent information is higher among users of patents (60%), but is generally high among non users as well (50%).

## 6.5 Access To Patent Information

45% of all companies interviewed have access to patent information. This is higher than the access percentages reported in chapter 5.3. A reason may be that for most respondents patent information databases are not considered as databases containing simultaneously technical, business and commercial information..

Access increases with company size from 20% to 87%. In the US access is far more widespread (81%) than in Europe (45% in EPC20, 32% in EPC10).

Figure 6.3 Access To Patent Information - By Country



The preferred provider of patent information is the national patent office (in all three geographical areas, but the USPTO is mentioned most frequently). The EPO is mentioned slightly (not significantly) more often than commercial providers, and we see that in the US commercial providers are mentioned more often than in Europe.

Table 6.3 Preferred Provider Of Patent Information  
Base: Users Of Patent Information

	<b>EPO</b>	<b>NPO</b>	<b>Commercial</b>	<b>Others</b>
AT	56%	44%	11%	30%
BE	33%	12%	45%	21%
CH	55%	48%	30%	23%
CY		100%	100%	
DE	52%	46%	48%	22%
DK	48%	48%	33%	24%
FR	29%	43%	30%	26%
EL	50%		50%	25%
IE	25%	30%	15%	20%
IT	6%	13%		56%
LI	50%	50%	25%	50%
LU	25%	33%		17%
MC	27%	73%	18%	27%
NL	27%	15%	18%	27%
PT		40%	20%	20%
FI	29%	61%	58%	19%
ES		36%	36%	21%
TR	37%	58%	21%	26%
GB	28%	34%	46%	34%
SE	46%	15%	54%	38%
BG	9%	91%	18%	
CZ	30%	67%	11%	11%
EE	33%	78%	11%	
HU	20%	84%	4%	
LT	14%	57%	29%	
LV	8%		8%	8%
PL	31%	85%	15%	15%
RO		71%	14%	29%
SK	32%	76%	8%	8%
SI	29%	50%	17%	33%
US	18%	55%	34%	32%

Section 6.3 discusses the awareness of and access to combined databases. Also, results on awareness of various databases have been discussed. The USPTO web site is the best known database or service, followed closely by esp@cenet. On the question of which database/service to which the respondent actually has access,

esp@cenet is mentioned most often, mainly by companies from EPC20 member states. See table 6.4

Table 6.4 Use Of Databases and Services - By Region

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
esp@cenet	21%	8%	15%
USPTO web site	14%	5%	46%
DEPATISnet	9%	3%	4%
patent office in other countries	1%	3%	5%
EPO general/ not specified	2%		3%
Derwent	2%		2%
Delphion	1%		3%
NERAC			9%
INPI	2%		
Inpadoc	1%		1%
US patent office			2%
Chemical Abstract			1%
GB patent office	1%		
Lexis Nexis			1%
Other	5%	1%	10%
Number of respondents	1119	503	202

The workplace is most often mentioned as access point, but in EPC10 member states the majority of the companies accesses these databases from a local centre. See table 6.5.

Table 6.5 Access Points - By Region  
Base: All Companies That Have Access

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
In the workplace	46%	7%	84%
From a local centre	43%	67%	15%
At a remote (distant) location	6%	1%	17%
Via a third party *	22%	17%	27%
Don't know/no answer	10%	24%	2%
Number of respondents	536	161	164

\*Generally patent attorney

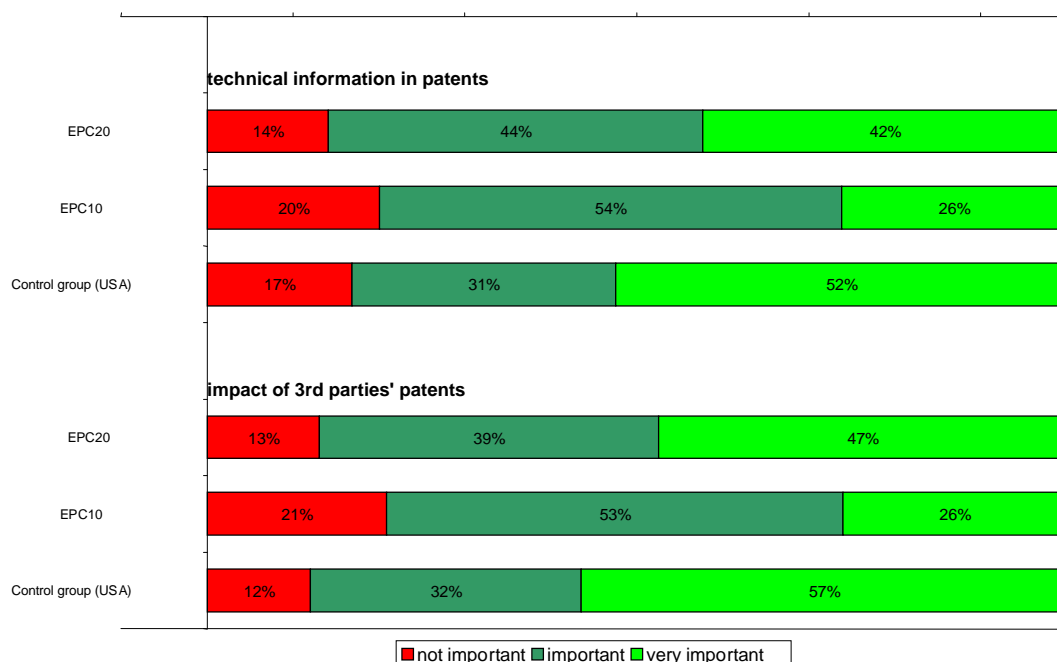
## 6.6 Summary: Awareness And Access To Database Systems.

Over the whole sample, 50% of the companies have access to “combined” databases and/or to databases with patent information. Of the two types, the first one is less known than the explicit patent databases, since only 32% of the companies is aware these databases exist.

## 6.7 Importance And Usage Of Patent Information

On average, the impact of 3rd parties’ patents on one’s own company is considered more important than the technical information contained in patents. We therefore consider that for most companies patent information would be more useful in a defensive rather than an offensive role. See figure 6.4

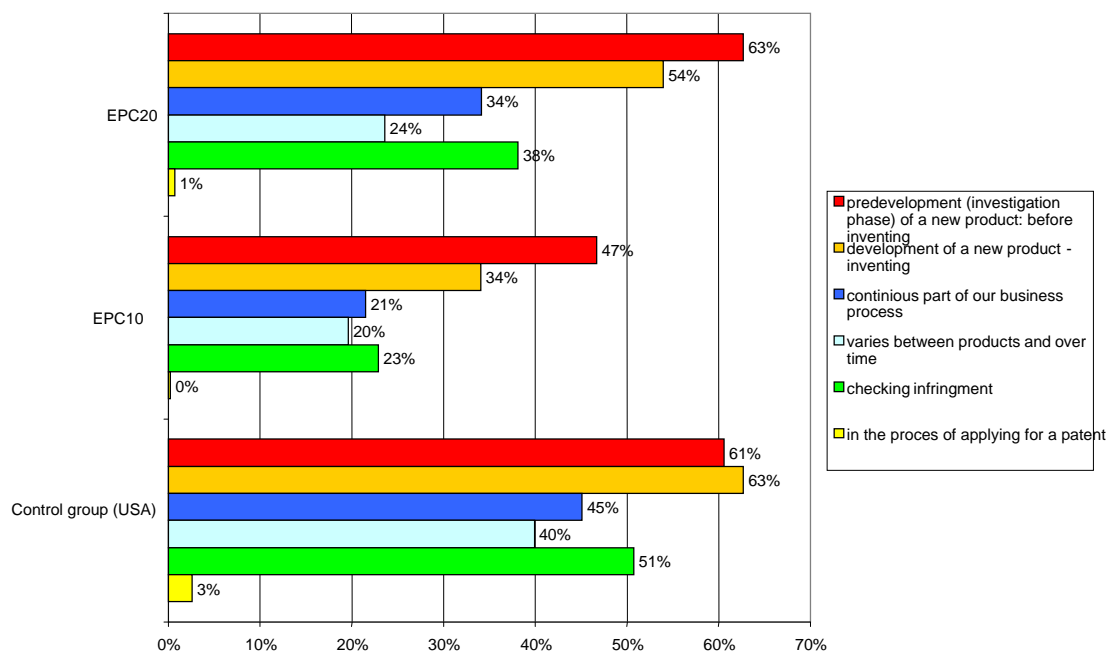
Figure 6.4 Importance Of Patent Information - By Region



More than 80% of all companies consider the information in patents as important or very important. American respondents attach more importance to patent information than those in EPC20 member states who in turn attach more importance to patent information than those in EPC10 member states

Patent information is apparently most useful in the early stages of product development; during predevelopment and in the invention stage. Surprisingly patent information is little used in the preparation or prosecution of patent applications.

