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## COMETT PROGRAMME

### REPORT OF 1990 ACTIVITIES

(presented by the Commission)

## FOREWORD

*This document presents the Annual Report required under Article 5 of the Decision of the Council establishing the COMETT Programme. The purpose of this Report is to record formally and present to the Council, the European Parliament, and the Economic and Social Committee an account of the progress made in the implementation of the COMETT Programme during 1990. The statistical data contained in the annexes of the Report provides additional quantitative information about the development within individual Member States and at Community level.*

*A report such as this can only contain the key highlights of the year's activities. It must be remembered that the success of the COMETT Programme is due to the efforts of all those involved in the promotion of projects at grass-roots level, where enthusiastic commitment to build strong European cooperation in this field has ensured the successful development of the COMETT Programme. The launch of COMETT II has involved the contributions, both formal and informal, of a wide range of organisations and individuals throughout the Community, and beyond. The Community would therefore like to record formally its appreciation to all those individuals who have contributed to the implementation of the COMETT Programme; as well as to the formal authorities at both Community and Member State level whose support has been so crucial for the implementation of the COMETT Programme during 1990.*

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## I. EXECUTIVE SUMMARY

### (i) COMETT I

1. COMETT I, the Community Action Programme for Education and Training for Technology, was adopted by the Council Decision 86/365/EEC of 24 July 1986. Following a preparatory year in 1986, the operational phase of the COMETT I programme was for three years (1987-1989). During this period more than 1,300 projects were launched across the Community as a whole and the total level of Community support was over 52.5 million ecu. The projects supported under COMETT I led to the establishment of 125 university-industry consortia (UETPs: University/Enterprise Training Partnerships); more than 4,000 student placements within enterprises in other Member States; 232 fellowships for staff exchanges between universities and enterprises; and financial support for 329 joint continuing training projects and multinational initiatives to develop multimedia training systems. In addition, over 6,000 enterprises, 1,500 universities and 1,000 other types of organisations participated in the implementation of COMETT I projects.
2. 1990 was a year when COMETT I and COMETT II projects overlapped, since many of the COMETT I projects accepted in 1987-1989 were only finalised in August 1990. A detailed analysis of the final reports for the period 1989/90 was undertaken during 1990/91. A document on this will be issued by the Commission in June/July 1991. Moreover the report of an external evaluation of COMETT undertaken during January-June 1991, which examines the final phase of COMETT I in particular but also its transition into COMETT II, will be issued at the same time.

### (ii) COMETT II

3. The second stage of the programme - COMETT II - was adopted by the Social Affairs Council on 16 December 1988. It came into operation on 1 January 1990 for a five year period and aims at reinforcing **training in technology** (particularly advanced technology), the development of **highly skilled human resources** and the **competitiveness of European industry**. COMETT II is not simply an extension of COMETT I but a deepening and broadening of the programme. The Decision re-emphasises COMETT's role as a Community Programme for advanced training for technology and its applications but places increased emphasis on changing skill requirements and regional needs.
4. With the beginning of this second phase and in accordance with the Decision of the Council of Ministers of 22 May 1989, the universities and enterprises of the Member States of EFTA (European Free Trade Association) and Liechtenstein can take part in the four Strands of COMETT II under the same rules as the EC Member States, provided that at least two Community Member States participate in the project. The initial budget estimate for COMETT II was 200 million ecu for the period 1990-1994, excluding the contribution of the EFTA countries.
5. In the first Call for Applications under COMETT II a total of 2,201 projects were submitted by the twelve Member States, plus another 156 projects from the EFTA countries. Compared with the four rounds of COMETT I (in which 1137, 1413, 1699 and 770 projects respectively were submitted) the first year of COMETT II represents

a significant increase in the number of proposals received. Concerning the projects accepted in 1990

- 158 UETPs have been accepted, comprising 99 regional, 49 sectoral and 10 mixed (regional/sectoral) UETPs. Raising the number of regional UETPs has led to almost complete regional coverage in many countries.
  - 246 Ba projects were supported, leading to the placement of at least 3,731 students in industry abroad. 13 of the 99 proposed Bb projects were accepted, providing for 15 recent graduates to carry out training placements abroad. The 66 Bc projects supported from the 138 applications received will enable 94 members of staff to carry out a secondment in another country, with flows going from university to enterprise and vice versa.
  - Despite the limited number of accepted Ca (short training courses) and Cb (joint training) projects (124 and 192 respectively), the financial commitment for these projects is relatively high: 44% of the total budget available from the Commission in 1990 has been devoted to them (excluding the pilot projects).
6. The introduction of pilot projects, based on more structured approaches and higher funding levels, was finally decided at the end of 1990, when the 32 projects which had been invited to submit revised proposals were judged. 30 were accepted as pilot projects (Cc), including 9 probationary pilot projects which were considered not ready for development as pilot projects and therefore accepted on a probationary basis, subject to conclusive results after a limited time. The two remaining projects were not accepted as pilot projects but were supported under Strand Cb.
  7. Some 7,800 organisations are involved in the COMETT projects accepted in 1990, including almost 4,000 enterprises (2/3 of which are SMEs), some 1,400 universities or other higher education institutions and about 2,500 other types of organisations.
  8. In June 1990 the Commission formally launched a Call for Tender for a second external evaluation of the COMETT programme, which is to examine the performance of COMETT, including the final phase of COMETT I, with reference to the formal programme objectives, focusing especially on such issues as COMETT's support for university/industry cooperation.
  9. The second Call for Applications under COMETT II was issued in November 1990. This was a restricted Call limited to the COMETT II UETPs accepted in 1990, under Strands Ba, Bc, Ca and D. The guidelines for this Call were laid down in the 1991 Application Package.
  10. The Commission, together with the Information Centres in the different participating countries, organised a number of national meetings to prepare for the restricted 1991 Call for Applications. Moreover, the Commission organised meetings of specific groups of UETPs in Brussels in November/December 1990 to discuss the possibility of sectoral networks in COMETT II.

## II. Development of the COMETT Programme

### A Introduction

11. The Community has long recognised the importance of improving the technological base of Europe. The substantial commitment to scientific research and development programmes is one demonstration of the Community's commitment in this area. Equally important is to ensure the development of the Community's human resources to stimulate and exploit the use of new technology. While each Member State has its own distinctive system of higher education and training, the Community is in a position to improve the effectiveness of these individual systems through actions carried out on a concerted basis with the active involvement of both sides of industry.
12. COMETT, the Community Action Programme for Education and Training for Technology was adopted by the Council Decision 86/365/EEC of 24 July 1986<sup>1</sup> with an estimated budget of 45 million ecu. Following a preparatory year in 1986, the operational phase of the programme was for three years (1987-89). During this very successful phase, in December 1988, the Community decided to adopt a second phase of the programme. COMETT II started in January 1990 with an initial budget estimate of 200 million ecu, excluding the participation of the EFTA countries. COMETT represents an important part of the Commission's overall programme in the education and training field. By supporting the development of university/enterprise links on a transnational basis, COMETT assists in the development of systems and mechanisms for identifying and providing solutions for the high level skill needs of industry in the field of technology. In doing so, COMETT also contributes to the development of social and economic cohesion across the Community, particularly through assisting in the transfer of technology to the less advanced regions, and so contributes to the overall balanced development of the Community.
13. The broadened objectives of COMETT II are<sup>2</sup> :
  - *to improve the contribution of, in particular, advanced technology training at the various levels concerned and thus the contribution of training to the economic and social development of the Community;*
  - *to foster the joint development of training programmes and the exchange of experience, and also the optimum use of training resources at Community level, notably through the creation of transnational sectoral and regional networks of, in particular, advanced technology training projects;*
  - *to respond to the specific skill requirements of small and medium sized businesses;*
  - *to promote equal opportunities for men and women in initial and continuing training in, in particular, advanced technology;*

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<sup>1</sup> OJ No L 222, 8.8.1986, p.17

<sup>2</sup> Article 3 of Council Decision 89/27/EEC of 16 December 1988

- *to give a European dimension to cooperation between universities and industry in initial and continuing training relating to technologies and their applications and transfer.*

14. COMETT II focuses on four inter-related areas of action, each of which constitutes a Strand within the Programme as a whole:

- Strand A : the development and reinforcement of university-enterprise training partnerships (UETPs) and the extension of the European network, both regional and sectoral, in order to further transnational cooperation.
- Strand B : specific financial assistance to promote transnational exchanges for the benefit of all Member States through the allocation of grants to students (Strand Ba - integrated student placements), recent graduates (Strand Bb - advanced training placements) and staff seconded from universities to industry, and from industry to university respectively (Strand Bc - Personnel exchanges).
- Strand C : joint projects for continuing training in, in particular, advanced technology and for multimedia distance training through short training courses (Strand Ca), joint training projects (Strand Cb) and pilot projects (Strand Cc).
- Strand D : complementary promotion and back-up measures as a support for preparatory activities, particularly for less developed regions, the structured exchange of information and experience and the continuing evaluation of the COMETT programme.

