

trends and statistics

EUREKA the project portfolio



1999 was a steady year for EUREKA in terms of new projects launched. With much attention devoted to shaping the future of the Initiative, it is not surprising that it was not a record-breaking year for new projects launched. Nevertheless, the decisions taken during 1999 and the new life now being breathed into EUREKA should be reflected in an increase in new projects in the coming years.

As EUREKA grows older, more projects reach their end. Of course, in many cases the partners continue to work together on further research, sometimes even in new EUREKA projects. But the success of EUREKA projects can best be seen in the high proportion which bring new products to market as a result of the project. Some 84 projects ended in 1999, bringing EUREKA's finished project portfolio to a total of 782 by the end of the year.

At the end of 1999, EUREKA's ongoing projects totalled 687 (including clusters), up from 669 at the end of 1998. By sector, the largest number are in medical and biotechnology (19%), closely followed by environment (18.5%) and information technology (17.5%). In funding terms however, the information technology projects account for three-quarters of the total cost of EUREKA's ongoing projects, due to the four large strategic projects in this sector (MEDEA, EURIMUS, PIDEA and ITEA), reflecting the importance European industry attaches to the information technology sector. The next biggest sector in terms of funding is environment, followed by robotics and production automation.

New project generation

In recent years, the number of new projects launched has climbed back up to the levels seen before 1994. Even if 1999 did not see this upward trend continuing, it was a high value year in terms of total project value with the three new cluster projects announced.

The Istanbul Ministerial Conference saw 156 new projects (including clusters) announced under the Turkish Chair, although this includes those launched in the second half of 1998. Taking the calendar year 1999, a total of 131 projects were endorsed under the Turkish and German Chairs, with a combined value of € 280 million.

In terms of participants, the 1999 crop was dominated by industry, with companies making up three-quarters of the 430 participants. Of these two-thirds are small companies, or just less than half of all participants. Of course the increasing numbers of SMEs participating is naturally reflected in the scale of the projects, with projects involving SMEs tending to last less time and cost less.

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Growing influence of SMEs

The average cost of projects endorsed in 1999 was € 2.12 million, in fact the same as the average for those announced at the Lisbon Ministerial Conference in June 1998. This is lower than the average for ongoing projects (excluding the six cluster projects) for which the average cost is € 3.52 million, reflecting the increased participation of SMEs in recent years, and also the growing trend towards shorter-term projects.

In terms of planned duration of new projects, those launched in 1999 can be expected to bring results quite quickly. In fact, slightly less than half will run for less than two years, and half for between two and four years. Only two new projects are planned to run for more than four years. That is not to say, of course, that work will stop after this time, but that funding within the EUREKA structure will only be available for this period.

In comparison to previous years, there was no great change in the balance of technological areas for which new projects were launched. Medical and biotechnology, followed by information technology accounted for most (36.5% between them) followed by environment and energy (14.5% each). These proportions correspond very closely to the ongoing project portfolio as a whole. One observation is that a higher than average proportion of projects were launched in transport technology, while there was a lower proportion in environment technology.

In cost terms, of the new projects endorsed in 1999, information technology has the highest value at € 48.6 million, with transport next at € 42.3 million. Looking at average project costs per sector, of the 1999 projects, communications and energy technologies have the highest value projects, averaging € 3.6 million per project. Transport, then robotics and production automation come next at around € 2.6 million average per project. Among those sectors with the largest numbers of new projects, medical and biotechnology, and environment technology, the average cost is lower, at around € 1.5 million, reflecting a greater involvement of SMEs in these areas.

Members and organisations in ongoing projects

The 687 projects ongoing at the end of 1999 account for a total of almost 3000 participants, both companies and research institutes. Two-thirds of these were industrial organisations, with 61% of companies (or 42% of all participants) being SMEs, underlining the trend of strongly increasing SME participation in EUREKA projects.

Two of the larger countries (Germany, France) account for almost 25% of all participants, followed by the UK, Spain, Switzerland and the Netherlands, all in all making up about half of the participants.

