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Evaluation of the Tempus programme

(May 1992)

EVALUATION OF TEMPUS

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Executive Summary

1 The TEMPUS programme, established on 7 May 1990 by a Council decision (90/233/EEC - OJ L 131), aims to promote the development of the higher education and training systems in the countries of Central and Eastern Europe designated as eligible for economic assistance under the PHARE programme. The European Commission's Task Force for Human Resources, Education, Training and Youth, is responsible for the implementation of the TEMPUS scheme. The programme facilitates cooperation between institutions in eligible countries and partners (universities and enterprises) in the European Community and other Western countries through Joint European Projects (JEPs) and enhancing staff and student mobility between Eastern and Western institutions.

2 Coopers & Lybrand Europe was appointed by the European Commission to carry out an external evaluation of the TEMPUS programme. The main aim of our evaluation was to undertake a detailed examination of the functioning of the TEMPUS scheme in its initial phase with regard to its objectives. We focused our evaluation on 1990/91 JEPs as they have been in existence the longest and are the most likely to show impact. As part of the evaluation, we conducted interviews with government officials and local TEMPUS offices in the eligible countries, analysed 17 JEPs in depth as case studies and reviewed one third of the final reports from the first year JEPs.

3 In the full report, we present a section on **Implementation** where we give a brief overview of the 1990/91 JEPs considered in our evaluation and our assessment of the function of the programme. This is followed by a section on the **Impact on eligible countries** where we attempt to identify the benefits and impact of TEMPUS to the participating countries in Eastern Europe in the higher education system (departmental, institutional and the sector as a whole) and the wider economic and social effects. In a more restricted manner, we do the same for the Western European partners in the section titled **Impact on Western European partners**. Finally, we present our **Conclusions and recommendations** at the end of the report.

Implementation

4 There were 152 JEPs in 1990/91 in subject areas ranging from agriculture to humanities. Several activities were present in a single JEP. The most frequent included staff mobility from eligible countries (86%), equipment acquisition (84%), development/revision of curricula (62%), development of teaching materials (58%) and visiting professors from the West (58%). In terms of spending, 46% of the funds were dedicated to acquisition of equipment and materials to be delivered to Eastern Europe. Expenditure for non-academic personnel involved in organisation and administration made up 18% of the total while missions and other organisation expenditure accounted for 14%. Actual expenditures for Action 1 (JEPs) went over budgeted levels by 2.5%. This was more than compensated by the underspending of 10% in the budget for Action 2 (Individual Mobility Grants).

5 The majority of the JEPs seem to have resulted from previous contacts between East and West. These were mostly personal contacts between individuals but, in some

cases, some form of previous collaboration existed. Typically, Western organisations initiated project cooperation and were in charge of project management.

6 Initial problems encountered could be defined as "teething problems" in the sense that they are likely to occur at the beginning of a project. These included communications between partners, dealing with ECU payments as well as other problems related to the mechanics of international cooperation. These early problems were sorted out in each country during the first year of the projects, as partners learned how to deal with each other and the programme requirements.

7 Our evaluation did not reveal any fundamental practical difficulties with JEPs. The programme achieved an impressive start given the timescales set at the beginning. Most JEPs managed to spend their budget in the first year of the programme by concentrating on equipment acquisition; our assessment suggests that almost a third of first year JEP costs were spent on administration as opposed to direct project activities. This relatively high proportion reflects the need to set up the projects as well as the size of the projects and the number of partners involved.

Impact on eligible countries

8 Generally, TEMPUS' impact is more significant at the departmental level within a university and diminishes as one attempts to assess its effect in the broader environment of the entire institution.

9 At the departmental level, the most direct benefits were access to updated equipment and materials and the increased contact with Western European visiting staff. Student and staff mobility have increased tremendously. This new exposure to the West results in motivation and attitudinal change in participating departments in the form of new ideas, status and excitement about changes. Concern has been expressed about brain drain but we found no evidence of problems so far. Also, many participants regarded the experience of participating in international cooperation projects as a benefit in itself.