Figure 6.4 Occasions To Use Patent Information - By Region  
Base: All Companies That Use Patent Information



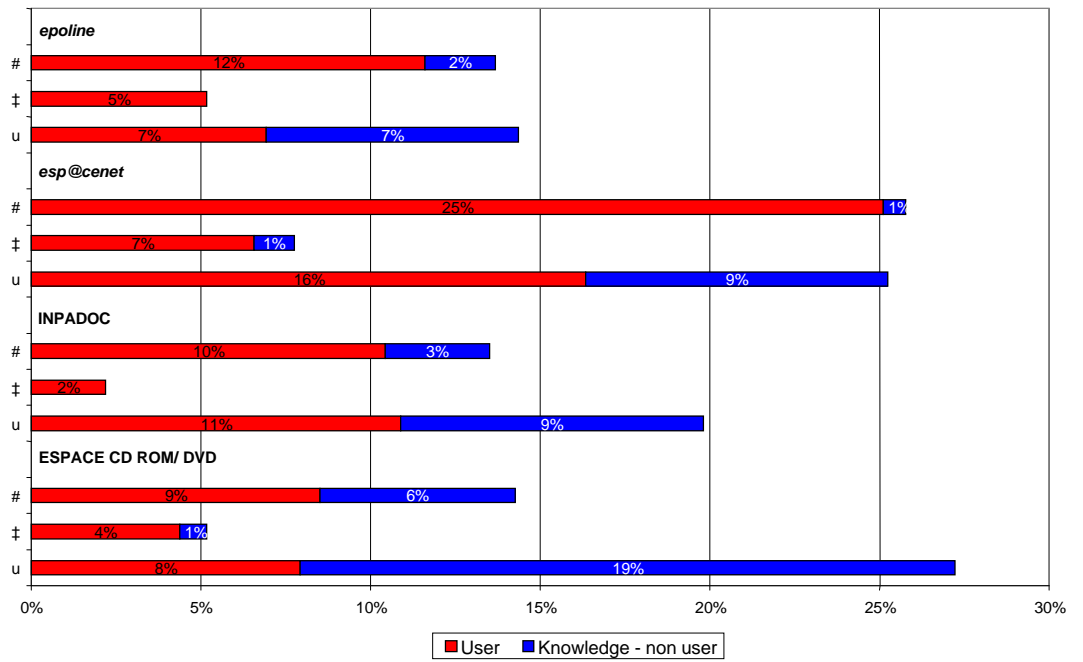
There is quite a large regional variation, Respondents in the USA and EPC20 countries see patent information more as a resource that can be used in various stages of (product) development, American respondents put higher emphasis on patent information for checking infringements than Europeans do.

## 6.8 Knowledge And Use Of EPO Products

We asked all patent users or those respondents with access to databases or services, if they know a number of EPO products and whether or not they use these products. In the following figures a remarkable difference between the three regions becomes clear: Europeans show a tendency to use what they know, Americans know more than they use. Levels of knowledge and usage are relatively low in EPC10 member states.

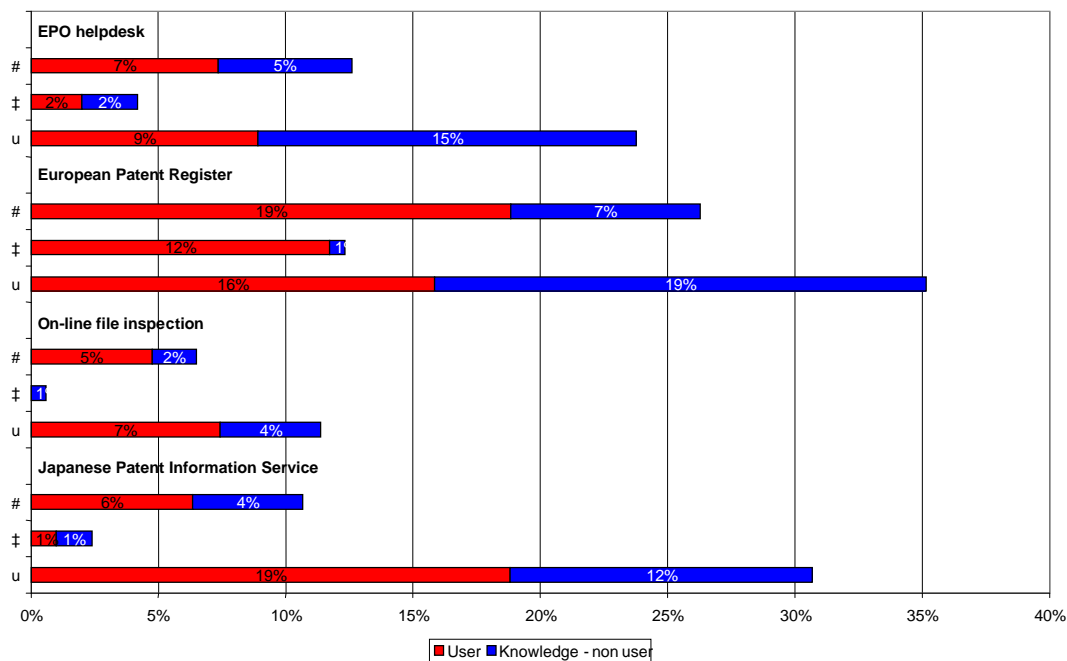
The most widely known products of the EPO are esp@cenet, the ESPACE products and the European Patent Register. The On-line File Inspection Service is not very well known.

Figure 6.5 Knowledge And Use Of EPO Products - By Region



# = EPC20 ‡ = EPC10 u = Control Group USA

Figure 6.6 Knowledge And Use Of EPO Products



# = EPC20 ‡ = EPC10 u = Control Group USA

### 6.8.1 Preferred Suppliers

The national patent offices are – according to respondents in Europe as well as in the US – preferred suppliers of patent information. In Europe the EPO is in second place to national offices , in the US commercial suppliers are second place and the EPO is in third position..

Table 6.6 Preferred suppliers of patent information - By Region  
Base: all

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
Own national patent office	17%	45%	25%
EPO	15%	14%	7%
Commercial provider	8%	4%	15%
patent attorney/ agency	4%	0%	5%
Other national patent office	3%	3%	2%
on the Internet/ website	3%	1%	5%
Specialised patent library	2%	1%	3%
legal firms	1%	0%	2%
esp@cenet	1%	0%	0%
Nerac	0%	0%	2%
other	7%	6%	7%
Number of respondents	1199	503	202

#### 6.8.2 Encouraging And Discouraging Factors In Using Patent Information

We have asked all respondents who use patents and/or have access to databases containing patents if they could identify factors which would encourage the use of patent information on one hand, and factors which would discourage the use of patent information on the other. For both cases, American interviewees can name more factors than Europeans (and Europeans from EPC20 member states can name more than those from EPC10 countries). Costs are mentioned quite often as an encouraging as well as a discouraging factor. The most important encouraging factor seems to be the technical information content of patent documents, followed by legal information and cost.

Figure 6.7 Factors Encouraging The Use Of Patent Information

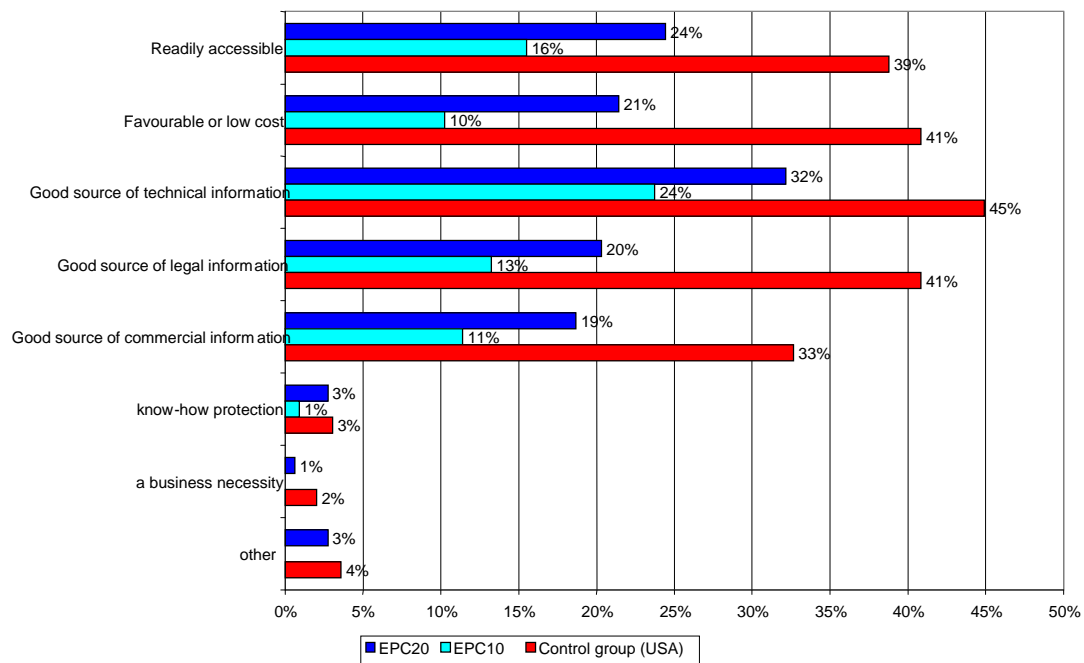
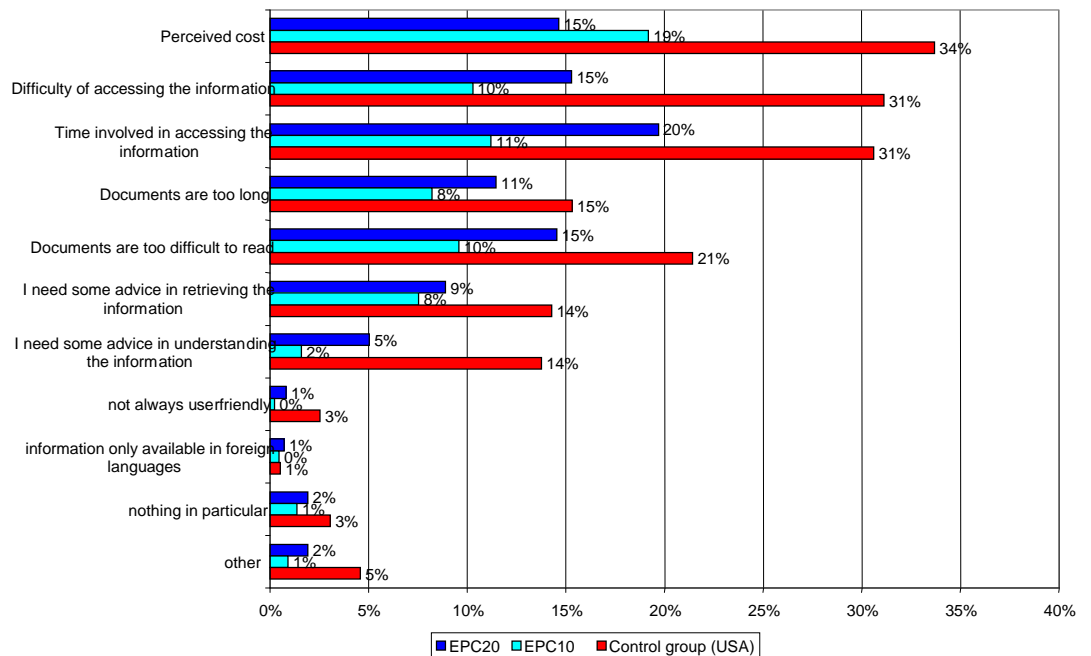