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Abbreviations:

	Medical and biotechnology
COM	Communication technology
ENE	Energy technology
ENV	Environment technology
	Information technology
LAS	Laser technology
MAT	Material technology
ROB	Robotics and Production Automation
TRA	Transport technology

Fig. 1 Number of ongoing projects by area

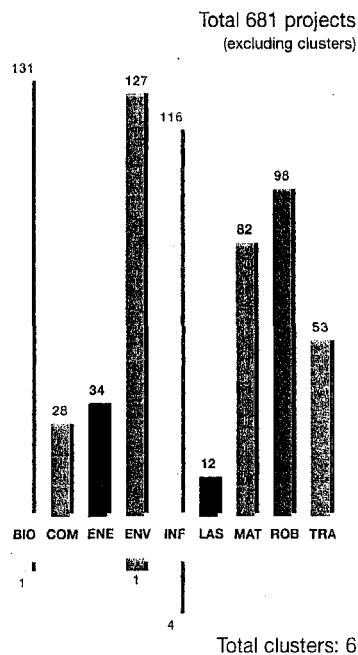
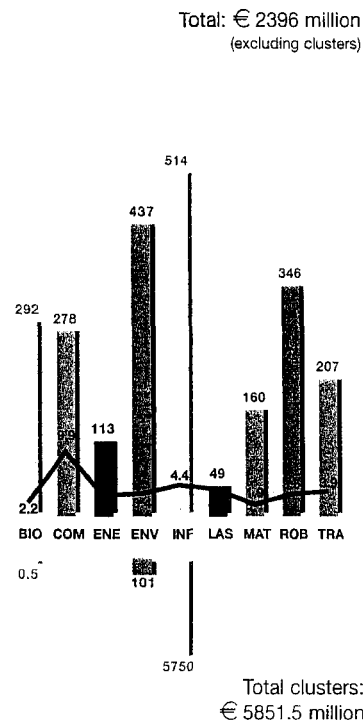


Fig. 2 Total and average cost of ongoing projects by area



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source: EUREKA database, 31 December 99

Fig. 3 Participation in ongoing projects, by member

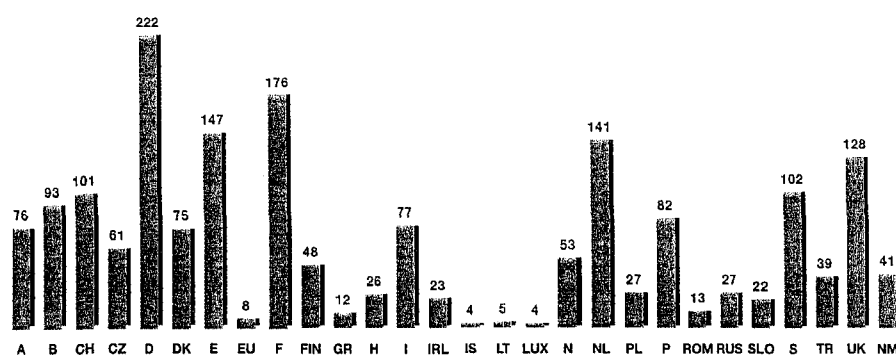
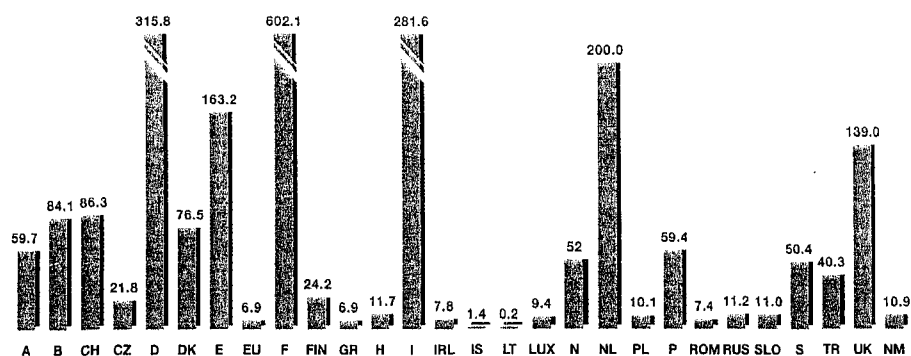


