

Innobarometer 2002

A publication by the Innovation Directorate as part of the Sixth Research Framework Programme

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European Commission

INNOBAROMETER 2002

FLASH EUROBAROMETER 129 Carried out for Enterprise Directorate-General

Survey organised and managed by Press and Communication Directorate-General, (Unit Opinion Polls, Press Reviews, Europe Direct)

Survey carried out by EOS Gallup Europe Survey: September 2002 Report : October 2002

Enterprise Directorate-General

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PRESENTATION

Scope of the survey

"Innovation in 2002: experience and priorities of European managers" was the subject of the latest Innobarometer survey carried out in September 2002 for the European Commission in the 15 Member States of the European Union under the Flash Eurobarometer opinion poll system.

As in 2001, its objective was to sound out the opinions of European managers on their companies' strengths and needs in innovation, the investments in innovation and the output achieved, as well as the actual practice of co-operation and sharing of knowledge. In addition, it looked at the role of training and education, the development of managerial approaches to innovation and the contribution of enterprises to the public debate on innovation. It also aimed at assessing how the Single Market can be of further benefit to companies in the European Union.

The first wave of this survey, held in April and May 2001, had been foreseen by the Commission in its communication to the Council and to the European Parliament, "Innovation in a knowledge-based economy", of September 2000. This opinion poll on attitudes towards innovation, featured as one of a number of measures designed to promote the objective of **moving towards a society open to** *innovation*.

The methodology used in this survey, which has been carried out by EOS GALLUP EUROPE, is that of the FLASH surveys of the Directorate General Press and Communication (Unit B/1 "Opinion polls")

A total of 3 014 managers at companies employing at least 20 people were interviewed by telephone between 9 and 30 September 2002. The sample was selected according to three criteria: *country*, *size of company* and *industrial sector*. In the Member States with the most companies (**Germany**, **Spain**, **France**, **Italy** and **the UK**), 300 managers per country were interviewed. In those with the fewest companies (**Greece**, **Ireland**, **Luxembourg**, **Portugal** and **Finland**) the figure was 100 each, and 200 managers were consulted in each of the remaining EU Member States: (**Belgium**, **Denmark**, the **Netherlands**, **Austria** and **Sweden**).

The person interviewed at each company was a top-level executive either part of General Management or Financial Management. As it is a telephone survey, the term "innovation" was interpreted on the basis of the professional experience of the particular manager being interviewed.

For each theme addressed, this report presents the results obtained in relation to:

- the European Union as a whole and each of its 15 Member States;
- the various types of companies (in terms of workforce size):- "majors" (250 employees or more), "small SMEs" (20 to 49 employees) and "large SMEs" (50 to 249 employees);
- the company's sector of activity: "construction", "industry" (manufacturing companies), "trade", and "services";
- the share of turnover accounted for by exports;
- the age of the company.

The pages that follow give a brief summary of managers' responses. This is then followed by the report itself, which sets out the results of the survey as clearly as possible, using the available information as the basis for an in-depth analysis.

A description of the sample and a methodological note are attached as annex.

Managers' opinions can be summarised as follows

Enterprises in the European Union slowly but continuously strengthened their innovation activities from 2001 to 2002:

- The share of new or renewed products or services introduced within the last two years went up 2 points from the previous survey and accounts now on average for 22% of companies' turnover.
- In general, two companies out of three introduced new products or services over the last two years.
- The share of investment channelled into innovation by all companies increased slightly since 2001 and now reaches on average over one quarter of companies' investment. The category of "big investors" in innovation now represents 18%, up by 2 points since the last survey, and only one company in eight has not made any investments in innovation during the last two years.
- The manufacturing sector stands out with a proportion of 32% of investments devoted on average to innovation. Exporting and "younger" companies are also more active in their investments in innovation.
- Innovative efforts focus evenly on organisational changes, new products and new processes: there is a clear inter-dependence in the top priorities cited by managers, confirming that they perceive innovation more as an overall strategy than as specific, independent improvements.
- Business leaders are aware of the important role of innovation for their company and are rather confident in their performance. 61% say that they are doing better in innovation than their main competitors.

Knowledge and competencies of staff are key to innovation performance:

- As in the last survey, managers attribute their strength in innovation in the first place (50%) to the qualification and professionalism of their staff.
- Corporate executives overwhelmingly opt for internal training as the best way to improve the qualifications and motivation of their staff, as opposed to training delivered by public sector institutions.
- The time effectively allocated to training, however, varies considerably between countries and enterprises: for about one in four companies, commitment to training is lacking or merely symbolic, i.e. none or only 1-2 days per employee per year.
- The priority area for training is at the level of technical training and apprenticeship, followed by commercial training.
- Staff qualifications are thus recognised by corporate executives as the most important strength for innovation. There is, apparently, a gap between the needs in this field and the efforts deployed: training and education of employees should be further developed.

The growing role of co-operation between enterprises:

- To access advanced technologies, business leaders count, firstly and more than in 2001, on active collaboration with their suppliers or customers, and then on the purchase of equipment. This is a significant reversal of priorities compared to 2001, which may reflect an increasingly difficult investment climate. Next in line comes in-house R&D, followed by R&D in co-operation with specialists such as universities.
- Co-operation agreements are an important tool to launch new products or services or to introduce new processes, and most EU executives are keen on sharing their knowledge and/or resources through such agreements. They fully subscribe to the usefulness of future cooperation with other firms for innovation.
- In the future, new approaches to the management of innovation will therefore focus in particular on the relationship with suppliers and users. Managers would clearly prefer advice in this field from private external consultants, rather than from, for example, public or semi-public advisory centres.

Enterprises take part in the public debate on innovation:

- The creation of new markets and the acceptance of new products by customers increasingly require an open debate about innovation with the public. Most companies seem to be willing to participate in this debate, yet the majority of such discussions still takes place internally at the enterprise level.
- Whilst the communication activities of enterprises are expected to increase over the next two years, there is a need to expand this dialogue on innovation to the wider public.

Access to innovative markets is crucial:

- The most important unsatisfied need relating to innovation is, for one manager out of three, access to innovative customers and/or markets.
- The market's impact on innovation will grow in the future, and the majority of managers expect that markets will become more receptive for introducing innovative products in the coming years. The strongest incentive to innovate should come from the trend towards higher quality requirements.
- Managers view the European Single Market as an important driving force for innovation, through its size and common rules and better access to new, innovative markets for products and services.

The 2002 Innobarometer thus underlines the willingness of European managers to strengthen their competitive position through innovation. In a difficult economic climate compared to 2001, the role of markets that are open to innovative products is considered even more crucial. Priorities have shifted from investments in new equipment and R&D to financial and human resources. The importance of co-operation with suppliers and customers is recognised.

Managers underline that they expect efforts in innovation to particularly benefit from both the market dimension of the European Union and its common rules. Highly innovative European firms, which are found most frequently amongst exporting companies, younger enterprises and the industrial sector, seem already well placed to build on this opportunity.

(Horizontal percentages)	AVERAGE %	MEDIAN %	0%	1 - 5%	6 - 10%	11 - 20%	21 - 50%	51% and more	BASE
UE 15	22,0	10	28	12	13	17	17	13	2636
PORTUGAL	31,1	20	16	16	12	8	26	22	73
ELLAS	25,3	15	30	7	12	13	22	16	83
DEUTSCHLAND	25,2	15	22	9	13	19	22	15	277
ESPANA	23,5	10	36	7	12	15	14	16	245
UNITED KINGDOM	23,3	10	32	10	13	14	16	16	252
LUXEMBOURG	22,2	10	19	20	19	12	18	13	74
FINLAND	22,1	10	19	18	16	17	16	13	89
DANMARK	21,8	10	20	13	21	14	20	12	175
ITALIA	20,2	10	34	11	11	19	14	12	281
IRELAND	19,1	10	31	16	12	14	14	13	91
SWEDEN	17,5	10	17	20	14	21	23	5	174
ÖSTERREICH	17,0	10	26	23	13	15	17	7	168
FRANCE	16,4	10	29	16	16	19	12	7	277
BELGIQUE	16,0	10	27	20	15	14	16	6	193
NEDERLAND	15,2	5	33	23	9	15	12	8	184
SECTORS									
Construction	12,8	5	36	19	14	14	12	4	326
Industry	22,8	15	25	11	12	21	19	13	894
Trade	23,2	15	22	13	15	18	19	13	652
Services	23,9	10	32	9	12	14	16	16	764
BUSINESS SIZES									
MAJORS 250+	21,8	12	18	19	12	20	19	12	354
SME 20-49	22,0	10	30	11	13	17	16	13	1696
SME - 50-249	22,0	14	23	14	13	18	20	12	586
ACTIVE SINCE									
More than 30 years	17,1	10	29	16	15	19	13	8	1340
11-30 years	20,7	10	31	10	13	10	15	12	826
0-10 years	30,8	20	24	6	10	14	25	21	462
EXPORTS %									
Nothing	19.6	10	36	10	12	15	15	11	1213
Less than 50%	24,6	15	18	13	15	20	19	15	945
50% and more	22,8	15	25	12	11	20	19	12	384

1.1 Approximately what percentage of your turnover comes from new or renewed products or services, introduced during the last two years?

1. THE IMPORTANCE OF INNOVATION TO COMPANIES

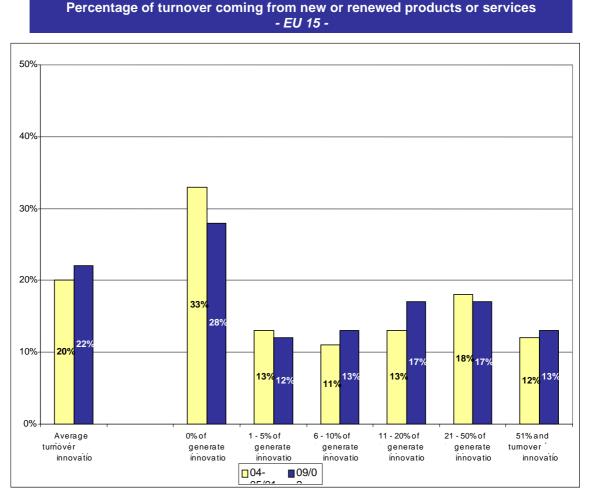
1.1. Share of turnover generated by innovations

* Overall picture:

In the European Union, new or renewed products or services introduced within the last two years accounted on average for 22% of companies' turnover, a slight increase compared to the previous survey in 2001 (20%). In general, over two companies out of three introduced new or renewed products or services over the last two years.

Overall, the figures show a moderate change since 2001, with more companies engaging in innovative activities: the share of companies without any new or renewed products or services went down to 28%, from 33% in 2001. *Highly innovative companies*, with over half of their turnover generated by new or renewed products or services, increased their share to reach 13%. In the range of "*moderately innovative enterprises*" with some 11% to 20% of turnover generated by new products and services, the share went up at the EU level from 13% to 17%.

Another way to characterise the "typical" enterprise and its share of turnover generated by new or renewed products or services is to consider the MEDIAN. This is the value dividing the responses into two halves: the number of companies having superior values is equal to the number of companies with lower values. As was the case last year, the median for all companies of the European Union is at 10%, or in other words for one company out of two, innovations within the last two years generated less than 10% of turnover.



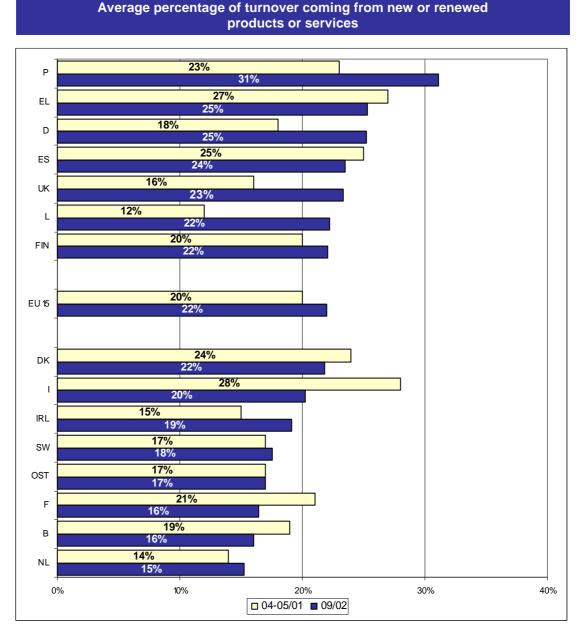
Flash EB 129 – September 2002 – Fig.1A

Note: In FL 100 this question only concerned products

Breakdown by country:

As in 2001, a country-by-country comparison of the percentage share of companies' sales accounted for by innovations shows that this proportion differs considerably between Member States.

In looking at the "average percentage" of turnover generated by new or renewed products or services, introduced during the last two years, the countries where the companies' innovative products or services contributed the most to turnover are **Portugal** (31%, up 8 points), **Greece** (25%, down 2 points) and **Germany** (25%, up 7 points). On the other hand, the average share of innovative products and services was rather low in the **Netherlands**, **Belgium** and **France**. Figure 1B shows the relative position and the change across enterprises in the Member States compared with the previous survey:



Flash EB 129 – September 2002 – Fig.1B Note: In FL 100 this guestion only concerned products

The share of *"non-innovators"*, i.e. companies where new or renewed products or services did not contribute at all to turnover over the last two years, is much lower than the overall average rate for the European Union in **Portugal** (16%), **Sweden** (17%), **Finland** and **Luxembourg** (19%). At the upper end are **Spain** (36%), **Italy** (34%) and the **Netherlands** (33%).

The figures for most countries vary little from the overall rate for the European Union for the "6-10%" and "21-50%" categories. In the "11-20%" category of "*modest innovators*", most countries increased their share: **France** and **Italy** went up by 6 points since the previous survey in 2001, and in particular **Sweden** where the increase corresponded to 12 points.

Looking at the companies with a *high share of turnover* generated by innovations, the "51-100%" category, **Portugal** stands out with 22%, followed by **Greece**, **Spain** and **the United Kingdom** (all 16%). **Sweden**, **Belgium**, **Austria** and **France** can be distinguished in this group for the opposite reason. For this category of "*highly innovative*" enterprises, the trends in individual countries differed considerably between 2001 and 2002. The evolution was positive in seven Member States, but negative in the remaining countries. The most positive progress over the last two years was seen in **Luxembourg**, **Ireland** and the **United Kingdom** (+ 9 points), most likely as a spin-off of the healthy state of the economy during that period. In contrast, the largest decrease was in **Italy** (10 points).

Breakdown by company category:

Here, the main variations are to be found in relation to the age of the company: "younger companies" (0-10 years) generally have a larger percentage of their turnover generated by new or renewed products or services.

Another point worthy of note is that "exporting companies" depend most on new or renewed products or services. The correlation between the share of exports and the share of new products or services on sales is positive with +0.3153. This correlation, which is statistically significant, confirms the findings of the 2001 report that innovation and cross-border trade go hand in hand.

(Horizontal percentages)	MEDIAN %	AVERAGE %	0%	1 - 5%	6 - 10%	11 - 20%	21 - 50%	51% and more	BASE
UE 15	15	26,9	14	19	16	14	19	18	2647
DEUTSCHLAND	20	33,5	9	15	15	17	20	25	275
PORTUGAL	20	28,8	12	17	11	17	26	17	77
ELLAS	15	29,3	16	13	15	12	23	19	84
ITALIA	15	28,8	10	14	21	13	24	19	289
ESPANA	15	28,2	16	16	13	15	20	20	248
DANMARK	10	28,9	23	20	10	10	14	23	174
SWEDEN	10	25,2	13	21	17	20	15	15	175
FINLAND	10	24,4	25	19	13	9	17	17	81
UNITED KINGDOM	10	22,4	22	23	11	11	18	15	244
NEDERLAND	10	21,7	18	22	13	11	24	11	180
LUXEMBOURG	10	21,3	6	34	14	11	23	13	73
IRELAND	10	21,0	17	17	20	16	18	12	91
BELGIQUE	10	18,9	16	23	20	15	18	7	191
FRANCE	10	17,7	19	26	19	13	13	10	290
ÖSTERREICH	10	17,4	17	31	16	14	12	9	175
SECTORS									
Construction	10	16,6	16	26	20	17	15	7	339
Industry	20	31,8	13	15	15	12	21	23	904
Trade	10	25,1	16	20	16	12	18	17	651
Services	15	27,6	13	18	14	17	19	19	753
BUSINESS SIZES									
MAJORS 250+	15	29,0	10	21	12	15	23	19	367
SME 20-49	15	26,9	15	18	16	15	18	19	1692
SME - 50-249	12	26,6	13	20	16	13	21	16	588
ACTIVE SINCE									
More than 30 years	10	23,2	16	23	16	12	18	14	1369
11-30 years	15	25,9	15	19	14	15	20	17	825
0-10 years	20	34,1	9	12	17	17	21	25	446
EXPORTS %									
Nothing	10	23,5	18	19	16	15	17	15	1207
Less than 50%	15	29,9	9	19	16	14	21	21	951
50% and more	20	33,3	12	14	12	15	24	23	384

1.2 In the last two years, approximately what percentage of your investment was dedicated to innovation either in your products, processes or organisation ?