10 At the institutional level, there were instances of sharing of equipment and experience (usually informal). Project management skills and opportunities for younger staff were also cited as benefits. The full effect of institutional changes, however, is undermined by the general state of universities in the East which include severe financial constraints and lack of staff motivation.

11 TEMPUS' impact on higher education systems is much harder to assess at this early stage although there is some evidence that it is happening in some countries. Most of it is a "bottom up" impact via staff attitudes and increase in the training capacity. There appears to be a limited fit with wider reforms in most countries due to the weak linkage of the programme to national training priorities.

Benefits to Western partners

12 The benefits to Western partners are less significant than those to Eastern European partners as would be expected given the objectives of the programme. Benefits mentioned include additional funding, widening of curricula and staff

horizons, expansion of academic contacts in Eastern and Western Europe as well as the prestige and interest in participating in activities sponsored by the European Community.

Conclusions and recommendations

13 The TEMPUS programme has made an impressive start and enjoys wide popularity in both East and West. There are several reasons that account for this. Projects have been implemented and shown results in a relatively short timeframe compared with other aid programmes. The "bottom up" approach that allows JEP ideas to emanate from the institutions themselves creates a feeling of ownership and acceptance of the reforms it achieves.

14 Our findings indicate that TEMPUS projects resulted in a good degree of additionality. Although previous contacts between partners (on a personal level) was the norm, we estimate that around two-thirds of the projects were inspired by the TEMPUS concept and would not have carried out collaborative activity without it.

15 Within TEMPUS, our early assessment is that purchase of equipment, curriculum development and visits of staff from Western Europe are likely to be most cost-effective, with student mobility the least cost-effective mechanism for reforming higher education.

16 Whilst TEMPUS projects are influencing higher education at departmental level and having some wider effect on the institution, we conclude that their impact is likely to be more limited on wider reforms of higher education or on wider economic restructuring. This is partly because of the way that JEPs were identified and selected in 1990/91 - with limited influence from national policy. This has been recognised by the Task Force and in subsequent years steps were taken to improve the situation. It also reflects the broad objectives of TEMPUS, with the risk that the impacts will be dissipated if they are not more clearly targeted.

17 We therefore conclude that there is a need to clarify the objectives and role of TEMPUS in each country. The first choice is between the emphasis on long-term reform of higher education and shorter term, manpower needs of economic restructuring. Once this balance is determined, a strategy should be developed to tailor TEMPUS to the needs of each eligible country, in order to maximise its impacts.

18 If the intention is for TEMPUS to **support higher education reforms**, then we recommend that:

- a review of higher education policy and the strategy for reform identifies clearly the role for TEMPUS,
- the scale and nature of JEPs is reviewed to identify how they can best support reform. This might be to continue small academic-subject based JEPs. Alternatively, JEPs could be used, for example, to reform management in higher education institutions, or to establish new types of institutions,

- changes in JEP scope may require larger scale or longer JEPs. In addition, we suggest limiting the number of JEP partners (particularly from Western European institutions) in order to keep down administrative costs; and focusing on West to East transfers of expertise and materials and on staff rather than student mobility.

19 If the intention is to use TEMPUS to help address **manpower and skill shortages** during economic reform, then we suggest that:

- the priority skill needs must be identified and clearly specified in the invitations for TEMPUS applications,
- where large numbers need to be trained, JEPs may need to be larger in scale and/or last for longer; there may also be a case for supporting academics/trainers in eligible countries who are key to providing the training,
- where numbers required are small, student mobility may be more cost effective.

20 The next steps are for eligible countries to review the role of TEMPUS and the priorities for its use, and to agree with the Commission of the European Communities how TEMPUS can best be tailored to meet the country's particular needs. The strategy will need to consider the format and scope of JEPs and the arrangements for inviting and selecting bids.