Fig. 4 Secured funding, by member



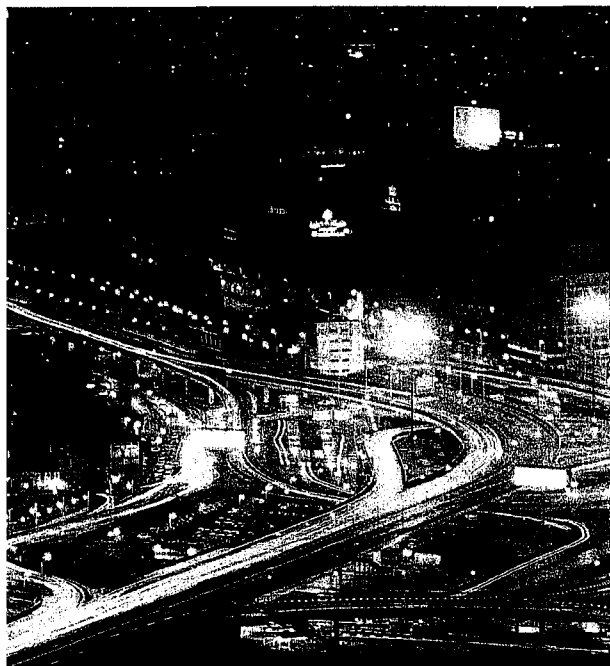
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Fig. 5 Organisations in ongoing projects by member

MEMBER		NUMBER OF ORGANISATIONS					
		INDUSTRY		RESEARCH INST		GOVT/ ADMIN	TOTAL
		all	of which SME	all	of which univ.		
	Austria	68	44	35	24	7	110
	Belgium	89	54	37	24	4	130
	Czech Republic	45	30	32	15	3	80
	Denmark	76	45	25	13	12	113
	Finland	50	24	23	8	2	75
	France	252	143	73	15	3	328
	Germany	251	149	99	41	9	359
	Greece	5	4	8	7	-	13
	Hungary	16	10	20	5	2	38
	Iceland	8	8	4	1	-	12
	Ireland	16	10	6	4	1	23
	Italy	101	38	36	19	2	139
	Lithuania	2	2	5	2	-	7
	Luxembourg	4	-	-	-	-	4
	Netherlands	173	114	24	7	8	205
	Norway	59	35	16	4	6	81
	Poland	12	5	20	8	3	35
	Portugal	83	63	53	28	11	147
	Romania	9	6	13	4	-	22
	Russia	14	8	23	5	2	39
	Slovenia	18	16	10	3	4	32
	Spain	169	120	58	25	6	233
	Sweden	91	62	21	10	3	115
	Switzerland	139	96	82	39	9	230
	Turkey	38	30	17	13	1	56
	United Kingdom	169	89	52	32	14	235
	European Union	-	-	5	-	3	8
	Non-member countries	18	7	30	18	2	50
TOTAL		1 975	1 212	827	374	117	2 919

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A deeper understanding of the wider results of EUREKA projects is emerging thanks to the continuous and systematic evaluation process, launched in 1995-96 under the Belgian Chair. The 1999 report reveals that companies participating in EUREKA projects achieve very high rates of success in their research. Although success in the commercialisation phase is not quite so high, the report indicates that commercial success for those involved in more recent projects is much better than for their counterparts in earlier projects.

The 1999 Annual Impact Report (AIR), conducted by an external panel of experts, is based on the analysis of data collected from 745 Final Reports, 125 Market Impact Reports, and around 100 face-to-face interviews with a random sample of industrial participants in EUREKA. The projects analysed were all completed in the years of the Belgian, United Kingdom, Portuguese and Turkish Chairs (1995-99).

The central findings of the 1999 panel's analysis were:

- Industrial participants in EUREKA have been highly successful in achieving their technological objectives, with almost two-thirds (65%) having achieved a new product or new process by the end of the project.
- Three-quarters of respondents intend to commercialise their technological results, with over half of them (52%) reporting some commercial effects before the end of the project.
- Commercial success has increased in recent years, with more than half (54%) of participants in projects initiated since 1990 reporting "excellent" or "good" results, compared to just 34% from projects initiated before 1990.
- Taking the lead in a EUREKA project is likely to bring greater benefit to an organisation than simply participating as a partner. Three-quarters (76%) of initiating organisations have developed new products and processes, compared to just 54% of other participants. Initiators are more successful in commercialisation, with almost half (44%) already achieving some commercial benefit by the end of the project compared to 33% of other participants. Overall, organisations initiating projects are very satisfied with their achievements, with 92% rating them "excellent" or "good".
- More than two-thirds (70%) of SMEs participating have achieved an increase in turnover of up to € 1 million by the end of their project.
- Some 58% of industrial respondents have gained new, or have improved their existing, knowledge at the end of their EUREKA project.
- The principal employment effect of EUREKA is to safeguard jobs. Although over 56% of all companies responding reported an increase in employment, the numbers of new jobs created were not on average high.

