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COMETT PROGRAMME

REPORT OF 1989 ACTIVITIES

(presented by the Commission)

FOREWORD

This document presents the Annual Report required in terms of 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 1989. 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 the grass-roots level, where enthusiastic commitment to build strong European cooperation in this field has ensured the successful development of the COMETT Programme. In addition, in 1989 the planning and preparations for the launch of COMETT II have 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 1989.

In this report, "COMETT I" is used to refer to the first phase of the COMETT Programme which lasted from 1986 to the end of 1989. "COMETT II" refers to the second phase of the Programme which began on 1 January 1990 and which will last up till the end of 1994.

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EXECUTIVE SUMMARY

1. COMETT I - the Community Action Programme for Education and Training for Technology - became operational on the 1 January 1987. COMETT supports, on an annual basis, transnational university-enterprise projects concerned with the promotion of advanced technology training needs. The first operational phase of COMETT (COMETT I) lasted three years (1987-89).
2. 1989 was the third operational year of COMETT. In the previous two operational years, a total of 1,045 projects had been given support, some of which were limited to one year of operation, some of which continued beyond one year. In 1989, the Commission continued its support for 362 of the projects accepted in previous years and additionally accepted a further 338 new projects. This meant that:

- in 1989 a total of 700 projects received COMETT I funding;
- over the entire 3-year duration of COMETT I, more than 1300 projects were launched across the Community as a whole.

The total level of Community financial support in 1989 grew from 32.5 million ecu to over 52.5 million ecu; of which 65% went to the renewal of multiannual projects previously supported.

3. The projects supported within COMETT I have led to :
 - the establishment of 125 university-industry consortia (UETPs: University/ Enterprise Training Partnerships)
 - the sending of more than 4,000 students on placement within an enterprise in another Member State
 - the granting of 232 fellowships for exchanges of personnel between universities and enterprises
 - financial support for 329 joint continuing training projects and multilateral initiatives for the development of multimedia training systems.
4. In concrete terms, this means that COMETT I projects have already organized training courses for over 15,000 participants, developed more than 600 hours of training materials, carried out 60 major studies, established 30 databases and published 35 newsletters.
5. In addition, over 6,000 enterprises, 1,500 universities and 1,000 other types of organisations directly participated in the implementation of COMETT I projects. Many more organisations, particularly small and medium-sized enterprises, were also involved as recipients of the advanced level education and training activities undertaken.
6. In April 1989 the Commission received the final report of the external evaluation of COMETT I commissioned from Coopers and Lybrand and the Science Policy Research Unit of the University of Sussex. The evaluation had been launched at the start of December 1988. The main conclusion of the evaluation was :

"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."

7. The second phase of the programme - COMETT II - was adopted by the Social Affairs Council on 16 December 1988¹. The initial budget estimate for COMETT II is 200 Ecu Mio for the period 1990 - 1994. It was also agreed by the Council² that the Commission could negotiate for the opening up of COMETT II for participation by the EFTA countries. Proposals for the terms and conditions for the participation of EFTA countries (including Liechtenstein) have been discussed by representatives from the Commission and the EFTA countries. The terms of the proposed Agreements were submitted in December 1989 for conclusion and ratification to the European Community Institutions on the one hand and to the relevant national authorities in the EFTA countries on the other hand.
8. From November 1989 the Commission, in conjunction with national authorities, began a series of meetings in each Member State to launch COMETT II. The first Call for Applications for COMETT II in 1990 was published on 28 November 1989³. The closing date for applications under that Call is 28 February 1990. The related Vademecum and Application Package were made available, in November 1989, in all nine official languages.
9. In conclusion, it can be said that 1989 has been a year of double achievement for COMETT. First, COMETT I projects are making a significant contribution to the development of joint university-industry European initiatives in advanced technology training. These initiatives have already led to major contributions in terms of the quantity and quality of education and training delivered. Secondly, the planning and preparation for the launch of COMETT II has itself begun to generate wider interest and commitment, in both universities and enterprises, to the fulfilment of COMETT objectives - either through participation in a COMETT II proposal or exploitation of outputs from COMETT I activity.

I COMETT I

A Introduction

10. 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.
11. COMETT, the Community Action Programme for Education and Training for Technology was adopted by the Council Decision 86/365/EEC of 24 July 1986⁴ 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). 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

¹ OJ No L 13, 17.1.1989, p.28

² Council Decision 22 May 1989 (unpublished)

³ OJ No C 299, 28.11.1989, p.3

⁴ OJ No L 222, 8.8.1986, p.17

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.

12. The objectives of COMETT I are⁵ :

- *to give a European dimension to co-operation between universities and enterprises in training relating to innovation and the development and application of new technologies; and related social adjustment;*
- *to foster the joint development of training programmes, the exchange of experience, and also the optimum use of training resources at Community level;*
- *to improve the supply of training at local, regional, and national level with the assistance of the public authorities concerned, thus contributing to the balanced economic development of the Community;*
- *to develop the level of training in response to technological and related social changes by identifying the resulting priorities in existing training arrangements which call for supplementary action both within Member States and at Community level, and by promoting equal opportunities for men and women⁶.*

13. COMETT I focuses on five inter-related areas of action, each of which constitutes a Strand within the Programme as a whole:

- Strand A : the development of consortia (University-Enterprise Training Partnerships) within a Community-wide framework
- Strand B : schemes for the exchange of students and personnel between universities and enterprises
- Strand C : the development and testing of joint university-enterprise projects in the field of continuing training
- Strand D : multilateral initiatives for the development of multi-media training systems
- Strand E : complementary information and evaluation measures designed to support and monitor developments of relevance to the COMETT I Programme.

B Projects supported

(i) **Project Applications**

14. In 1989, there was only one Application Round compared with two in 1987 and one in 1988. A Call for Applications was issued in November 1988 with a closing date of 31 March 1989. The Call for Applications invited applications for new projects under Strand B (Transnational Exchanges) only. Continuity of effort in regard to the projects in the other Strands (Strands A/C/D) was ensured by inviting all existing projects of a multi-annual nature within those Strands to apply for a renewal of their projects. This approach took account of the ongoing multiannual commitments which had already been entered into in 1987 and 1988 in regard to the projects in Strands A/C/D.

⁵ Article 3 of Council Decision 86/365/EEC 24 July 1986.

⁶ These objectives were modified in relation to COMETT II (cf. Section III of this report).

Table 1 - Number of new and renewal project proposals received in 1989

| | | Renewal | | New 1989 |
|--------------|----------|------------|------------|-------------|
| | | 1987 | 1988 | |
| Strand A | : | 102 | 19 | - |
| Strand Ba | : | - | - | 391 |
| Strand Bap | : | - | - | 93 |
| Strand Bb | : | - | - | 286 |
| Strand C | : | 102 | 83 | - |
| Strand D | : | 49 | 29 | - |
| TOTAL | : | 253 | 131 | 770 |

A further analysis of applications, including participation by Member State is given at Annex 1.

15. These impressive figures demonstrate for a third successive year the enormous interest which COMETT I continues to stimulate in the development of training cooperation at European level in university/enterprise cooperation.

16. 1988 had already witnessed the innovative and successful development, under Strand Ba, of Student Placement Pool arrangements with the COMETT consortia. Under this scheme, the COMETT university-enterprise training partnerships receive from the Commission a "pool" of student placement grants which can be allocated flexibly over the ensuing academic year to students undertaking a placement in industry in another Member State. The consortia are required to specify the number of students they wish to support and the destination Member State, but without having to identify the receiving enterprises at the application stage. The success of this initiative is reflected in the fact that the majority of COMETT consortia are participating actively in the Pool scheme and almost 80% of the COMETT placements in 1989 were arranged in this way (the remainder occurring within agreements between individual universities and enterprises⁷). In 1989 for the first time, the COMETT consortia were allocated grants which enabled them both to receive students for placement in their Member State and to send students for placement in another Member State. Overall, these arrangements not only enhance flexibility for the COMETT consortia but consolidate the relationships within the network of consortia across the Community as whole. Over time, it is hoped that this scheme could develop as a major infrastructure to facilitate transnational mobility of students for industrial placement.

(ii) **The selection process**

17. The selection process corresponded closely with practice in previous years of operation, comprising in summary :

First, the assessment of the applications is undertaken by the services of 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, to prepare the ground for the other stages in the selection procedure. The overall process, given the limited nature of the 1989 Call for Applications, meant that as much if not more effort was concentrated on projects proposed for renewal as against the new proposals under Strand B (Transnational Exchanges).

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

⁷ This type of arrangement is referred to as the "Free Mover" system.

in favour of SMEs. The inter-services consultation set up for this purpose assisted in identifying from among the projects put forward those which, from the point of view of the other Community programmes, represented special interest - in other words, favouring synergies.

It was then necessary to subject the approach adopted to scrutiny by independent experts from universities and industry. For the assessment of projects to be renewed in the Fourth Application Round the Commission again called upon the COMETT Experts Group which met in Brussels on 24-26 May 1989.

The proposed draft list of accepted projects (including both new and renewal projects) was thus drawn up and submitted to the COMETT Committee on 13-14 June 1989. 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, decided upon a final list of projects for Community support.