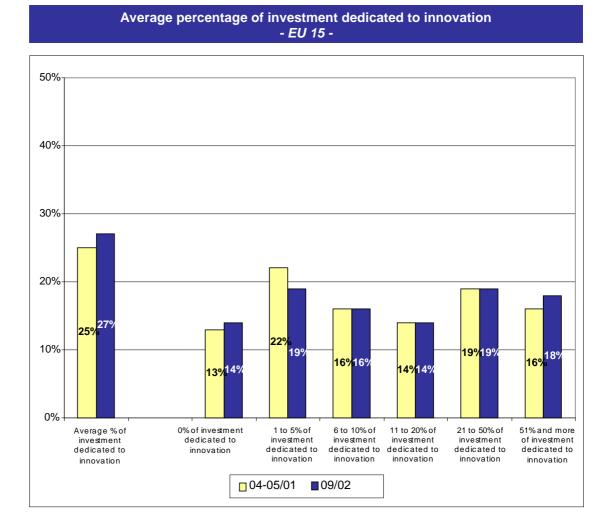
1.2. Share of investment channelled into innovation

While the first question related to the results of innovative activities, i.e. new or renewed products or services introduced on the market, this question is concerned with the resources devoted to innovation.

* Overall picture:

In the European Union as a whole, on average over one quarter of company investment (27%) is channelled into innovation, a slight increase since 2001. Only one company in eight has not made any investments in innovation during the last two years (14% in the category "0%"). Whilst the group of "*slow innovators*" with 1-5% of investments devoted to innovation decreased slightly, the "*big investors*" category ("51-100%") in innovation represents now 18%, up by 2 points since the last survey.

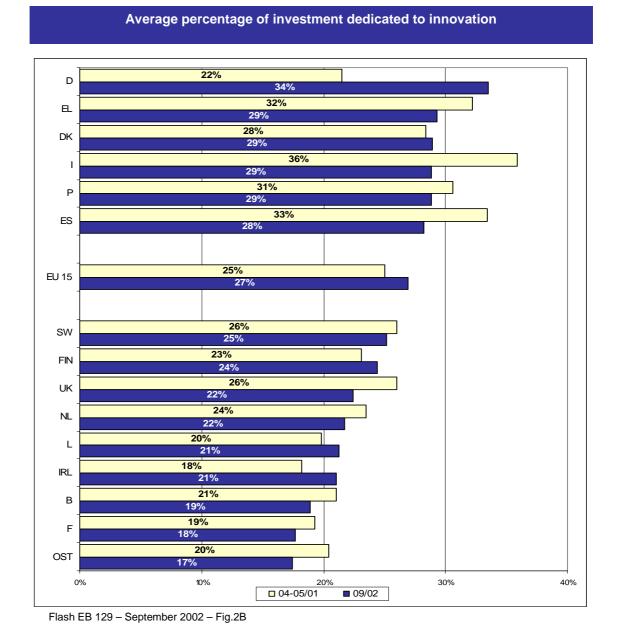
The median of 15 shows that one company in two has not channelled more than 15% of investment into innovation over the last two years. Compared to the results in 2001, there is thus an increase of 5 points in the proportion of investment that a "typical" company dedicates to innovation.



Flash EB 129 – September 2002 – Fig.2A

Breakdown by country:

The graph below gives us an idea of the average share of investment channelled into innovation in each country:

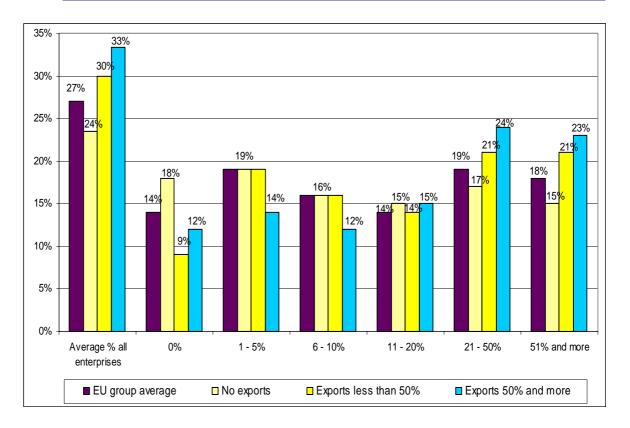


Taking the average as criteria, **Germany** now leads the field with a 34% share of investment dedicated to innovation, followed by **Greece**, **Denmark**, **Portugal**, **Italy** and **Spain**. For **Germany**, **Greece**, **Portugal** and **Spain**, there is a noticeable match with the results of the previous question on the percentage of turnover generated by new or renewed products or services, since the percentages for these four countries were also above average. The countries where, according to managers, companies invest least in innovation are **Austria**, **France** and **Belgium**, which again is in line with the low share of innovative products or services in these countries reported under the previous question.

It must be stressed, as for the last survey, that this does not necessarily mean that companies in these countries are more "innovative" than those in others: neither the amounts invested, in absolute figures, nor the success of this investment are known. Nevertheless, in the opinion of company managers interviewed in these countries, the proportion of investment dedicated to innovation is more significant than in other countries.

Breakdown by company category:

Exporting companies channel a greater share of their investment into innovation, as can be seen from the table below: in the "average %" category and in the "21-50%" and "51-100%" categories the values rise with the level of exports. This fits in exactly with the picture painted by responses to the preceding question regarding the relationship between the share of exports and the share of new or renewed products or services in turnover.



Average percentage of investment dedicated to innovation - By exporting criteria -

Flash EB 129 - September 2002 - Fig.2C

The industrial (manufacturing) sector stands out, with the proportion of investment devoted to innovation amounting typically to 32% on average (up 2 points since 2001).

Another significant factor is the age of the company: "younger" companies (less than 10 years in existence) have on average, more so than any other enterprise category, dedicated the highest share of investment to innovation, and the share of "big investors" in this group is amongst the highest.

1.3. Your innovation efforts concentrated mainly on the development of : - new products - production processes - organisational changes ... ?

(Horizontal percentages)	New organisational changes	New products	New production processes	[dk/na]	BASE
UE 15	46	38	35	10	3014
LUXEMBOURG	63	27	26	6	92
ÖSTERREICH	61	31	29	12	200
IRELAND	55	21	18	12	100
PORTUGAL	53	32	36	3	100
DEUTSCHLAND	51	44	34	9	300
ELLAS	51	36	44	10	101
ESPANA	47	29	45	7	300
FRANCE	46	28	32	7	305
NEDERLAND	45	37	34	14	200
BELGIQUE	43	35	31	18	207
UNITED KINGDOM	41	40	20	19	303
ITALIA	40	37	52	2	301
DANMARK	38	37	30	18	202
SWEDEN	27	51	28	16	200
FINLAND	18	50	58	2	103
SECTORS					
Construction	57	17	35	12	376
Industry	26	52	54	6	994
Trade	56	30	19	14	767
Services	52	39	30	9	877
BUSINESS SIZES					
MAJORS 250+	34	55	42	6	420
SME 20-49	48	35	33	11	1928
SME - 50-249	42	43	41	8	666
ACTIVE SINCE					
More than 30 years	42	38	37	12	1539
11-30 years	49	33	33	9	945
0-10 years	49	43	34	8	518
EXPORTS %					
Nothing	54	29	29	13	1381
Less than 50	38	48	40	6	1048
50 and more	29	53	48	8	417

[MAXIMUM TWO ANSWERS]

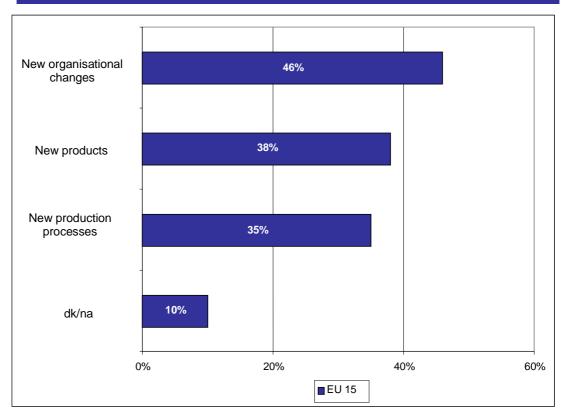
1.3. Focus of innovation efforts

Overall picture:

The purpose of this question was to understand managers' priorities regarding the different aspects of innovation: development of "new products", "new production processes" and/or "new organisational changes".

On the whole, the focus of managers' innovation efforts is relatively evenly distributed amongst the three items proposed. It is interesting to note that the "development of new organisational changes" was the item most often cited by managers in the European Union (46%). This shows a general increased recognition amongst top-level executives of the importance of management practices focusing on staff motivation and qualifications. More and more companies are investing in organisational changes such as training, organisation design, staff motivation and communication activities. This topic is therefore addressed in more detail in the following chapters. In this 2002 survey, company managers in the European Union confirmed their commitment to "organisational" matters.

Managers were asked to prioritise two of the three approaches in their investment decisions. In most countries, all three aspects are rather evenly considered, with 46% of managers stating that their innovation efforts concentrated mainly on "organisational change", 38% primarily on the "development of new products" and 35% indicated that their main focus was on the "development of new products" and 35% indicated that their main focus was on the "development of new products" and store that in practice that these three approaches go together: in order to reveal correlations, the answers for this question were crossed, and strong links between the three approaches are apparent, with slightly more focus on process innovation for managers prioritising product innovation.

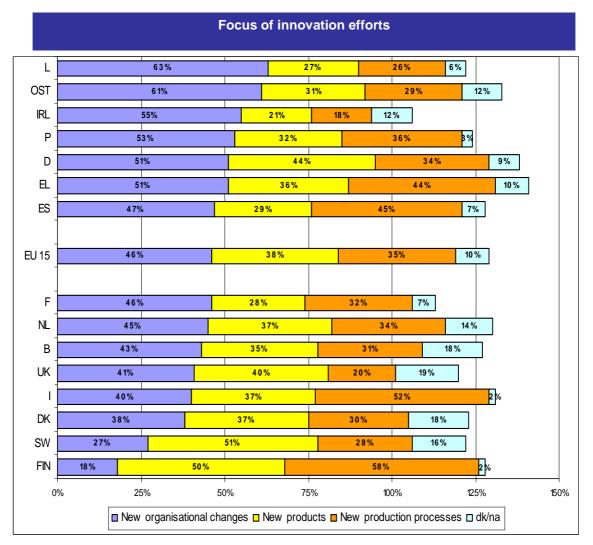


Focus of innovation efforts - EU 15 -

Flash EB 129 - September 2002 - Fig.3A

Breakdown by country:

There are some interesting differences regarding the focus of innovation efforts between Member States: managers in nearly all countries give top priority to "organisational change", except in **Finland** (18%) and **Sweden** (27%). Similarly, a lower proportion of **Danish** managers prioritise innovation in the area of organisational change. In **Luxembourg** and **Austria** it is cited most frequently: 63% and 61% respectively.



Flash EB 129 – September 2002 – Fig.3B

In **Sweden**, "new organisational changes" were not of prime importance for managers; they rather attach greater importance, compared to any other country, to the "development of new products". The country where company managers focus least on the "development of new products" is **Ireland**, at 21%.

In **Finland**, the "development of new production processes" is the top priority for managers, being cited by 58% of those interviewed, showing also the highest results for the European Union. In **Ireland**, less than one in five managers (18%) claim to focus their efforts here.

Breakdown by company category:

Generally speaking, the development of "new products" and "new production processes" are the focus point for:

- large companies "250+",
- industry and/or

*

- exporting companies

Companies that concentrate on the "development of new organisational changes" are more often:

- smaller SMEs in the range "20-49",
- in construction or trade, or indeed
- non-exporting companies

1.4 In the case of your company, what are the two most important ways to access advanced technologies, among the following: ...?

(Horizontal percentages)	Co-operation suppliers/ customers	Acquire machinery/ equipment	Conducting in-house R&D	Coop. univ./ R&D specialist	Licensing- in	[None, but]	[no way more important]	BASE
UE 15	59	41	31	14	9	1	2	2903
IRELAND DANMARK SWEDEN ÖSTERREICH BELGIQUE DEUTSCHLAND LUXEMBOURG NEDERLAND	77 76 73 70 69 68 66 66	32 30 22 49 43 33 53 38	33 25 35 24 32 33 26 28	3 9 15 9 10 20 3 14	17 12 6 2 13 9 10 15	0 0 0 1 2 0	0 2 1 1 2 1 0 0	96 187 194 194 197 292 92 179
FINLAND UNITED KINGDOM FRANCE ELLAS PORTUGAL ESPANA ITALIA	58 55 54 50 50 48 46	54 28 43 75 52 64 52	30 37 30 21 18 18 39	11 9 7 8 10 14 14	4 8 7 12 11 7 10	0 2 1 0 0 1	1 1 4 0 0 3 1	103 276 304 99 96 293 301
SECTORS Construction Industry Trade Services	64 53 72 54	51 46 35 38	16 43 21 33	10 18 6 16	8 7 9 11	1 1 1 1	1 1 1 3	368 976 726 833
BUSINESS SIZES MAJORS 250+	54	30	52	19	14	0	1	408
SME 20-49 SME - 50-249	60 58	42 41	29 34	12 16	9 9	1 1	2 0	1852 643
ACTIVE SINCE More than 30 years 11-30 years 0-10 years	58 60 60	43 45 34	32 28 33	11 10 21	8 8 11	1 2 0	1 2 1	1484 915 494
EXPORTS % Nothing	61	44	23	10	8	1	2	1311
Less than 50 50 and more	58 55	39 34	40 47	17 19	10 8	1 1	1 2	1025 404

[TWO ANSWERS EXPECTED]

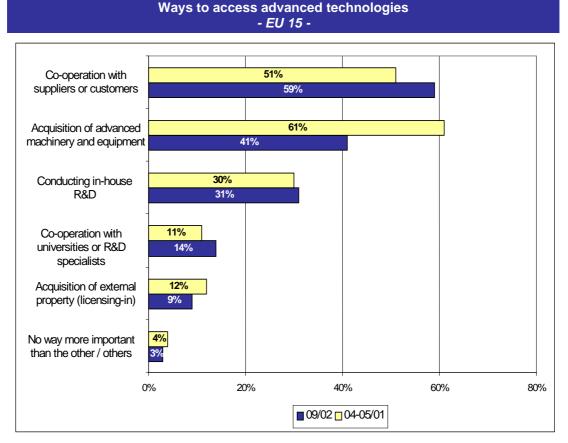
1.4. Ways to access advanced technologies

Overall picture:

The 2002 survey shows a substantial change in the priorities of managers in Europe concerning ways to access advanced technologies. In 2001, the purchase of machinery and equipment was for the majority of companies the most important way to obtain advanced technologies, and co-operation with suppliers and customers was number two. In 2002, this ranking has been reversed.

With 59% of citations, co-operation with suppliers or customers is now the most important way to access advanced technology (up 8 points since 2001). Equipment acquisition now comes second (41%), corresponding to a drop of 20 points since the previous survey.

Next in line comes in-house research and development (31%), virtually unchanged since 2001, followed by R&D through co-operation with universities or specialists (14%), up by 3 points since the last survey and finally intellectual property licensing (9%) which dipped by 3 points.



Flash EB 129 - September 2002 - Fig.4

Breakdown by country:

Managers in most Member States now stress the key role of co-operation with suppliers or customers in gaining access to advanced technologies. As in the last survey, co-operation ranks first in **Ireland**, **Denmark**, **Sweden** and **Austria**. Also unchanged with respect to the last survey, company managers in the Southern countries – **Greece**, **Spain**, **Italy** and **Portugal** – continue to rate equipment acquisition as the most important factor. A reversal of top priorities only occurs in two Member States, **Germany** and **France**, where co-operation with suppliers or customers is the most important way to access advanced technologies superseding acquisition of advanced machinery and equipment. However, for all countries, with the exception of **Finland** and **Greece**, the average weight given to equipment acquisition declined, and the spread of priority points for the acquisition of equipment is now particularly wide amongst the Member States, ranging from 22% in **Sweden** to 75% in **Greece**.