Figure 6.8 shows that perceived cost is seen as the most important discouraging factor. Furthermore a substantial group of companies seems to encounter difficulties when retrieving the information needed.

Figure 6.8 Factors Discouraging Use Of Patent Information



## 7 Interest In Patent Information From The EPO

### 7.1 Introduction

This chapter further explores the need for patent information. First we will answer the question how many companies are interested in the EPO products and services and how many are already using them. We will investigate how the information should be presented, what possible new applications might be developed, what added-value services the respondents need most and their general attitude towards patent information.

### 7.2 Interest In The EPO Databases and Services

70% to 80% of the non-users indicate that access to the databases would be of interest to them. Generally for, users and interested companies, we can say that 75% (US) to 80% (Europe) of the companies show an interest in the EPO databases. US respondents apparently prefer to obtain patent information from the USPTO.

Predictably, use and interest strongly correlate with company size. It is remarkable, however, that smaller companies (up to 20 employees) are more often users than companies with 20 to 100 employees.

Figure 7.1 Use And Interest In Patent Information From The EPO - By Company Size

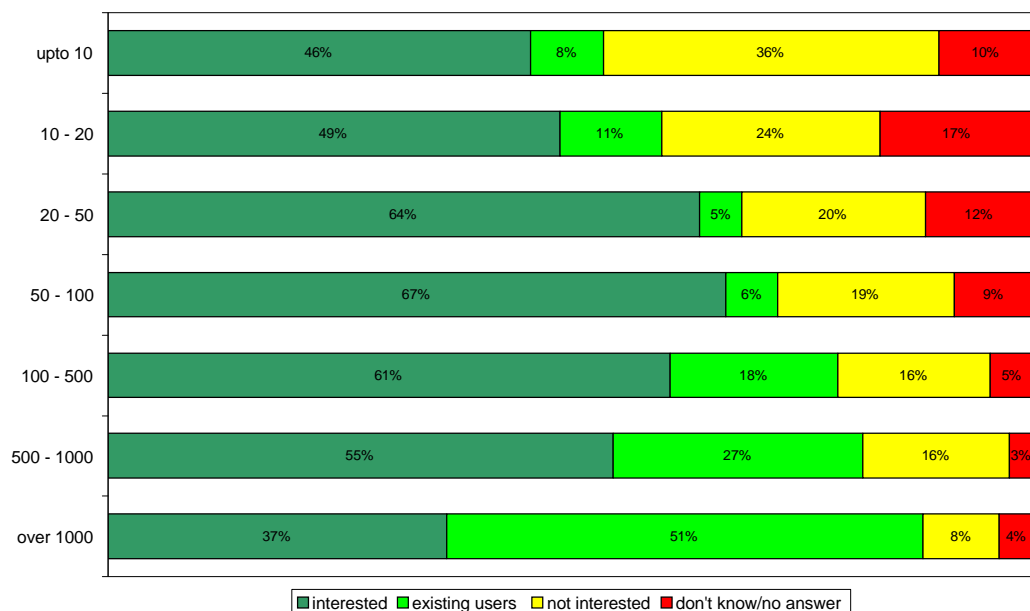
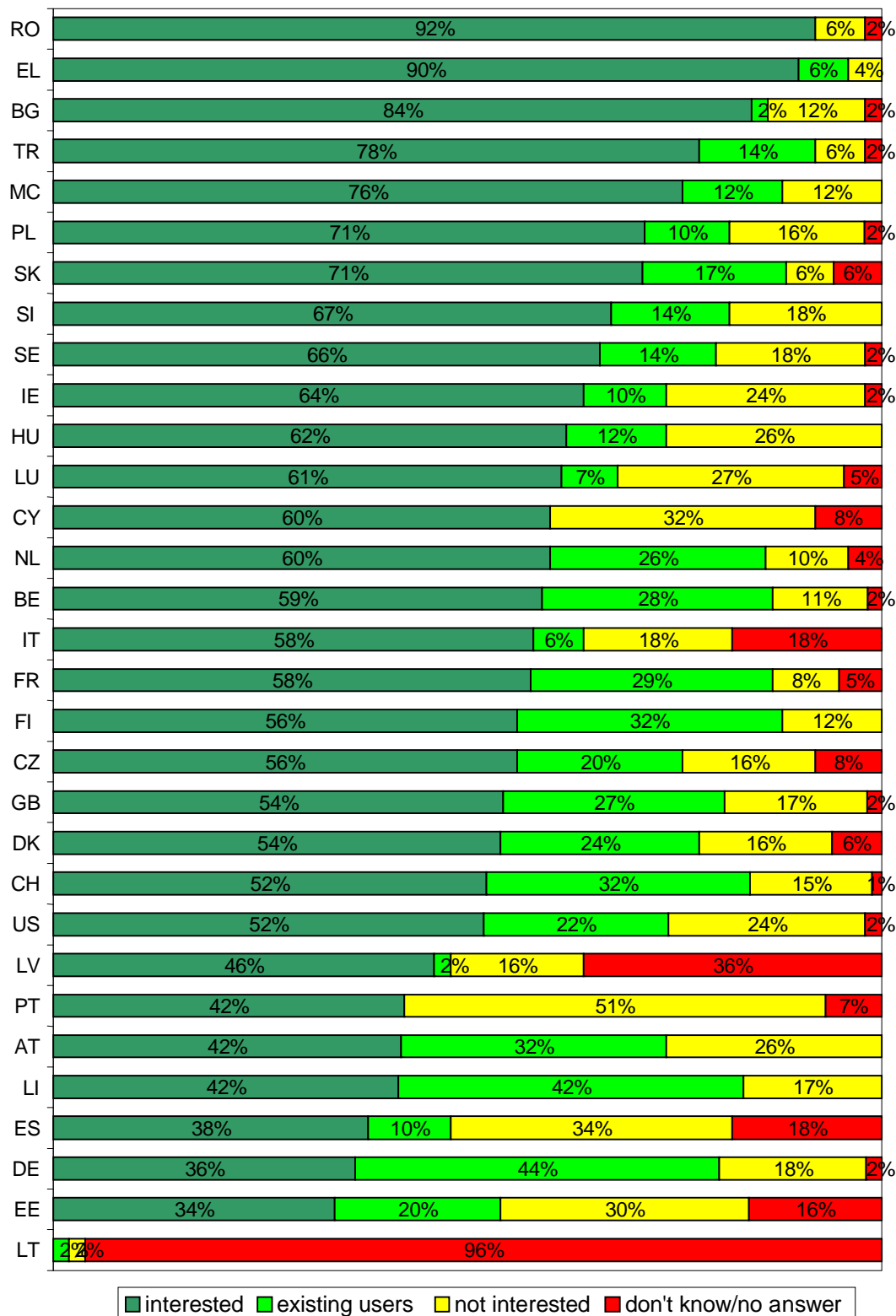


Figure 7.2 Use And Interest In Patent Information From The EPO



### 7.3 Development Of New Applications Of Patent Information

Initially, companies were asked if they could suggest other applications of patent information, in the sense of new ways of using patent information. This question was obviously too difficult to be answered easily. The vast majority of respondents were unable to give suggestions. Some of the few suggestions offered are "an information tool on technical developments and/or competitors", "a monitoring system on patent activity", and "quick access by the Internet".

A subsequent clarification asked if the EPO should develop new applications (that is, should the EPO develop new ways of using patent information?). 57% of the companies in EPC20 member states, 56% in the EPC10 member states and 41% in the US say yes. The main requirements are that such developments could help to make patent information easier to use or, that support in using patent information by the EPO would be beneficial.