18. The criteria used for the selection of projects were those given in the Guide for Applicants. To be eligible, projects must have involved cooperation between both universities and enterprises relating to post-secondary level training concerned with technology, science or management development related to the Research and Development fields established as priority areas for Community action, fields in which technological change is significantly altering skill requirements or fields concerned with the social implications of technological change (eg health and safety, industrial relations, legal questions).
19. Projects had to involve transnational cooperation between at least two Member States (except for Strand A training partnerships of a regional character). Particular attention was also given to the potential links between proposed projects and other Community priorities and programmes, including actions to assist with the less developed regions, the involvement of SMEs and ensuring the equality of opportunities for men and women. The potential contribution of projects to the strengthening of economic and social cohesion within the Community is a further factor which plays an important role in project assessment.
20. In assessing the applications for the renewal of existing projects, due recognition was given to the novelty of projects first supported in the 1988 round. In particular it was recognised that at the date for the submission of their renewal application, many projects were still in their initial stages of establishment having been underway for only a maximum of six months. However, projects first supported in the 1987 rounds were subject to more intensive assessment in which both their achievements to date and the nature of their proposed work programme were subject to special consideration.

(iii) **1989 Results - Accepted Projects**

21. The results of the 1989 Round are given in Table 2 :

Table 2 - Number of Projects Accepted or Renewed in 1989

| | 1987 | Renewal 1988 | New 1989 |
|--------------|------------|-----------------|-------------|
| Strand A | 96 | 19 | - |
| Strand Ba | - | - | 161 |
| Strand BaP | - | - | 89 |
| Strand Bb | - | - | 88 |
| Strand C | 91 | 81 | - |
| Strand D | 46 | 29 | - |
| TOTAL | 233 | 129 | 338 |

22. A number of projects which had been accepted in 1987 or 1988 were not renewed for a further year. In part this was because no renewal application was received; either because the project had been completed or there was some other reason for the project promoter wishing to withdraw from participation in the COMETT programme. However, a number of projects, after full consultation with both the COMETT experts group and the COMETT Committee, were not accepted for renewal.

Further statistical analysis of submitted and accepted projects is given at Annex 1.

23. The total level of Commission support allocated in the 1989 Round is given in the following Table :

Table 3 - Amounts allocated by Strand (in ecu) - 1989 Round

| | 1987 | Renewal 1988 | New 1989 |
|--------------|------------------|------------------|------------------|
| Strand A | 3,712,000 | 745,000 | - |
| Strand Ba | - | - | 931,177 |
| Strand BaP | - | - | 4,835,695 |
| Strand Bb | - | - | 602,475 |
| Strand C | 3,154,000 | 2,619,500 | - |
| Strand D | 2,158,000 | 1,365,000 | - |
| TOTAL | 9,024,000 | 4,729,500 | 6,369,347 |

(iv) **Progress and achievements of projects accepted**

24. The projects accepted under COMETT are required to submit a Final Report at the end of each year of operation, detailing the activities carried out during the contract period. A detailed analysis of the reports on the period 1 September 1988 to 31 August 1989 was undertaken during 1989 and resulted in a report entitled "Development of COMETT - Report on Projects accepted in 1987". This report examined in particular the development of projects within each Member State and within each Strand of COMETT, and the following paragraphs summarise the main findings.

25. For each of the Member States, the Report describes the extent and nature of the projects currently led by promoters from the Member State in question, as well as indicating the qualitative progress made. There is overall good coverage in all Strands

in every Member State, although there are inevitably variations. In terms of overall levels of participation in COMETT I projects⁶, one can observe five groups:

- the most active participants in COMETT I are France and the United Kingdom, which are both participating in about 50% of all COMETT I projects
 - the Federal Republic of Germany and Spain are participating in 30-33% of all COMETT I projects
 - Italy, Belgium, and the Netherlands are present in 20-25% of all COMETT I projects
 - Portugal, Greece, Ireland, and Denmark are taking part in 9-16% of all COMETT I projects
 - Luxembourg is participating in 1.4% of the COMETT I projects.
26. Qualitatively, the progress made by the projects is extremely encouraging, especially given that the COMETT I projects are by definition transnational initiatives between universities and enterprises which require careful and often lengthy planning during their first year. It is therefore expected that the third (in some cases the second) year of project development will provide even more insights into the process of university-enterprise cooperation in training and will be the more decisive period in terms of the training products and structures which COMETT is promoting.

(v) **Strand A : University-Enterprise Training Partnerships**

27. There are currently 125 consortium agreements in operation in the Member States, amongst which 66 are regional, 31 are sectoral in nature, and 28 regional and sectoral. With regard to geographical distribution of the consortia, the report identifies:
- countries where theoretically there is more or less complete geographical coverage by the UETPs (IRL, UK)
 - countries with extensive geographical coverage but where there remain some gaps (E, F, L, P)
 - countries with significant geographical coverage but nevertheless with more vital gaps than above (B, D, DK, I)
 - countries where the coverage is rather random and therefore leaves significant areas which are not covered by UETPs (G, NL).
28. The network of sectoral consortia has been considerably strengthened in 1989, but it remains less developed than the regional one. An analysis of the technological and industrial sectors of the sectoral and mixed consortia shows the following pattern:
- 9 consortia focus on the broad field of *Information Technology* (including areas like data processing, software technology, expert systems, telecommunications)
 - 7 consortia are basically concerned with training in *Microelectronics Technology* (in particular semiconductor technology, VLSI and ASICs design)
 - 7 consortia are working in the area of *Advanced Manufacturing Technology* (automation, CIM, robotics)
 - 6 consortia focus on *Biotechnology and/or Agrofood* training

⁶ "Participation" in this context is measured in terms of the Member State in which a participating organisation (whether promoter or partner) is located. Therefore, a project in which a Portuguese organisation is participating (whether as promoter or as a partner) is counted as one in which Portugal is participating.

There are 3 or 4 consortia in the following areas : *Mechanical Engineering, Energy, Environment, Materials, Textiles, Mathematics, Training Technology*

Within each of the following sectors there are 2 consortia : *Marine sciences and Offshore, Civil Engineering, Quality, Pharmacy, Chemical Engineering*

1 consortium exists in each of the following areas : *Graphic Information Technology, Coal Technology, Electrical Engineering, Regional Planning, Product and Process Management, Wood Technology, Biology and Medicine, Innovation Management, Aeronautics and Maintenance, Finance, Law and Information Technology, Women and Technology.*

29. It can be observed that most sectors relate to technology fields rather than to specific industrial sectors. Note, however, that all regional UETPs have specific sectoral activities, depending on the industrial needs of their region. In general these fall under the broad classes of Information Technology and Production and Manufacturing.
30. The pattern of sectoral and mixed UETPs shows that there are still important gaps to be filled and that more industrial backing is needed. The need for balance across the Member States led to the selection of some sectoral UETPs in Member States where there were few strong regional UETP candidates; in several cases, this meant that there was a discrepancy in the level of those sectoral UETPs in comparison with other sectoral candidates coming from other Member States.
31. A plenary conference for COMETT consortia was held in Brussels on 2-4 October 1989. Entitled "COMETT II : A New Challenge for UETPs" it provided, in particular, an opportunity to review the development of the network under COMETT I and identify priorities for development under COMETT II. The conference was able to draw upon a detailed analysis of the development of the network of consortia and its activities. The conference was also important in enabling those responsible for the management of consortium operations to identify key criteria for the successful operation of COMETT consortium activities. Particular attention was also given to the operation of student placement arrangements amongst the consortia (Strand Ba) which has developed into a major area of activity for many consortia.
- (vi) **Strand Ba-BaP: Transnational student placements in enterprises**
32. While in the first two years in COMETT I the number of submitted student placements has remained more or less at the same level, in fact, there has even been a slight decrease (from 4972 to 4837), the demand really boosted in the third year to 8237. One of the main reasons for this development has obviously been the introduction of the POOL-SYSTEM. In the third round (1988) when the new system was introduced at rather short notice 62 UETPs already applied for 2130 student grants. This figure was even more than doubled in the fourth round (1989): 92 out of 125 UETPs asked for 5018 placements to be supported. In other words: While in 1988 53.6% of all UETPs had a 44.0% share in the projects submitted, 73.6% of them participated in this system in 1989 increasing the UETPs part to 60.9%. Realizing that UETPs as well as their individual partners also applied outside the POOL-SYSTEM for the so-called FREE MOVER grants, the real share of UETPs in Ba proposals is much higher, probably reaches 80%.
33. The Pool System was introduced in the third Application Round as a response to the fact that the existing procedure of having to identify the specific company for each named student at the time of application was rather rigid. The Pool System was intended to give a better flexibility to promoters as regards advance identification in each case of the enterprises, jobs, students, receiving country. While still having to fulfill the same quality criteria as before, the procedure of verifying compliance with these conditions became a post- rather than a pre-event; only UETPs were entitled to apply for a pool of students. Additionally, the pool was intended to facilitate the administration of student placements on the Commission's side, while safeguarding a

sound quality by means of associating the placements with the UETP's transnational co-operation and their range of activities.⁹

34. With regard to Member State participation, France, the United Kingdom and the Federal Republic of Germany are the most frequently represented countries in the student placement exchanges. With regard to "import/export" rates of students, the Member States in 1989 fare as follows:

- countries where more students are sent than received ("net exporters"): B D DK F G
- countries where more students are received than sent ("net importers"): E I NL P UK
- countries more or less in balance: IRL

35. If one compares the number of FREE MOVER grants with that of POOL students in 1988 already the dominance of POOLS is obvious in all Member States, with the exception of DK and GR. In 1989 in DK only more FREE MOVERS than POOL students are sent; in all the other Member States a further increase of POOL students has taken place. In fact, the pools reach (with the exception of DK) almost at least 65% of all grants per Member State, in some countries (E, P) even more than 95%.