One possible interpretation of this result might be the difficult business climate in the majority of Member States, limiting investment perspectives and shifting the focus towards more "softer" forms of innovation.

R&D, both in-house and in co-operation with universities and specialised institutions were considered more relevant than last year. Taking the sum of these two, the results rose from 41% to 45%.

Company managers in **Italy**, the **United Kingdom** and **Sweden** most frequently cited inhouse R&D. As regards technology transfer by way of contract research (co-operation with universities and R&D specialists), there are once again significant differences from one country to the next, reflecting thus the diversity of structures in the various Member States. According to the results of the present survey, **Germany** is the country that seems to attach the most importance to universities and R&D specialists as a way to access advanced technologies. On the contrary, **Ireland** is the country where this is least important, being cited by a mere 3% of company managers. Purchase of licences and of intellectual property are cited most frequently in **Ireland**, the **Netherlands** and **Belgium**. These figures should however be interpreted with care, given the limited weight in particular for the figures for R&D co-operation and licensing.

Breakdown by company category:

The breakdown by company category shows some differences in the shifting of priorities from equipment acquisition to co-operation with suppliers or customers. This shift is particularly clear in services. Of all sectors, companies in distribution are most convinced of the importance of co-operation with suppliers or customers.

Generally speaking, R&D (both in-house and in co-operation with universities and specialists) is an important means of accessing advanced technologies for:

- industry,
- exporting companies, or above all,
- large companies (majors)

It is not surprising that R&D (in-house or outsourced) is most significant in large companies (250+) that have most certainly more resources and greater financial means.

2.1 How would you rate the innovation performance of your company compared to your main competitors? Is it:?

(Horizontal percentages)	MEAN INDEX 0<==>100	++/+ ABOVE AVERAGE	/- BELOW AVERAGE	Well above average	Above average	[average, it depends]	Below average	Well below average	BASE
UE 15	66	61	10	13	48	28	9	1	2912
DANMARK	71	71	3	18	52	26	3	0	191
ELLAS	71	69	5	19	50	26	5	0	96
LUXEMBOURG	69	70	5	13	57	25	4	1	89
SWEDEN	69	69	7	15	53	24	7	0	193
IRELAND	68	69	9	16	53	21	7	3	97
PORTUGAL	68	68	11	15	53	21	9	2	97
UNITED KINGDOM	67	62	9	18	44	28	7	2	290
DEUTSCHLAND	67	64	9	15	49	27	9	1	292
ESPANA	67	67	10	10	57	23	9	1	291
BELGIQUE	66	58	9	14	45	33	8	1	198
ITALIA	65	62	11	10	51	28	11	0	295
FINLAND	65	55	10	15	40	35	9	1	100
NEDERLAND	63	60	15	10	50	25	12	4	192
ÖSTERREICH	61	44	9	11	33	47	8	1	194
FRANCE	60	49	15	6	43	36	13	1	297
SECTORS									
Construction	61	52	15	7	45	33	13	2	365
Industry	64	59	12	11	48	29	11	1	960
Trade	66	65	11	11	53	25	10	1	746
Services	69	65	7	18	47	28	6	1	841
BUSINESS SIZES									
MAJORS 250+	68	64	10	20	44	26	7	3	410
SME 20-49	65	60	10	12	48	30	9	1	1859
SME - 50-249	66	65	11	13	52	24	9	2	643
ACTIVE SINCE									
More than 30 years	64	58	11	10	48	31	10	1	1492
11-30 years	65	60	12	11	49	28	10	2	913
0-10 years	70	69	8	19	49	23	8	0	496
EXPORTS %									
Nothing	64	59	12	12	47	30	11	1	1325
Less than 50	67	64	9	13	50	27	8	1	1021
50 and more	69	67	8	16	52	25	7	1	403

[ONE ANSWER ONLY]

2. STRENGTHS AND WEAKNESSES OF COMPANIES IN INNOVATION

2.1 The innovation performance of the company: self-evaluation

* Overall picture:

The managers surveyed continue to be upbeat about the innovation performance of their companies compared with their competitors.

The aim of the mean index shown in table 2.1 is to synthesize the degree of satisfaction of managers with the innovation performance of their company. With 66 points in 2002 for the whole of the European Union, it is very close to the mean index in 2001.

On average, 48% of managers interviewed considered their company's performance to be "above average", a result that is slightly up since 2001 and 13% of company managers find that their company's performance is "well above average". Only one manager in ten believes their company's performance is "below" or "well below average" compared to their main competitors. This is identical to the result obtained in April 2001.

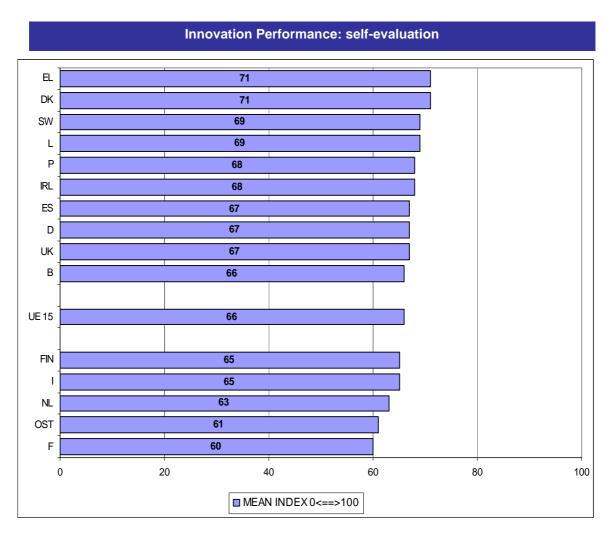
Company managers thus feel comfortable with their innovation efforts and are generally satisfied with their own track records, at least in comparison with their competitors.

Breakdown by country:

The differences between countries are rather small: managers who perceive their company's performance as "above average" or "well above average" vary little from country to country. The countries diverging most from the sum of these two items at the European Union level (61%) are **Austria** (44%) and **France** (49%), but changes in the relative position of countries resulting from such small variations should be interpreted with care.

It is interesting to note that the categorisation of countries according to their personal evaluation differs markedly from the classification that was based on the share of turnover generated by innovations in subsection 1.1. **Denmark**, **Luxembourg**, **Ireland**, **Sweden** and **Greece** are the countries where most managers believe that the company performance is "above average", yet these countries are not amongst the top countries for the contribution of their innovative products or services to turnover.

The graph that follows is based on the mean index calculated and confirms the above analysis based on percentage figures.



Flash EB 129 - September 2002 - Fig.5

Breakdown by company category:

The breakdown by company category shows that companies who perceive their performance as "above average" are frequently in trade or services, or established for less than 10 years, or indeed with exports accounting for more than 50% of their turnover.

2.2 Which are the two most important factors that best explain the strengths of your company in innovation ...?

[MAXIMUM TWO ANSWERS EXPECTED]

UE 15 49 39 38 17 14 13 2 3014 ÖSTERREICH 61 38 43 10 15 13 2 200 DEUTSCHLAND 60 38 45 14 13 15 2 300 FINLAND 58 35 34 30 13 11 1 103 FRANCE 56 43 34 13 7 8 2 305 JAMMARK 53 37 38 14 19 7 18 0 301 BELGIQUE 44 52 35 28 14 15 17 1 200 ITALIA 46 33 41 19 7 18 0 301 BELGIQUE 44 52 38 15 15 12 4 207 PORTUGAL 44 37 32 17 13 11 100 ESPANA 43 36 35 20 9 16 5 INTED KINGDOM 36 40 31 21 26 8 2 303 INUSTED KINGDOM 54 43	(Horizontal percentages)	Staff qualification	Co-operation supp./cust.	Adaptability to market needs	Efficient production methods	Leadership in market trends	Techn. advance, R&D	[dk/na]	BASE
DEUTSCHLAND 60 38 45 14 13 15 2 300 FINLAND 58 35 34 30 13 11 1 103 FRANCE 56 52 37 9 10 9 2 322 DAMMARK 53 37 38 14 19 8 5 202 SWEDEN 52 35 28 15 15 12 4 207 ORTUGAL 44 52 38 15 15 12 4 207 PORTUGAL 44 52 38 15 15 12 4 207 PORTUGAL 44 52 38 15 15 12 4 207 PORTUGAL 44 52 30 32 18 30 4 1 100 UNITED KINCDOM 36 40 31 21 26 289 4 200 SECTORS 70 5 9 2 376<	UE 15	49	39	38	17	14	13	2	3014
FINLAND 58 35 34 30 13 11 1 103 FRANCE 56 43 34 13 7 8 2 305 DANMARK 53 37 38 14 19 8 5 202 DANMARK 53 37 38 14 19 8 5 202 SWEDEN 52 35 28 14 15 17 1 200 ITALIA 46 33 41 19 7 18 0 301 BELGIQUE 44 52 38 15 15 12 4 207 PORTUGAL 44 37 32 17 13 11 1 100 UNITED KINGDOM 36 40 31 21 26 8 2 303 IELAS 35 34 52 24 10 18 2 94 IELAS 35 34 52 24 10 18 2 97	ÖSTERREICH	61	38	43	10	15	13	2	200
FRANCE 56 43 34 13 7 8 2 305 LUXEMBOURG 56 52 37 9 10 9 2 92 DANMARK 53 37 38 14 19 8 5 202 DANMARK 53 37 38 14 19 7 18 0 301 BELGIQUE 44 52 38 15 15 12 4 207 PORTUGAL 44 37 32 17 13 11 1 100 ESPANA 43 36 35 20 9 16 5 300 IRELAND 37 49 32 18 30 4 1 100 NITED KINGDOM 36 40 31 21 26 8 2 303 ELAS 35 30 32 28 26 28 0 101 NEDERLAND 26 51 43 37 20 5 9		60	38	45	14	13	15		300
LUXEMBOURG 56 52 37 9 10 9 2 92 DANMARK 53 37 38 14 19 8 5 202 SWEDEN 52 35 28 14 15 17 1 200 ITALIA 46 33 41 19 7 18 0 301 BELGIQUE 44 52 38 15 15 12 4 207 PORTUGAL 44 37 32 17 13 11 1 000 IRELAND 37 49 32 18 30 4 1 100 UNITED KINGDOM 36 40 31 21 26 8 2 303 ELLAS 35 30 32 28 26 28 0 101 NEDERLAND 26 51 44 27 9 17 4 200 SECTORS Construction 54 43 37 20 5 9 2 376 Industry 35 34 52 24 10 18 2 994 Trade 54 49 27 10 20 9 2 767 Services 57 35 35 14 15 15 2 877 BUSINESS SIZES MAJORS 250+ 45 31 33 25 15 23 3 420 SME 20-49 51 40 37 16 13 12 2 1928 SME 50-249 45 36 44 18 17 15 2 687 SME 20-49 51 40 37 16 13 12 2 1928 SME 50-249 45 36 34 18 13 12 2 1928 SME 50-249 55 36 34 18 13 12 2 1928 SME 50-249 55 36 34 18 13 12 2 1928 SME 50-249 55 36 34 18 13 12 2 1928 SME 50-249 55 36 34 18 13 12 2 1928 SME 50-249 55 36 34 18 13 12 2 1928 SME 50-249 55 36 39 14 16 13 2 2 1928 SME 50-249 55 35 39 14 16 18 2 994 Ti-30 years 55 35 39 14 16 18 2 954 O-10 years 55 35 39 14 16 18 2 518 EXPORTS %									
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MAJORS 250+ 45 31 33 25 15 23 3 420 SME 20-49 51 40 37 16 13 12 2 1928 SME - 50-249 45 36 44 18 17 15 2 666 ACTIVE SINCE V V V 15 2 1539 11-30 years 52 41 36 18 13 12 2 1539 11-30 years 52 41 36 18 13 12 2 945 0-10 years 55 35 39 14 16 18 2 518 EXPORTS % V V V V 13 9 2 1381 Less than 50 46 39 43 16 13 17 2 1048	Services	57	35	35	14	15	15	2	877
SME 20-49 51 40 37 16 13 12 2 1928 SME -50-249 45 36 44 18 17 15 2 666 ACTIVE SINCE V V V V V V V V V V More than 30 years 44 40 40 18 13 12 2 1539 11-30 years 52 41 36 18 13 12 2 945 0-10 years 55 35 39 14 16 18 2 518 EXPORTS % V V V V V V V V Nothing 53 41 35 17 13 9 2 1381 Less than 50 46 39 43 16 13 17 2 1048	BUSINESS SIZES								
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ACTIVE SINCE More than 30 years 44 40 40 18 13 12 2 1539 11-30 years 52 41 36 18 13 12 2 945 0-10 years 55 35 39 14 16 18 2 518 EXPORTS % V V V V V V V Nothing 53 41 35 17 13 9 2 1381 Less than 50 46 39 43 16 13 17 2 1048	SME 20-49	51	40	37	16	13	12	2	1928
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Less than 50 46 39 43 16 13 17 2 1048	EXPORTS %								
Less than 50 46 39 43 16 13 17 2 1048	Nothing	53	41	35	17	13	9	2	1381
	0								
	50 and more	37	27	48	20	17	24	2	417

2.2 Factors contributing to the strengths of companies in innovation

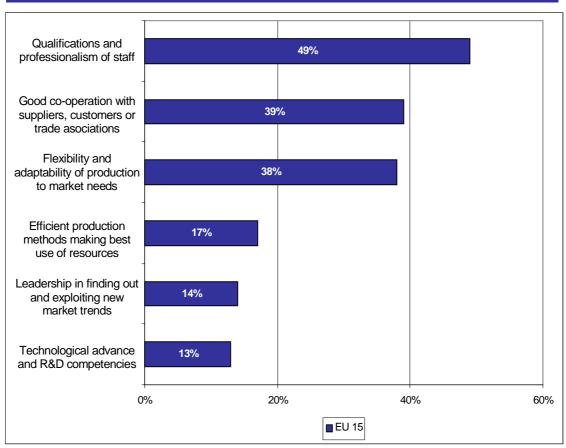
Overall picture:

*

Overall, close to one in two managers in the European Union hail the qualification of their staff and their professionalism as being the factor that contributes most to their strength in innovation.

The next most cited strengths by managers in the European Union are "good co-operation practices with suppliers, customers or trade associations" (39%) and "flexibility and adaptability of production to market needs" (38%).

From the results of this 2002 survey, it seems as if there is ample room for "catch-up" in the domain of "technological advance and R&D competencies" (13%) as well as "leadership in finding out and exploiting new market trends" (14%).



Factors that best explain the strengths of company in innovation - EU 15 -

Flash EB 129 - September 2002 - Fig.6

Breakdown by country:

"Qualifications of their staff and their professionalism" ranks highest as the factor best explaining the company's strength in innovation according to managers in 11 of the 15 Member States. Nevertheless, it is perceived differently across countries. Managers in **Austria** (61%), **Germany** (60%), **Finland** (58%), **Luxembourg** and **France** (56%) express the most favourable opinion.

Company managers in the **Netherlands** are least convinced of this strength compared to other Member States, and only one in four managers selected this item. This opinion is similar to that of executives in **Greece**, the **United Kingdom** and **Ireland**.

For enterprises in **Belgium**, the **Netherlands**, the **United Kingdom** and **Ireland**, "good cooperation practices with their suppliers, customers or trade associations" is the factor that best explains their company's strength in innovation.

The relevance of "flexibility and adaptability of production to market needs" is widely acknowledged by managers for contributing to innovation, the average ranking being very close to the results for "good co-operation". Clearly named less frequently at the EU average level than staff qualifications, it is nevertheless on position number two for six countries (Germany, Austria, Denmark, Italy, Greece and the Netherlands).

It may be surprising that the following three items have been singled out less frequently: "Efficient production methods", "Leadership in market trends" and "Advance in technology and R&D". The results in **Greece** are very evenly spread across each of the proposed items, ranging from 26% to 35%. A particularly interesting result when compared to the results in other Member States is "technological advance and Research and Development competencies", whereby 28% of managers in companies in **Greece** claim that this is the most important factor contributing to their strength in innovation.

With respect to "efficient production methods making best use of resources", managers in **Finland, Greece** and the **Netherlands** seem to feel that this investment is paying off and claim that it is one of the key factors that best explain their strengths in innovation. For companies in **Finland** this corresponds with the findings earlier (subsection 1.3) where the focus of innovation efforts was analysed, showing that in **Finland** companies gave priority to investment in new production processes.