Table 7.1 New Applications To Be Developed By The EPO - By Region Base: All

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
Would make patent information easier to use	41%	41%	23%
The EPO's support in using patent information would be beneficial	19%	18%	26%
Would make patent information easier to understand	17%	14%	7%
Opportunities: more information/ resources	3%		9%
Opportunities: better information	2%		7%
Better accessible/ easier/ faster/ user-friendly	1%		9%
Improvement (general)	1%		2%
Opportunities (general)	1%		5%
Cheaper (general)	1%		
Opportunities: reduce costs in finding information	1%		2%
Good for the whole industry/ makes the market fair	1%		
To know what competitors do	1%		1%
World wide access			1%
Opportunities: better access			1%
Other	6%	6%	4%
don't know/ no answer	5%	22%	2%
Number of respondents	678	281	82

All respondents using or interested in patent information were asked which additional information services they would like to see. Technology watch competitor watch and market watch are the most frequently mentioned additional services See table 7.2

Table 7.2 Preferred Additional Information Services -  
By Region  
Base: Users Or Interested In Patent Information

	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
Advisory services	36%	37%	25%
Alerting services	42%	28%	43%
Technology watch (to monitor developments in technology)	58%	35%	53%
Competitor watch	57%	38%	55%
Market watch	52%	40%	46%
Partner search	36%	41%	21%
Interpretation of information retrieved	17%	3%	25%
Guided searches on-line	43%	18%	43%
Guided searches in personal contact	25%	8%	25%
Custom Patent information retrieval services	37%	11%	39%
Referral services to other organisations which support innovation	29%	7%	24%
In house/on site consultancy from the EPO, your national patent office or commercial Patent information provider	15%	1%	24%
Reports/newsletters	23%	2%	29%
Patent information training	25%	9%	22%
Other	20%	14%	3%
Number of respondents	1172	494	202

Table 7.3 shows the preferred mode of contact between patent information customers and patent information suppliers. The majority of the companies interviewed would like the possibility to get in contact with the supplier's staff, preferably by email or telephone.

Table 7.3 Contact Modes Users - Providers - By Region  
Base: Has Knowledge Of The EPO

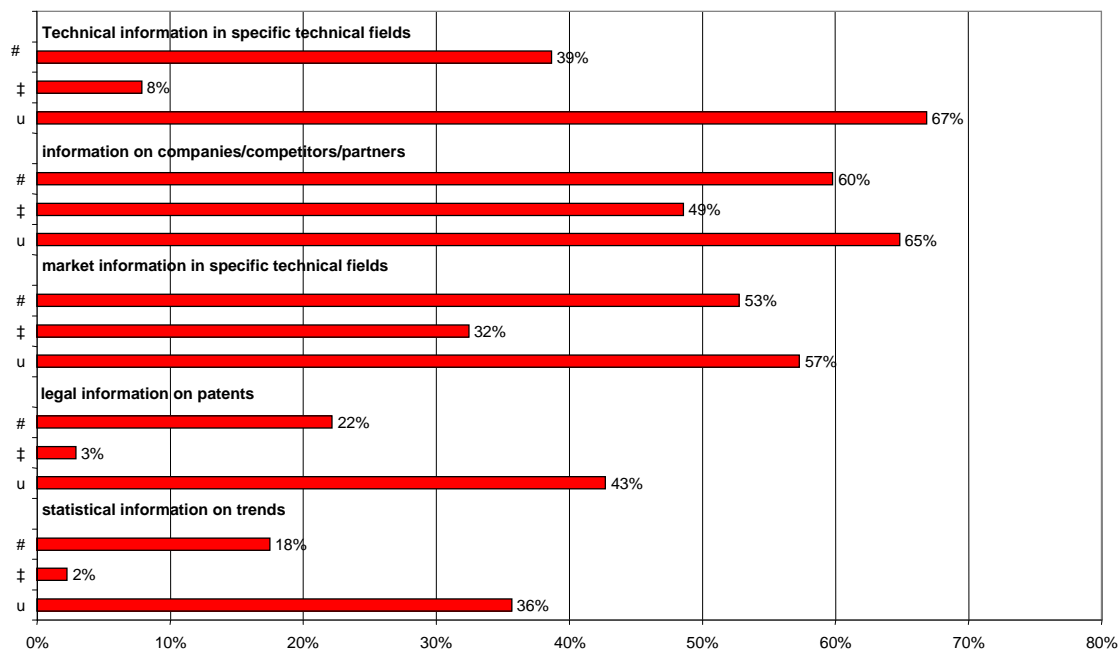
	<b>EPC20</b>	<b>EPC10</b>	<b>USA</b>
yes	67%	70%	53%
personal contact - face-to-face meetings	14%	24%	6%
by telephone	38%	22%	22%
by email	53%	49%	48%
via a website	13%	14%	22%
visits to my company	7%	7%	3%
through the attorney/agent	2%	1%	1%
I wouldn't want to contact	1%	0%	2%
other	1%	0%	6%
Don't know	14%	8%	26%
Number of respondents	1172	494	202

### 7.3.1 Added- Value Services

Currently, the EPO's patent information products are available at little or no cost. Commercial providers provide added-value patent information services but at a price. On the question on willingness to pay extra for these and other added-value products, around 60% of the respondents are prepared to pay for added- value, Regionally this is broken down as EPC20 states 63%, in EPC10 48% and in the US 58%.

Figure 7.3 gives an indication for which products the respondents are prepared to pay extra.

Figure 7.3 Willingness To Pay For Added Value Services - By Region



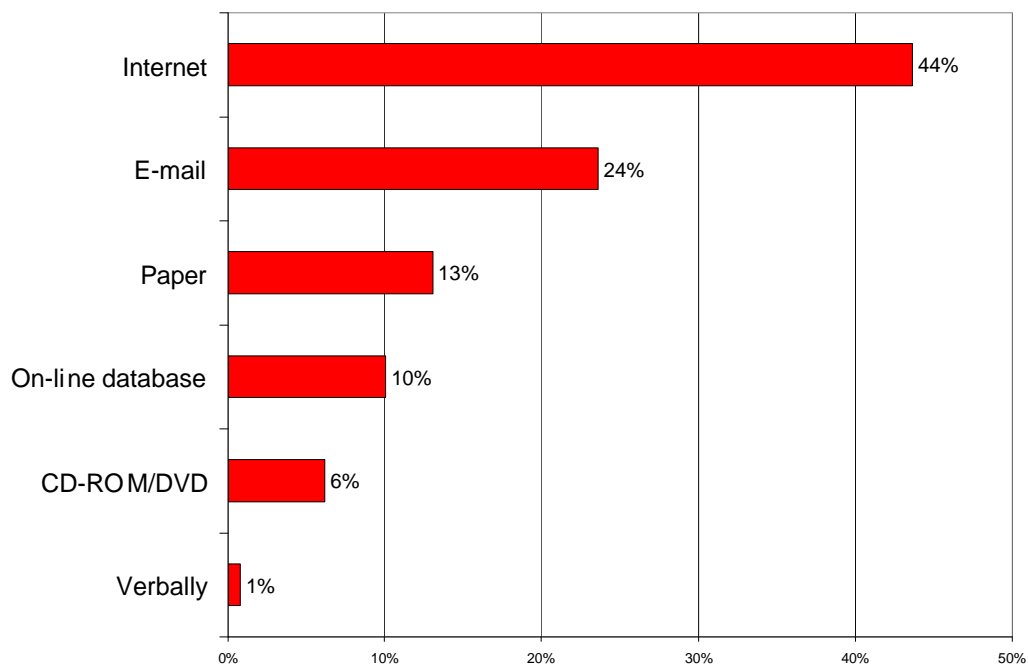
# = EPC20 ‡ = EPC10 u = Control Group USA

There is only a small proportion of companies that can suggest other added value services than the ones probed in the questionnaire.

#### 7.4 Preferred Medium

44% of all the companies surveyed would prefer access to patent information via the Internet, 24% via email and 10% via an on-line database. Paper publications are less popular (although 18% of the companies in EPC10 member states would like to receive the information in this way). A minority of the companies would prefer to receive patent information on CD Rom or DVD. See figure 7.4

**Figure 7.4 Preferred Medium for Access To Patent Information**

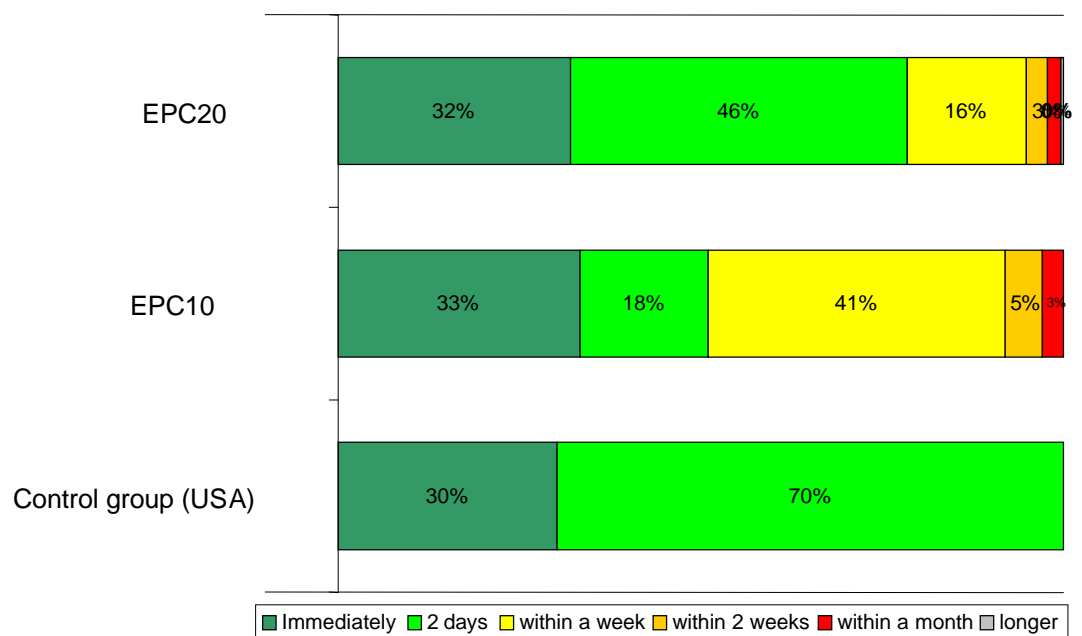


### 7.5 Preferred Delivery Times/Service Levels

There is a clear difference in preferred delivery times between Europe and the US. In each region about one third of the companies prefer immediate delivery. Other than that Americans would prefer delivery in two days (or less), while in Europe companies seem on average less demanding.