36. If one compares the number of applied FREE MOVERS at Member State level it becomes evident that between 1988 and 1989 the sharpest increases were in D, F (by nearly 70%), while in particular in B, IRL NL and P the figures decreased considerably. One has to add the figures from the POOLS to identify whether the Member States interest has really decreased. This was the case in B only; indicating therefore that the other Member States thrust for Ba-projects had been diverted to the POOLS.

(iix) **Strand Bb : Transnational fellowships**

37. In the fourth round of selection (1989), 88 fellowship applicants were accepted. As regards the profile of the fellowship recipient, there is almost a balance between those originating from universities and those coming from enterprises. Among the fellowship recipients from the universities, most are teachers. Among the recipients from enterprises, a slight predominance of executives can be seen as compared with technicians. Concerning sectors, most projects have been realized in the domains of Production and Manufacturing, Computer Science and Management. In general, the projects are quite well distributed across the other technology sectors.

38. The fellowships have significantly contributed towards encouraging university-enterprise cooperation transnationally. One of the main contributions towards the realisation of the placements was the implementation, in some cases, either of joint university-enterprise training projects, or the development of already existing training projects. Likewise, we can confirm the important role played by some of these fellowships in strengthening relations between COMETT consortia, as a result of new contacts established while seeking receiving organizations or, more importantly, as a result of the development of training projects implemented during the fellowship recipient's placement period and which will be distributed by means of the association(s).

39. The fellowships served important training needs of both university and industry staff, such as :

- the updating/development of knowledge relating to advanced technologies and the most recent R&D results in limited and specialized fields of equal interest to both the university and the enterprise;
- the transfer of this new knowledge to other Member States;

⁹ further figures can be found in Annex 1

the new links created between universities and enterprises during the carrying out of the placement, giving a point of contact in another country which will aid the future development of the enterprise or training establishment.

40. It should be noted however that in a fairly high number of fellowships, there is a strong tendency to have the development of specialized knowledge by the fellowship recipient as the only aim, without this knowledge being redistributed at subsequent stages. Given the common objective of all the strands in the programme, i.e. training in new technologies at a transnational level, and the possible impact that the fellowships might have in the development of COMETT consortia and training projects, due consideration will in future be given to fellowships which are integrated into the general dynamic of the programme, helping to strengthen university-enterprise cooperation and contributing towards the development of training actions.

(ix) **Strand C : Joint continuing training projects**

41. In 1989, there was no call for applications under Strand C. In 1987, 137 C-Projects have been accepted, out of which 126 have been renewed in 1988. In the third round (1988) 97 new C-Projects have been accepted, in the fourth round (1989), 187 renewal C-Projects have been supported. A qualitative analysis has been undertaken for the years 87 and 88 and the following facts are based on it.
42. As regards the nature of the projects, short training courses are still predominant, with even a slight increase since 1987. The long period training remains stable, a certain increase can be observed in the number of seminars referring to D-Projects (+2%). This phenomenon can be explained by the development of the high number of multimedia training products, which necessitate an investigation before being diffused on a wide scale, and by other types of action (+3.6%), like information events or even specialized colloquia.
43. Regarding training materials, 90% of them are written documents, with a slight increase during the last years (5%), as most seminars are accompanied by written documents.
44. There are very few technological sectors that are not covered by Strand C-proposals. Anyhow, the main sectors remained Advanced Production and Manufacturing (36.8%), where Automation and Advanced Manufacturing, Mechanical Design and Analysis, and Microelectronics Technology are most frequent. The Management sector is of second importance (26.5%), with almost exclusively Production Planning and Innovation Management, then, with 17.5% Occupation of the Earth Surface, mainly Architecture and Applications of Biology and Chemistry, and Information Technology (data- and information processing).
45. In the 1988/1989 period, more than 800 seminars have been realized under Strand C Projects, which represents about 547 000 training hours. Compared to the previous year, substantial progress has been made: the number of seminars has increased fourfold, the number of "stagiaires" has tripled and there has been a slight increase of the average length of seminars and a doubling of the number of stagiaire-hours.

(x) **Strand D: Multilateral multimedia training initiatives**

46. As in Strand C, in 1989 only renewal D-projects were accepted. 78 renewal projects were supported in 1989. The following analysis is based on the annual reports that the 1988 projects were required to submit in Autumn 1989, including both new and renewal projects, the statistical analysis based on the reports of 84 projects (55 from 1987 and 29 from 1988).
47. As regards the nature of the projects, a predominant use of written documents and computer based training materials can be noted (88% and 84%). However, the use of simulations has increased since 1987.

48. There is considerable interest in Strand D from most Member States. The predominance of F, UK, and, to a lesser extent, I, is balanced by the strong participation of other Member States, in particular DK, E, NL and P.
49. The level of usage of each distribution method has increased over the 1987 activity. One reason for this is the recognition by many projects of the need to use a broader range of delivery methods to reach their target audiences. Only limited information was provided on the arrangement being made for tutorial support, however, it can be noted that a number of projects are testing the use of computer conferencing to supplement other approaches. Nevertheless the local and postal distribution still remain the most utilized means (84% and 72%) even if there is an increase in distributions via the network (25%) and satellite (16%).
50. A particular important development is that over 83% of projects have now integrated the problem of maintenance and updating into the design of their programmes. This is an improvement over the 1987 projects when 47% of projects gave no indication of how programmes would be maintained.

C Programme implementation

(i) **COMETT Committee**

51. The development of COMETT 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. The Commission chairs the Committee and provides its secretariat.
52. 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.
53. The Committee met formally on four occasions (26/27 January 1989, 12 May 1989, 13/14 June 1989 and 29/30 November 1989) and also once informally (9/11 April 1989) to discuss the development of COMETT and to contribute towards the development of the proposals for COMETT II. A list of members of the COMETT Committee is given at Annex 5.

(ii) **COMETT Information centres**

54. To facilitate and promote the dissemination of information about COMETT, national Information Centres have been established within each Member State. Each Member State 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 Member States according to individual needs and circumstances. The Commission provides some funding support towards the costs of activities undertaken by the Information Centres. In addition the Commission supplies various items of promotional literature and display materials for use by Information Centres.
55. A list of COMETT Information Centres is given at Annex 6.

(iii) COMETT Experts group

56. 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 Member State, ensuring awareness of the level of technology exploitation in all regions. The Experts met on 24 - 26 May 1989 with the main objective of examining the project proposals received by the Commission under the 1989 Call for Applications. Their contribution helped to ensure that the Commission was able to select the most appropriate range of projects to achieve COMETT objectives.
57. In addition, the COMETT Experts Group participated in the discussions on the planning and preparations for COMETT II. Following an extensive discussion at its May 1989 meeting, a special meeting of the Experts Group was held on 21 - 22 September 1989 in Valencia (E) to discuss the possible role of the Experts Group which is explicitly mentioned in the COMETT II Decision.

(iv) Links with other Community programmes

58. 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 animation 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 DELTA¹⁰ in view of the complementary objectives of the two programmes in the field of technology support for education and training. Numerous other coordination actions have been taken during 1989 in relation to specific Community R & D programmes (notably ESPRIT¹¹/VLSI Design 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).
59. During 1989 a joint study was undertaken in conjunction with the SPRINT programme to research the role and, in particular, the training needs of Industrial Liaison Officers (ILOs). The outcome of this study will assist in the identification of targeted training responses appropriate to the needs of staff specifically concerned with the promotion of joint university - enterprise collaboration across a range of activities, including the identification and meeting of advanced technology training needs through transnational cooperative projects which is one of the primary aims of the COMETT programme.
60. In the education and training field COMETT complements the activities of the ERASMUS¹² programme for the mobility of university students and the EUROTENET¹³ programme for basic vocational training for the new information technologies.
61. The ERASMUS Programme was adopted by the Council in June 1987 to promote inter-university co-operation and in particular to increase substantially the number of university students carrying out a period of integrated study in another Member State.

¹⁰ DELTA - Developing European Learning through Technological Advance. Council Decision 88/417/EEC O.J. N L206, 30 July 1988, p.20.

¹¹ 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.

¹² 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.

¹³ EUROTENET - Community wide network of demonstration projects in the field of New Information Technologies and Vocational Training. COM (85) 167 Final.

Although there are a number of important differences between the specific aims, objectives and actions of the two Programmes, both COMETT and ERASMUS have the common policy aim of encouraging students to spend periods of recognised study in other Member States. Close links have therefore been established to ensure close coordination of the overall implementation and monitoring of the two Programmes. There has been reciprocal attendance at meetings of the COMETT and ERASMUS Committees and advisory bodies, as well as direct contacts between the COMETT and ERASMUS teams. In particular, there has been coordination of the selection timetables for both Programmes, as well as detailed monitoring of the decisions on funding for individual projects.

62. The experiences of both Programmes in regard to the foreign language preparation necessary for successful study abroad, have contributed significantly to the design and development of the Commission's LINGUA Programme which was accepted by the Council on 22 May 1989¹⁴ to promote the quantity and quality of training in foreign languages through complementary actions at Community and Member State level.
63. The Industrial R & D Advisory Committee of the Commission (IRDAC) is a consultative group of leading European industrialists established by the Commission to advise on the development and implementation of R & D Programmes in the industrial sector. Following the 1988 publication of its report on COMETT¹⁵, IRDAC during 1989 established a further working group "IRDAC Working Party 11 - Education and Training" with the secretariat provided by COMETT. Its terms of reference include several matters of direct pertinence for COMETT, particularly the question of skills shortages and of the training requirements of the Community R & D programmes. The working group will produce its first report in 1990.