Company managers in **Ireland**, the **United Kingdom** and **Greece** are relatively confident of their "leadership in finding out and exploiting new market trends" in comparison to managers in other Member States.

Finally, technology as such is considered a source of strength to a much lesser extent: obviously, it has to fit with human resources, organisation and management as well as the interplay with suppliers and customers. The low ranking might, however, also reflect a rather critical assessment of managers of their company's position with respect to competencies in R&D and technology. The following paragraph shows some interesting differences with respect to specific categories of enterprises.

Breakdown by company category:

The profile of companies whose top-level executives consider the "qualifications of their staff and their professionalism" and "good co-operation practices with their suppliers, customers or trade associations" as the factors that best explain the strengths of their company in innovation are most often:

- in services, trade or construction, but not in industry (!),
- in particular small SMEs ("20-49" group), as opposed to "majors"
- non-exporting

*

- A differentiation results from the age of companies: managers of recently created companies (in the last 10 years) clearly believe in the role of human resources, but not in co-operation with suppliers or customers, whereas well-established enterprises (more than 30 years) underline the role of staff qualification to a lesser extent.

The company category results for the role of "advance in R&D and technology" are interesting with an above average weight given by firms:

- in the industrial sector,
- large companies "250+",
- exporting and/or
- active for less than 10 years

2.3 We would like to know what are the two most important unsatisfied needs in terms of innovation in your company, amongst the following ...?

(Horizontal percentages)	Access innovative markets	Find./ mobil. HR	Find./ mobil. fin. Res.	Finding/ using new techn.	Knowledge sharing/ networking	Protecting knowledge	[no need more important]	these but	BASE
UE 15	34	31	29	21	19	13	4	3	2827
FRANCE	41	48	18	18	17	6	2	1	301
NEDERLAND	41	16	18	30	31	20	6	0	182
ITALIA	39	25	23	27	23	12	3	1	299
BELGIQUE	38	35	32	25	23	16	1	2	189
SWEDEN	38	43	15	19	19	11	1	0	187
LUXEMBOURG	34	53	18	17	29	6	5	2	91
DEUTSCHLAND	33	26	41	17	15	17	6	5	278
ELLAS	33	33	31	29	11	12	5	1	99
ESPANA	31	28	24	26	23	8	6	1	279
ÖSTERREICH	30	16	25	18	21	7	28	0	183
UNITED KINGDOM	29	36	24	17	18	14	0	3	264
FINLAND	27	54	25	18	29	6	3	1	101
IRELAND	26	47	24	23	18	15	4	0	93
PORTUGAL	24	33	30	27	16	7	5	1	95
DANMARK	20	29	27	13	33	14	7	1	186
SECTORS									
Construction	25	33	33	22	19	13	6	1	352
Industry	36	30	30	25	18	12	4	3	941
Trade	36	30	28	21	21	10	4	1	707
Services	35	33	26	17	19	14	4	4	827
BUSINESS SIZES									
MAJORS 250+	33	34	30	21	23	10	5	1	394
SME 20-49	33	31	29	21	19	13	5	3	1804
SME - 50-249	38	32	27	21	18	11	3	3	629
ACTIVE SINCE									
More than 30 years	35	29	25	23	19	11	6	2	1443
11-30 years	34	37	25	18	21	12	4	2	881
0-10 years	33	28	37	20	16	15	3	5	491
EXPORTS %									
Nothing	33	31	28	21	19	13	5	2	1285
Less than 50	36	32	31	19	19	12	3	4	1005
50 and more	35	25	28	27	21	11	4	2	384

[TWO ANSWERS EXPECTED]

2.3 Unsatisfied needs of companies in terms of innovation

Overall picture:

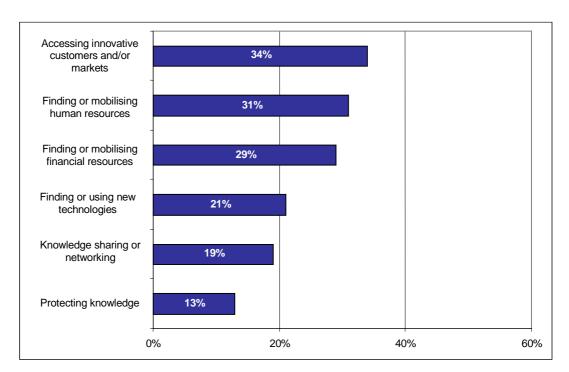
This question is identical to the last survey and so should allow us to trace the changes in priorities of the most important unsatisfied needs for innovation.

As for last year, there is not one but rather several needs to be satisfied in terms of innovation within companies. However, this year the order of priorities has changed. "Accessing innovative customers and/or markets" (34%) is now considered the most unsatisfied need in terms of innovation in companies within the European Union, and "Finding or mobilising human resources" is second with 31%. The ranking has been reversed since last year.

A reversal has also taken place on positions three and four: "Finding or mobilising financial resources" (29%) is now considered more important than "Finding or using new technologies", which dropped from 34% in the last survey to 21% in 2002.

A possible reason for these two reversals might be the general situation in the European economy: recruiting is becoming less problematic, with companies throughout the European Union putting a "freeze" here and some going so far as to lay-off their staff. Moreover, finding financial resources is becoming more of a bottleneck than finding or using new technologies.

"Knowledge sharing or networking" and "Protecting your knowledge" continue to be cited on positions five and six.



Most important unsatisfied needs in terms of innovation - EU 15 -

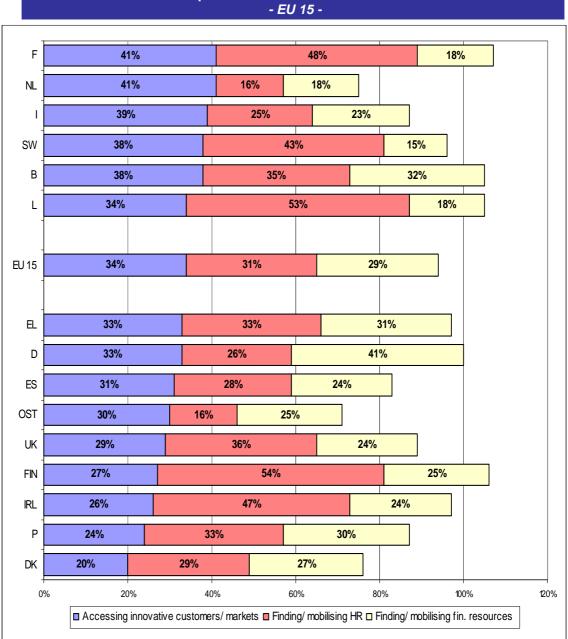
Flash EB 129 - September 2002 - Fig.7A

Breakdown by country:

Irrespective of the reversal of some priorities, there is still continuity in the relevance of the needs identified.

"Finding or mobilising human resources", is still cited in just over half of the Member States as being the most important "unsatisfied need" for innovation, and ranks second for three countries. It is seen as most problematic in Finland (54%), Luxembourg (53%) and France (48%), but not significant at all in the Netherlands and Austria.

"Accessing innovative customers and/or markets" is the most important "unsatisfied need" for managers in five European countries and ranks second in six countries. It is of greatest concern in companies in the Netherlands (41%), France (41%), Italy (39%), Sweden and Belgium (both 38%).





Flash EB 129 - September 2002 - Fig.7B

"Finding or using new technologies" is most problematic in the **Netherlands** (30%), **Greece** (29%) as well as in **Portugal** and **Italy** (both 27%). "Finding or mobilising financial resources" has now become the most important "unsatisfied need" for managers in **Germany**, being the case for 41% of those interviewed.

Company managers in **Denmark** put more emphasis on "knowledge sharing or networking" compared to the previous survey in 2001 (33%; + 21 points) to join their counterparts in the **Netherlands** and **Finland** where a relatively high proportion of executives continue to consider this to be an important unsatisfied need. "Protecting your knowledge" continues to be rated high in the **Netherlands** and is joined now by **Germany**.

Breakdown by company category:

There are no major differences to report: attitudes with respect to unsatisfied needs for innovation are quite similar for most groups of enterprises.

Particular features worth mentioning are:

- in the construction sector, enterprises stress more than average the need for financial resources, and worry less about innovative markets;
- large exporters, more than other exporting categories are interested in finding new technologies and less concerned about human resources;
- enterprises in the age group "11–30 years", express more concern than others about human resources and
- enterprises established for less than 10 years, are most concerned about financial resources.

In general, these features confirm the characteristics identified in the last survey.

3.3 What was the average number of working days dedicated to education and training per employee in your company during the last year...?

(Horizontal percentages)	AVERAGE NUMBER	None	1-6	7 & more	[dk/na]	BASE
UE 15	11,6	5	50	33	11	3014
UNITED KINGDOM	21,0	8	36	38	18	303
PORTUGAL	20,5	15	33	32	21	100
ITALIA	19,1	9	32	55	3	301
ESPANA	19,0	4	28	42	26	300
IRELAND	13,4	1	66	26	7	100
ELLAS	12,4	11	25	41	22	101
LUXEMBOURG	11,9	7	52	23	19	92
BELGIQUE	9,2	7	53	29	11	207
SWEDEN	7,9	1	60	25	15	200
FRANCE	6,8	5	66	19	9	305
ÖSTERREICH	6,4	6	59	26	8	200
NEDERLAND	6,2	4	65	21	10	200
DEUTSCHLAND	5,8	3	63	28	7	300
DANMARK	5,6	9	53	22	16	202
FINLAND	3,8	3	76	12	9	103
SECTORS						
Construction	10,3	10	50	32	8	376
Industry	12,4	6	49	31	13	994
Trade	10,5	6	52	30	12	767
Services	12,1	3	50	36	11	877
BUSINESS SIZES						
MAJORS 250+	10,3	2	49	26	23	420
SME 20-49	12,5	6	49	35	10	1928
SME - 50-249	8,8	4	56	26	14	666
ACTIVE SINCE						
More than 30 years	11,3	7	51	29	13	1539
11-30 years	11,4	5	51	31	13	945
0-10 years	12,2	4	50	40	7	518
EXPORTS %						
Nothing	11,7	7	49	33	11	1381
Less than 50	10,4	3	54	32	10	1048
50 and more	14,7	3	49	35	13	417

3. TRAINING AND EDUCATION

3.1. Number of working days dedicated to training and education

* Overall picture:

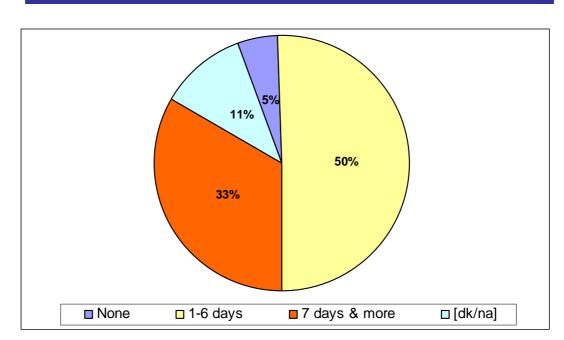
Managers in companies in the European Union were asked to state the average number of working days dedicated to education and training per employee in their company. The results in this 2002 survey show that most companies recognise the importance of training. Only 5% of companies do not allocate any days to training for their employees.

One in two companies allocated a training budget of "1-6 days" during the last year. This figure should be interpreted with caution as it includes companies allocating a reasonable budget to employee training as well as those showing merely a symbolic commitment to training rather than a true programme dedicated to the improvement of staff qualifications i.e. companies dedicating less than two days per employee.

One third of enterprises in the European Union had a rather generous training budget for employees during the last year, equivalent to "7 or more days".

The figures given for "don't know" are rather high and disparate from country to country.

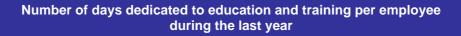
Average number of days dedicated to education and training per employee during the last year - EU 15 -

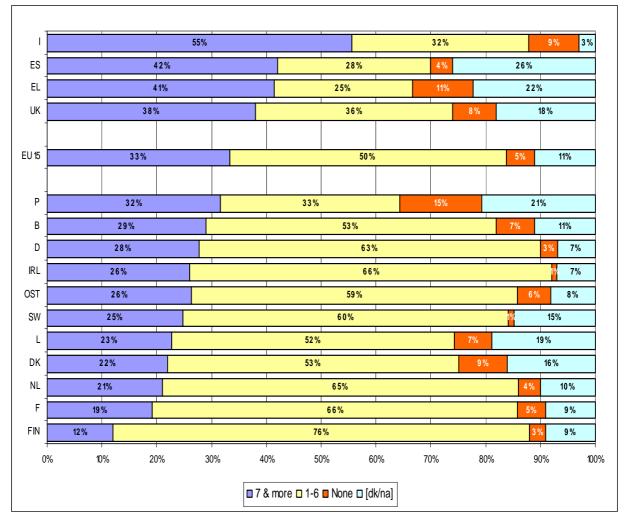


Flash EB 129 - September 2002 - Fig.8A

Breakdown by country:

The graph below shows the allocation of days to training and education of employees in Member States for the categories "0 days", "1-6 days" and "7 or more days". For the purposes of analysis, these categories of training budgets were defined and consequently, enterprises were classified according to the average working days devoted to employee training, as cited by managers interviewed.





Flash EB 129 – September 2002 – Fig.8B

Italy, Spain, Greece and the **United Kingdom** are above average for their training budgets equivalent to "7 or more days" per employee during the last year.

A considerably high proportion of enterprises in **Portugal** (15%), **Greece** (11%), **Denmark** (9%) and **Italy** (9%) did not devote any working time to training efforts during the last year. It is interesting to note that **Greece** and **Italy** feature at both extremes of the training budget ranges.

Breakdown by company category:

The survey shows only a few features that can be singled out to characterise the profile of companies that invest in the education and training of their employees.

Companies with above average share of working days per employee devoted to training are often:

in industry or services,

*

- established less than 10 years,
- exporters in the range of over 50% of sales

Companies not allocating a training budget to their employees are frequently found among those:

- established for more than 30 years,
- in construction,
- "small" SMEs, or
- non-exporting companies

3.1 At which level of your staff's qualifications and competencies, would you say that more efforts are needed, to make your company more innovative ...?

(Horizontal percentages)	Motivate staff to acquire comp./ to adapt	Technical staff apprentice./ training	Commercial staff apprentice/ training	Basic skills of workforce	Unversity education	[Other]	[all of them]	[dk/na]	BASE
UE 15	66	45	33	26	13	2	1	3	3014
FINLAND	88	18	18	12	8	3	0	3	103
DEUTSCHLAND	80	60	46	36	18	2	0	3	300
UNITED KINGDOM	77	34	29	29	13	2	1	3	303
SWEDEN	73	31	19	12	13	0	2	4	200
DANMARK	68	12	13	8	6	5	2	8	202
BELGIQUE	67	57	42	37	16	1	0	5	207
ÖSTERREICH	67	36	35	25	5	0	2	9	200
NEDERLAND	63	24	32	26	6	0	1	7	200
IRELAND	62	31	15	6	7	0	0	6	100
LUXEMBOURG	57	44	37	18	7	0	3	4	92
ELLAS	54	31	29	31	14	0	3	3	101
ITALIA	53	37	23	15	10	2	1	0	301
PORTUGAL	53	40	17	15	5	1	0	4	100
FRANCE	48	51	28	19	6	2	2	3	305
ESPANA	43	43	26	17	15	0	2	3	300
SECTORS									
Construction	69	59	31	35	11	0	0	2	376
Industry	57	52	26	25	15	2	1	3	994
Trade	67	34	47	25	9	2	1	3	767
Services	71	42	30	23	14	2	1	4	877
BUSINESS SIZES									
MAJORS 250+	69	45	33	27	21	1	2	3	420
SME 20-49	65	45	32	27	11	2	1	4	1928
SME - 50-249	66	45	35	20	16	2	1	2	666
ACTIVE SINCE									
More than 30 years	61	44	34	25	11	1	1	4	1539
11-30 years	65	43	30	25	13	1	1	2	945
0-10 years	73	50	35	27	14	3	0	3	518
EXPORTS									
Nothing	69	43	34	28	10	2	1	3	1381
Less than 50	63	53	32	26	16	1	1	3	1048
50 and more	62	35	35	17	16	2	2	4	417

[MULTIPLE ANSWERS POSSIBLE]

3.2 Level of staff where further efforts in training are needed

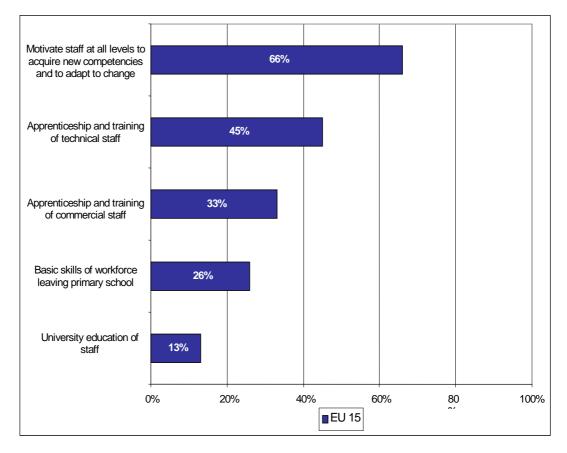
Overall picture:

*

The results in this survey in 2002 suggest that in order to be more innovative companies feel that most efforts are needed "to motivate staff at all levels to acquire new competencies and to adapt to change". This is confirmed by 66% of managers interviewed in the European Union. It would tend to suggest the need for a "change management" policy within companies, for pro-active anticipation of the impact of future changes on staff, and thereby encourage employees to embrace innovation.