I Introduction

101 The TEMPUS Scheme (Trans-European Mobility Scheme for University Studies) was adopted by the Council of Ministers of the European Communities on 7 May 1990 (decision 90/233/EEC - OJ L 131) with a timescale of five years, including an initial pilot phase of three years beginning on 1 July 1990.

102 The European Commission's Task Force for Human Resources, Education, Training and Youth, is responsible for the implementation of the TEMPUS programme. An EC TEMPUS Office working under contract to the European Commission, following a call for tender, looks after the operational aspects of the programme, under the control and supervision of the Task Force for Human Resources.

103 TEMPUS is designed to promote the development of the higher education and training systems in the countries of Central and Eastern Europe designated as eligible¹ for economic aid under the PHARE programme. The TEMPUS programme supports cooperation between institutions in eligible countries and partners (universities and enterprises) in the European Community and other Western countries through Joint European Projects (JEPs) and through staff and student mobility between Eastern and Western European institutions. TEMPUS also includes support for youth exchange activities.

104 The major goal is not only to have a powerful short-term impact, but also to make a significant contribution to the medium- and long-term development of both the higher education systems and the process of economic and social restructuring in the countries concerned. Thus, TEMPUS is not a programme primarily about mobility, but rather a scheme which endeavours to support structural change of which mobility is one instrument.

105 Coopers & Lybrand Europe was appointed by the European Commission to carry out an external evaluation of the TEMPUS programme. The main objective of our external evaluation was to undertake a detailed examination of the functioning of the TEMPUS Scheme in its initial phase with regard to its objectives. This has the aim of providing advice to the Commission regarding any adaptations, modifications or changes considered necessary for the next phase of the programme. An assessment was also to be made of the effectiveness of TEMPUS in developing appropriate higher education systems in the eligible countries, as well as its contribution to the process of economic and social restructuring.

106 The evaluation was carried out to allow the following issues to be addressed:

- Are JEPs operating effectively and as planned?

¹ The eligible countries comprise:

- in 1990/91 Poland, Hungary, Czechoslovakia, ex-DDR
- in 1991/92 Poland, Hungary, Czechoslovakia, Bulgaria, Romania, ex-Yugoslavia
- in 1992/93 Poland, Hungary, Czechoslovakia, Bulgaria, Romania, Slovenia, Croatia, Albania, Lithuania, Estonia

- What are the reasons for difficulties?
- What impact are JEPs having on the Eastern European institutions involved and on student and staff mobility, ie are the JEPs consistent with the aims of TEMPUS?
- Are the JEPs contributing to the development of education and training in accordance with the needs of the Eastern European countries?
- Are the JEPs having an impact on social and economic restructuring?
- Would the same results have been achieved without EC funding (ie has the funding been additional)?
- Is the programme efficiently administered?
- Can the programme be improved?

107 We focused our evaluation on 1990/91 JEPs because they have been going the longest and therefore are the most likely to show meaningful impact. We recognise that changes have been made to the TEMPUS programme in the subsequent years, in particular concerning the selection procedure, and we have taken these changes into account in analysing the results.

108 In the course of the evaluation study we carried out:

- interviews with government officials and local TEMPUS offices in the Czech and Slovak Republics, Hungary, Poland, Romania and Bulgaria. A complete list of officials interviewed is provided in the Annex 1.
- case studies of 17 JEPs in the eligible countries. This comprises a series of face to face interviews with Eastern European partners, plus a number of telephone interviews with the Western European partners.
- review of a sample (one third) of the 152 TEMPUS final reports for the 1990/91 JEPs in Brussels.

109 In the main body of this report, we first present a brief overview of the 1990/91 JEPs and some of the implementation problems and views identified during the evaluation. We then present our assessment of the programme at three levels:

- the impact on higher education in the eligible countries;
- the wider impact on economic and social restructuring in the eligible countries;
- the impact of JEP participation on Western European partners.

Finally, we present our conclusions and pertinent recommendations for consideration by the European Commission.