(v) Meetings, studies and groups

64. During 1989 a number of special meetings and studies were carried out to contribute to the overall animation of the programme 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.
65. During the first quarter of 1989, national meetings of the COMETT consortia were held in most of the Member States. The purpose of these meetings was to examine a number of key topics relating to the future development of these consortia and the strategy to be followed by the Commission in relation to the 1989 Call for Applications and the renewal of the 1987 and 1988 projects.
66. Bilateral meetings were held with the COMETT Committee representatives from each Member State. 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 COMETT II.
67. During the year a number of analyses were made of the development of COMETT I within individual Member States and within each Strand. These established the considerable progress being made, as well as identifying priority issues to be addressed during the remainder of COMETT I and during the planning and implementation of COMETT II.

¹⁴ COM (88) 841 Final of 6 January 1989 - Proposal for a Council Decision submitted by the Commission.

¹⁵ "Opinion on the Development of COMETT", IRDAC Working party 7, June 1988

68. In October 1989, the Commission held an informal meeting to discuss the arrangements being made for the open and distance learning component in COMETT II. In particular the Commission was keen to draw upon the development of COMETT I projects, as well as other European open and distance learning initiatives. Including, in particular, the proposed development of a "European Open University Network" based on a network of existing organisations which - for example - could be linked to both COMETT II multimedia projects and the COMETT network of consortia.

69. The Commission continued in 1989 its activities in the information and publications field. These activities included:

- the publication of various analyses and reference works on the COMETT I projects, in particular a comprehensive Compendium of COMETT I Projects and the first issue of a Catalogue of Training Outputs from COMETT I projects
- publication of a further three issues of the COMETT Bulletin;
- conclusion of a pilot experiment with electronic mail communication amongst the COMETT consortia.

The Commission also accepted a number of requests from individual projects and organisations for support towards the holding of special conferences and workshops on priority COMETT themes.

(vi) **Technical and logistic support**

70. The implementation of COMETT is undertaken with the assistance of the external COMETT Technical Assistance Office (previously called "Unit"). 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 and publicity. The staff of the Office, drawn from a range of Member States, also provides other technical services as required by the Commission.

D. Monitoring and evaluation

(i) **Internal monitoring**

71. 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 intelligence at three levels :

- project level
- Strand level
- programme level

At project level, the process begins with the initial analysis of project applications whereby a number of quality criteria are assessed to ensure selected projects are adequately designed. For approved projects, the formal process consists of interim reports, final reports and renewal applications. In this way every project is continually monitored and evaluated to ensure its progress is satisfactory and also to identify specific issues which may have a more general implication. In addition there are ad hoc contacts with project promoters during their visits to Brussels, attendance at conferences and other similar activities. At Strand level, a number of Strand-specific analyses have been undertaken. In addition special Advisory Groups have met to consider the development of Strand Ba (Student Placements in Industry) and Strand D (Multimedia).

72. 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. In 1989 this perspective had a particular emphasis in the context of the planning and preparations for the launch of COMETT II. The

contributions of the COMETT Committee, the COMETT Experts Group and the National Information Centres were of particular importance, especially in providing information about the development of COMETT within each Member State.

(ii) **External evaluation**

73. To complement the ongoing internal monitoring activities, the Commission issued a Call for Tender for the external evaluation of the COMETT I Programme. After careful consideration of the many excellent proposals received, the Commission selected a team from Coopers and Lybrand (B and UK) and the Science Policy Research Unit at the University of Sussex (UK). The evaluation was launched at the beginning of December 1988 and a final report received at the end of April 1989. The terms of reference for the evaluation were :

- an examination of the implementation of COMETT I, including the manner of launching COMETT I and of generating, appraising and monitoring of projects;
- an assessment of the development of the COMETT I projects selected in 1987;
- an assessment of the initial impact of COMETT I.

74. This external evaluation included a postal questionnaire to all 1987 projects supplemented by a number of in-depth case studies. The study also included unsuccessful candidates, as well as an assessment of why potential applicants have not sought COMETT support.

75. The full report was published as an official publication by the Commission in November 1989¹⁶. A copy of the summary of the report is contained in Annex 7, from which the following main highlights can be emphasised:

- COMETT has had a powerful impact in promoting university-industry cooperation at European level in the field of training. Many projects have come about which would not otherwise have been undertaken.
- With regard to the initial impact of COMETT, COMETT has alerted the educational sector and, to a lesser extent, industry to the benefits of training in a Community and cooperative framework, and has thus helped to break down insular attitudes.
- The methods and procedures for implementing COMETT have been as efficient as the institutional structures allow.
- Being above all an experimental programme, COMETT justifiably used in its first phase a "wide-scatter" and awareness-building approach, funding as many projects as possible. Moving into a second phase will imply a more strategic and targeted approach.
- There is a widespread concern that most of the COMETT initiatives are too strongly university-driven in so far as the industry input, whether as project leader or participant (or even client), is weaker than it needs to be.
- Awareness and understanding of COMETT are not as good as they might be, and there is a need for the creation of a clearer rationale and image as well as a concerted information and marketing programme (particularly for industry) to put that image across. In that context, question marks are put against the effectiveness of the COMETT Information Centres.
- There is a fundamental concern regarding the sustainability of the initiatives and network so far mounted, in particular the UETPs, for which "degressive" funding

¹⁶ ISBN 92-826-0121-8. Catalogue No. CB-57-89-136.

has been accepted as a principle in COMETT II. The funding approach through other Strands should take account of the need for self-sufficiency of the UETPs.

76. The final report also contained a number of detailed recommendations for the future development of COMETT, particularly in the context of the implementation of COMETT II. It is important to note that the issues raised corresponded and underlined many of the issues which had been highlighted by the Commission's own internal monitoring and evaluation procedures, particularly those contained in the "Development of COMETT in 1987" report published by the Commission.

II. COMETT II

77. The Commission published its proposal for COMETT II on 25 July 1988¹⁷. A Decision in favour of COMETT II was taken by the Council (Social Affairs) at its meeting of 16 December 1988¹⁸. These proposals leading to that Decision were based on the initial analysis of the experience of COMETT I and on the expectation that an early decision on COMETT II would allow adequate time for the planning, preparation and launch of COMETT II, and ensure a smooth, planned transition between COMETT I and COMETT II. The budget estimated as necessary for the period 1990-1994 was 200 million ecu, against the original Commission proposal of 250 million ecu.
78. The planning and preparations for the launch of COMETT II involved formal and informal discussions with a wide range of organisations and individuals across the Community. In particular, the COMETT Committee held extensive discussions on COMETT II at its formal meetings in May, June, and November 1989 and at an informal meeting in April 1989. Additionally, bilateral meetings were held in the January-March 1989 period between the Commission and almost all the national delegations to the COMETT Committee. The COMETT experts group was also consulted, notably at its meeting on 24-26 May 1989 and at a special informal meeting held in September 1989.
79. COMETT II is not just a simple continuation of the existing Programme but is both a deepening and broadening of COMETT I. The Decision stresses that COMETT remains above all a Community Programme for advanced training for technology and its applications, and that within that context university/enterprise co-operation remains a means rather than an end in itself.
80. However, the Commission intends that the development of COMETT II will be more proactive than COMETT I. There will be an increased emphasis on changing skill requirements, with more account being taken of regional needs. This will be achieved through greater diversification and flexibility in the implementation of the Programme. A particular objective will be to ensure enhanced involvement of SMEs in all aspects of COMETT activity. There will be continuous and participative monitoring and evaluation of the Programme's implementation to ensure that the Programme's objectives are being met in the most effective and efficient way.
81. The main changes to the Programme include :
- Strand A : training partnerships having 3-year contracts of up to 180,000 ECU to enable them to become firmly established as effective organisations.
 - Strand B : the introduction of new types of fellowships allowing longer or more intensive secondment of highly qualified personnel.
 - Strand C : the Strands C and D of COMETT I have been merged in order to create a new Strand concerned with supporting major new education and training initiatives - with funding of up to 500,000 ECU, as well as shorter continuing training projects.

¹⁷ COM (88)429 Final.

¹⁸ O.J. N L 13/28 (Decision 89/27/EEC)

Strand D : continued provision for special measures contributing to the overall success of COMETT, including special studies on key issues.

82. The Commission had also proposed that COMETT II should be opened up for the participation of organisations from EFTA countries. On 22 May 1989 the Council adopted a decision authorising the Commission to negotiate for such an extension of COMETT II to the EFTA countries. The Commission therefore undertook negotiations to establish the terms and conditions under which EFTA participation may occur. On the basis of these discussions, a draft Agreement between the Community and each of the six EFTA countries (Austria, Finland, Iceland, Norway, Sweden, and Switzerland) was signed in December 1989 and be submitted for ratification to the Community Institutions on the one hand and to the relevant national authorities on the other hand. Arising from these negotiations, Liechtenstein registered its interest in a similar arrangement and consequently similar negotiations were initiated with a view to arriving at a similar agreement.
83. In November 1989, the Commission issued the Vademecum and Application Package for the 1990 Call for Applications under COMETT II. The closing date for applications in this first Call under COMETT II is 28 February 1990. This Call for Applications invited applications under all Strands. The two basic application documents issued were :
- a Vademecum covering the Programme as a whole (objectives, operational components, timetable)
 - an Application Package containing the guidelines for submitting applications as well as the Application Forms to be used.