## B Projects under COMETT II

### (i) **Project Applications**

15. A total of 2,357 project applications were submitted, 2,201 by the 12 Member States plus 156 from EFTA countries. Compared with the four rounds of COMETT I (in which 1137, 1413, 1699 and 770 projects respectively were submitted), the first year of COMETT II represents a significant increase in the number of proposals received. Exact comparison with COMETT I is difficult, since the programme structure and the definition of "project" have changed. In particular, many small Strand B projects under COMETT I would be considered as one project under COMETT II. Compared with COMETT I again, Germany, Denmark, Ireland, Italy, the Netherlands and the UK increased their participation, in terms of the number of projects coordinated by an organisation from these countries. The numbers from Greece, Luxembourg and Portugal were more or less the same. Submissions from the remaining Member States were down on average. These are in terms of relative numbers. In absolute terms, there was an increase in the number of applications received from all countries, compared with the annual demand under COMETT I.

16. The broad technology sectors most frequently the subject of project submissions were similar to the position under COMETT I, with production and manufacturing the most popular. In certain sectors there were significant increases: Environment (up 1.5% in 1990), Architecture (up 2%) and Health and Safety (including medical technology) (up 2.5%). Overall there was a slight reduction in Production and Manufacturing (down 3% in 1990) and a significant fall in Information Technologies (down 9%). The budget requested for 1990 alone amounted to 183.6 million ecu, nearly as much as the total budget estimate for the five years of COMETT II.
  17. One of the most striking and encouraging characteristics of the application profile was the extent of interaction with other Community programmes, both in the R&D field and in relation to other Community priorities such as regional development or energy. Links with some 50 other programmes were recorded, with ESPRIT, BRITE/EURAM and DELTA especially prominent. Also featured strongly were AIM, DRIVE, BRIDGE, ECLAIR, FLAIR, RACE, JOULE and SPRINT.
- (ii) **The selection process**
18. The selection process corresponded closely with practice in previous years of operation, comprising in summary :
    - First, the assessment of the applications was undertaken by the Commission, with the support of the COMETT Technical Assistance Office. This procedure enabled all ineligible applications to be removed at an initial phase (eg because of the non-transnational nature of the project, the lack of a university-industry partnership). It also allowed failings in a certain number of the proposed projects to be highlighted and, in more general terms, prepared the ground for the other stages in the selection procedure.
    - Next, the concern for internal coherence with the other Community programmes - those relating to the Framework Programme of Research and Development as well as those directed towards specific sectors, such as the strategic programme in favour of SMEs. The inter-services consultation set up for this purpose assisted in identifying from among the projects put forward those which proposed synergy with other Community programmes.
    - It was then necessary to subject the approach adopted to scrutiny by independent experts from universities and industry. For the assessment of projects the Commission called upon the COMETT Experts Group which met in Brussels on 9/10 May and then again on 15/16 October 1990 to assess the pilot projects.
    - A proposed draft list of accepted projects was drawn up and submitted to the COMETT Committee and the COMETT EFTA Joint Committees in June 1990. In this process, as provided for in the COMETT Decision, specific arrangements were made to permit discussion by the Committee of projects for which a Community contribution of more than 100,000 ecu was proposed.
    - Finally, the Commission, taking into account the views expressed by the COMETT Committee and the COMETT EFTA Joint Committees, decided upon a final list of projects for Community support.



19. New to the selection process was the introduction of pilot projects, which imply higher funding levels. After the June meeting of the COMETT Committee, the Commission invited 32 projects proposed under Strand Cb to submit revised proposals. (This included inviting some promoters to submit joint proposals.) Then a second selection procedure started, which was similar to the one described above for the regular projects. By the end of November 1990 the decision on the pilot projects had been finalised and 30 were finally retained.
20. The criteria used for the selection of projects were as given in the Vademecum and Application Package. To be eligible, projects must involve cooperation between both universities and enterprises relating to post-secondary level training concerned with technology and its applications or areas affected by technological change. Additional criteria for the acceptance of pilot projects were laid down in the "Instructions to the Promoters of Pilot Projects".

(iii) **Results of 1990 Selection**

21. A total of 878 projects were accepted in 1990. 158 UETPs were funded, 246 Ba projects (corresponding to over 3,700 student placements), 13 Bb projects (advanced training placements) and 66 Bc projects (staff exchanges) were accepted. In Strand C, 124 Ca projects (Short training courses) and 192 Cb projects (joint training projects) benefitted from COMETT support. A further 30 Cb projects were accepted as pilot projects (Cc).
22. In all 7,800 organisations were involved in COMETT projects accepted in 1990. This includes almost 4,000 enterprises (2/3 of which were SMEs), 1,400 universities or other higher education institutions and 2,500 other types of organisations, indicating much greater industrial involvement than under COMETT I.
23. As mentioned above under projects submitted, there has been a change in the profile of projects by technology sector. Participation in certain sectors (including environment, architecture and telecommunications) was strengthened in comparison with COMETT I, while in other sectors (notably production and manufacturing and information technology) there were fewer projects than under COMETT I. The number of projects in health and safety (including medical technology) increased very significantly and this sector represented some 6.3% of all projects selected in 1990. Participation also increased in civil engineering, agro-food, instrumentation, materials and telecommunications.

(iv) **Strand A**

24. The purpose of Strand A is to develop and reinforce the infrastructure for university-enterprise cooperation. This Strand is designed to foster the development of University-Enterprise Training Partnerships (UETPs). Compared with the 125 UETPs of COMETT I, the 158 UETPs accepted in 1990 represents an increase of 26%. There are 99 regional, 49 sectoral and 10 mixed (regional/sectoral) UETPs. This has resulted in more or less complete geographical coverage in Ireland, the United Kingdom, Luxembourg, Austria, the Netherlands and Sweden, and extensive coverage in France, Portugal, Belgium, Iceland and Finland.
25. Compared with COMETT I, the number of UETPs increased in several countries, notably Germany, Denmark, France, Greece, Ireland, the Netherlands and the United

Kingdom. Amongst the EFTA countries, Sweden, Finland and Austria were particularly successful. In most countries there are considerably more regional UETPs than sectoral UETPs, with the exception of Belgium, Greece, the Netherlands and Portugal. The sectoral UETPs cover a wide spectrum of fields; the sectors including the highest number of UETPs are : environment, biotechnology, agro-food, advanced manufacturing technology, wood technology, and mechanical engineering.

(v) **Strands Ba, Bb, Bc**

26. Integrated student placements (Strand Ba) concern the placement of students in enterprises in another Member State as an integral part of their training at university. Out of 351 projects submitted under Strand Ba, 246 were accepted (although in most cases only a proportion of the placements were funded). This represents a total of 3,731 student placements supported, and is almost double the number of Ba projects accepted in 1989, although it was still below 25% of the total number of placements requested. The 3 main "exporting" countries in 1990 were France (661), the United Kingdom (649) and Germany (397). Some countries are receiving significantly more students than they send abroad, notably Belgium and Germany, the Netherlands, Austria and Switzerland. The opposite is true of Denmark, Spain, Greece and Ireland. Other countries display a balance between the two types of placement.
27. Advanced training placements (Strand Bb) have several objectives common to the Strand Ba integrated student placements. Important differences are the higher academic level and the increased duration of the placement. The number of accepted Bb projects was very low in 1990 : only 13 of the 99 applications were accepted. The accepted Bb projects were of high quality, although the overall response to this Strand was somewhat disappointing. 15 young graduates will undertake an advanced training placement abroad. No comparison with COMETT I is possible because this was a new type of activity.
28. Strand Bc concerns exchange of staff between universities and enterprises. It provides fellowships for university staff going to enterprises or staff from enterprises going to universities. 66 Bc projects out of 132 applications were accepted, enabling 94 staff members to have an advanced training secondment in an organisation abroad. One third of the Bc exchanges concerned flows from university to industry. Another third represented flows from one enterprise or professional organisation to a university. The remaining exchanges were between other types of organisations (e.g. research institutes) and enterprises. The technological sectors most commonly represented under Strand Bc were biotechnology, mechanical design and civil engineering.

(vi) **Strands Ca, Cb, Cc**

29. Strand Ca provides financial support for intensive training courses with a European technology dimension. 124 Ca projects were accepted in 1990. Strand Cb supports designing, developing and testing technology training projects at European level. 192 Cb projects were accepted. Although the total number of projects supported under this Strand of the programme was relatively modest, it represented 44% of the entire 1990 budget, with 37% allocated to Cb projects alone. Strand Cb also covered the widest range of sectors.

30. Pilot projects (Strand Cc) are similar to Cb projects, but are more substantive and closely linked to key developments under COMETT II. They comprise four categories: the first category concerns projects focusing on European skills and qualifications in a specific technological sector. The second aims at developing close and lasting cooperation between industry and universities. Thirdly, there are projects focusing on appropriate industrial training programmes for SMEs, and the last category concerns transfer projects, i.e. projects which focus on the transfer of qualifications, skills and methodologies. The Commission invited 32 Cb projects to submit revised proposals for development into a pilot project and decided at the end of November to accept 21 of the projects as pilot projects and 9 as probationary pilot projects. The two remaining projects were not accepted as Cc projects, but were supported as Cb projects. Most of these projects only started in 1991.
31. During the life of these projects, it is anticipated that they will produce over 3,000 training courses for more than 80,000 people. This represents more than 300,000 teaching hours. The projects will develop more than 1,000 different training materials, including videos, CBT and interactive video as well as supporting documentation.