If, however, a delay is acceptable, most companies mention 5 or 7 days (a week) or 2 weeks at most.

Figure 7.4 Preferred Delivery Times/Service Levels - By Region



## 7.6 General: The Value Of Patent Information

Over 80% of all companies regard patent information as being of moderate or high value, between 11% (EPC20 and US) and 14% of the companies regard patent information of little value (besides the companies that show no interest in patent information at all). See figure 7.5

Figure 7.5 Value Of Patent Information - By Region

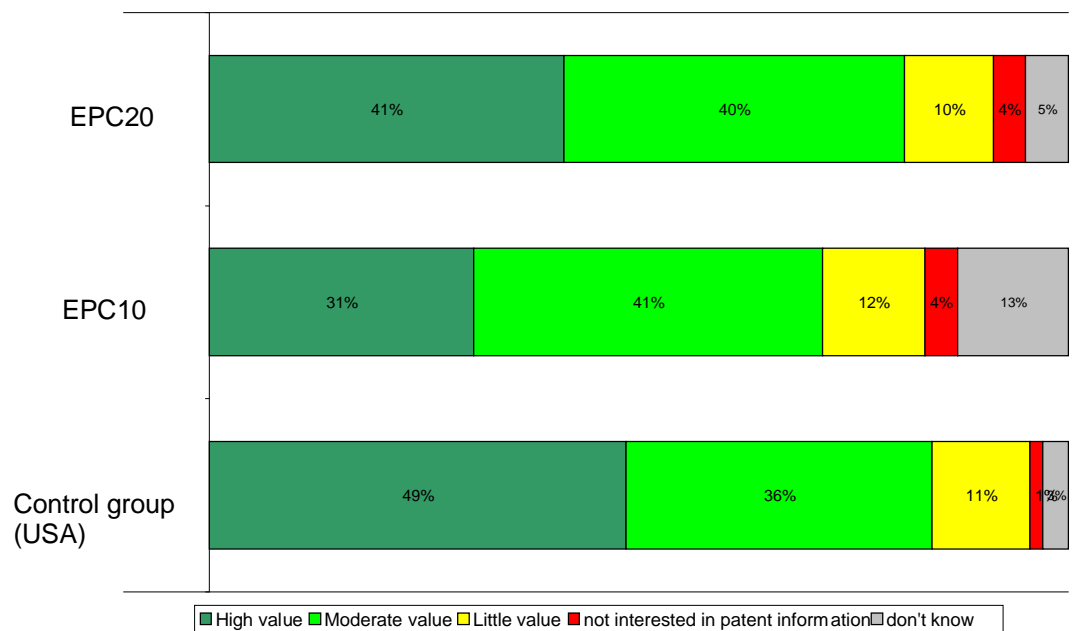


Figure 7.6 Value Of Patent Information - By Company Size

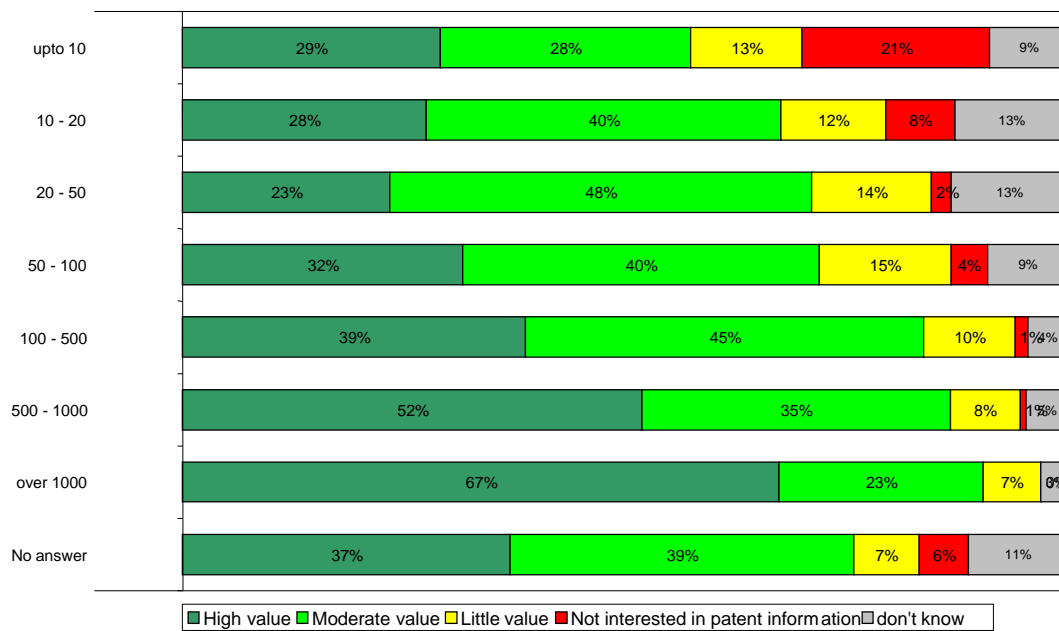
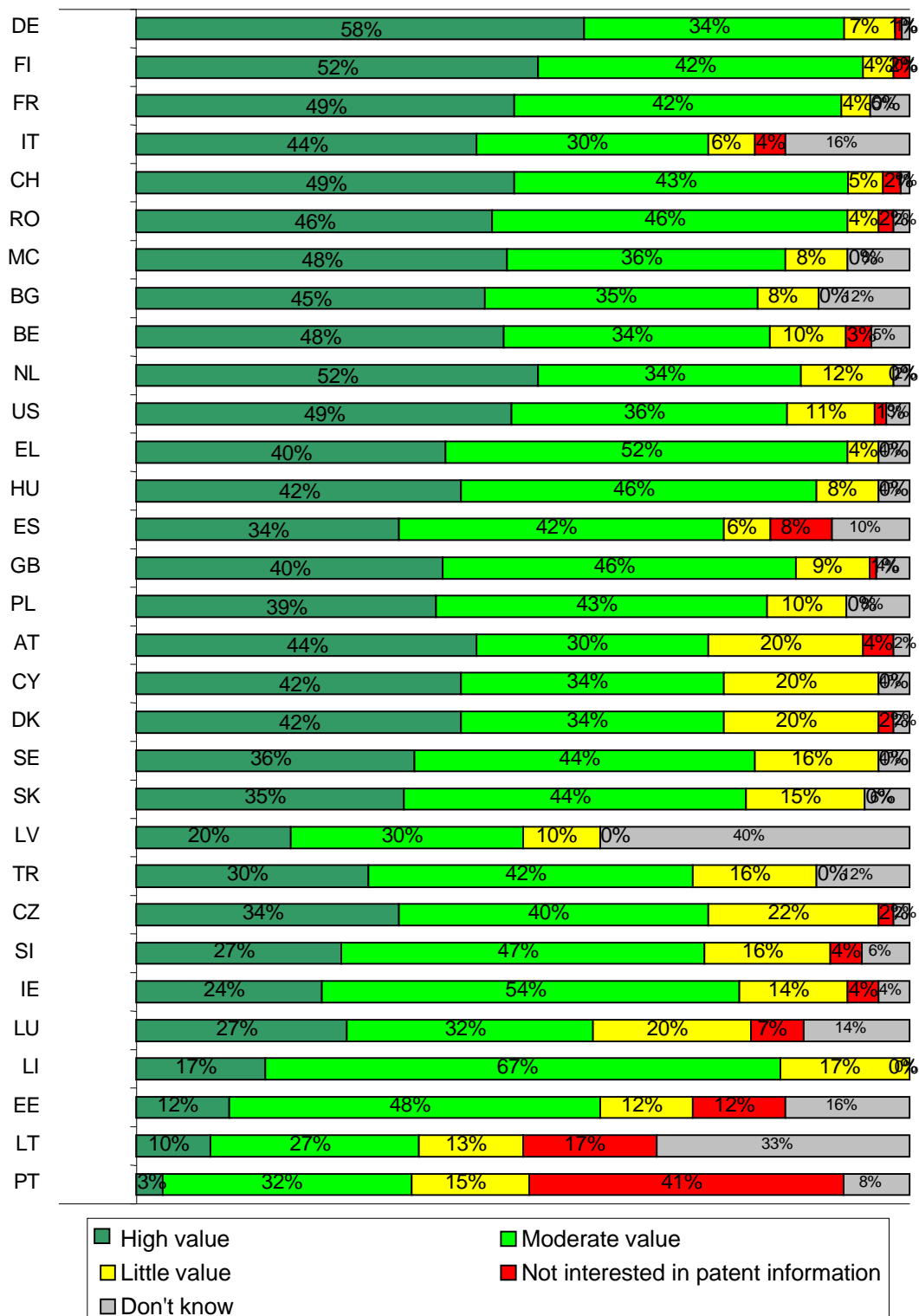