These documents were issued in all nine official languages and widely distributed through the network of COMETT Information Centres in the Member States. Launch conferences were also organised in all Member States in cooperation with the COMETT Information Centres. These conferences were aimed particularly at the industry milieux concerned by COMETT and drew large audiences, confirming the great interest which COMETT II has aroused.

84. In preparing for COMETT II, it has been important to draw upon both the experience and momentum already generated by existing COMETT I activities. However, it has also been agreed that there should be no automatic continuation of projects from COMETT I. Nevertheless, where appropriate, existing COMETT I promoters will be encouraged to extend and enhance there existing COMETT activities where this provides a firm foundation for the achievement of COMETT II objectives. In particular, it is intended that the existing network of regional COMETT consortia will provide the basis for establishing extensive regional coverage for all the Member States.

III. CONCLUSIONS

85. The third year of COMETT I has seen the Programme develop in a number of important and different ways. From all the many achievements a number of key issues have emerged for the continued development of COMETT. At project level, there is an ongoing need to ensure that projects continue to progress towards meeting their objectives from a solid base. In particular, there is a need to enhance and extend the real involvement of enterprises, particularly SMEs, and to establish sound administrative and financial bases for their activities.
86. The continued development of transnational linkages through European level co-operation is proving an important asset to projects and their activities. However it must be recognised that for many projects these linkages are still comparatively new and in need of strengthening. The experience of many projects also demonstrates the very real benefits that derive from close co-operation and synergy with other Community programmes, particularly the R & D Programmes.

87. The priorities for 1990 include :

- the successful conclusion of the 1989/90 contracts for projects accepted or continued in 1989;
- full exploitation of the outputs of COMETT I projects;
- analysis and selection of proposals for COMETT II funding;
- the launch, monitoring and continued support of the first projects selected under COMETT II.

88. In conclusion, it can be said that in 1989 COMETT I made good progress in strengthening the actions being supported at project and programme levels. In addition, preparations and planning for the launch of COMETT II were made to provide a firm foundation on which to launch the second phase of this highly successful and innovative programme.

ANNEX 1
Statistical Overview

Projects submitted in COMETT I Distribution by Strand and Application Round

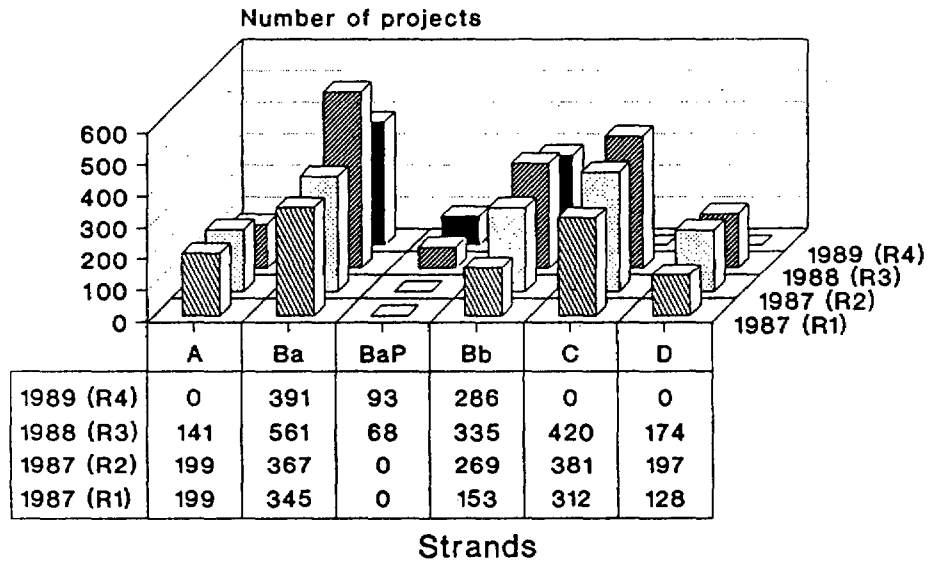


Table 1

R1, R2, R3, R4 stand for the successive Application Rounds. Note that there was only one Application Round in 1989 compared with two in 1987 and one in 1988. Call for Applications was issued in November 1988 with a closing date of 28 February 1989. Participants were invited to submit new projects under strand B (transnational exchanges) only. Continuity of effort in other Strands was ensured by inviting all multiannual projects to apply for renewal support (not included in the statistics).

Applications in COMETT I Distribution by Round and applicant Member State

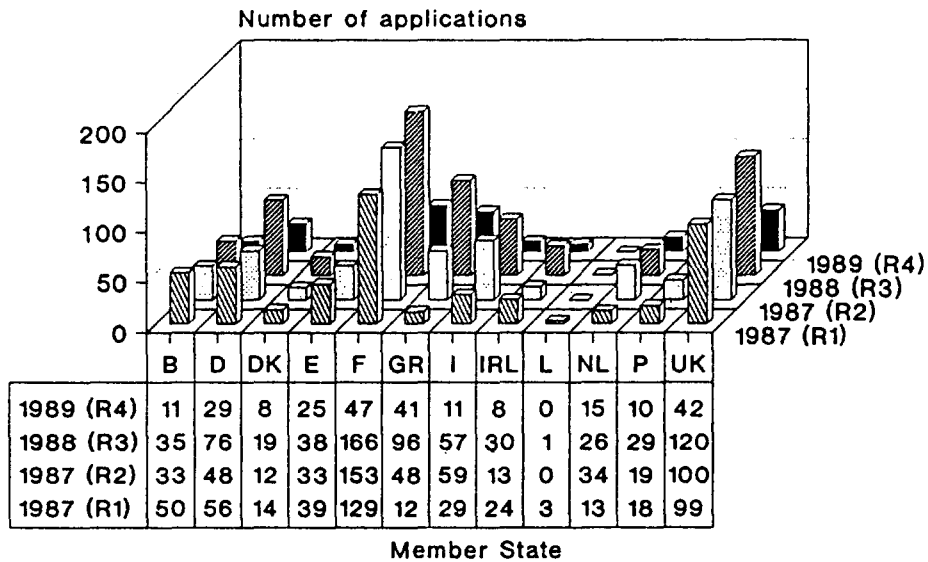


Table 2

R1, R2, R3, R4 stand for the successive Application Rounds. An application in COMETT I often consists of several projects under different Strands. The number of applications is lower in 1989 owing to the fact that new projects could be submitted under Strand B only.

Projects accepted in COMETT I Distribution by Strand and Application Round

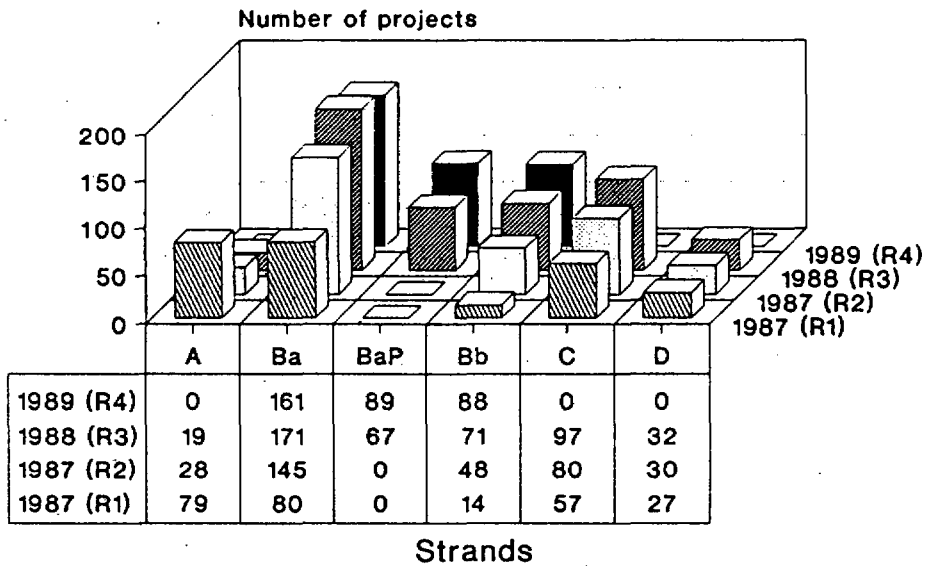


Table 3

R1, R2, R3, R4 stand for the successive Application Rounds. Data displayed are the number of *new* projects accepted during the successive Application Rounds.