(vii) **Strand D**

32. Strand D is designed to support preparatory activities particularly for the less developed regions, notably in the form of visits and meetings, having as their objective the development of transnational projects or the extension of projects to new partners. Of the 341 projects submitted under Strand D, 49 were accepted. The low success rate resulted from the very large number of applications made under this Strand which were linked to 1990 applications under other Strands. Visits funded under this Strand are intended to facilitate the preparation of project applications under subsequent Calls. There was limited participation by the EFTA countries.

(iix) **Budget**

33. The total 1990 budget requested by the 2,357 projects submitted was 183.6 million ecu. The overall budget allocation for the 878 projects accepted in 1990 was 36.3 million ecu for the first year of the projects. The budget distribution by Strand is given in Annex 1. A comparison of the requested budget and the total allocation indicates the substantial difference between the funds sought by promoters and the resources available. Nevertheless, the 1990 budget allocation was significantly above annual allocations under COMETT I.

**C** Programme implementation

(i) **COMETT Committee and EC-EFTA Joint Committees**

34. The development of the COMETT Programme has been conducted throughout in close collaboration with the COMETT Committee. The role of the Committee is to assist the Commission in the implementation of the COMETT Programme. The Committee is made up of two representatives from each Member State on the basis of nominations made by the Member States as well as two representatives of the social partners as observers. The Commission chairs the Committee and provides its secretariat.

35. The Commission may consult the Committee on any matter concerning the implementation of the COMETT Programme. The Committee delivers opinions, in particular on the general guidelines governing the COMETT Programme, the general guidelines for the financial assistance to be provided by the Community, the procedure for selecting the various types of projects and any measures which require a Community contribution of more than 100,000 ecu.
36. Since the launch of COMETT II, the EFTA countries and Liechtenstein have participated in the COMETT Programme, and 6 EC-EFTA Joint Committees have been established. Due to delays in the ratification of the agreements, the Committee with Liechtenstein is not operational yet.
37. The COMETT Committee met formally on four occasions (9 January 1990, 5 June 1990, 28/29 June 1990 and 15/16 November 1990) and the EC-EFTA Joint Committees met on 29 June and on 16 November 1990. A list of the members of the COMETT Committee and the EFTA Joint Committees is given at Annex 3.
- (ii) **COMETT Information Centres**
38. To facilitate and promote the dissemination of information about COMETT, national Information Centres have been established within each Member State and, with the beginning of COMETT II, also in the EFTA countries. Each of these countries is responsible for the designation of the organisation to act as the Information Centre, and the precise organisational location of each Information Centre varies between the participating countries according to individual needs and circumstances. The Information Centres' main tasks are to respond to information queries concerning the COMETT Programme, especially on projects led by organisations within their country and to produce informational material (brochures, bulletins, project files etc.). They also organise information days, workshops and press conferences, to assist with the preparation of new applications and to disseminate COMETT project outputs. Finally, in cooperation with the UETPs, the Information Centres provide assistance for COMETT project promoters within their country, including finding new project partners and disseminating relevant project outputs from other countries.
39. The Commission provides financial support towards the costs of activities undertaken by the Information Centres. In addition the Commission supplies various forms of documentation, services and promotional material for use by Information Centres. A list of COMETT Information Centres is given in Annex 4.
- (iii) **COMETT Experts Group**
40. The Commission established the COMETT Experts Group as an additional source of specialist technical advice and expertise. Members of the Group are appointed on the basis of their personal knowledge of a particular technical area or sector related to the work of COMETT. The breadth of membership is such that there is at least one Expert from each participating country, ensuring awareness of the level of technology exploitation in all regions. The Experts met on 9/10/11 May 1990 and on 15/16 October 1990 with the main objective of examining the project proposals received by the Commission under the 1990 Call for Applications. Their developing role in project monitoring as well as their technical advice helped to ensure that the Commission

was able to select the most appropriate range of projects to achieve COMETT objectives.

(iv) **Links with other Community programmes**

41. An important aspect of COMETT is the potential it has for synergy with other Community programmes. COMETT complements the strategic Community approach in the R & D and innovation fields by contributing towards the development of highly qualified manpower necessary for the development, transfer and exploitation of new technologies. Close consultation has been established both in the selection of projects and also the ongoing monitoring and development of the COMETT Programme. COMETT projects have also established links between organisations active in a number of Commission R & D Programmes. There is in particular a close link between COMETT and DELTA<sup>3</sup> in view of the complementary objectives of the two programmes in the field of technology support for education and training. Several other coordination actions have been taken during 1990 in relation to specific Community R & D programmes (notably ESPRIT<sup>4</sup>/VLSI Design Action and BRIDGE) as well as other Community initiatives, particularly in relation to Regional Development (DG.XVI) and actions in favour of small and medium-sized enterprises (DG.XXIII).
42. In the education and training field COMETT complements the activities of the ERASMUS<sup>5</sup> programme for the mobility of university students and the EUROTECNET<sup>6</sup> programme for basic vocational training for the new information technologies. Links exist also with the LINGUA<sup>7</sup> and the TEMPUS Programmes<sup>8</sup>, which both complement the actions of the ERASMUS Programme.
43. The ERASMUS Programme was adopted by the Council in June 1987 to promote inter-university cooperation and in particular to increase substantially the number of university students carrying out a period of integrated study in another Member State. Although there are a number of important differences between the specific aims, objectives and actions of the two Programmes, both COMETT and ERASMUS include the common policy aim of encouraging students to spend periods of recognised training in other Member States. The TEMPUS Scheme, which is designed specifically to promote the development of the higher education systems in the countries of Central/Eastern Europe, was adopted on 7 May 1990 by the Council of

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<sup>3</sup> DELTA - Developing European Learning through Technological Advance. Council Decision 88/417/EEC O.J. N° L206, 30 July 1988, p.20.

<sup>4</sup> ESPRIT - European Strategic Programme for Research and Development in Information Technology. COM(83)258, COM(84)608, COM(85)616, COM(86)269, COM(88)279.

<sup>5</sup> ERASMUS - European Community Action Scheme for the Mobility of University Students. Council Decision 87/327/EEC, OJ No. L 166, 25.6.1987, p20/24.

<sup>6</sup> EUROTECNET - Community wide network of demonstration projects in the field of New Information Technologies and Vocational Training. COM (85) 167 Final.

<sup>7</sup> LINGUA - Community Action Programme to promote Foreign Language Competence in the European Community. Council Decision 89/489/EEC, O.J. No. L239/24, 28 July 1989

<sup>8</sup> TEMPUS - Trans European mobility scheme for university studies. Council Decision 90/233/EEC, OJ No. L 131/21, 7.5.1990

Ministers. Close links have been established to ensure coordination of the overall implementation and monitoring of the three Programmes. There has been mutual attendance at meetings of the COMETT, ERASMUS and TEMPUS Committees and advisory bodies, as well as direct cooperation between the teams. There has also been coordination of the selection timetables for the COMETT and ERASMUS programmes, as well as monitoring of the decisions on funding for individual projects.

44. The Industrial R & D Advisory Committee of the Commission (IRDAC) is a consultative group of leading European industrialists established by the Commission to give an industrial viewpoint on the R&D policy related matters. In 1989 IRDAC established a further working group "IRDAC Working Party 11 - Education and Training"<sup>9</sup> with the secretariat provided by the COMETT Technical Assistance Office. The work programme of the Working Party included several matters of direct pertinence for COMETT, particularly the question of skills shortages and of the training requirements of the Community R & D programmes. By September 1990 the Working Party had finalised two important reports, "Skills Shortages in Europe" and "School and Industry", which were approved by IRDAC in November 1990. The reports have been well received and are very relevant to the future development of COMETT.

(v) **Meetings, studies and groups**

45. During 1990 a number of special meetings and studies were carried out to contribute to overall programme development through the analysis of certain key issues related to the implementation of COMETT. In addition, information conferences and other meetings were held in the Member States as part of the overall process of encouraging participation of both universities and enterprises in the COMETT Programme. The following examples are provided to illustrate the depth and range of these activities.
46. In December 1989 and at the beginning of 1990 regional meetings were organised in the different Member States and the EFTA countries. The purpose of these meetings was to discuss:
- the current situation regarding the development of COMETT I in each Member State
  - the main priorities within COMETT II and links with parallel national initiatives
  - the main issues regarding the launch arrangements for the first call for applications under COMETT II.
47. In November/December 1990 sectoral 4 UETP workshops involving all sectoral UETPs accepted in COMETT II were organised:
- to discuss the activities of sectoral UETPs and to examine the possibility of establishing sectoral networks
  - to improve links between individual sectoral UETPs in related subject areas
  - to inform UETPs about the results of the first Call for Applications under COMETT II

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<sup>9</sup> Note that in 1988, IRDAC had already established the "Opinion on the development of COMETT" - IRDAC Working Party 7, June 1988

- to prepare for the restricted Call for Applications in 1991.