Figure 7.7 Value Of Patent Information - By Country



### 7.7 Satisfaction With EPO's Patent Information Service

All respondents who know the EPO (at least by name) and/ or use patent information have been asked to give an opinion of the EPO on its patent information service. It is obvious that a large proportion of these respondents have some difficulty in doing so. Over half the group has no opinion or just doesn't know. The remainder of responses are "positive" or "very positive" See figure 7.8

Figure 7.8 Overall Satisfaction With The EPO's Patent Information Service - By Region

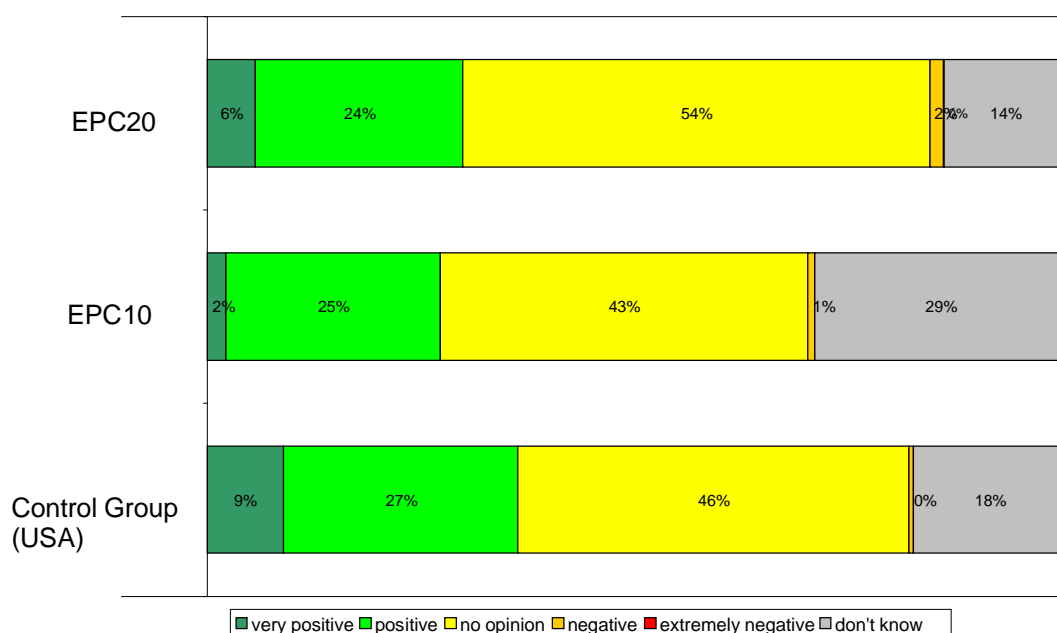


Figure 7.9 Overall Satisfaction With The EPO's Patent Information Service - By Company Size

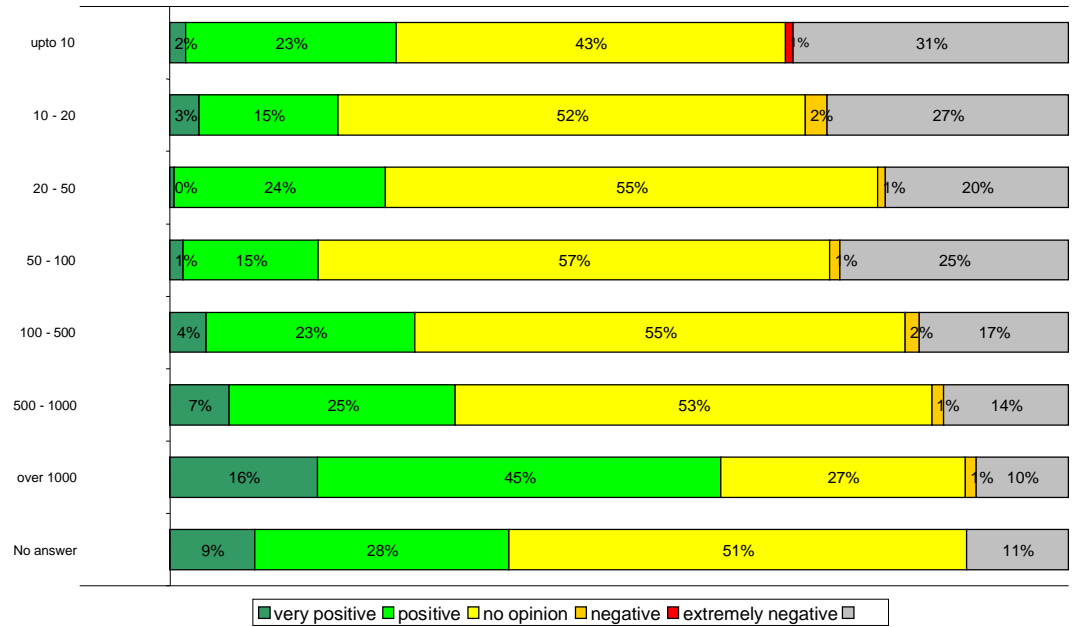
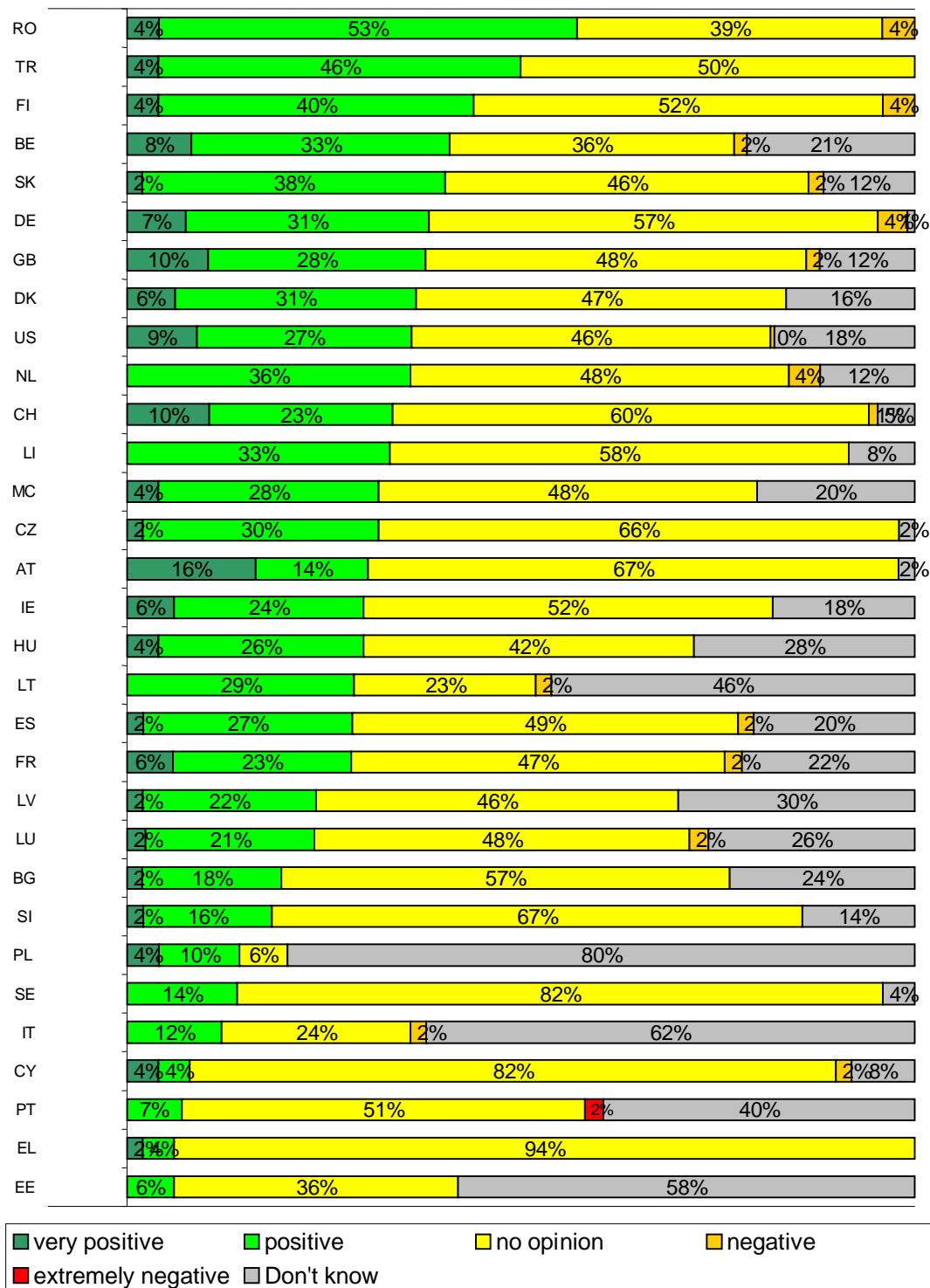


Figure 7.10 Overall Satisfaction With The EPO's Patent Information Service



## 8 Users And Non Users Of Patents And Patent Information

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We have analysed a limited set of variables on 4 different groups of respondents based on usage of patents and access to patent information. The definition of a patent user is: a company that has at some time applied for a patent or uses patents (as a licensee or licensor).