II Implementation

Overview of spending and activity in 1990/91

201 In total, following the 1990 selection round, 1813 contracts were issued, divided up by and within Actions as follows:

	No. of contracts
Action 1, Joint European Projects, (including Action 2 mobility grants within projects)	152
Action 2, Individual Mobility Grants	
• Students East/West	733
• Teachers East/West	474
• Students West/East	35
• Teachers West/East	315
Action 3, Complementary Measures	
• Association, Publication, Studies	40
• Youth Exchange Activities	63

Our evaluation focused on activities developed within the framework of Joint European Projects as agreed with the EC.

202 There are 17 JEP subject areas ranging from agriculture to humanities. Two areas, however, account for almost 50% of all the JEPs: Management & Business Administration/Applied Economics (19%) and Engineering, Applied Sciences & Technologies (29%).

203 Figure 1 shows the average breakdown of expenditure for 152 JEPs in 1990/91. Under Action 1, the single most important item has been the acquisition of equipment and materials to be delivered to the eligible countries, which accounted for 46% of expenditure. Expenditure for non-academic personnel involved in organisation and administration of the JEPs made up 18% of the total while missions and other organisational expenditure accounted for 14%.

204 The total planned expenditure for Action 1 was ECU 10 954 000. The total actual expenditures were ECU 11 232 726 or 2.5% above budget. A closer financial analysis of the 17 case studies indicates that several JEP partners actually had higher costs than budgeted, that were funded by other sources such as the universities or departments themselves. Typical costs absorbed included travel and subsistence costs, secretarial support and coordinators' salaries.