In addition, the Information Centres organised meetings for UETPs in most Member States and EFTA countries in preparation of for the 1991 Call for Applications.

48. During the year a number of analyses were made of the development of COMETT within individual countries and within each Strand<sup>10</sup>. These confirmed that considerable progress had been made and identified priority issues to be addressed under COMETT II.
49. During 1990 the Commission continued its activities in the information and publications field. Annex 2 includes a full listing of official COMETT publications in 1990. The Commission also accepted a number of requests from individual projects and organisations for support for special conferences and workshops on priority COMETT themes.

(vi) **Technical support**

50. The implementation of COMETT is undertaken with the assistance of the external COMETT Technical Assistance Office. The services provided by the external Office include the processing of project applications, administration of contracts, technical analysis of interim and final reports from projects, information dissemination and publicity. The Office has full delegated responsibility for project contracts and payments, and also provides other technical services as required by the Commission. The staff is drawn from a range of Member States and EFTA countries.

D Monitoring and evaluation

(i) **Internal monitoring**

51. Monitoring and evaluation are important aspects of the implementation of the COMETT Programme. A variety of formal and informal methods are used to collect and analyse information at four levels :

- project level
- Strand level
- sectoral level
- programme level

52. At project level, the process begins with an analysis of project applications according to specified criteria to ensure selected projects are adequately designed. For approved projects, the formal process consists of interim and final reports. In this way every project is continuously monitored to ensure its progress is satisfactory and to identify specific issues which may have wider implications. In addition, more informal contact with project promoters occurs through their visits to Brussels, attendance at conferences and other similar activities. At Strand level, a number of Strand-specific

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<sup>10</sup> A synthesis of these analyses can be found in the report "Development of COMETT - Projects accepted in 1989"

analyses have been undertaken. The analysis undertaken on sectoral level will serve as a basis for the development of sectoral networks.

53. At Programme level, the development of the Programme has been carefully monitored with respect to both its internal design and implementation and its wider contribution to Community objectives. The contributions of the COMETT Committee, the COMETT Experts Group and the COMETT Information Centres are of particular importance, especially in providing information about the development of COMETT within each Member State and EFTA country.
54. Following the 1990 Call for Applications it appeared that certain aspects of the COMETT programme were not fully exploited and that certain sectors and regions were under-developed or poorly represented. The Commission therefore launched a "Positive Actions" programme to facilitate and support improved participation in COMETT by these regions and sectors. Each country (EC and EFTA) was asked to identify weaknesses and nominate key persons with whom these problems should be discussed. EC and EFTA countries reacted very positively to this initiative, providing not only a first analysis of the difficulties, but also a number of recommendations for the improved operation of the COMETT programme.
55. The "Positive Actions" are intended to respond to these needs. Particular problems which have been identified include difficulties in achieving adequate geographical coverage and mobilising industrial and regional participants in training activities in regions without local UETPs and an imbalance in participation in different Programme Strands (particularly Strand B transnational student placements in enterprises), as well as in general terms the number and quality of applications submitted.
56. A special budget will be made available for these positive actions to improve participation in COMETT, qualitatively as well as quantitatively, by all eligible countries. A number of specific actions were launched before the end of 1990 in E, GR, I and P; a second major phase will start in 1991.

(ii) **External evaluation**

57. A first external evaluation of COMETT I, carried out by Coopers & Lybrand and the Science Policy Research Unit of the University of Sussex, was published by the Commission of the European Communities in 1989. The main conclusion of this research was the following:

*"COMETT has had a powerful impact in encouraging transnational cooperation and has exercised considerable influence in alerting the educational sector and, to a lesser extent, industry to the benefits of training in a European Community and cooperative framework."*

58. In June 1990 the Commission launched a second Call for Tender for another external evaluation of the COMETT Programme. This second evaluation exercise is to examine the performance of COMETT (including the final phase of COMETT I) with reference to the formal programme objectives, focusing especially on such issues as COMETT's support for university-industry cooperation within the context of regional development in the Community both through the creation of university-enterprise

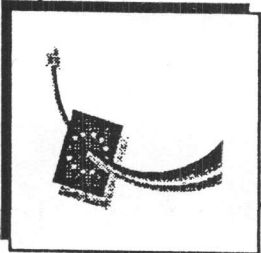


networks and within the sectoral context of industrial development and interaction with Community R&D. This evaluation should be completed by July 1991.

### III. Conclusion

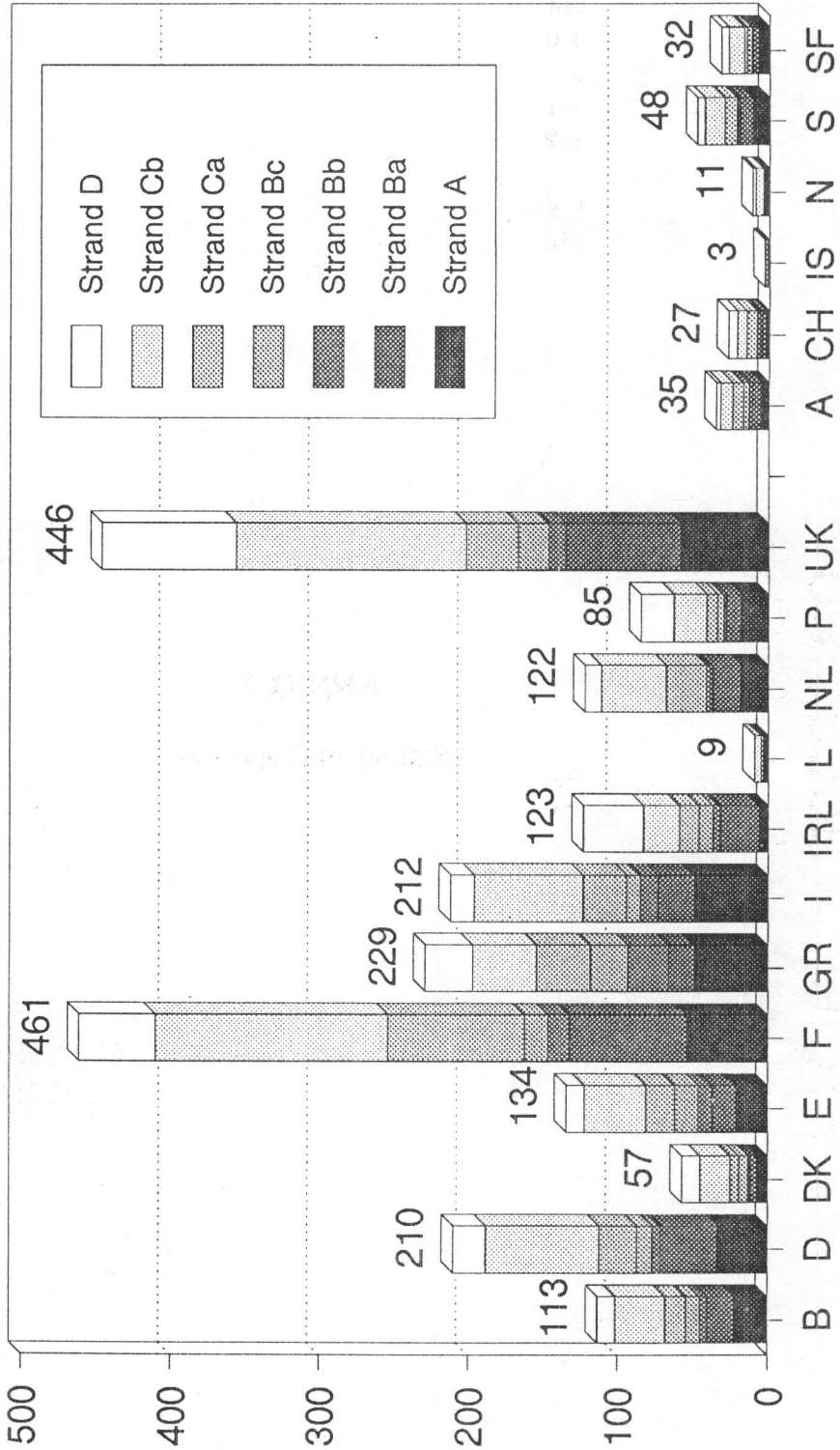
59. The first year of COMETT II has been very successful on a number of levels. The first Call for Applications under COMETT II demonstrated a high level of participation by universities and increasingly by industry, proof that the type of projects promoted by the COMETT programme match those areas in which universities and industry are collaborating.
60. The challenge for the coming years will be to develop further the strong COMETT framework which is already in place, and to address the problems identified through the analysis of the positive actions programme. In particular, the following issues will have to be addressed:
- strengthening the UETP network, in particular by improved regional and sectoral coverage, the training of UETP managers and the improvement of inter-UETP cooperation;
  - further development of the student placements programme, through improved UETP support in the organisation of pool arrangements and clear guidelines for enterprises, universities and students;
  - improved advanced technology training provision for industry, particularly rapid technology transfer, the development of innovative European-wide training materials and the creation of an effective delivery system. Particular attention will be given to the use of multimedia products and distance education;
  - specific targeting towards industry, notably SMEs, by analyzing the factors inhibiting active participation in COMETT by certain types of enterprises, and providing information and raising awareness of the programme through a range of specific actions and products;
  - reviewing the wide sectoral range of COMETT projects through an in-depth analysis and the organisation of sectoral workshops, with a view to establishing sectoral COMETT networks, as foreseen by the Council in the Decision on COMETT.
61. In this way COMETT will continue to ensure that European industry can seize the opportunities arising from the completion of the internal market in 1992. By reducing the barriers to innovation and the sound application of new technologies, COMETT complements the competitive advantages to be gained from the establishment of the internal market. The success of the 1990 Call for Applications confirmed the interest in and the necessity for such a programme.