At the same time, managers were asked by way of this question to pinpoint a particular level of qualification on which further efforts should be focused. The area most in need of attention seems to be the "apprenticeship and training of technical staff", being cited by 45% of managers interviewed, followed by "training and apprenticeship of commercial staff".

Exceptionally, "basic skills" are identified as requiring increased efforts. "University qualification of staff" is rarely seen as needing improvement.



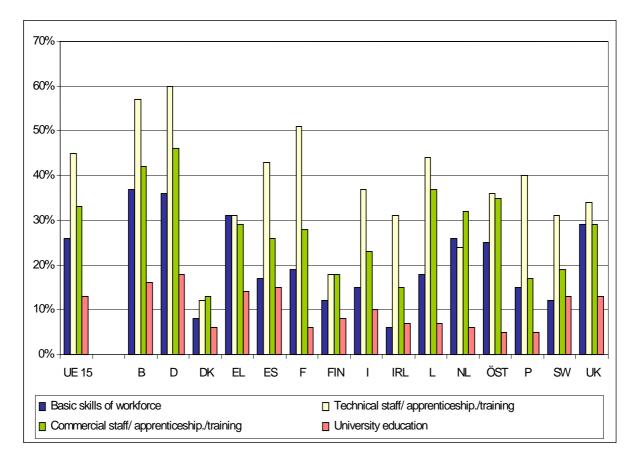
Staff qualifications and competencies: where are more efforts needed?

Flash EB 129 - September 2002 - Fig.9A

Breakdown by country:

General motivation of staff is singled out as a top priority in all Member States, except **France** and **Spain**. Managers in companies in **Finland** (88%), **Germany** (80%) and the **United Kingdom** (77%) most clearly expressed the need to focus on staff motivation at all levels to acquire new competencies and to adapt to change, and thereby make their company more innovative. At the other end of the scale, (but still relatively high) is **Spain**, where 43% of managers interviewed confirmed that further efforts were needed here.

When considering more specific competencies, the need to focus on the "apprenticeship and training of technical staff" is most apparent: for close to half of the enterprises in the European Union and in the overwhelming majority of individual Member States, building up technical competencies emerged on top. In **Germany**, it is cited by 60% of managers interviewed and in **Belgium** by 57%.



Staff qualifications and competencies: more efforts needed at what level?

Flash EB 129 – September 2002 – Fig.9B

Generally, basic skills seem to require less additional effort in most Member States than the qualifications mentioned above. The relative importance given to this in **Belgium** (37%) and **Germany** (36%) being rather particular compared to other countries.

More efforts for university qualification at the company level, in the views of managers, are least relevant in all Member States except in **Sweden** and **Ireland**: in both countries, it ranks just ahead of strengthening basic skills.

Breakdown by company category:

Regarding the wider need "to motivate staff at all levels to acquire new competencies and to adapt to change", we can note that this item is cited most often by managers of companies that are:

- in the services sector,
- "younger" i.e. "0-10" years or
- "majors" (250+)

*

It is less frequently expressed by enterprises in industry.

Regarding the "apprenticeship and training of technical staff", these tend to be companies that are:

- in construction,
- "0-10" years or indeed
- with exports corresponding to between 1% and 50% of their turnover

"Basic skills" are more frequently cited by enterprises in the construction sector and nonexporting companies.

3.1 Where do you think that training to improve the qualifications of your staff and their motivation can be best provided ...?

(Horizontal percentages)	Training within the company	Private sect. educ./ training	Semi-public institutions	Public sector educ./ training	BASE
UE 15	54	19	15	12	2911
PORTUGAL	70	4	16	11	94
NEDERLAND	67	11	4	18	188
ELLAS	64	19	9	8	97
BELGIQUE	61	17	11	11	197
UNITED KINGDOM	61	13	8	18	295
FINLAND	57	13	8	23	102
ITALIA	56	21	12	11	300
FRANCE	54	12	15	18	298
DANMARK	51	25	18	6	187
ESPANA	51	18	17	13	287
IRELAND	51	10	14	25	98
SWEDEN	50	35	8	6	191
DEUTSCHLAND	48	26	21	5	292
LUXEMBOURG	48	14	17	21	89
ÖSTERREICH	48	19	23	10	196
SECTORS					
Construction	45	16	23	15	365
Industry	55	15	16	14	954
Trade	56	20	13	10	744
Services	55	22	13	10	848
BUSINESS SIZES					
MAJORS 250+	65	16	8	11	404
SME 20-49	53	19	16	12	1860
SME - 50-249	55	19	14	12	647
ACTIVE SINCE					
More than 30 years	55	17	16	13	1484
11-30 years	54	20	15	12	912
0-10 years	53	22	15	10	504
EXPORTS %					
Nothing	53	19	16	11	1337
Less than 50	52	21	15	12	1016
50 and more	60	15	12	13	399

[ONE ANSWER ONLY]

3.3 Where is training best provided?

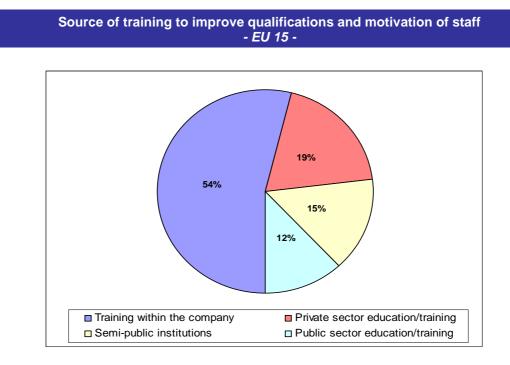
Overall picture:

There is a clear ranking of preferences of company managers in Europe with regards to the places for training: by far the most preferred is within the enterprise, followed by private sector training and semi-public institutions. Public sector training institutions rank last.

Over one in two managers in companies in the European Union believe that "training activities within the company" is the best source for improving the qualifications and motivation of their staff.

19% of managers would rely rather on "private sector education and training organisations", while 15% would opt for "semi-public institutions like chambers of commerce, trade associations, etc." for the education and training of their staff.

Last in line are "public sector education and training institutions", with 12% of managers selecting this as their preferred source for the training of their employees. It should be noted that this is only valid for the overall European Union average, as at the country level significant differences exist. Nevertheless it is interesting to note that according to the results in this latest survey, managers in a large number of countries have low confidence in the potential of the public sector education for the training of their employees.



Flash EB 129 - September 2002 - Fig.10A

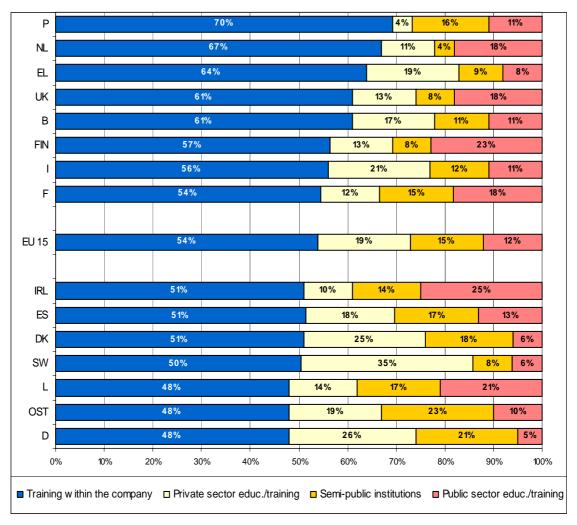
* Breakdown by country:

Preference of managers for "training activities within the company" is unanimous across the Member States. Managers in **Portugal** (70%) are most convinced of their own ability to train their employees. At the other end of the scale, although with 48% still very close to the average, is **Luxembourg**, where still the majority of managers favoured internal training above the other sources.

When it comes to identifying the best place for training outside of the company, the national structures have their impact: training by private sector organisations is rated on average second, but at the country level the picture is much less clear-cut. Managers in **Sweden** (35%), **Germany** (26%) and **Denmark** (25%) are most likely to turn to "private sector education and training organisations", being the case also in **Belgium**, **Greece**, **Spain** and **Italy**.

The average percentage preferring "public sector education and training institutions" is representative for a limited number of countries only. In six countries, managers would choose this option first for training outside the company. In particular managers in **Ireland**, **Finland**, **Luxembourg**, **France**, the **Netherlands** and the **United Kingdom** expressed their confidence in the public sector for training of their employees. Managers of companies in **Germany**, **Denmark**, **Sweden** and **Greece** seem to be least convinced of the role of the State in this domain.

Preferences for "semi-public institutions" are also rather country specific: at least one in five managers in **Austria** and **Germany** would opt for this source.



Sources of training to improve qualifications and motivation of staff

Flash EB 129 – September 2002 – Fig.10B

61

Breakdown by company category:

Amongst companies that prefer "training activities within the company", particularly high rates are from:

- majors (250+) or

*

- companies exporting the equivalent of at least 50% of their turnover.

Low rates are given by enterprises in the construction sector.

Companies that opt for "private sector education and training organisations" are most often:

- in trade or services sector, but not in industry, or
- SMEs or
- more recently created enterprises (0-10 years)

Companies that choose "public sector education and training institutions" more than other firms are:

- in the construction or industrial sector or
- established for a longer period (30+ years)

4.1 During the next two years, on which of the following business activities will your new approaches to management of innovation mainly focus on?

Firstly? Secondly?

[ONE ANSWER FOR "FIRSTLY" AND ONE ANSWER FOR "SECONDLY" EXPECTED]

FIRSTLY

(Horizontal percentages)	Relationship suppliers/ users	New product/ser- vice charact.	Intro. new process technologies.	Data/info. processing	Logistics, delivery methods	Decision- making process	[dk/na]	BASE
UE 15	24	22	16	14	11	9	5	3014
SWEDEN	32	14	10	16	13	7	8	200
DEUTSCHLAND	30	29	9	13	7	7	4	300
FINLAND	30	15	20	13	15	6	1	103
IRELAND	28	13	26	10	8	14	1	100
UNITED KINGDOM	27	20	13	12	5	11	12	303
ÖSTERREICH	24	31	9	13	9	8	7	200
BELGIQUE	21	22	17	17	12	7	4	207
ITALIA	19	18	32	5	14	12	0	301
LUXEMBOURG	19	25	15	19	11	7	5	92
NEDERLAND	18	12	13	32	13	6	6	200
DANMARK	17	17	12	14	21	10	9	202
FRANCE	17	19	17	21	14	9	3	305
ESPANA	16	15	23	15	18	8	6	300
PORTUGAL	16	20	26	6	12	11	9	100
ELLAS	11	18	32	13	9	12	4	101
SECTORS								
Construction	34	12	17	12	9	10	6	376
Industry	19	23	24	9	12	8	5	994
Trade	26	21	11	14	16	8	5	767
Services	22	24	13	19	6	10	5	877
BUSINESS SIZES								
MAJORS 250+	16	20	20	18	11	8	8	420
SME 20-49	25	22	15	14	10	9	5	1928
SME - 50-249	19	20	19	13	14	10	5	666
ACTIVE SINCE								
More than 30 years 11-30 ans - 11-30	24	18	18	14	12	9	6	1539
years	23	21	16	14	11	11	4	945
0-10 ans - 0-10 years	24	29	14	13	7	8	5	518
EXPORTS %								
Nothing	28	19	13	15	10	9	6	1381
Less than 50	20	25	20	11	11	9	3	1048
50 and more	12	24	21	14	16	6	7	417

4. NEW ORGANISATIONAL AND MANAGERIAL APPROACHES

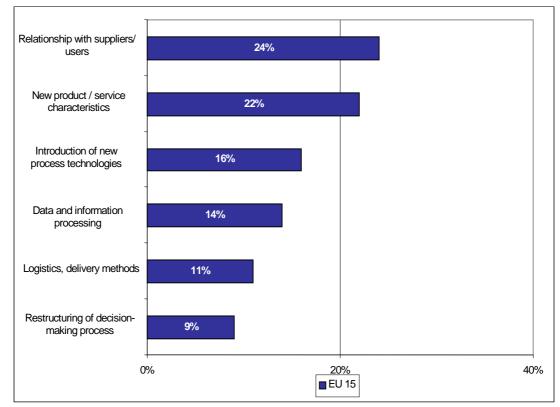
4.1. On which business activities will new approaches to management of innovation focus?

Overall picture:

Managers of companies in the European Union were asked to select and prioritise two business activities on which their new approaches to management of innovation will focus over the next two years. By taking the results for managers "first" choice, we have a clear hierarchy of their ranking order.

Strengthening their relationship with suppliers/users is the first priority of 24% of managers in their new approaches to innovation management. The Single Market and the free movement of goods and services is one of the major contributing factors to increased competition, and consequently, companies have a greater need to enhance their relationships with customers and suppliers. Hence, more and more companies have begun to focus on "Customer Relationship Management" and/or "Supply Chain Management".

The next most important area on which mangers say new management approaches should focus is "new product/service characteristics", being cited by 22% of managers. This is followed by "introduction of new process technologies" (16%) and "data and information processing" (14%). Close to one in ten managers selected "logistics, delivery method" and "restructuring of decision-making process" as a target business activity for their companies new approaches to management of innovation.



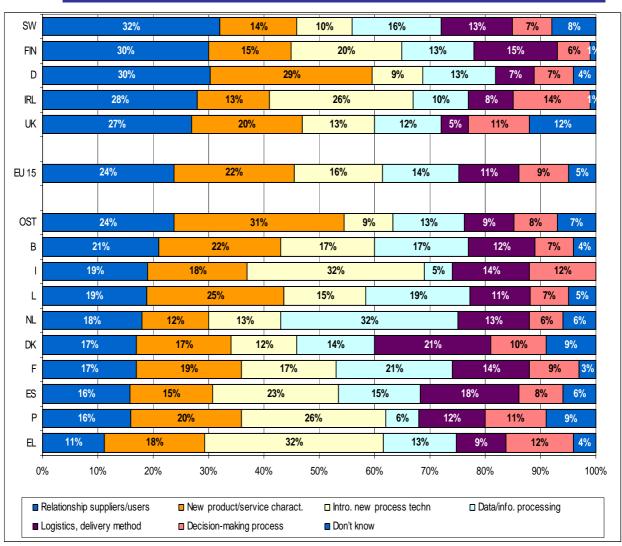
New approaches to the management of innovation will mainly focus on: - Firstly -

Flash EB 129 - September 2002 - Fig.11A

Managers were asked to give a "first" and "second" choice. In analysing the "second" choice of those managers who selected "relationship with suppliers/users" as a prime target, an interesting interdependence emerged: the "second" preference of many of these companies is "new product/service characteristics". It thereby compliments their "first" choice, in that it is aimed at satisfying end user needs and expectations.

For companies giving priority to "new product/service characteristics", a considerable proportion of managers stated as second priority the "introduction of new process technologies".

Alternatively, other companies selected "logistics, delivery method" as their "second" preference which again directly links back to their "first" choice, i.e. strengthening of relationship with suppliers/users. In other words, innovation can be perceived as an overall strategy and not only as a specific independent improvement.



* Breakdown by country:

New approaches to the management of innovation will mainly focus on: - *Firstly* -

Flash EB 129 – September 2002 – Fig.11B

Managers of companies in **Sweden** (32%) as well as in **Germany** and **Finland** (30%), identify the strengthening of the relationship of their company with suppliers/users as a first priority for the next two years. In contrast, this is considerably less important in **Greece** (11%), **Spain** and **Portugal**.