The 4 groups that can be identified are:

- patent applicants (users) who use patent information (39% of the entire sample)
- patent applicants (users) who do not use patent information (20%)
- non-patent applicants (users) who use patent information (6%)
- non-patent applicants (users) who do not use patent information (28%)

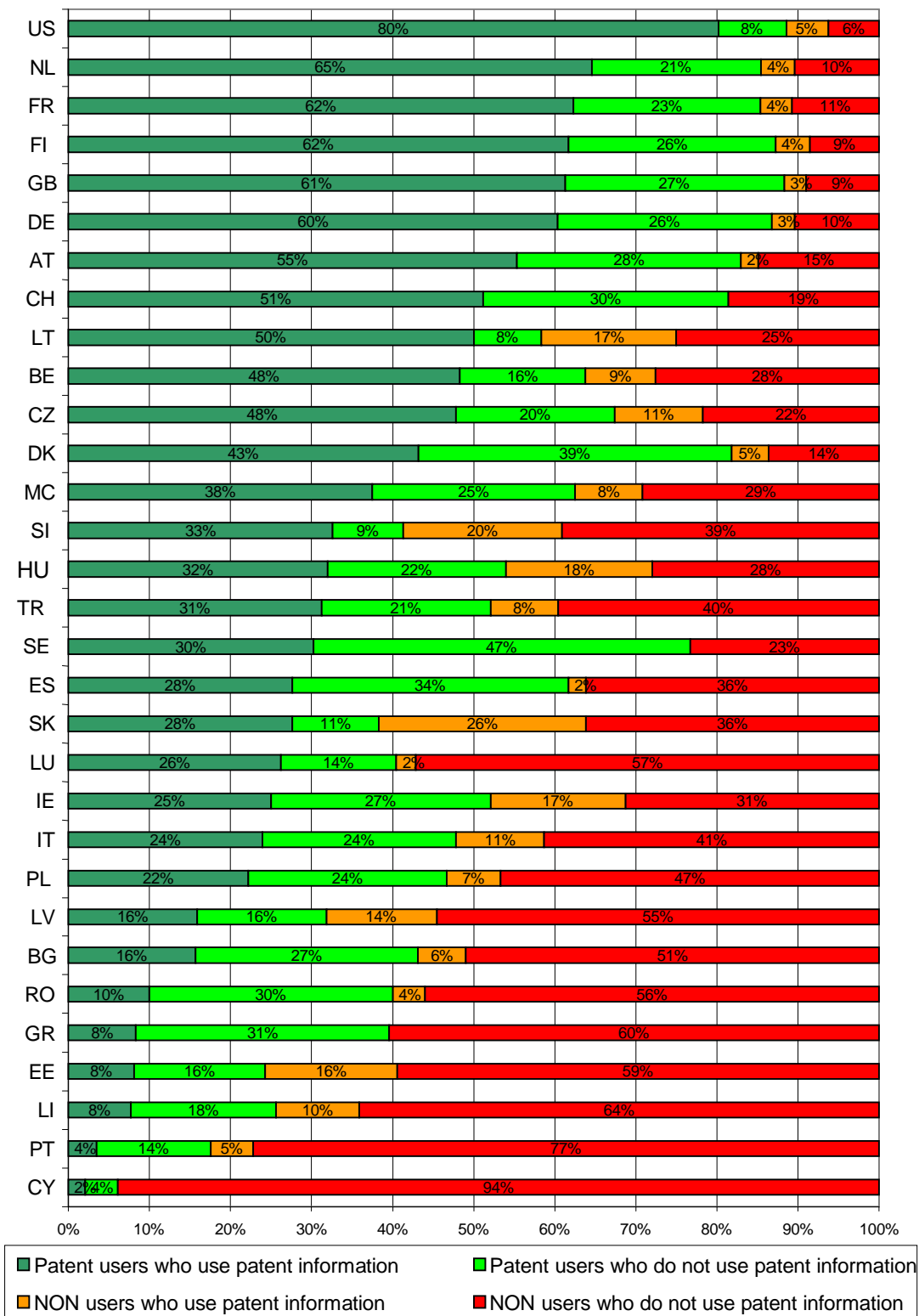
In 6% of the cases data were missing.

Usage of patent information is not widespread among companies that do not work with patents, but even among companies that do work with patents, one third of them does not use patent information.

In the following figure we have listed the countries under investigation. The countries are ranked according to patent usage in combination with patent information usage.

Once again, the United States lead the list, followed by countries in north-western Europe which have already been identified as being most innovative.

Figure 8.1 Use And Non Use Of Patents And Patent Information



## 8.1 Patent Users Who Use Patent information

Most American companies (76%) belong to this group. In EPC20 member states this proportion of companies in this group is 40% and in EPC10 countries 20%. We hardly find companies from Cyprus, Greece, Liechtenstein, Monaco and Portugal.

Over 90% of the companies in this group consider themselves at least moderately innovative and 76% have an IP department (on average 10 people working in this department, 5% of the total staff). Practically all companies have other departments involved in innovation and product development. Over 95% of them know the EPO but the Patent information services are not known to 43% of them. The companies are big: 39% are over 100 employees, 12% over 500 and 28% over 1000 employees.

Over 90% of the companies consider information on innovation, markets and IP important and they use all kinds of sources to gather this information, mainly journals, personal contacts, databases, conferences, the Internet and professional organisations. Over 80% of the companies indicate more information on at least one of these subjects would be of help to them, especially information on competitors and markets (67%). Around 50% of the companies indicate to need more information on intellectual property (their own (46%) and others (52%)).

47% of the companies in this group are aware of the existence of databases containing technological and market information, and all of them have access. The most frequently mentioned provider is the national patent office, followed by commercial providers and the EPO.

They could use patent information in predevelopment (68%), development (62%) on checking infringement (48%) or continuously as part of their business process (29%).

Patent information is seen as a good source of technical information and considerably less as being accessible, of low cost and a good source of legal or commercial information. They use the European Patent Register most frequently. The preferred supplier is the national patent office.

Almost 80% are interested in the EPO developing new applications, mostly to make patent information easier to use. They are prepared to pay for technical information in specific fields (43%), information on competitors (70%) and market information (60%). Significantly less for information on trends (22%) or legal information (28%).

## 8.2 Patent Users Who Do Not Use Patent information

24% of the companies in EPC20 member states belong to this group, 18% of new member state companies and 8% of the American companies. In this group very few respondents are from Cyprus, Liechtenstein or Portugal.

Almost all companies (85%) are smaller than 500 employees, 46% of them between 100 and 500. (Average size is 400). 88% of these companies see themselves as at least moderately innovative. 70% to 80% have departments involved in innovation and product development, 40% of them have an IP department. Within the companies, 6% of the employees is involved in intellectual property. 60% of them can be expected to apply for a patent in the future. The EPO is known to 87% of the companies, but the level of familiarity with EPO's patent information services is not very high (73% is not familiar).

Over 90% of the companies consider information on innovation, markets and IP important and they use all kinds of sources to gather this information, mainly journals, personal contacts, databases, conferences, the Internet and professional organisations. This group seems to be more active in gathering information than the first group.

Over 80% of the companies indicate more information on at least one of these subjects would be of help to them, especially information on competitors and markets (71%). Around 50% of the companies indicate to need more information on intellectual property (their own (49%) and others (47%)).

25% of the companies in this group is aware of the existence of databases containing technological and market information, but of course none of them have access (the group was constructed this way). 85% of the companies think patent information is important and 82% of them is interested in Patent information from the EPO.

The companies could use patent information in predevelopment (60%), development (46%) on checking infringement (36%) or continuously (29%).

Patent information is seen as a good source of technical information and considerably less as accessible, low cost and a good source of legal or commercial information. Preferred supplier would be the national patent office.

Almost 80% of them is interested in the EPO developing new applications, mostly if it would make patent information easier to use. They are prepared to pay for technical information in specific fields (32%), information on competitors (56%) and market information (46%). Significantly less for information on trends (11%) or legal information (14%).

### 8.3 Non-Patent Applicants (Users) Who Use Patent Information

This is the smallest group in the sample, to be found mainly in EPC10 member states (13% of the companies). In the other regions around 5% of the companies belong to this group.

Almost all companies (85%) are smaller than 500 employees, 36% of them between 100 and 500. (Average size is 300). 86% of these companies see themselves as at least moderately innovative. 60% to 75% have departments involved in innovation and product development, 35% of them have an IP department. Within the companies, 13% of the employees are involved in intellectual property. 31% of respondents can be expected to apply for a patent in the future. The EPO is known to 77% of the companies, but the level of familiarity with the EPO's Patent information services is not very high (59% is not familiar).

Over 90% of the companies consider information on innovation, markets and IP important (all sorts of information) and they use all kinds of sources to gather this information, mainly journals, personal contacts, databases, conferences, the Internet and professional organisations. This group seems to be less active in gathering information than the first and second groups.

Over 80% of the companies indicate more information on at least one of these subjects would be of help to them, especially information on competitors and markets (75%). Around 50% of the companies indicate to need more information on intellectual property (their own (51%) and others (47%)).

49% of the companies in this group is aware of the existence of databases containing technological and market information, but of course practically all of them have access. The provider most mentioned is the NPO, followed by others and the EPO. Only 9% mentions a commercial provider. 90% of the companies think patent information is important, 76% considers 3rd party's patents as important and 55% of them is interested in patent information from the EPO (20% already uses it).

They could use patent information in predevelopment (49%), development (39%) on checking infringement (19%) or continuously (21%).

patent information is seen as a good source of technical information, and less as accessible, low cost and a good source of legal or commercial information. They use esp@cenet the most. Preferred supplier is the national patent office (51%).