**ANNEX 1**  
**Statistical Overview**

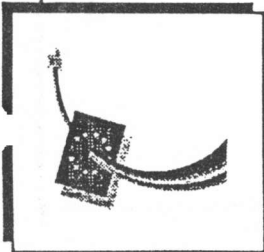


# Number of projects submitted in 1990

## Distribution by Strand and coordinating country

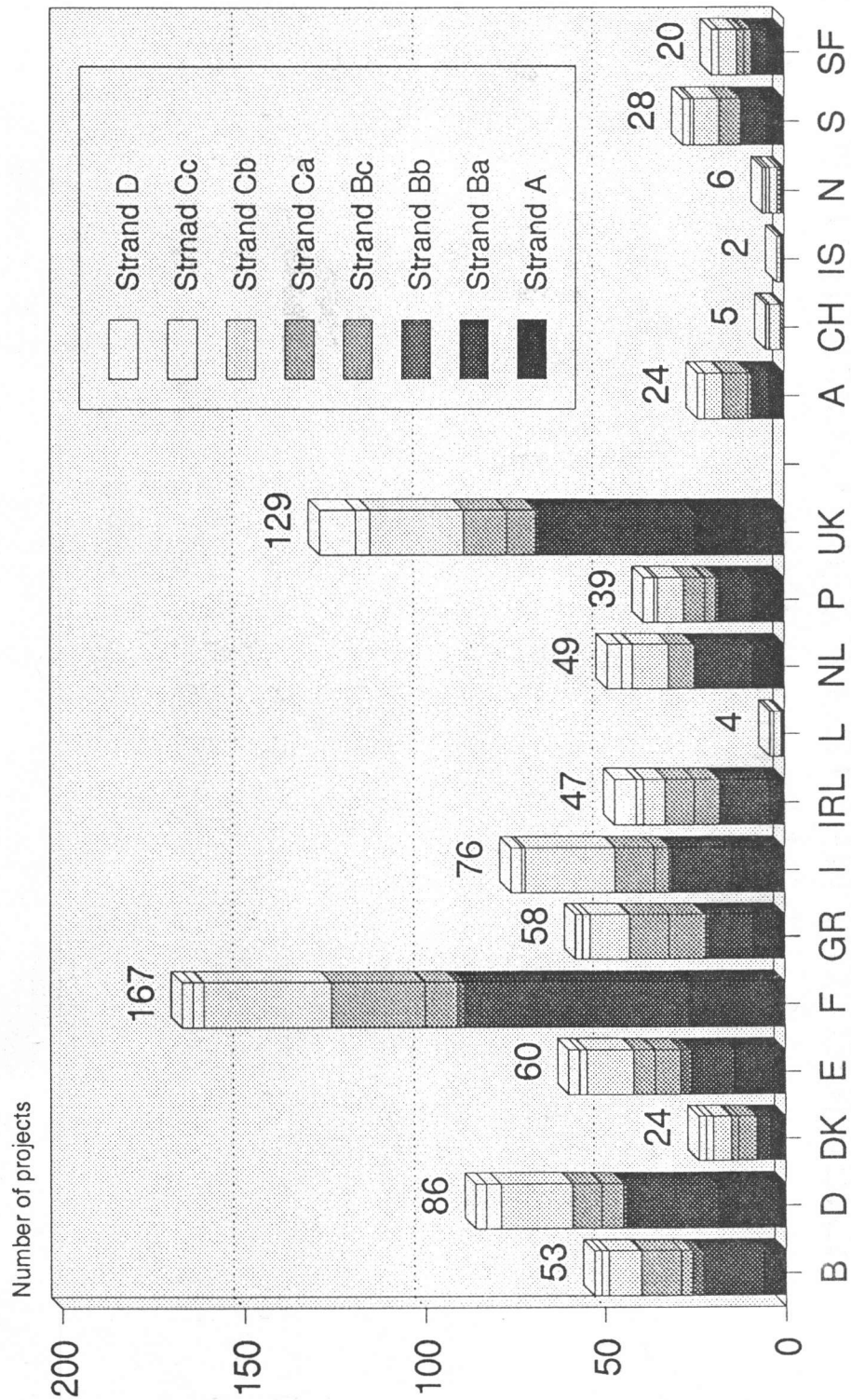


COMETT Office - T1

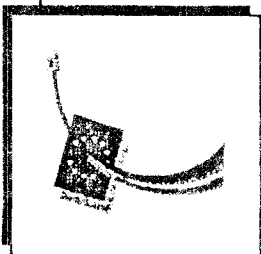


# Projects accepted in 1990

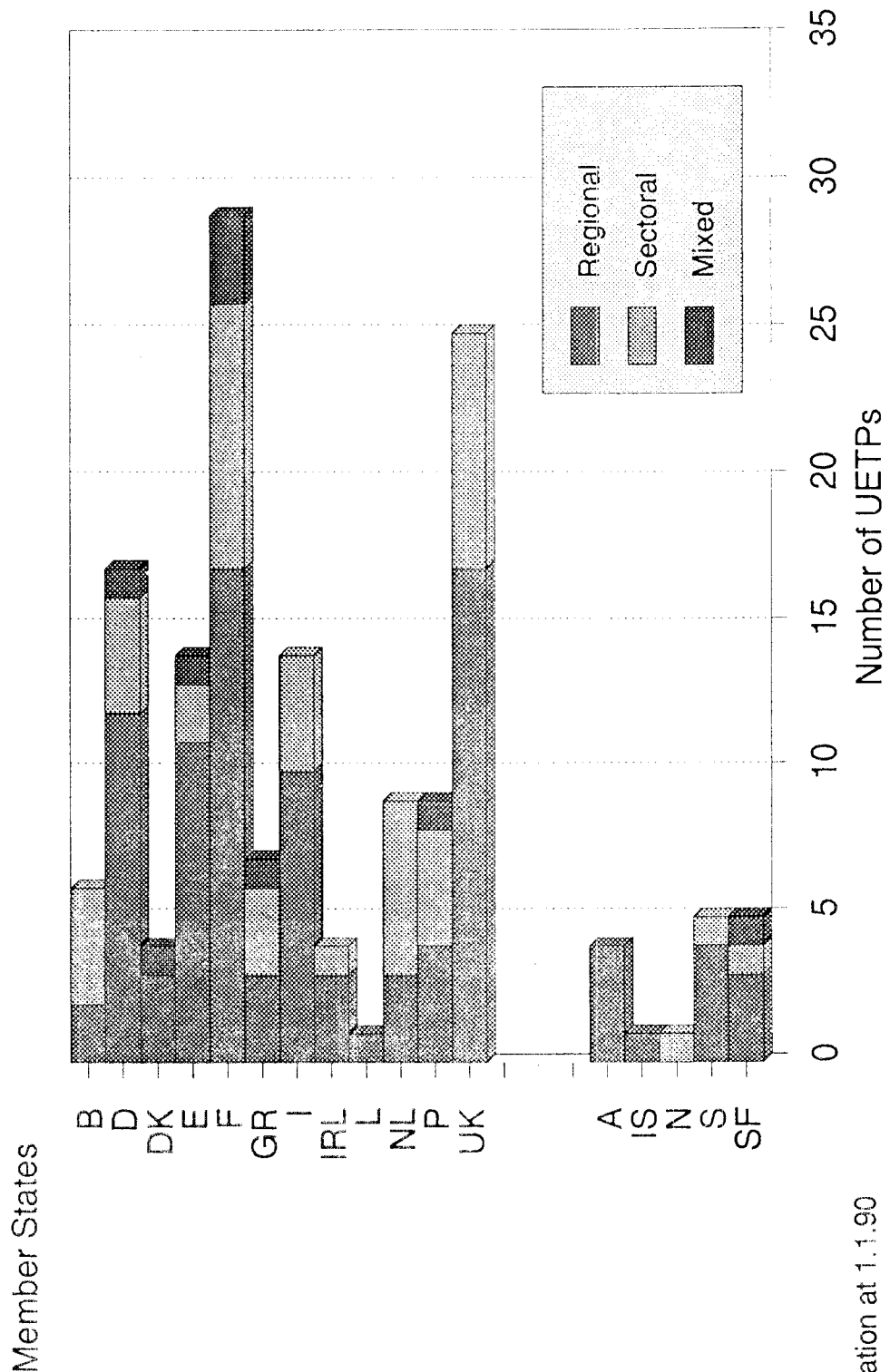
## Distribution by Strand and contractor country