In **Austria**, 31% of managers interviewed select "new product/service characteristics" as a top priority, while 12% of executives in the **Netherlands** would invest their new approaches to the management of innovation here.

The "introduction of new process technologies" is of greatest importance for managers in another group of countries: **Greece, Italy, Portugal, Ireland** and **Spain**.

Just over one in five top-level executives in **Denmark** confirm their commitment over the next two years to "logistics, delivery method". At the other end of the scale, only 5% of managers in the **United Kingdom** class this as their first choice.

"Data and information processing" can be singled out as a first priority for new approaches to management of innovation for 32% of managers in the **Netherlands**. In **Italy** only 5% of managers confirmed their commitment over the next two years to this business activity.

Breakdown by company category:

The breakdown by company category reveals some interesting differences:

Regarding the priority given to the strengthening of the "relationship with suppliers/users" in its new approaches to the management, particular emphasis is given to this by companies:

- in the construction sector,
- non-exporting

Companies that intend focusing their new approaches to the management of innovation on "new product/service characteristics" are most often:

- in services, industry, trade
- in existence for less than 10 years or
- exporting

Companies that intend focusing their new approaches to the management of innovation on the "introduction of new process technologies" are more frequently:

- in industry,
- majors (250+) or large SMEs,
- exporting companies or
- established for more than 30 years

4.2 If you want to introduce new methods or new approaches to management for your company, would you seek advice preferably from...?

(Horizontal percentages)	Private external consultants	Suppliers or customers	Research institutions	Public/ semi- public advisory centres	BASE
UE 15	51	31	9	9	2741
DANMARK	68	18	3	11	177
DEUTSCHLAND	55	30	6	8	271
ITALIA	55	28	10	7	291
ELLAS	53	29	10	9 2	95 186
SWEDEN ÖSTERREICH	52 51	34 27	12 7	2 14	171
ESPANA	50	31	12	7	279
IRELAND	49	34	9	9	94
FRANCE	48	32	10	10	291
LUXEMBOURG	47	37	5	11	84
BELGIQUE	46	37	11	6	192
FINLAND	46	18	14	22	91
NEDERLAND	44	26	18	11	173
UNITED KINGDOM	44	36	8	12	257
PORTUGAL	34	40	16	10	89
SECTORS					
Construction	45	28	11	16	340
Industry	48	34	10	8	907
Trade	54	31	8	8	692
Services	53	29	9	9	802
BUSINESS SIZES					
MAJORS 250+	57	26	12	4	386
SME 20-49	50	32	9	9	1745
SME - 50-249	50	30	9	10	610
ACTIVE SINCE					
More than 30 years.	52	30	9	8	1399
11-30 years	47	33	9	11	864
0-10 years	53	30	9	8	469
EXPORTS %					
Nothing	47	33	9	11	1254
Less than 50	55	29	10	6	968
50 and more	55	28	9	8	379

[ONE ANSWER ONLY]

4.2. Where to seek advice for new management approaches?

Overall picture:

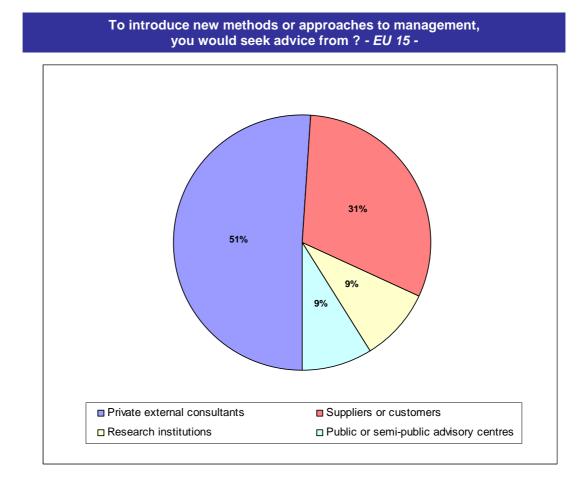
*

Managers expressed very clear preferences with respect to the partners from which they would seek advice for the introduction of new organisational and managerial approaches.

In the European Union as a whole, 51% of managers interviewed would preferably seek advice from private external consultants.

31% of managers would seek advice from their suppliers or customers. This might also be a useful initial step for companies in enhancing their relationship with suppliers/users (subsection 4.1).

In the opinion of managers interviewed, "research institutions" as well as "public or semipublic advisory centres" are definitively less attractive for advice when introducing new approaches to management.



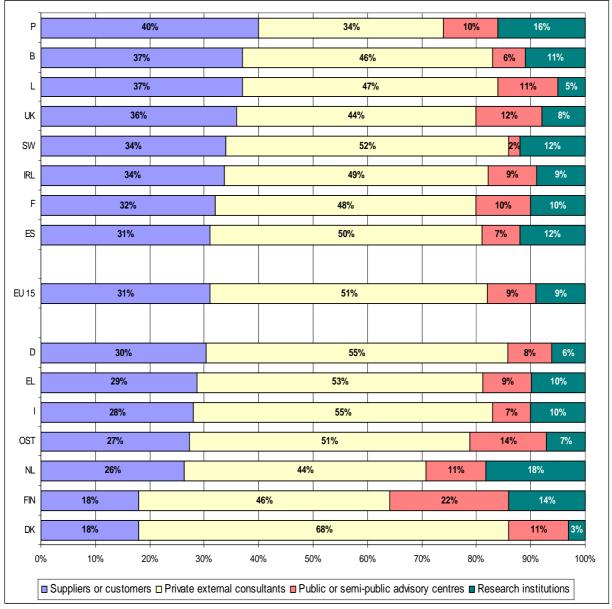
Flash EB 129 - September 2002 - Fig.12A

Breakdown by country:

Private external consultants rank first as a source of advice when introducing new methods of management in all countries except **Portugal**. This is most evident in **Denmark** (68%), **Italy** and **Germany** (55%). However, at the other end of the scale, in **Portugal**, there are still one in three managers who would look to private external consultants for such advice.

Consequently, the importance of supplier or customer relationships for advice is greatest in **Portugal**. As in **Luxembourg**, **Belgium**, **Sweden**, **United Kingdom** and **Ireland**, over one in three executives interviewed would seek advice here when introducing new management approaches.

To introduce new methods or approaches to management, you would seek advice from ?



Flash EB 129 - September 2002 - Fig.12B

Semi-public advisory centres appear to be a worthy source for such advice in **Finland**, preferred by one in five managers. In contrast, they seem to be least influential in **Sweden** with a mere 2% of managers turning here for advice.

"Research institutions" seem to be particularly interesting when it comes to organisational and managerial advice for companies in the **Netherlands, Portugal, Finland, Sweden** and **Spain**, while only 3% of managers in **Denmark** would opt for this source.

Breakdown by company category:

*

The breakdown by company category shows little divergence from the general pattern.

"Private external consultants" are most often called upon for advice on new approaches to management by companies in trade or services, majors "250+" or exporting companies.

5.3 And in your company, do you co-operate with other firms to launch new products or services or to introduce new processes?

(Horizontal percentages)	MEAN INDEX 0<==>100	Yes, since a long time	Yes, only recently	No, but intend to co-operate	No	[dk/na]	BASE
UE 15	60	45	18	9	27	1	3014
FINLAND	80	73	7	5	14	1	103
LUXEMBOURG	70	49	20	10	15	5	92
DEUTSCHLAND	68	54	16	8	21	1	300
SWEDEN	68	57	13	6	24	1	200
PORTUGAL	65	46	24	6	23	2	100
DANMARK	63	51	14	8	27	0	202
IRELAND	61	47	18	4	29	2	100
ELLAS	60	37	20	26	15	1	101
ÖSTERREICH	60	49	10	10	29	2	200
ITALIA	57	36	23	19	22	0	301
FRANCE	56	37	22	12	28	1	305
NEDERLAND	55	44	13	5	37	2	200
UNITED KINGDOM	54	40	19	3	37	1	303
ESPANA	53	36	21	7	34	2	300
BELGIQUE	50	33	20	10	37	0	207
SECTORS							
Construction	51	34	19	13	34	0	376
Industry	60	44	19	11	26	1	994
Trade	62	48	17	8	26	1	767
Services	63	47	19	7	26	1	877
BUSINESS SIZES							
MAJORS 250+	69	53	18	8	19	2	420
SME 20-49	59	44	17	9	29	1	1928
SME - 50-249	63	44	24	8	23	1	666
ACTIVE SINCE							
More than 30 years	60	44	18	9	28	1	1539
11-30 years	55	39	17	9	32	2	945
0-10 years	68	51	19	9	20	1	518
EXPORTS %							
Nothing	57	41	18	8	31	1	1381
Less than 50	65	48	20	10	21	1	1048
50 and more	65	51	15	10	23	1	417

[ONE ANSWER ONLY]

5. SHARING KNOWLEDGE

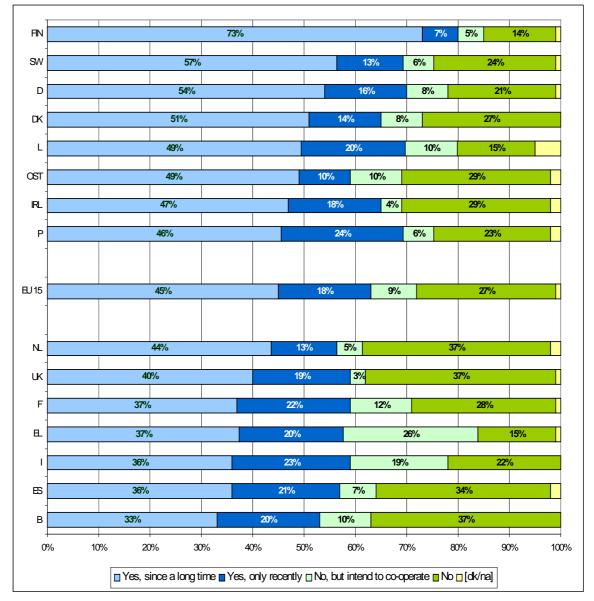
5.1. Co-operating with other firms: how strongly?

* Overall picture:

According to 63% of managers interviewed, their companies co-operate with other firms to launch new products or services or to introduce new processes, with 45% doing so "since a long time" and 18% "since recently".

36% of managers interviewed say that their companies do not currently co-operate with other firms for such purposes, but 9% intend to do so in the future. There are thus 27% of managers interviewed whose companies do not co-operate with other firms and seem to have no immediate intention of doing so in the future.





Flash EB 129 – September 2002 – Fig.13

Breakdown by country:

In analysing co-operation with other firms at the Member State level, we have used an "index" to capture the length of time (i.e. recently or since a long time) that firms have been co-operating with other firms to launch new products or services or to introduce new processes as well as the intentions of executives for future co-operation in this regard.

Irrespective of the approach, a group of countries emerges where managers show a stronger than average commitment to co-operation, and one with less. At the top end of the "index" ranking, the first group emerges and is composed of **Finland**, **Luxembourg**, **Sweden** and **Germany** while at the other end of the "index" scale we see **Belgium** and **Spain**.

Finland is by far the country where most companies co-operate "since a long time", being confirmed by almost three in four managers interviewed, followed by **Sweden**.

Portugal (24%), **Italy** (23%) and **France** (22%) are those countries where most companies have recently begun to co-operate with other firms in the launch of new products or services or to introduce new processes.

Belgium, the **Netherlands** and the **United Kingdom** are the countries where the highest number of companies (37% in each), do not co-operate with other firms to launch new products or services or to introduce new processes, and have no immediate intention to do so in the future.

Breakdown by company category:

In assessing the type of companies who have a long experience in co-operating with other firms in launching new products or services or introducing new processes, we see that they are most often:

- in the trade or services sector,
- "majors" (250+),
- "younger" (0-10 years) or
- exporting companies

Companies that do not co-operate with other firms to launch new products or services or to introduce new processes, are found in particular amongst:

- enterprises in construction,
- small SMEs "20-49" or
- non-exporting companies

5.1 When co-operating with other firms in relation to innovation, your company is mainly :

the one to request such co-operation with other firms or other firms request such co-operation with your company ?

(Horizontal percentages)	The one to request such co-operation	[it depends, both]	The one other firms request	[dk/na]	BASE
UE 15	48	27	24	1	1836
ITALIA	72	14	13	0	173
NEDERLAND	61	21	12	5	117
DEUTSCHLAND	53	26	20	1	211
BELGIQUE	46	17	34	3	107
UNITED KINGDOM	46	25	29	0	163
FRANCE	45	20	35	1	177
IRELAND	43	33	24	0	68
FINLAND	33	43	24	0	80
DANMARK	30	62	4	4	135
ELLAS	30	51	19	0	58
SWEDEN	30	33	32	4	137
PORTUGAL	28	48	20	4	70
ESPANA	26	39	32	3	166
LUXEMBOURG	22	23	50	4	57
ÖSTERREICH	15	59	26	0	117
SECTORS					
Construction	47	27	26	1	185
Industry	50	27	22	1	614
Trade	52	28	18	2	486
Services	44	28	28	1	551
BUSINESS SIZES					
MAJORS 250+	54	23	20	3	291
SME 20-49	46	28	25	1	1111
SME - 50-249	52	26	21	1	434
ACTIVE SINCE					
More than 30 years	48	29	22	1	959
11-30 years	44	25	30	1	530
0-10 years	52	27	21	1	338
EXPORTS %					
Nothing	47	27	25	1	778
More than 50	47	29	24	1	695
50 and more	60	23	16	1	274

To those who co-operate with other firms (q 5.3)

5.2. Co-operating with other firms: who takes the initiative?

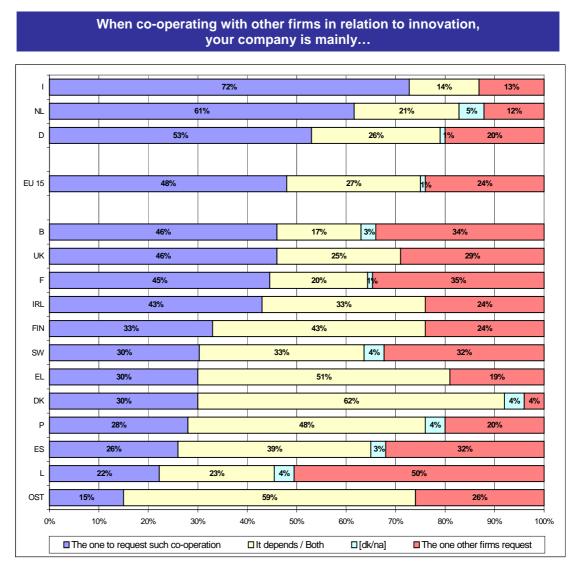
Overall picture:

*

Of those who co-operate with other firms, 48% claim that they are the initiators i.e. "the ones to request such co-operation with other firms". On the other hand, 24% state that other firms request such co-operation with their company.

* Breakdown by country:

Managers were asked if their company is mainly the one to request such co-operation or rather at the receiving end of such requests. It seems that both may frequently arise, as a high percentage of companies replied: "it depends". There is a clear majority of firms who declare to be the one "to request" such co-operation, being particularly the case in **Italy**, the **Netherlands** and **Germany**.



Flash EB 129 – September 2002 – Fig.14

Breakdown by company category:

There are no particularly striking points regarding the category of companies tending to be more frequently the initiators of co-operation agreements or those at the receiving end of such requests.

5.2 In your opinion, co-operation with other firms to launch new products or services or to introduce new processes will become for you in the next years...?