Accepted projects in COMETT I Distribution by Strand and applicant Member State

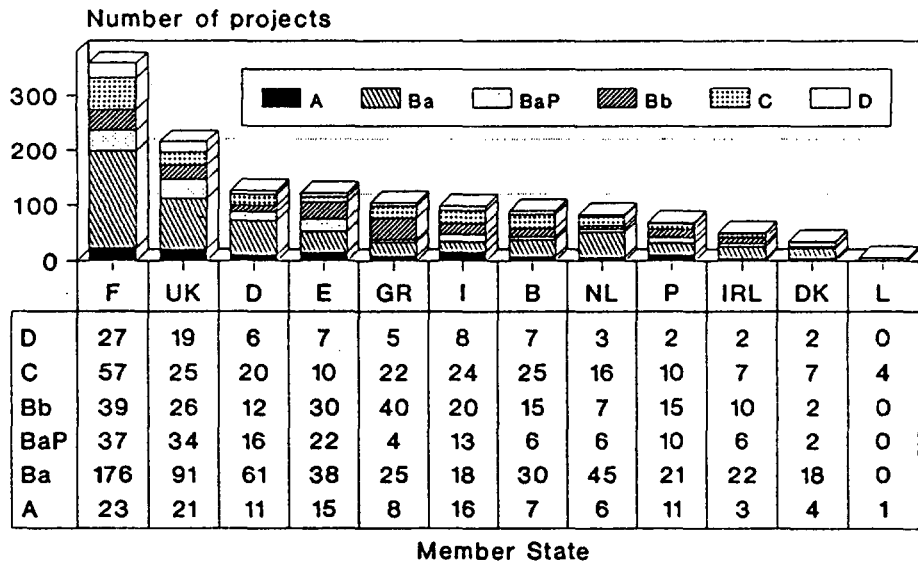


Table 4

This plot lists the total number of projects accepted throughout the four successive Application Rounds in COMETT I. From the data it can be concluded that, for example, 27 projects in Strand D are coordinated by an organization from France. Data given here exclude cancelled projects.

Amounts allocated in COMETT I Distribution by Strand

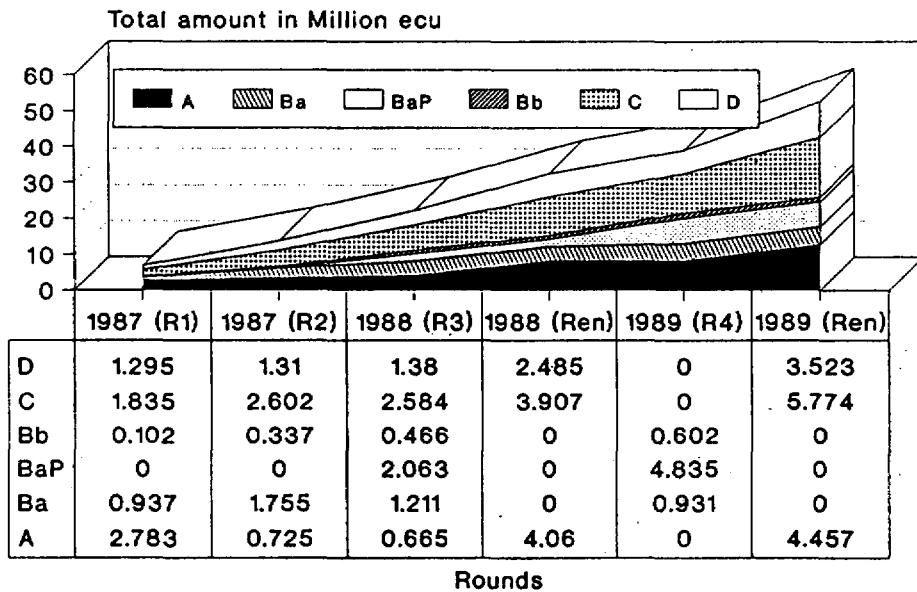


Table 5

R1, R2, R3, R4 stand for the successive Application Rounds. 1989 (REN) represents the amount allocated to projects accepted for renewal in 1989. The total level of Community financial support amounts 52.5 million ecu for COMETT I.

Accepted projects in COMETT I Distribution by Round and Applicant Organization

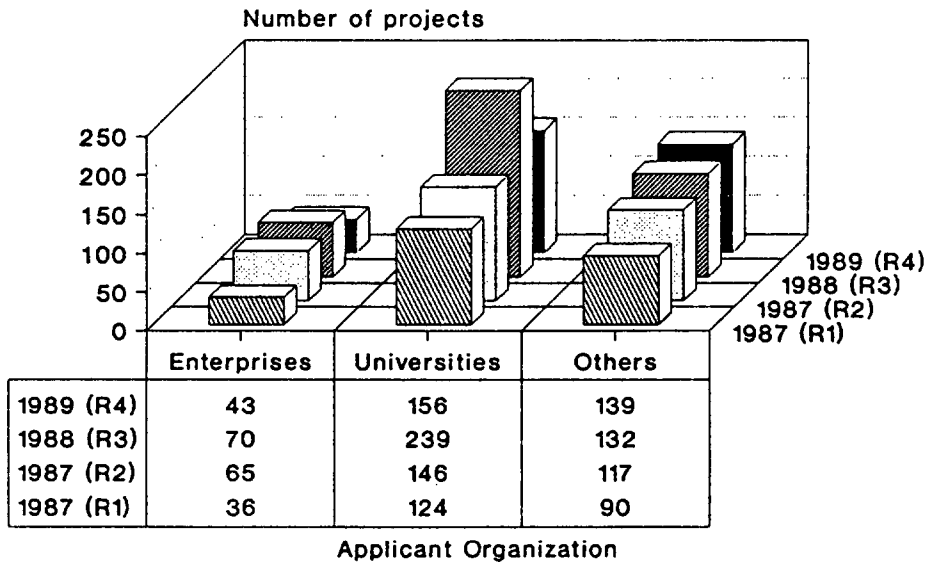


Table 6

R1, R2, R3, R4 stand for the successive Application Rounds. The term 'Universities' means all types of post-secondary education and training establishments; 'Enterprises' are all types of companies; 'Others' are other kind of organizations (professional and scientific organizations, industrial federations, Governmental institutions, Chambers of Commerce, Trade Unions, etc.).

Size of Enterprises in accepted projects in COMETT I

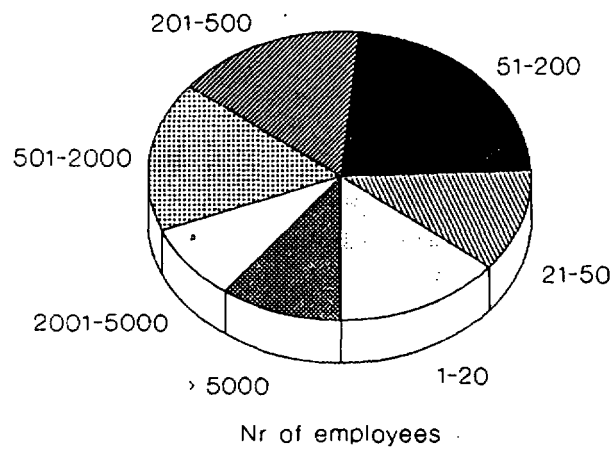
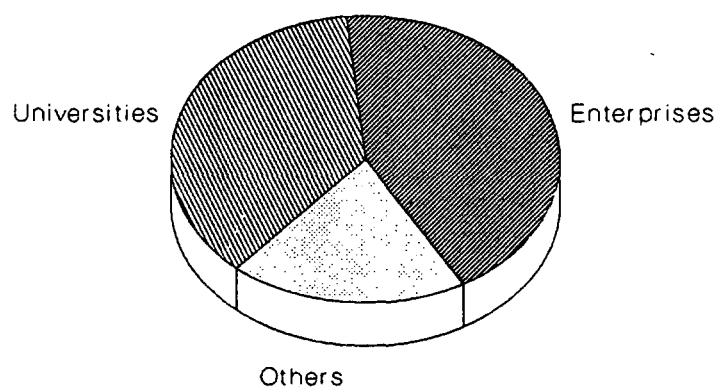


Table 7

The size (expressed in number of employees) is displayed for all the enterprises participating in accepted projects in COMETT I. The graph shows that the majority (64%) are SMEs.

Distribution of projects partners by type of organization in COMETT I



Others
Relative distribution of organizations
involved in accepted projects

Table 8

Relative distribution of universities, enterprises and other organizations participating to projects accepted in COMETT I. The term 'Universities' means all types of post-secondary education and training establishments; 'Enterprises' are all types of companies; 'Others' are other kind of organizations (professional and scientific organizations, industrial federations, Governmental institutions, Chambers of Commerce, Trade Unions, etc.).

Students Flows between Member States in accepted Ba projects in 1989

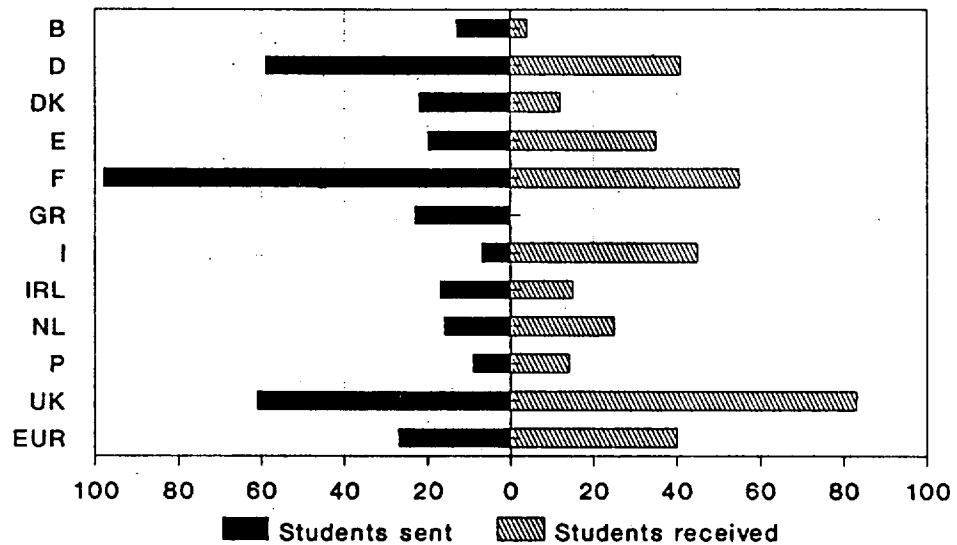


Table 9

In this table of 1989 Ba projects the numbers of students sent by a country is compared with those which will be received. The figures displayed concern the placements arranged between individual universities and enterprises (other students are sent through the Pool scheme). The data remain provisional in so far as many 1989 projects do not present their final distribution of students until later.