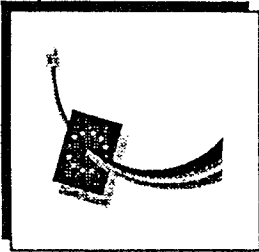
COMETT Office - T 2



# Distribution of UETPs in COMETT II by Member State



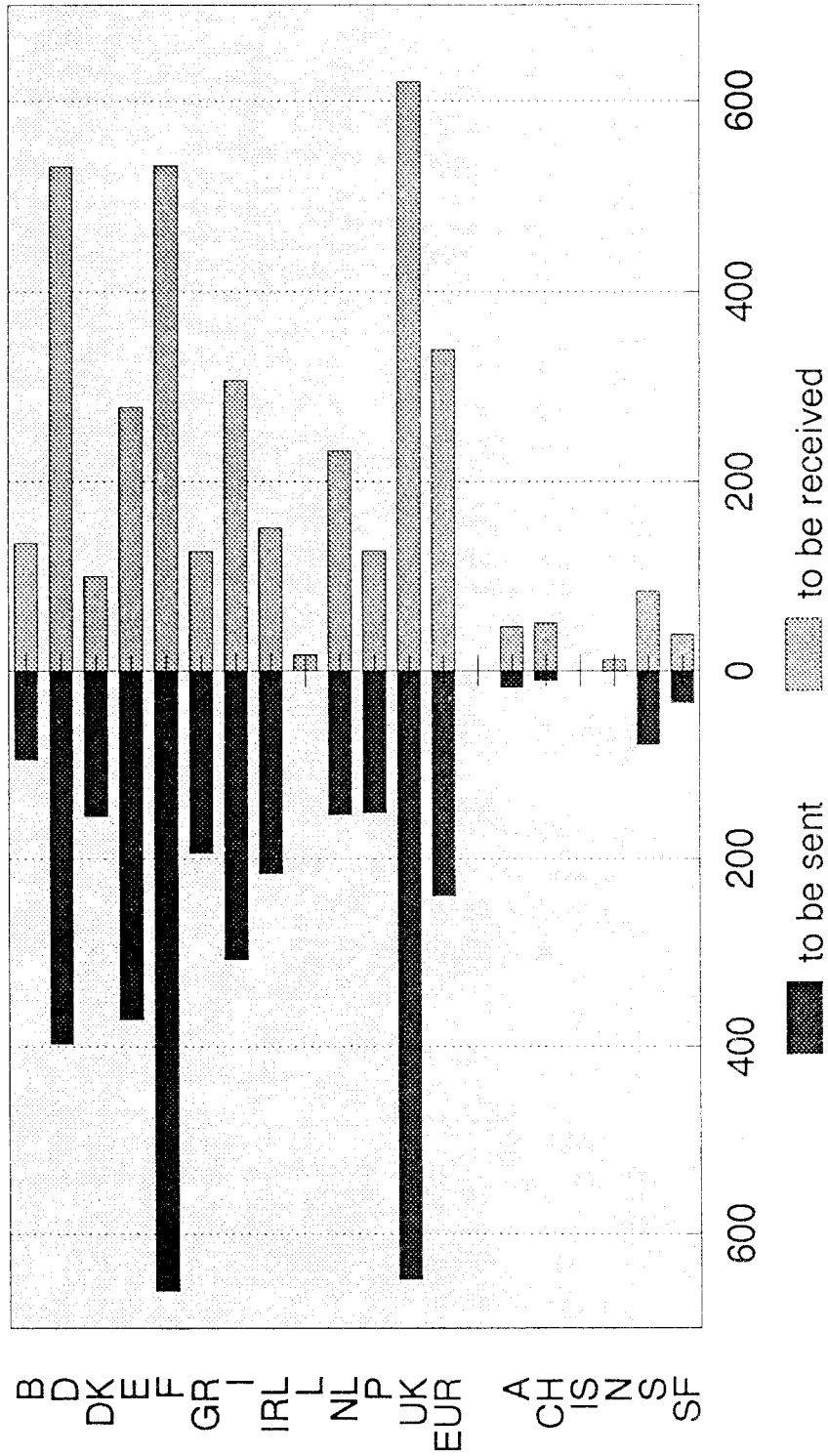
Situation at 1.1.90  
COMETT Office - T 3