(Horizontal percentages)	MEAN INDEX 0<==>100	++/+ USEFUL	/-NOT USEFUL	Very useful	Rather useful	Rather not useful	Not useful at all	[dk/na]	BASE
UE 15	72	81	17	39	42	10	8	2	3014
ELLAS	83	97	3	54	44	1	2	0	101
DEUTSCHLAND	75	84	16	47	37	10	6	0	300
ITALIA	75	84	16	45	38	11	5	0	301
LUXEMBOURG	73	84	13	37	47	8	5	3	92
PORTUGAL	73	90	9	33	58	2	6	1	100
FRANCE	73	83	14	37	46	8	6	2	305
NEDERLAND	71	77	17	34	42	10	6	7	200
FINLAND	71	82	16	29	52	15	2	2	103
ÖSTERREICH	70	73	19	39	34	9	10	7	200
DANMARK	69	70	26	46	24	14	13	3	202
ESPANA	68	76	19	31	45	12	7	5	300
BELGIQUE	67	76	21	31	45	13	8	3	207
SWEDEN	67	73	22	31	42	12	10	5	200
UNITED KINGDOM	63	74	23	29	46	7	16	3	303
IRELAND	62	70	26	27	43	10	16	4	100
SECTORS									
Construction	73	86	12	35	51	7	4	3	376
Industry	71	80	19	39	41	12	7	1	994
Trade	71	82	17	40	42	7	9	2	767
Services	72	79	18	41	38	10	8	3	877
BUSINESS SIZES									
MAJORS 250+	75	84	14	44	40	8	7	2	420
SME 20-49	71	79	18	39	41	10	8	3	1928
SME - 50-249	73	84	15	40	44	9	6	1	666
ACTIVE SINCE									
More than 30 years	71	80	18	38	42	10	8	2	1539
11-30 years	70	79	19	36	43	10	9	2	945
0-10 years	75	84	15	45	39	8	6	2	518
EXPORTS %									
Nothing	70	80	18	37	43	9	8	2	1381
Less than 50	74	83	16	43	40	10	6	1	1048
50 and more	71	76	21	39	37	14	6	3	417

[ONE ANSWER ONLY]

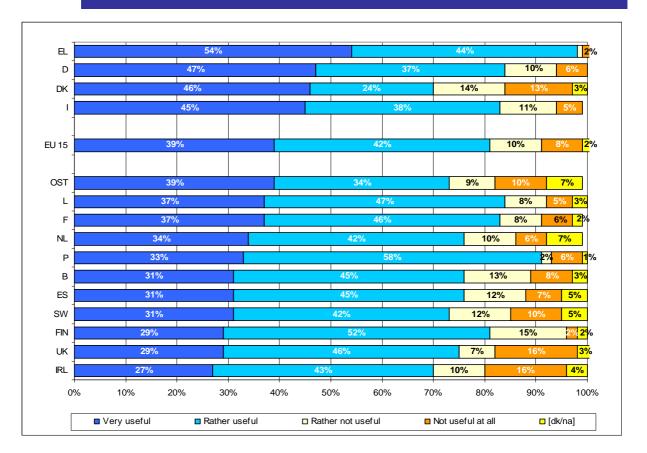
5.3. Usefulness of future co-operation with other firms

Overall picture:

More than four in five managers in companies in the European Union confirm that cooperation with other firms to launch new products or services or to introduce new processes will be "useful" in the coming years. Of those who are convinced of the usefulness of future co-operation, 39% believe it will be "very useful" while 42% believe this will be "rather useful". 18% of managers interviewed are of the opposite opinion, and believe that cooperation is "not useful".

* Breakdown by country:

Looking at the general positive attitude towards future co-operation in innovation, there is very little difference between the various countries. In two countries, managers strongly pronounce their belief in the usefulness of future co-operation: **Greece** and **Portugal**. Almost all managers interviewed in **Greece** (98%) subscribe to the usefulness of future co-operation for the purpose of launching new products or services or introducing new processes. The results are high in all countries, the lowest (although still considerably high) being in **Denmark** and **Ireland** at 70%.





Breakdown by company category:

Attitudes with respect to the usefulness of co-operating in the coming years are quite similar for all groups of enterprises, but one can say that "younger" companies (less than 10 years), in construction, or with exports equivalent to less than 50% of turnover are more likely to view such co-operation as "useful".

Flash EB 129 – September 2002 – Fig.15

6.2 How does your company participate in the public debate on innovation? It does it mainly through ...?

(Horizontal percentages)	Dialogue at level of your Cy	Your own media activities	Joint discuss. with indu.	Initiatives educ. system	Joint info. with res. inst.	[Do not participat]	[Other]	[dk/na]	BASE
UE 15	48	33	30	13	12	15	1	3	3014
DEUTSCHLAND	71	36	31	24	16	10	1	1	300
ELLAS	58	34	17	8	11	12	1	3	101
BELGIQUE	56	50	32	11	17	15	0	2	207
FINLAND	52	42	30	33	10	12	0	1	103
UNITED KINGDOM	50	42	34	13	18	9	1	10	303
LUXEMBOURG	46	37	20	6	10	10	1	4	92
SWEDEN	39	34	29	15	14	15	0	7	200
FRANCE	37	33	19	9	10	21	3	0	305
ÖSTERREICH	34	24	16	7	6	40	0	2	200
NEDERLAND	31	25	21	7	8	20	1	3	200
IRELAND	29	23	32	6	1	9	3	7	100
ITALIA	29	29	41	4	7	10	0	0	301
ESPANA	28	27	28	4	9	19	0	7	300
PORTUGAL	24	17	27	2	8	30	0	4	100
DANMARK	15	19	37	7	3	40	0	4	202
SECTORS									
Construction	53	23	34	12	9	17	0	1	376
Industry	41	29	37	8	13	15	1	3	994
Trade	45	38	24	14	8	18	1	4	767
Services	53	37	26	17	16	11	1	4	877
BUSINESS SIZES									
MAJORS 250+	45	43	44	22	22	10	1	4	420
SME 20-49	48	31	28	14	11	15	1	4	1928
SME - 50-249	46	38	34	9	14	13	1	2	666
	40	00	0-1	5	17	17	•	2	000
ACTIVE SINCE									
More than 30 years	40	33	34	12	11	17	1	3	1539
11-30 years	45	35	26	12	11	15	1	3	945
0-10 years	61	33	27	17	17	11	1	4	518
EXPORTS %									
Nothing	50	31	27	15	10	16	1	3	1381
Less than 50	47	37	32	12	13	13	1	2	1048
50 and more	38	32	38	8	19	16	0	3	417

[READ OUT - ROTATE- MULTIPLE ANSWERS POSSIBLE]

6. ENTERPRISES AND THE PUBLIC DEBATE ON INNOVATION

6.1. Participation of companies in the public debate on innovation

Overall picture:

Successful innovation needs the acceptance of staff and society, and therefore one of the aims of the 2002 survey was to investigate the opinion of managers in this respect. A range of measures for participation in this dialogue was presented and multiple answers were possible.

Over four in five managers in the European Union confirm that they participate in the public debate on innovation. For almost half of the companies, discussions on innovation take place internally. One in three companies participate in the public debate on innovation through "own media activities addressing customers or shareholders". For 30% of companies industry associations are the medium through which they participate in joint discussions on norms and standards. Own activities or joint activities at the level of the industry represent therefore, in summary, the main tools for enterprises to participate in the public dialogue on innovation.

A rather limited percentage of enterprises take part in "initiatives addressing the education system" (13%) and "joint information activities with research institutions" (12%) (see figure 16 subsection 6.2, page 89).

Breakdown by country:

Managers could identify one or more approaches to dialogue, and as a general rule, "dialogue active" enterprises seem to simultaneously use more than several approaches than less active enterprises. Therefore, often, the same group of countries rank above average for several forms of dialogue.

A rather "dialogue active" group of countries includes **Germany**, **Italy**, **Luxembourg**, **Greece**, **Belgium**, **Finland**, **Ireland** and the **United Kingdom**. **Germany** is the country where most companies engage in dialogue on innovation at the company level, being confirmed by 71% of managers. Here, too, initiatives addressing the education system and joint activities with the research institutions seem to be above average.

Another group of countries shows low participation rates for specific forms of dialogue being the case of companies in **Denmark, Portugal** and **Spain**. In **Denmark, Austria** and **Portugal** high percentages of managers declare that they "do not participate at all" in the public debate on innovation.

* Breakdown by company category:

Companies that simultaneously use several forms of dialogue are often "majors" (+250), with above average participation for all types of external dialogue.

The public debate on innovation through internal dialogue is more likely to be "younger" companies (0-10 years) or in the construction or services sector. Companies that focus on their own media activities addressing customers or shareholders are most often, quite logically, operating in the trade or services sector, "majors" (250+), or with exports accounting for 1-50% of their turnover. "Joint discussions with industry on norms and standards" are generally more occurent in the industrial or construction sectors, "majors" (250+), companies established for more than 30 years, or indeed with exports accounting for 51-100% of their turnover.

Finally, initiatives addressing the education system or joint activities with research institutions are clearly the domain of major companies, in the services sector, or in particular, companies established for less than 10 years.

6.2 For which of the following communication activities concerning innovation do you intend to strengthen your efforts during the next two years through ...?

(Horizontal percentages)	Dialogue at level of your Cy	Your own media activities	Joint discussion with indu.	Initiatives education system	Joint info. with res. inst.	[Don't intend to strengthen]	[Other]	[dk/na]	BASE
UE 15	51	43	28	20	16	8	0	4	3014
BELGIQUE	73	53	36	19	26	9	0	1	207
DEUTSCHLAND	70	51	30	39	21	8	0	1	300
SWEDEN	57	38	21	24	10	4	0	8	200
ELLAS	56	35	25	15	20	4	0	7	101
UNITED KINGDOM	55	53	36	15	22	5	1	7	303
LUXEMBOURG	53	47	16	10	5	3	2	7	92
FRANCE	48	42	20	10	8	5	1	4	305
PORTUGAL	39	25	23	6	10	4	0	10	100
ESPANA	36	31	24	9	12	7	0	9	300
NEDERLAND	33	31	17	13	12	13	2	3	200
IRELAND	32	20	34	4	7	7	0	7	100
ÖSTERREICH	29	28	12	6	7	40	0	5	200
DANMARK	26	28	31	6	3	19	1	10	202
ITALIA	25	40	33	9	14	4	0	0	301
FINLAND	20	26	5	9	4	48	1	4	103
SECTORS									
Construction	48	33	36	27	16	9	0	1	376
Industry	44	39	32	15	17	8	0	4	994
Trade	50	46	22	19	11	10	0	4	767
Services	58	50	24	23	18	6	1	5	877
BUSINESS SIZES									
MAJORS 250+	49	43	36	26	22	5	0	4	420
SME 20-49	51	43	25	20	15	8	0	4	1928
SME - 50-249	50	46	33	18	15	7	1	3	666
ACTIVE SINCE									
More than 30 years	46	39	31	18	13	10	1	4	1539
11-30 years	51	45	24	18	13	6	0	4	945
0-10 years	59	49	28	26	23	6	1	4	518
EXPORTS %									
Nothing	52	41	27	22	14	9	0	4	1381
Less than 50	50	48	29	19	17	7	0	3	1048
50 and more	46	42	27	12	18	8	1	4	417

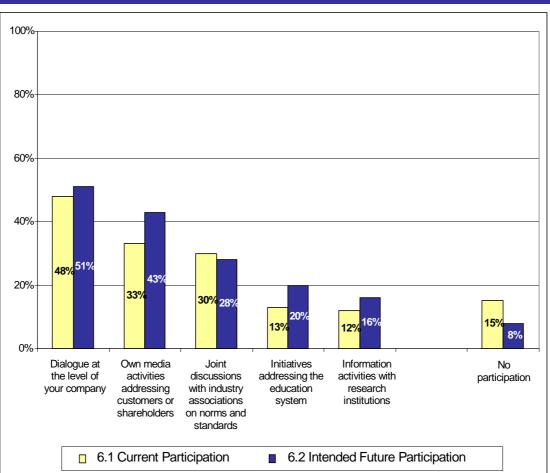
[MULTIPLE ANSWERS POSSIBLE]

6.2. Future focus of communication activities concerning the public dialogue on innovation

Overall picture:

Managers were then asked on which communication activities concerning innovation they intend to strengthen their efforts. For the European Union, we can expect communication activities on innovation to generally increase over the next two years. 88% of managers confirm their commitment to investment in communication activities (an increase of 6 points compared to their current involvement).

The graph below compares the company's current participation in the public debate on innovation with its intended involvement over the next two years.



Current and Intended Future Participation in Public Debate on Innovation

Flash EB 129 - September 2002 - Fig.16

The ranking order of the various communication activities planned over the next two years follows the current priorities. However, the gap between internal communication activities and external activities will diminish, according to the results of this 2002 survey.

Communication activities most likely to increase over the next two years are "media activities addressing customers or shareholders" (expected increase of 10 points) and "initiatives addressing the education system" (expected increase of 7 points).

Breakdown by country:

The purpose of the question was to learn more about the attitude of managers towards communication, and to see where they intend to set priorities. Therefore, the tendencies seem to be more interesting than the absolute figures.

In a number of countries, managers don't plan to develop additional efforts in communication activities concerning innovation. 48% of managers in **Finland** show no intention to strengthen their efforts, which might be explained by the high level of commitment already existing. On the other hand, in **Austria** (40%) managers show continued reluctance; the result remains stable compared to current participation in the public debate on innovation. In **Denmark** it seems as if public debate on innovation will be considerably more widespread.

Frequently, countries with a relatively strong commitment for certain types of activities intend to reinforce this, such as in **Belgium** or **Germany**, where the dialogue on innovation at the company level would be reinforced by 73% and 70% respectively.

Similarly, over half of the executives interviewed in **Belgium**, the **United Kingdom** and **Germany** confirm that their companies intend strengthening their efforts in their own media activities addressing customers or shareholders. Again, countries with low current interest in this form of dialogue rank low for their intention to increase commitment: in **Ireland** a low share of companies (one in five) intend strengthening their efforts here.

In the **United Kingdom** and **Belgium**, 36% of managers interviewed stated that their company intends strengthening their efforts in "joint discussions with industry associations on norms and standards". In general, joining the debate with industry associations seems to be rather complex and managers have less optimistic views on future activities in this area compared to other means of participation.

"Initiatives addressing the education system" were considered to be an area for future involvement in the public debate on innovation by managers in **Germany** and **Sweden**.

* Breakdown by company category:

Overall, companies in the services sector and/or those established for less than ten years indicate slightly more often than other companies their intention to strengthen their participation in dialogue on innovation. Companies in the services sector would strengthen in particular internal dialogue and own media activities.

Companies who intend increasing their efforts in "media activities addressing customers or shareholders" are more often in services and/or established for less than 10 years.

"Majors" or companies established for less than 10 years are more likely than other categories to increase their communication activities addressing research institutions or the education system.

"Majors" (250+), companies in construction or industry and/or those established for more than 30 years, as might be expected, put more emphasis on "joint discussions with industry associations on norms and standards".

7.1 Compared to the current situation, would you expect that the market for introducing innovative products in the coming years...

(Horizontal percentages)	MEAN INDEX 0<==>100	Will become more receptive	Will remain unchanged	Will become less receptive	[dk/na]	BASE
UE 15	73	56	30	10	4	3014
ELLAS DANMARK ESPANA IRELAND ITALIA ÖSTERREICH FINLAND LUXEMBOURG FRANCE UNITED KINGDOM NEDERLAND SWEDEN	88 81 81 78 78 76 76 74 74 74 74 72	80 59 62 67 65 61 60 62 55 52 59 48	15 27 26 27 26 28 29 25 32 36 25 41	5 3 4 6 9 7 9 11 9 6 13 6	1 10 7 0 1 3 3 1 4 6 4 5	101 202 300 100 301 200 103 92 305 303 200 200
PORTUGAL DEUTSCHLAND BELGIQUE SECTORS Construction Industry Trade	70 68 67 71 75 77	54 51 41 51 57 61	26 31 45 33 32 26	16 16 9 11 8 10	4 2 5 3 4	100 300 207 376 994 767
Services BUSINESS SIZES MAJORS 250+ SME 20-49 SME - 50-249	71 81 72 75	53 68 54 59	31 23 32 28	12 7 11 11	4 3 4 2	877 420 1928 666
ACTIVE SINCE More than 30 years 11-30 years 0-10 years EXPORTS % Nothing Less than 50	75 75 70 72 73	57 57 54 54 54 56	31 30 29 31 31	9 9 14 11	3 4 3 5 2	1539 945 518 1381 1048

[ONE ANSWER ONLY]

7. INNOVATION AND THE MARKET IN THE FUTURE

7.1. The market as a driving force for innovation

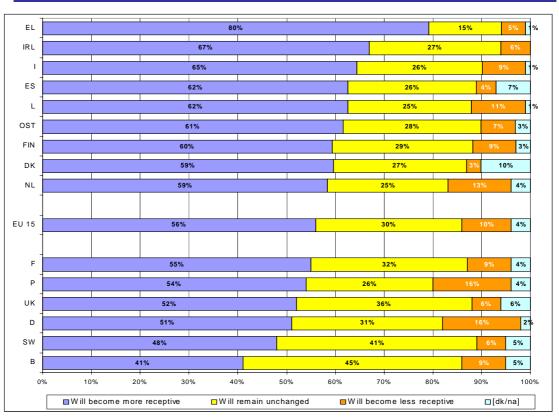
* Overall picture:

This question should give an indication of whether or not managers in Member States feel that the market will compensate efforts in innovation, at the level of the enterprise. At the same time, executives were asked to give their opinion on the future market trends that will provide the strongest incentive to innovate (see table 7.2 next page).