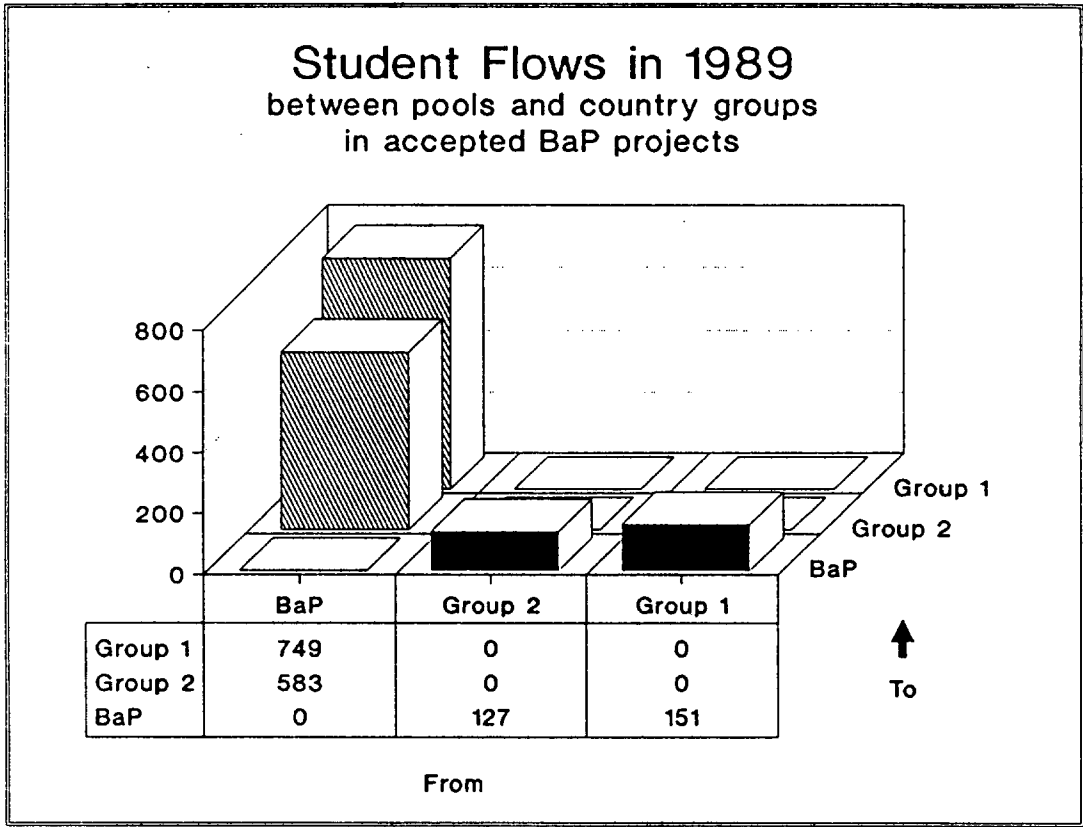


Table 10

This table illustrates the students flows within the "Pool" of placements arranged during the year 1989 with the COMETT consortia (UETPs). Note that about 80% of all the COMETT placements of 1989 were arranged in this way. In Group 1 are F, D and UK ; in Group 2 are the remaining countries. The figures show that e.g. Pool projects (BaP) will send 583 students to Group 2 countries. Data are unknown for 10 students (therefore not included in the statistics).

Distribution of 1989 Projects by technology sector

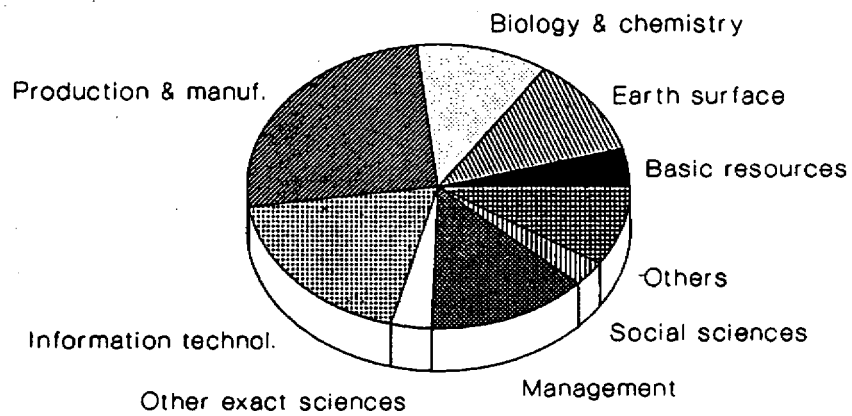


Table 11

This table shows the distribution of the 1989 projects across technology sectors.

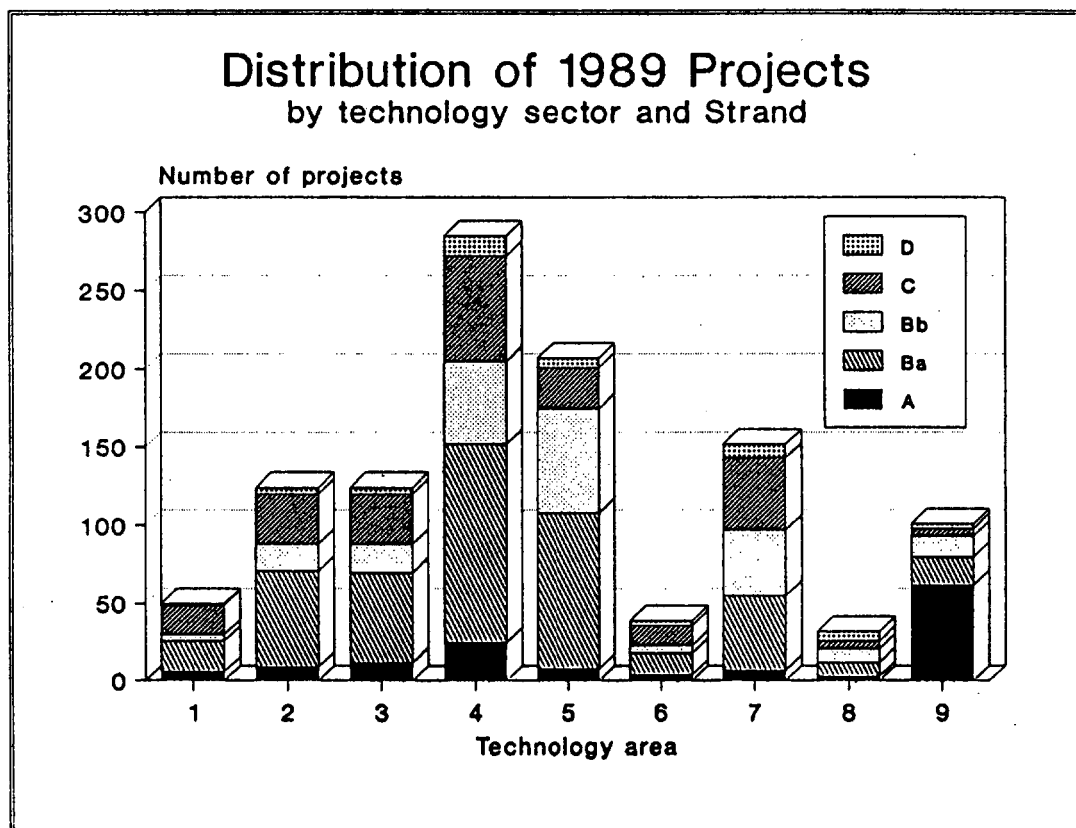


Table 12

This table shows the distribution of the 1989 projects according to technology area and Strands. New projects were introduced in Strand B only, projects under other Strands therefore are renewals. Description of technology sectors:

- 1 = Basic resources
- 2 = Occupation of the earth surface
- 3 = Applications of biology and chemistry
- 4 = Production and manufacturing
- 5 = Information technology
- 6 = Other applications of exact sciences
- 7 = Management (technology aspects)
- 8 = Social and human sciences
- 9 = Others

ANNEX 2

COMETT Publications 1989

COMETT PUBLICATIONS 1989

- * Directory No. 3 - December 1988.

The Directory includes a collection of summaries of all the projects supported under the third call for proposals 1988, with a reference to the name and address of the coordinator responsible for the project, as well as an identification of the fields covered.

- * Development of COMETT - Report on projects accepted in 1987.

This document is a mid-term monitoring report on the execution of the first phase of the COMETT programme. It is based primarily on the final reports submitted by the projects supported under COMETT during 1987/88. It concerns essentially Strands A and C of the programme. Strand B being covered more thoroughly in a supplementary document (see next item). There is a specific section for each Member State.

- * Development of COMETT - Strand B Report. October 1989.