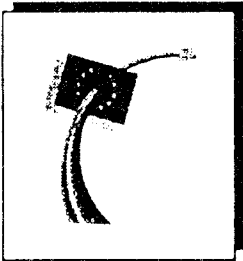


# Students exchanges

## Students sent and received by country

### Projects accepted in 1990

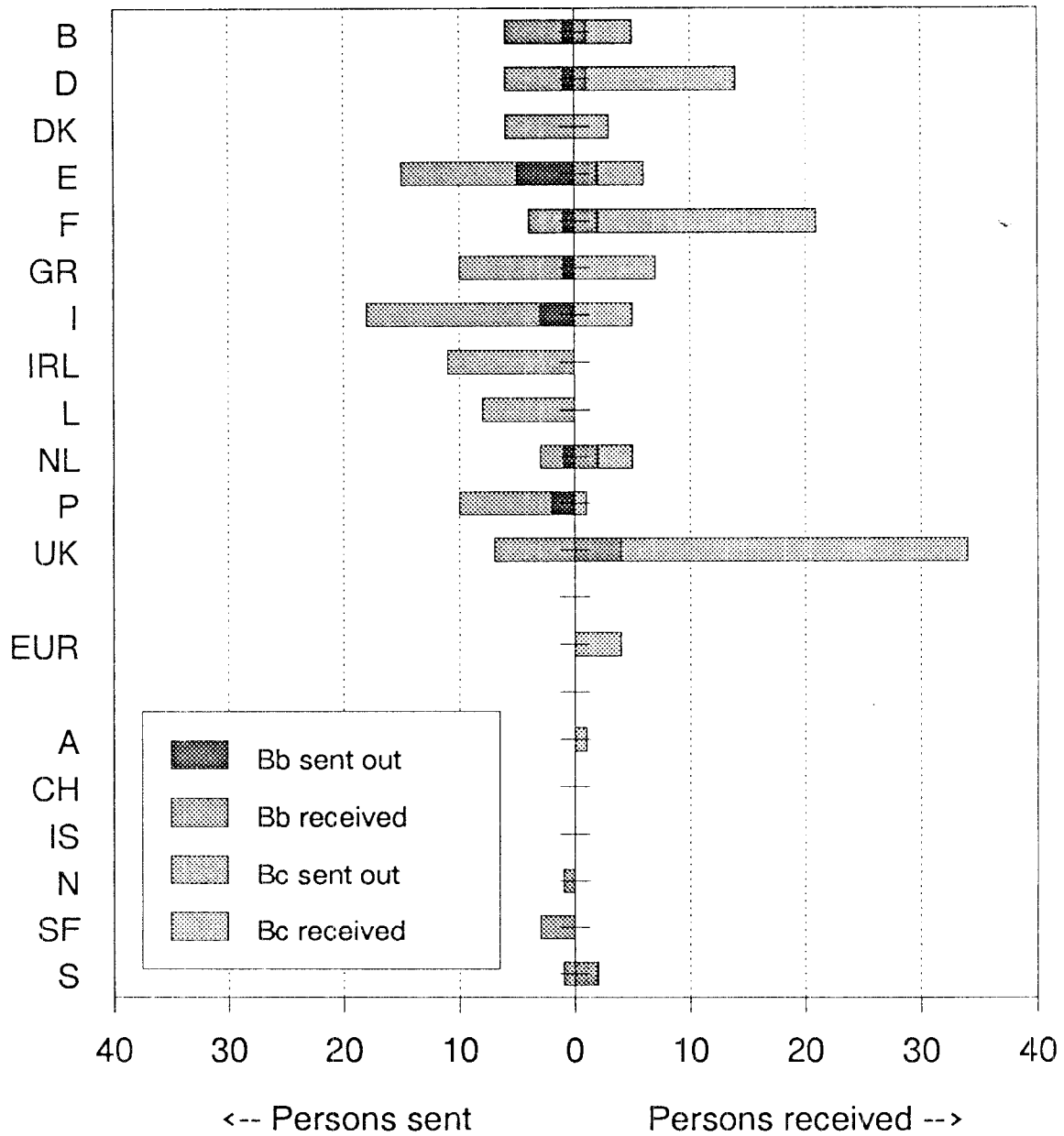




# Strand Bb and Bc

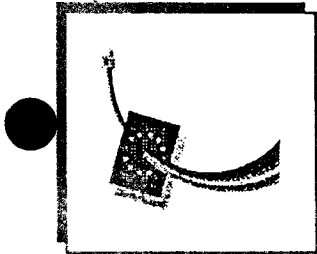
## Inflows and Outflows

### Projects accepted in 1990

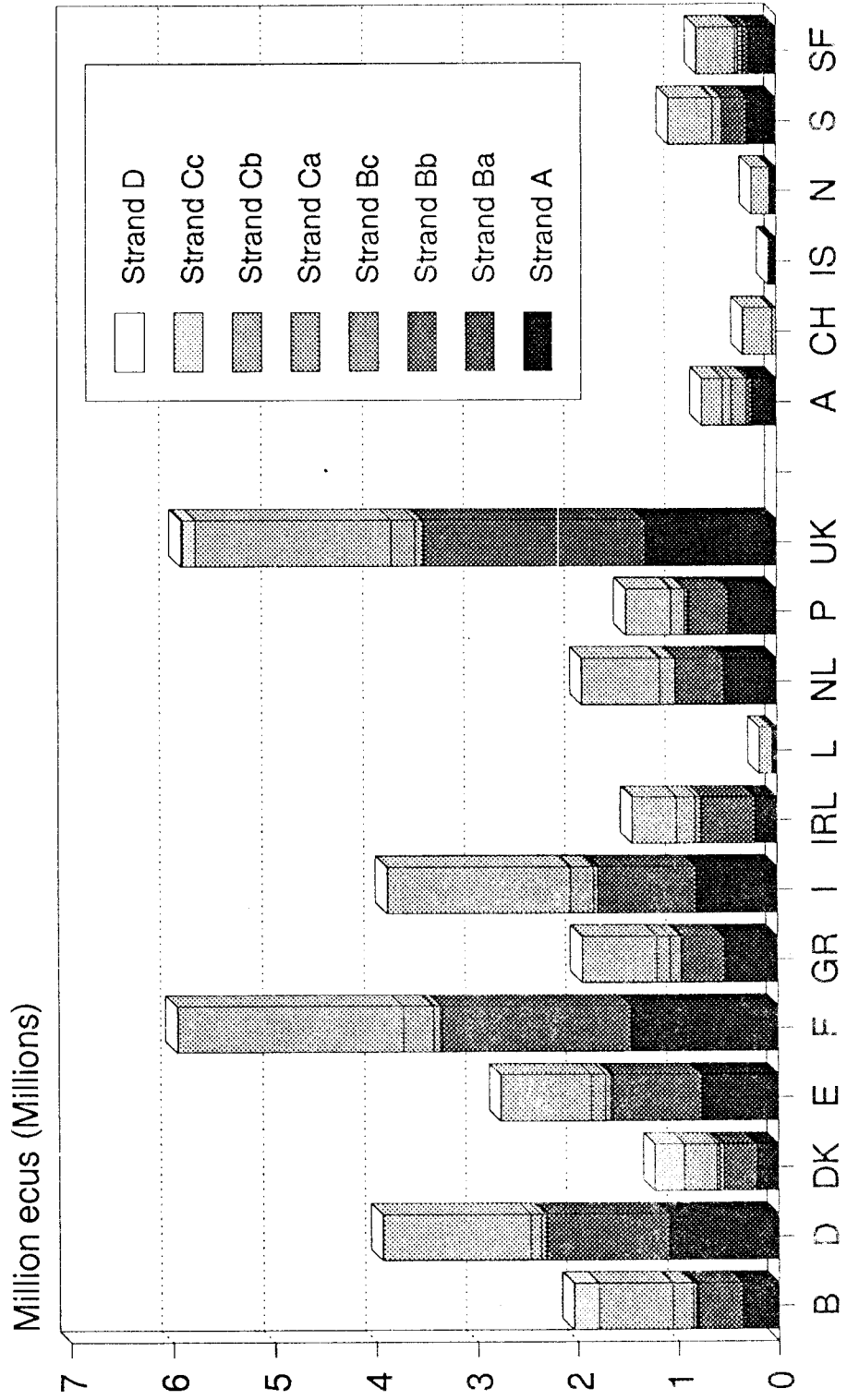


COMETT Office - T 5

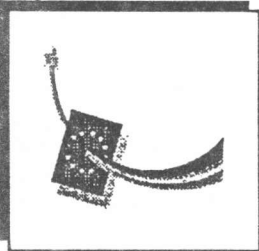
**COMETT**



# Distribution of amounts allocated in '90 by Strand and contractor country (first year)

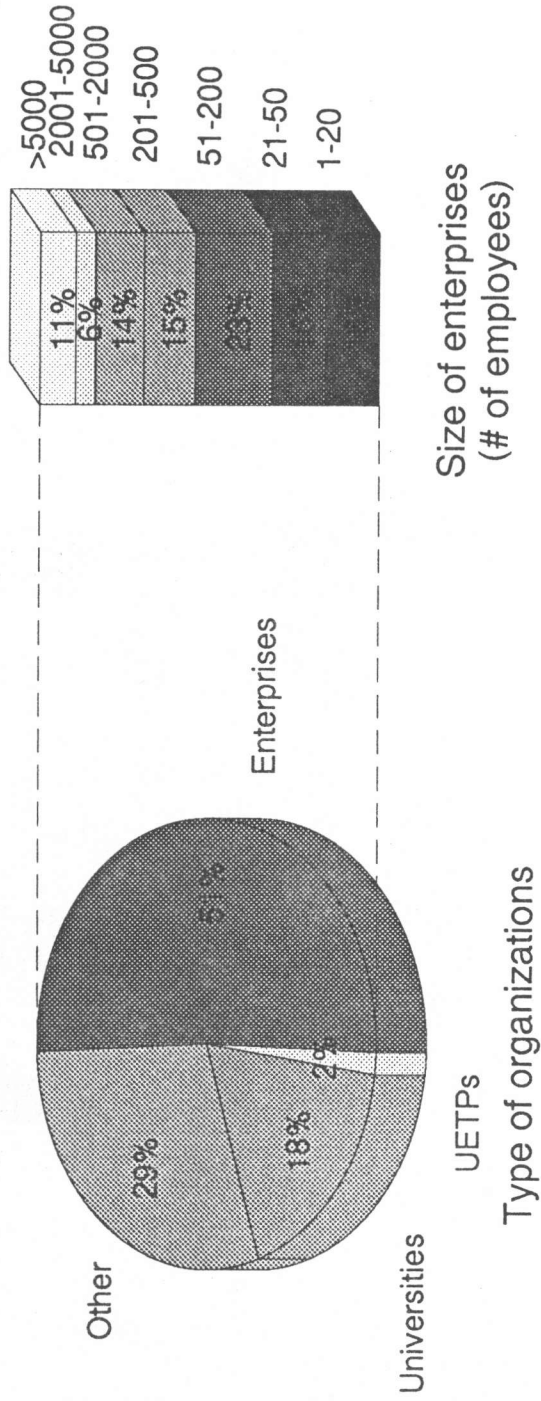




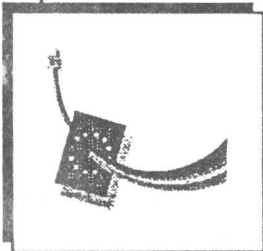


# Organizations involved in COMETT

Participation in projects accepted  
1990 Call for Applications

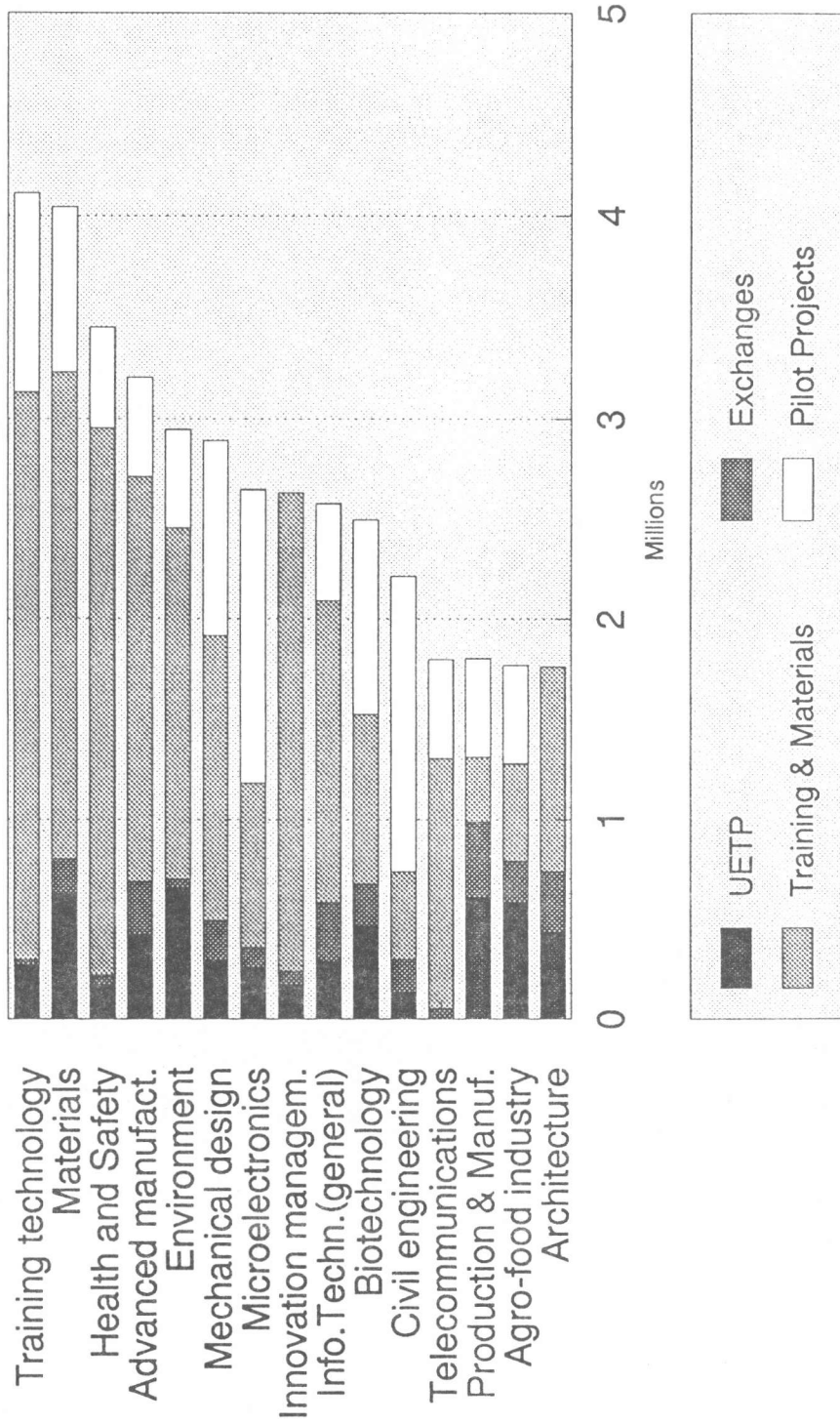


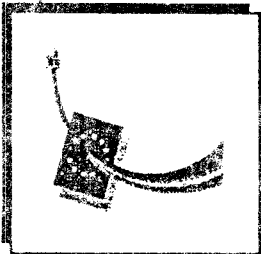
Total number of organizations involved : 7 800



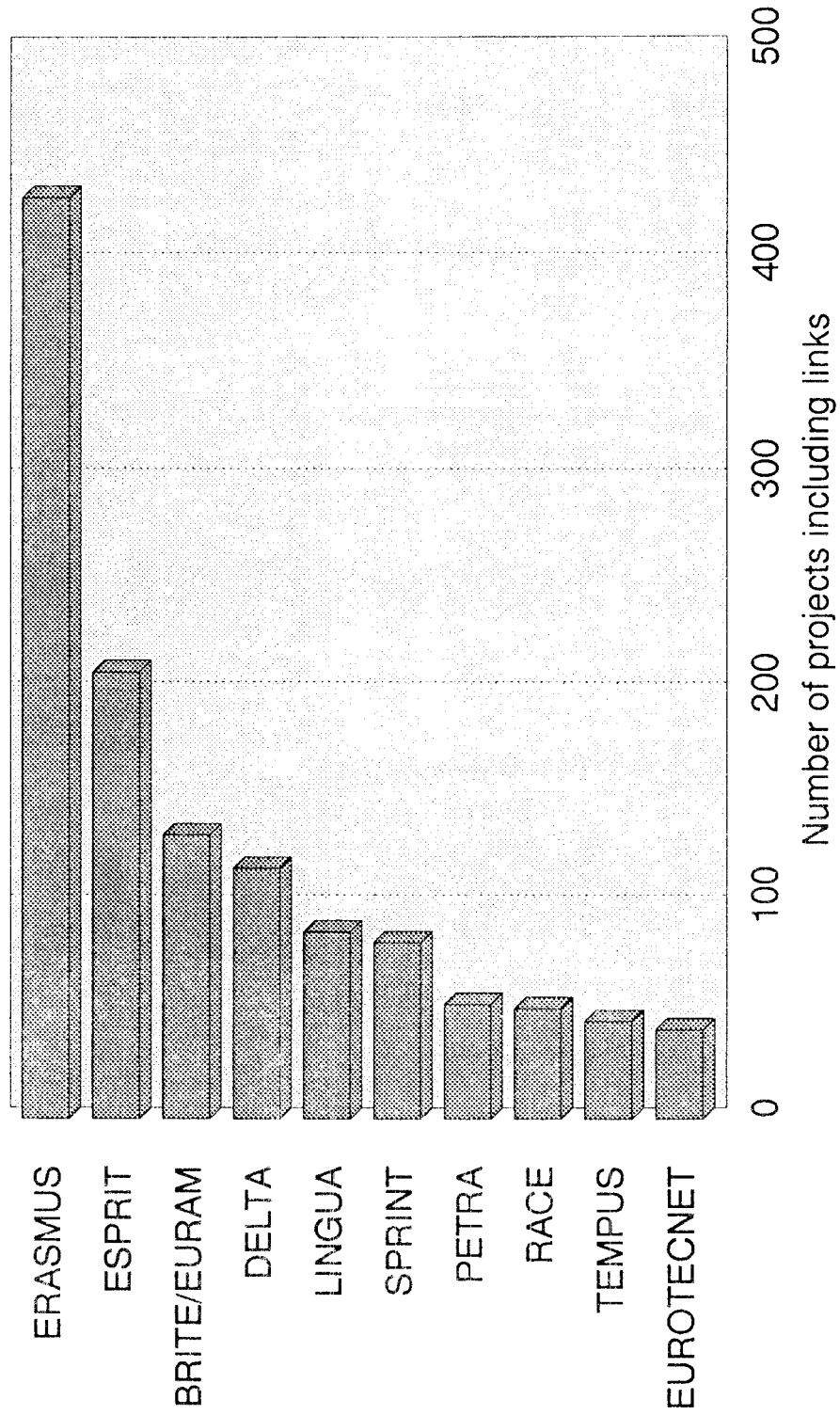
# Technology Sectors

Total distribution of amounts allocated  
Accepted projects in 1990





# Links between COMETT projects submitted and Community Programmes (1990 Call for Applications)



COMETT Office - T 9

ANNEX 2

COMETT Publications 1990

## COMETT PUBLICATIONS 1990

▶ **Directory of COMETT projects No. 4** - December 1989

The directory includes a collection of summaries of all the projects supported under the fourth Call for Applications 1989, with a reference to the name and address of the coordinator responsible for the project, an identification of the fields covered and all the project partners. It also includes lists and statistics on the fourth Call.

▶ **Development of COMETT. Report on projects accepted in 1988** - July 1990

This report follows the first "Development of COMETT" issued in March 1989 and describes and analyses the progress during 1988/89 of the projects accepted under COMETT I in 1987 and 1988. It is based on the reports submitted by contractors, supplemented in certain places by other information gathered as part of the internal monitoring process.

▶ **Catalogue of COMETT outputs. Second edition.** - September 1990

This Catalogue replaces the first edition of the "Catalogue of COMETT outputs" which appeared in August 1989. It provides information about the outputs produced by all COMETT projects during the first two operational years of the programme. It is based exclusively on data provided by project promoters in response to an annual project evaluation survey.