More than half of the managers interviewed expect that the market for introducing innovative products in the coming years will become more receptive. 30% of managers interviewed believe the market will remain unchanged. Only one in ten managers are of the opinion that the market will become less receptive.

Breakdown by country:

The most positive views on the future *openness of the market* to innovative products are expressed in **Greece**. Managers in **Belgium** are least convinced of this (41%), and rather believe that the market will remain unchanged (45%). Fears that the market may become "less receptive" in the coming years are similar to the average of 10%, but with relatively strong doubts expressed by **German** and **Portuguese** managers (16%).





Flash EB 129 – September 2002 – Fig.17A

Breakdown by company category:

The views of company managers on the future openness of markets to innovative products are similar for most enterprise categories, with companies in "trade" or "majors" (250+) most convinced that the market would become more receptive.

7.2 Which of the following trends on the markets will, in your opinion, provide the strongest incentive to innovate in the coming years...?

(Horizontal percentages Base = responses	Higher quality requirements	Increasing price competition	Security and reliability	Greater user- friendliness	Resp. consumers' leisure needs	Resp. demogr./ cultural change	BASE (responses)
UE 15	25	21	20	14	12	8	7064
PORTUGAL	39	18	25	3	13	3	143
ITALIA	32	21	25	10	5	6	493
LUXEMBOURG	31	22	21	13	10	3	188
ELLAS	30	20	23	17	5	5	225
ESPANA	30	18	20	11	13	8	554
FRANCE	28	20	23	11	12	6	669
NEDERLAND	28	23	20	12	11	7	385
FINLAND	28	20	18	14	12	8	237
DANMARK	27	24	21	16	7	6	380
SWEDEN	25	20	18	20	10	6	403
ÖSTERREICH	23	23	17	18	12	7	486
BELGIQUE	22	18	22	16	12	9	754
DEUTSCHLAND	22	22	20	15	12	9	1078
UNITED KINGDOM	22	20	17	15	16	10	921
IRELAND	20	25	19	6	18	12	148
SECTORS							
Construction	26	23	22	14	9	6	825
Industry	26	23	22	13	9	6	2199
Trade	23	18	20	15	15	9	1883
Services	25	20	19	14	13	10	2157
BUSINESS SIZES							
MAJORS 250+	22	21	21	16	10	10	1020
SME 20-49	25	21	20	14	12	8	4559
SME - 50-249	25	20	21	14	11	9	1485
ACTIVE SINCE							
More than 30 years	24	21	21	14	12	8	3631
11-30 years	26	21	21	13	11	8	2128
0-10 years	24	21	19	15	12	8	1281
EXPORTS %							
Nothing	24	20	20	14	13	9	3345
Less than 50	25	22	20	14	10	8	2439
0	25			17	.0	0	2400

[MULTIPLE ANSWERS POSSIBLE] – BASE : responses

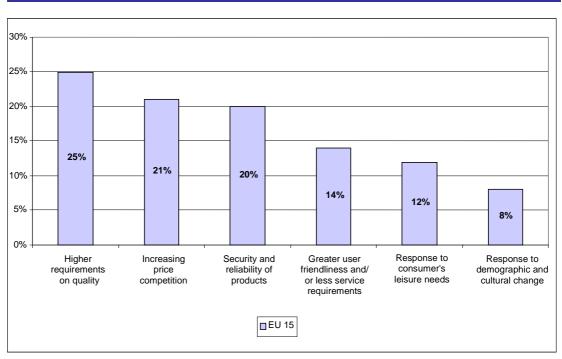
7.2. Main market trends expected to drive innovation

Overall picture:

*

Three market trends are expected to provide the strongest incentive for innovation: "higher requirements on quality", being confirmed by 25% of managers interviewed, "increasing price competition" by 21% and "security and reliability of products" cited by 20% of managers.

Managers were less convinced of "greater user-friendliness requirements and/or less service requirements", "response to consumers' leisure needs" and "response to demographic and cultural change" as providing an incentive to innovate.



Trends on the markets that will provide the strongest incentive to innovate

Flash EB 129 – September 2002 – Fig.17B

Breakdown by country:

With respect to the driving trends, managers most convinced of the strong influence of "higher quality requirements" are in **Portugal**, **Italy**, **Luxembourg**, **Greece** and **Spain**. This is less the case in **Ireland**, **Belgium**, **Germany** and the **United Kingdom**.

Managers are convinced in all Member States that "increasing price competition" would be a key influence for innovation. There is relatively little variation in this perception across countries.

The impact of "security and reliability" again seems rather similar across the European Union, and divergences largely follow the pattern of "higher quality requirements"; indeed, it can be understood as just one particular aspect of quality requirements.

Breakdown by company category:

There is very little difference in the general pattern of driving forces seen by different company categories. A slightly higher proportion of companies in construction and industry foresee "increasing price competition" as providing the strongest incentive for innovation in the coming years.

8. In the coming years, where would you expect for your company, the most positive impact of the European single market when it comes to innovation ...?

(Horizontal percentages)	Better access to new markets	Improved regulations	Cheaper or better available supplies	Better access to new technologies	Better cooperation to innovate	[others]	[dk/na]	BASE
UE 15	26	23	16	12	12	2	9	3014
DEUTSCHLAND	32	26	12	10	9	2	9	300
IRELAND	32	8	25	13	10	0	12	100
ITALIA	30	25	10	16	17	2	1	301
ESPANA	27	13	22	18	12	0	7	300
PORTUGAL	27	18	13	18	17	0	8	100
BELGIQUE	25	25	17	9	15	0	8	207
FRANCE	25	32	16	8	15	2	2	305
LUXEMBOURG	25	23	11	15	16	2	9	92
ÖSTERREICH	25	28	14	6	12	4	10	200
NEDERLAND	21	27	13	10	13	1	15	200
SWEDEN	19	19	13	13	16	0	21	200
UNITED KINGDOM	18	16	23	11	11	2	20	303
ELLAS	16	18	14	40	11	0	1	101
DANMARK FINLAND	14 14	34 30	23 28	8 13	3 7	4 3	14 4	202 103
SECTORS			20		•	0	•	
Construction	17	27	23	18	8	1	6	376
Industry	31	23	13	12	11	2	7	994
Trade	26	23	20	6	13	2	9	767
Services	26	22	12	13	13	2	12	877
BUSINESS SIZES								
MAJORS 250+	26	25	7	15	15	2	10	420
SME 20-49	25	25	16	12	11	2	8	1928
SME - 50-249	31	18	15	12	14	2	11	666
	51	10	15	10	14	2		000
ACTIVE SINCE								
More than 30 years	24	24	15	11	12	2	11	1539
11-30 years	28	22	17	12	12	2	8	945
0-10 years	29	23	15	13	12	1	8	518
EXPORTS %								
Nothing	19	24	19	14	11	2	11	1381
Less than 50	35	23	12	11	13	2	5	1048
50 and more	36	19	11	10	15	1	8	417

(please name most important)

8. IMPACT OF THE EUROPEAN SINGLE MARKET ON INNOVATION

Overall picture:

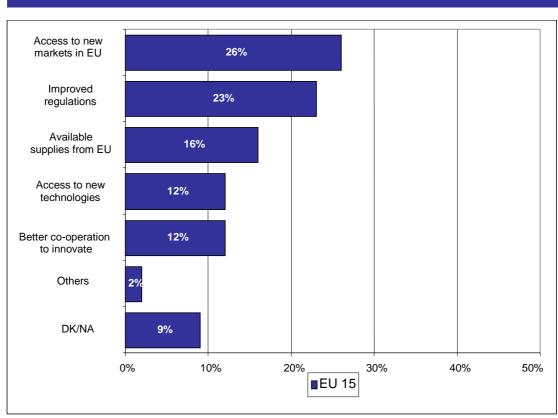
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Executives were asked to identify the most positive impact of the European Single Market on innovation in the coming years. Two arguments relate to the size of the market, either for supply or sales, one refers to the regulatory framework and finally two focus on the facilities to innovate, either through access to technologies or co-operation in the interests of innovation.

The impact that was cited by most managers was "better access to new markets in the European Union (for sale of products and services)". The Single Market has created a marketplace of 380 million people and over one in four managers believe that this will help their company to innovate over the coming years.

The free movement of goods and services brings "cheaper or better available supplies from other regions in Europe" and 16% of managers indicated that this is what will benefit their company most when it comes to innovation.

The 2002 survey also highlighted the confidence of managers in the legislation relating to safeguarding fair competition. 23% of managers confirmed that "improved regulations, providing equal opportunities for competitors at home and abroad" would be, for their company's innovative efforts, the most positive impact of the Single Market over the coming years.



Most positive impact of the European Single Market when it comes to innovation

Flash EB 129 - September 2002 - Fig.18A

Managers thereby view the European Single Market, through its size and common rules, as an important driving force for innovation. The impacts of the Single Market that were least often cited are "better access to new technologies, equipment or research results" and "better co-operation with other European companies" (12% of managers for each). We saw in subsection 5.1 that 27% of companies do not co-operate with other firms to launch new products or services or to introduce new processes, yet in subsection 5.3 we saw that more than four in five managers believe in the usefulness of such co-operation over the coming years. There is an opportunity here for encouraging co-operation with other firms in the interests of innovation.

Breakdown by country:

"Better access to new markets in the European Union (for sale of products and services)" is expected to be of most benefit to innovation for 32% of companies in **Ireland** and **Germany**. Only 14% of managers in **Finland** and **Denmark** identified this as the most positive impact for their company in the coming years.

"Cheaper or better available supplies from other regions in Europe" are expected to be the most important impact of the Single Market for the innovative efforts of 25% of companies in **Ireland** and 28% in **Finland**.

Close to one third of companies in **Denmark** and in **France** perceive "improved regulations, providing equal opportunities for competitors at home and abroad" as being the most positive impact of the European Single Market for their future innovative efforts. Only 8% of companies in **Ireland** believe that this will be the ultimate impact for their company's innovation.

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Breakdown by company category:

"Better access to new markets in the European Union (for sale of products and services)", tends to be perceived as being the most important positive impact of the Single Market on future innovations for companies in:

- the industrial sector,
- large SMEs (50-249) and, not surprisingly
- exporting companies

"Better access to new technologies, equipment or research results", is viewed as being the most important positive impact for forthcoming innovations for companies in:

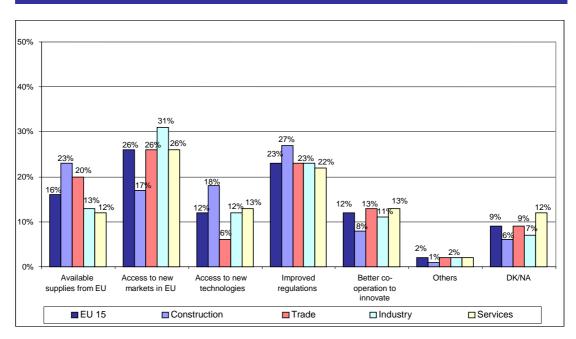
- construction,
- "majors" (250+) or
- non-exporting

"Cheaper of better available supplies from other regions in Europe", is expected to be the most important impact of the Single Market for the innovative efforts of companies with the following profile:

- construction,
- SMEs or
- non-exporting

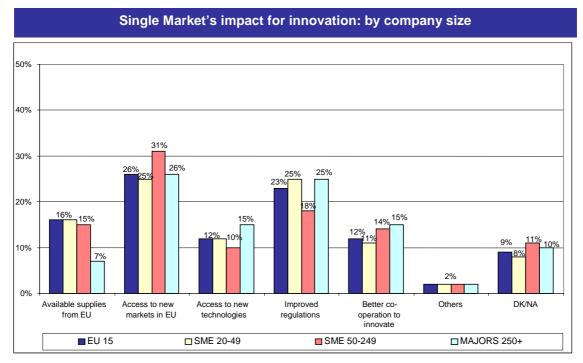
"Better co-operation with other European companies to innovate", is foreseen as being the most significant impact of the Single Market for the innovative efforts of companies in:

- trade or services,
- exports that account for at least 50% of their turnover

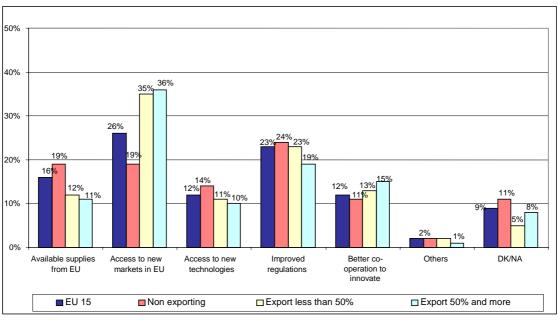




Flash EB 129 - September 2002 - Fig.18B



Flash EB 129 - September 2002 - Fig.18C



Single Market's impact for innovation: by exporting criteria

Flash EB 129 - September 2002 - Fig.18D

ANNEX

METHODOLOGICAL NOTE:

The methodology underlying this survey is that of the FLASH surveys conducted by the Directorate General Press and Communication (UnitB/1 "Opinion polls"), whose team was involved in drawing up the questionnaire and managed the survey.

For this FLASH survey, 3 014 company managers were interviewed by telephone between 9 and 30 September 2002. The breakdown of this sample over the various Member States was agreed between the Commission and EOS GALLUP EUROPE, subject to two requirements:

- (1) that the results obtained be as representative as possible of all companies concerned, with the exception of those in agriculture and administration, (i.e. those employing at least 20 people) in the European Union;
- (2) that the results obtained enable a true picture to be formed of the situation in each of the 15 Member States of the European Union, even for the smallest among them.

For budgetary reasons, a maximum total size was set for the sample, the goal of achieving best possible representativeness would mean having to distribute the interviews over the various Member States according to the number of suitable companies active in each country, which in turn would reduce the participation of some countries to a purely symbolic level. By contrast, the goal of achieving best possible comparability between countries would mean having to distribute the interviews uniformly, which would seriously reduce the accuracy of European-level results after reweighting.

The solution adopted thus necessarily represents a compromise between these two requirements. It was decided that 100 managers would be interviewed in the countries with the fewest suitable enterprises (Greece, Ireland, Luxembourg, Portugal and Finland), 300 in those with the most (Germany, Spain, France, Italy and the United Kingdom) and 200 in the other Member States of the European Union (Belgium, Denmark, the Netherlands, Austria and Sweden).

Dun & Bradstreet prepared the lists of suitable companies to be interviewed, drawing a sample from their European databases. Sampling was carried out according to three criteria: *country*, *size of company* and *activity sector*. Within each cell defined by these criteria, companies were selected at random.

The total sample has been distributed between these sampling "cells" in a way which does not follow the actual distribution of businesses within the European Internal Market: the small countries as well as the larger businesses have been intentionally "over-sampled" in order to get significant results for each level of analysis i.e. the 15 Member States, the 3 employment sizes of the businesses and the 4 activity sectors.

Of course during the data processing, each cell in the cross distribution of the sample has been reweighted down or up to its real weight within the European Internal Market. Thus, the total results presented are no longer affected by over and under sampling, and they are representative of the total universe of companies with "20+ employees" within the European Internal Market. The reader should bear in mind that the accuracy of each individual result depends on the size of the sample available. The accuracy of the overall result (for the European Union as a whole) is thus much better than that for each national or sector result etc. That is why we specify in the tables the "base" on which each result was obtained.

It is also necessary to explain how "non-responses" (don't know, no opinion etc.) are dealt with in our analysis. These non-responses may reflect hesitation, uncertainty or a lack of knowledge, the extent of which may be important for the purposes of the analysis. In this case, they provide useful information and they should be treated in the same way as actual responses. It is equally possible, however, that these non-responses are of no informative value, or that they are no more than a kind of "noise" stemming from a low rate of uncertainty and interfere with the "reception" of the information in which we are interested. In this case, they can be eliminated from the respondent base so as to achieve maximum accuracy with the content analysed. In this survey the "don't know/no response" option were not included in the report, thus slightly reducing the statistical bases for the calculation of percentages.

The complete results of this survey were processed in accordance with the usual rules applying to the Eurobarometer Flash Surveys - Specific Target Groups