Almost 75% of the companies is interested in the EPO developing new applications, mostly if it would make patent information easier to use. They are prepared to pay for technical information in specific fields (30%), information on competitors (44%) and market information (38%). Significantly less for information on trends (11%) or legal information (18%).

#### 8.4 Non-Patent Applicants (Users) Who Do Not Use Patent information

This group comprises 28% of the whole sample.. In the US 6%, in EPC20 member states 28% and in the EPC10 countries 45% of the companies belong to this group.

Almost all companies (93%) are smaller than 500 employees, 28% of them between 100 and 500, and the rest is smaller (Average size is 158). 81% of these companies see themselves as at least moderately innovative. 45% to 60% have departments involved in innovation and product development, 21% have an IP department. Within the companies, 14% of the employees is involved in intellectual property. 24% of the companies can be expected to apply for a patent in the future. The EPO is known to 63% of the companies, but the level of familiarity with EPO's patent information services is not very high (78% is not familiar).

Over 90% of the companies consider information on innovation and markets to be important. 84% evaluate information about their own IP as important. They use all kinds of sources to gather this information, mainly journals, personal contacts, conferences, the Internet and professional organisations. This group seems to be less active in gathering information than the first and second groups.

Over 80% of the companies indicate more information on at least one of these subjects would be of help to them, especially information on competitors and markets (71%). Around 40% of the companies indicate to need more information on intellectual property (their own (44%) and others (40%)).

17% of the companies in this group is aware of the existence of databases containing technological and market information, and 83% of those who know them actually have access. 78% of them think patent information is important, 70% considers 3rd party's patents as important and 64% of them is interested in patent information from the EPO.

They could use patent information in predevelopment (44%), development (37%) on checking infringement (18%) or continuously (14%).

Almost 80% of them is interested in the EPO developing new applications (new ways to use patent information), mostly if it would make patent information easier to use. They are prepared to pay for technical information in specific fields (21%), information on competitors (44%) and market information (35%). Significantly less for information on trends (10%) or legal information (11%).

## 9 Determinants Of Importance Of And Interest In Patent information

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We have tried to analyse if we could find possible determinants for the various importance levels and need for information. Access to and use of information systems seem to automatically generate a new (and enhanced) need for information ("To know is to be aware what you do not know"). In the following scheme, we have pointed out which variables influence (statistically) the need for information companies express:

Companies that need more ...	tend to ...
... information on technical innovation	<ul style="list-style-type: none"> <li>be familiar with EPO's patent information services</li> <li>show interest in and access to EPO's patent information database</li> <li>express the need for more help</li> </ul>
... information on competitors and markets	<ul style="list-style-type: none"> <li>be familiar with EPO's patent information services</li> <li>be experienced users of patent information</li> </ul>
... valuing own intellectual property	<ul style="list-style-type: none"> <li>be familiar with EPO's patent information services</li> <li>see information on innovations and patents as important</li> <li>like the EPO to support and develop new applications</li> <li>prefer a high delivery frequency</li> <li>prefer direct contact with supplier's staff</li> <li>be experienced users of patent information</li> <li>express the need for more help</li> </ul>
... valuing 3rd parties' intellectual property IP	<ul style="list-style-type: none"> <li>think information on innovation and patents is important</li> <li>like the EPO to support and develop new applications</li> <li>think that patent information should be more comprehensive and accessible</li> </ul>

In a second set of analyses we have tried to establish determinants for the importance the companies express for various forms of information. Again, we see that the use of information systems seems to lead to a higher assessment of the importance of the information.

<p>Companies that stress importance of ...</p> <p>... keeping up to date with technical innovations</p>	<p>tend to ...</p> <p>show higher levels of innovation</p> <p>be in possession of several departments involved in innovation</p> <p>express a high need for information</p>
<p>... monitoring competitors and markets</p>	<p>show higher levels of innovation</p> <p>be in possession of several departments involved in innovation</p> <p>express a high need for information</p> <p>be familiar with EPO's Patent information services</p> <p>consider Patent information as important</p>
<p>... technical information in patent information</p>	<p>attach a high value to patent information</p> <p>prefer a high delivery frequency</p>
<p>... 3rd parties' patents</p>	<p>express a high need for information</p> <p>like the EPO to support and develop new applications</p> <p>see information on innovation as important</p> <p>attach a high value to patent information</p>

In general we could say that once companies start to use information, they become aware that they could easily use more information. In using it, also the companies become aware of the importance of it. In this respect we may consider information usage as being addictive.

It can be deduced that non-users of patent information most probably are not aware of its existence and certainly are not aware that it can be used for more than 'looking up' new inventions. However once they are introduced to patent information they may begin to use it with increasing enthusiasm.

## 10 Attorneys

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### 10.1 Sample

A separate survey with European patent attorneys was carried out by means of an Internet questionnaire. 51% of the respondents were independent attorneys, 40% were in-house attorneys, and 9% belonged to the category 'other'.

### 10.2 Familiarity With The EPO

Not surprisingly almost all the respondents in our sample consider themselves familiar with the EPO. 52% of the attorneys are very familiar with the EPO patent information services, and 41% are moderately familiar.

### 10.3 Importance Of Information And Information Need

A large majority of attorneys consider it very important to keep up to date. 51% think it is very important to keep up to date with technical innovations, 34% considers it important. 50% consider it very important to keep up to date with competitors and markets, 30% considers this information to be important. 45% thinks it is very important to value their own intellectual property, 26% considers this to be important.

Most respondents keep informed on innovations by magazines/journals (76%), Internet sites (69%), databases (65%) and personal contacts (61%).

The same types of information have been used to assess the respondents' information need. 65% of the attorneys need more information on one or more of these subjects. The information need is highest for information on valuing third parties' intellectual property (52%).

Among the respondents who need more information, 12% want more information on new products of competitors, and also 12% want more information on new developments and market trends.

### 10.4 Use Of Databases

33% of the attorneys is aware of databases containing a vast amount of technical information, combined with business and commercial information. The most popular databases are esp@cenet (97%), the USPTO web site (95%), and DEPATISnet (54%).

Almost all respondents (99%) who know these databases work for companies that have access to these databases.

Databases containing patent information are far more popular. 94% of the respondents has access to databases containing patent information. 96% of the respondents who have access to these databases, has access to databases provided by the EPO, 86% has access to databases from commercial providers, and 78% has access to databases of their national patent office.

The following databases are accessed by the most respondents: esp@cenet (97%), the USPTO web site (93%) and DEPATISnet (47%). These patent information databases are almost always (99%) accessed in the workplace.

### 10.5 Use Of Patent Information

94 % of patent attorney respondents are encouraged to use patent information by its ready accessibility: 79% cite low cost, 80% consider patent information a good source of technical information 74% consider patents a good source of legal information.

41 % of respondents are discouraged from using patent information by perceived cost, difficulty of accessing the information (48%), and time involved in accessing the information (60%).

So we can conclude that respondents want patent information to be accessible, a good information source and at a favourable cost.

The EPO patent information services are well known among the attorneys:

Table 10.1 Knowledge And Use Of Patent Information Services

	<b>Knowledge</b>	<b>Use</b>
epoline	95%	84%
<a href="mailto:esp@cenet">esp@cenet</a>	98%	93%
INPADOC	91%	70%
CD-ROMs/DVDs (ESPACE products)	73%	51%
EPO helpdesk	55%	35%
The European Patent Register	95%	90%
The On-line file inspection service	92%	84%
The Japanese Patent information Service	45%	25%

Overall, these patent information services are used by a vast majority of the respondents.

93% of the respondents uses patent information. Most attorneys (57%) prefer to obtain patent information at the EPO. Also a large group of attorneys (75%) would like the EPO to support or develop new applications of patent information. Most respondents would like new applications of patent information because it would make patent information easier to use (64%)

and/or because the EPO's support in using patent information would be beneficial (25%).

Of the respondents interested in patent information, 59% is prepared to pay for added value patent information products and services. Most respondents are prepared to pay for information on companies/competitors/partners (55%), legal information on patents (52%) and technical information in specific technical fields (46%).

The attorneys value patent information. 84% value patent information highly, and 11% value patent information moderately. By far most attorneys (60%) prefer to obtain patent information by means of the Internet. The preferred frequency of delivery of patent information differs from person to person. 29% of the respondents only want to be notified when developments occur that concern themselves, 25% prefer a continuous update, and 21% prefer a weekly update.

Respondents were asked which additional patent information services they would like to see. Three additional patent information services stand out: competitor watch (53%), technology watch (47%), and alerting services (44%).

#### 10.6 Opinion About The EPO's Patent Information Services

58% of patent attorneys are positive about the EPO's patent information services: 37% are very positive, 35% of the attorneys consider that the EPO's patent information service is easy to access (35%), cheap (26%) and good (21%).

The possibility to get into direct contact with patent information suppliers' dedicated staff would be of interest to 52% of the respondents. These respondents would prefer to get into contact by e-mail (62%) or telephone (47%).

#### 10.7 Conclusion

Unsurprisingly, most attorneys use patent information and know the patent information products. They value patent information and are positive about the EPO's patent information services. Although the respondents are positive, added value patent information products would be welcome, and the respondents would be prepared to pay for these additional products.

The main issue with patent information is, that people want it to be easy to access, affordable, and a good information source. The experienced users know what they use, but dependent on the type of use, they want more, or more frequent information.