EUREKA an analysis

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Recommendations from the report

On the basis of their findings, the expert panel made the following recommendations:

- EUREKA should focus more clearly on promoting competition at the European and global levels, since many participants remain too focused on their own country's market;
- EUREKA should introduce quick and effective measures to provide venture or seed capital for the commercialisation of technological results achieved. This is a particular requirement for SMEs which need most assistance in this area;
- An "Industry Forum" (as proposed by the Strategic Review panel) should be established to improve contact between industry and EUREKA management on a non-project specific level, to provide direct input into discussions on the development of the Initiative;
- Concerted measures, particularly encouraging networking and improving the generation of projects in the member countries, should be established with the aim of expanding and distributing the economic impacts of EUREKA. Such measures would include efforts to increase EUREKA's visibility;
- Mechanisms to assist participants whose technical success depends on the introduction of new, or changes to existing, norms and standards need to be developed.

FOCUS TOPICS

Each year the expert panel looks in more detail at a number of areas, which are highlighted in the report.

Partnership and networking

The report found, not surprisingly, that there is a clear correlation between the functioning of the project team and the technological and commercial results achieved. The 87% of respondents who considered the functioning of their team as "good" or "excellent", were more likely to have achieved "good" or "excellent" technological, as well as commercial, results.

The panel were especially keen to look at the links between partners at the commercialisation stage of a project and even longer-lasting relationships. While the data available showed good examples of both small teams (two partners) and large networks, the experts felt that EUREKA should consider in more detail the issues surrounding networking and the establishment of stable partnerships.

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Norms, standards and EUREKA

Globalisation has made the issue of standards all the more important, since commercialisation across the world will require a product to conform to the standards prevailing in each market. The panel identified the following issues which have affected EUREKA projects, of which around one-third are directly or indirectly related to standardisation:

- The E! 187 HYPASSE project successfully developed an automobile powered by hydrogen and electricity, however without a strengthening of inner city pollution controls the results of this project are never likely to be taken to commercialisation.
- On the other hand, the E! 623 EUROPROTEINS project, which aimed to substitute soya proteins for those of animal origin in animal feeds, has achieved results just at the time when demand in Europe to exclude animal-origin feeds entirely is heightening. It is likely therefore that the partners in this project will realise far greater commercial success than envisaged at the launch of their project.
- The results of the E! 499 FIRETUN project have already been used to improve safety in tunnels, following major fires in vital European tunnels such as the Channel Tunnel and the Mont Blanc Tunnel.
- Political support may also be required for a project to achieve commercial success. For instance the ten-year digital audio broadcasting project E! 147 DAB was a great technical success, with its standard adopted world-wide. Without political support for a move towards its use - requiring substantial investment - it has not been able to gain a commercial foothold and now risks being overtaken by newer technologies.

Patterns of national collaboration

Enhancing EUREKA's commercial impact depends on developing existing patterns of national collaboration. Looking at patterns of national collaboration in 1989, 1993 and 1999, the panel found:

- There is a clearly identifiable and stable core of collaborating countries involving firms from France, Germany, the Netherlands, the United Kingdom, and to some extent Spain and Italy;
- Clusters of collaborating countries emerge on the basis of geographical proximity. For example, a "Nordic" cluster including Sweden, Norway, Denmark and Finland can be found as well as a "Latin" cluster comprising France, Italy, Spain and Portugal. Naturally, strong links are also found between countries which share a common language.

Continuous Evaluation

EUREKA's continuous and systematic evaluation process was designed by the EUREKA Secretariat and piloted under the Belgian Chair (1995-96).

Each subsequent Chair has built on the process, and the 1999 report is the fourth Annual Impact Report. The process is designed to provide an assessment of the commercial and employment impact of EUREKA participation on industrial participants from finished projects. The consistent approach used allows a very detailed picture to be built up of the benefits of EUREKA for industrial participants and also provides input to future development.

The evaluation is based on analysis of:

- Final Reports, sought from all industrial participants at the end of a project;
- Market Impact Reports, sought one, three and five years after completion of a project from those participants who have indicated they intend to take results to the market, and;
- Face-to-face interviews with a sample of industrial participants from projects some three to five years following the completion of the research phase, to obtain more detailed information than can be gleaned from the standard reports.