This analysis concerns the projects carried out within Strand B during 1987/88 and is based on the final reports from those projects, which formed part of the first two application rounds in 1987. It contains, in particular, quantitative results as well as some observations on the degree to which the Strand-specific COMETT criteria have been met.

- * COMETT - Report of activities 1988 - April 1989.
COM (89) 171 final.

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 of the progress made in the implementation of the COMETT programme in 1988.

- * Evaluation of the COMETT Programme. April 1989.

This document represents an evaluation undertaken for the Commission by Coopers & Lybrand, C&L Belmont, in association with the Science Policy Research Unit of the University of Sussex.

- * Catalogue of COMETT outputs. First version, June 1989.

This document provides information about the outputs that have already been produced by COMETT projects, divided into the five following sections: Training Materials, Training Courses, Studies, Databases and Newsletters, with the intention to use this prototype to generate feedback from actual users about their particular requirements.

- * The UETPs in COMETT I - Facts and Figures. October 1989.

This document gives a global view on UETPs, their organisational issues and their activities, with supportive data and a listing of the regional, sectoral and mixed UETPs.

- * Vademecum - Application Package 1990. November 1989.

The Vademecum contains the essential information about the COMETT programme. It sets out the objectives of the Programme and the operational components. The Application Package is specifically intended for those intending to make an application for support under the COMETT programme. It concentrated on the detailed guidelines for submitting applications and includes the Application Forms to be used for submitting projects under the current call for applications.

- * COMETT Background Document. December 1989.

This document gives an overview of background to the creation of COMETT and the main achievements of COMETT I, the evaluation of the programme and the strategic objective set for COMETT II.

- * COMETT Project Compendium. December 1989.

This compendium includes basic information on all COMETT projects accepted under all Strands and application rounds of COMETT. Projects are listed with the project title, a short indication of the nature of the project and the contact person and address.

- * COMETT Bulletin -

| | |
|------|----------------|
| No 4 | March 1989 |
| No 5 | July 1989 |
| No 6 | November 1989. |

The COMETT Bulletin is a 24 page Bulletin which appears in English and French. It 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.

ANNEX 3

COMETT Committee Members (COMETT I)

COMETT I COMMITTEE

Members

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ANNEX 4

COMETT I Information Centres

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ANNEX 5

Evaluation of COMETT - Executive Summary

EVALUATION OF COMETT

EXECUTIVE SUMMARY

1. COMETT was launched in 1987 to encourage investment in the Community's human resources through training for technology and by means of strengthening its network of education institutions and enterprises for this purpose.
2. In evaluating the programme, a joint team from Coopers & Lybrand,, C&L Belmont and the Science Policy Research Unit at the University of Sussex examined the extent to which cooperation has been strengthened both between education institutes and between the institutes and enterprises at the national and transnational levels. The evaluation assessed whether cooperation had increases supply and led to the more effective use of scarce training resources to meet the needs of enterprises and of social and technological changes. It also examined whether it had led to arrangements and organisations which could be sustained without continuing support from the Commission.
3. Our overall conclusion is that COMETT has been reasonably successful. COMETT support has induced many projects that would not otherwise have taken place; Its most powerful impact has been to encourage larger scale projects and transnational cooperation. Only a small percentage of projects would have proceeded, or (on the evidence from unsupported projects) did proceed, in the same form without COMETT support. In this first phase, COMETT mainly reached organisations which already had experience of university - industry cooperation in training. But the coverage of cooperation was extended and a high proportion of participants intended to undertake future collaboration. We also found very positive attitudes to the COMETT programme (and its philosophy) amongst participants - and even among many unsuccessful applicants.
4. In terms of its impact, COMETT exercised a powerful influence in alerting the educational sector and, to a lesser extent, industry to the benefits of training in a Community and cooperative framework. It has helped to breakdown insular attitudes. It put in place an infrastructure to facilitate transnational cooperative developments in training. COMETT's 1987 initiatives were also seen to have increased awareness of the need for mutually recognised, common qualifications and the free movement of qualified people in order to exploit fully the potential of 1992. However the Community network and the transnational cooperative spirit that have been created are both fragile. Their sustained development will require COMETT's strengths to be reinforced and weaknesses addressed.

Development of COMETT

5. The main purpose of this evaluation of COMETT was to assess the impact of the programme so far. It also analysed the strengths and weaknesses so that the programme could be developed and enhanced where appropriate to meet its underlying objectives more effectively.

Strand A : Cooperation between educational institutes had been encouraged at both national and transnational levels but university - industry cooperation was much less marked, especially transnationally. Sectoral UETPs were much more likely to have secured cooperation with industry at the national level but only between universities at the transnational level. COMETT support was critical in the development of many UETPs and in increasing the number of partners. But there has only been a limited level of industrial involvement, reflected in the supplier-led nature of the activities and the presence of a significant number of 'sleeping partners' amongst the evaluated projects.

Strand B : Improved links between universities had been secured in Strand B but less marked for university - industry linked. The Strand was enthusiastically received and had encouraged additional projects; in large part this is attributable to a low level of awareness by potential participants of the availability of funds for such activities.

Strands C and D : Both Strands encouraged larger scale projects, additional partners, and transnational cooperation; Strand C was more likely to have induced additional projects and university - industry collaboration. While active industrial involvement was critical for successful projects, again there was a strong tendency for projects to be 'supplier-led' and insufficiently informed by industry needs.

6. We think that there are three areas in which weaknesses will need to be addressed of COMETT is to continue to succeed in generating change and improvement in line with its overall objectives. Most important will be to find ways of increasing the hitherto rather limited industrial involvement which has been sufficiently limited to be a matter of concern. The 1987 initiatives have tended to be 'supplier-led' (i.e. 'training-push') with insufficient attention paid to market needs. The industrial sector has not been sufficiently integrated, especially as partners, in COMETT projects and activities: more priority needs to be given to market research and to mechanisms for marketing training 'outputs'. There also needs to be more involvement of smaller firms, including through their relationships with the larger firms and in their role as beneficiaries of training 'outputs'.
7. Second, the transnational element in COMETT has not been as fully developed as its objectives required, especially in terms of university-industry links and the dissemination of project 'outputs' and best practice. Diffusion of information about, and experience of, projects to COMETT participants, particularly partners, and to wider audiences, was identified as a weakness in the current procedures and arrangements. The inadequacies of language courses for scientists and technologists presented a barrier to some aspects of transnational cooperation.

8. Third, there was some degree of confusion about the purposes of COMETT and its relationship with other sources of funding (for training through the Commission - the Social and Regional Funds - and through national governments, and for other Commission purposes, eg R&D). This lack of clarity hindered the effective promotion of COMETT, particularly to industry and less favoured regions. We think this should be improved.

The Management of the COMETT Programme

9. The methods and procedures for implementing the COMETT programme have been as efficient as could have been expected given the institutional framework within which they have to operate and given that the programme was breaking new ground. The Technical Assistance Unit has refined and developed the procedures as difficulties or scope for improvement have emerged.
10. The first two rounds of the programme were over-subscribed. The final allocation of funds between its components (the Strands) differed from the target distribution in the Council Decision on COMETT. In part this reflected the recognition that, in this first phase, more needed to be done to set up the Community infrastructure to support joint training programmes. Also, the programme had to respond to the strong demand for support for continuing training and multi-media training systems.
11. Awareness and understanding of the COMETT programme, and the Commission's decision making processes, are not as good as they might be, particularly in industry, and a clearer statement of the objectives of the programme and the circumstances favouring the provision of funding would have helped. The national Information Centres were generally weak in ensuring that COMETT's full potential was realised. The appraisal and selection procedures were cumbersome particularly with regard to the role of the other Directorate Generals and the COMETT Committee.
12. Monitoring procedures, particularly for non-Strand A projects, provided insufficient information on the contribution of the projects to the aims and objectives of COMETT and so only limited observations can be made. There was a lack of systematic and quantitative monitoring data on the extent to which projects: involved small and medium sized companies; linked with Community R & D programmes; were focused on equal opportunities; were located in less favoured and declining regions as defined by the Commission.

Concluding Observations

13. COMETT's first phase was experimental. A wide range of objectives was thought appropriate. The evidence from this evaluation is that the next stages of the programme need to be more stream-lined. The programme needs to present a clearer and simpler image, particularly in order to encourage closer involvement of industry.
14. The evaluation has indicated that the number of objectives, and hence the number of criteria against which project selections are made, could be reduced and given a clearer ranking in order of importance for COMETT. Those objectives which appeared to be most important related to achieving greater industry involvement (i.e. industry-led initiatives and smaller firms' involvement) and secondly, to contributing to the development of less favoured and declining regions. There was a generally held view that selectivity should not be based on specific technologies or industrial sectors.
15. Reducing and ranking the number of objectives and criteria would imply simpler administrative and monitoring procedures. These in any event were regarded as cumbersome.
16. The evaluation emphasised that priority action was needed in the diffusion and marketing of COMETT outputs, further strengthening and integration of the UETP network and more effective promotion and delivery of the programme at Member State level.
17. Finally, if COMETT is to generate self-sufficient organisations and initiatives, not only will closer industrial involvement be needed, but so too will scrutiny of the circumstances under which continued financial support may be justified.
18. In summary then, we found COMETT a successful programme despite its somewhat ambitious aims. We are convinced that the funding has led to projects which otherwise would not have taken place and that, given time, these projects will help in achieving the overall objectives of the programme. But, as with any new major programme, there are many aspects which the evaluation suggests can be improved for the better fulfilment of COMETT's overall aims.

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