▶ **COMETT Project Compendium (French version)** - May 1990

This is the French version of the Compendium issued in English in December 1989. It includes basic information on all COMETT projects accepted under all Strands and application rounds of COMETT I. Projects are listed with the project title, a short indication of the nature of the project and the contact person and address.

▶ **COMETT Report of Activities 1989** - April 1990

This document represents the Annual Report referred to by the terms of Article 5 of the Decision of the Council establishing the COMETT programme. The purpose is to formally record an account on the progress made in the implementation of the COMETT programme in 1989.

▶ <b>COMETT Bulletin</b> -	No 7	February 1990
	No 8	July 1990
	No 9	December 1990

The COMETT Bulletin appears three times a year and contains a range of articles relevant to COMETT. It is used as an important information channel towards COMETT projects and all organisations interested in the programme.

▶ **Vademecum (Version 1990)**

This is a slightly revised version of the Vademecum issued first in October 1989. It contains essential information about the COMETT programme and sets out the objectives and operational components. It now includes the EFTA guidelines and the Decision on COMETT II.

▶ **Application Package 1991 (November 1990)**

The Application Package is addressed to those intending to make an application for support under the COMETT programme. It concentrates on detailed guidelines for submitting applications and includes the application forms to be used for submitting projects under the current call for applications. The Application Package 1991 was made available only to COMETT II UETPs, as it concerned a restricted call reserved for these consortia.

Note: Given the fact that decisions on pilot projects were only taken in November 1990, no official publications on accepted COMETT II projects were made available in 1990. However, numerous provisional documents were issued (many of which were distributed to the COMETT Committee, the Information Centres and the COMETT UETPs), including statistical analyses and short project summaries on accepted projects.

**ANNEX 3**

**COMETT Committee Members**

**COMETT EFTA Joint Committees Members**

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**ANNEX 4**  
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