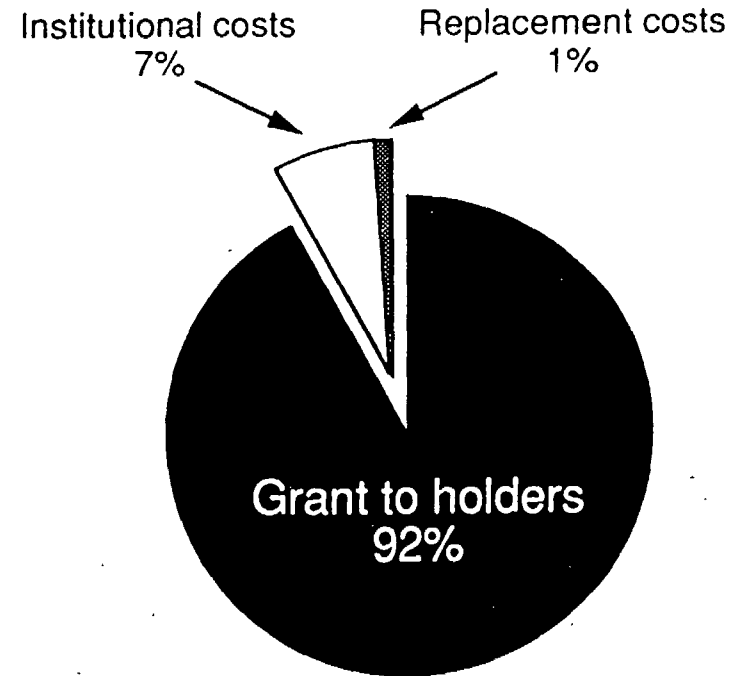
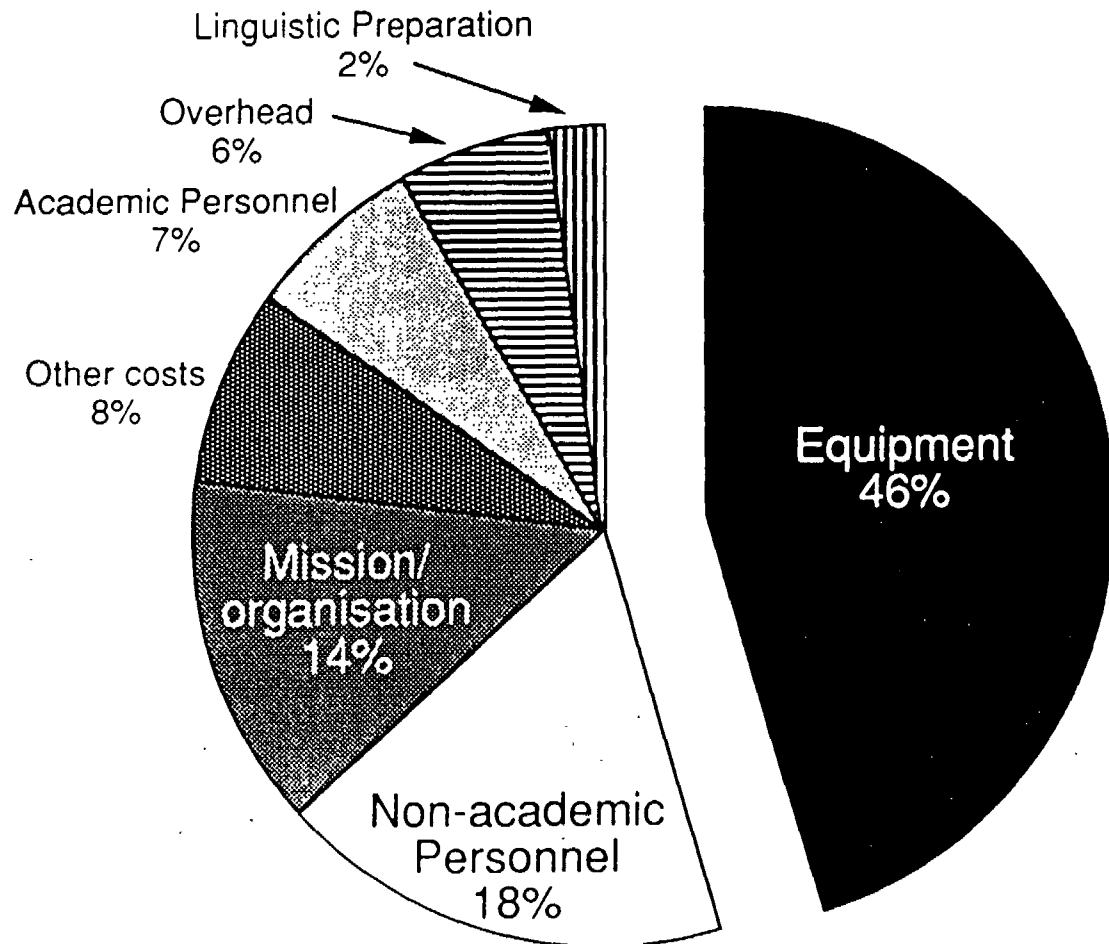
205 Action 2 mobility costs were primarily spent on grants to holders (92% of expenditures) as specified in the programme. Total planned expenditure was ECU 5 457 100 while actual disbursements represented ECU 4 917 810 or around 10% below budget. Our review of final reports showed that a number of JEP coordinators had very little time in academic year 1990/91 to comply with deadlines set for Action 2 and could not use the funds completely. This may account for some of the underutilisation. Most JEPs that had these left over funds requested (successfully on

FIGURE 1
BREAKDOWN OF EXPENDITURES

1990/91 JEPS

ACTION 1
ECU 11 232 726

ACTION 2
ECU 4 917 810



the whole) to have them transferred to cover Action 1 deficits. Overall, the total expenditure on Action 1 and 2 was within the budget for the year.

206 In terms of training contents, most JEPs included components aimed at several levels. Around 80% of JEPs concentrated on short courses or continuing education programmes. Initial degree and post-graduate level courses were present in 38% of the total while language training appeared 30% of the cases. Training content usually overlapped. Actual activities carried out sometimes demonstrated variances from the JEPs' self-assessment in the final reports. Our sample review of the final reports yielded evidence of activities as per the table below:

Activity	Frequency
Staff mobility (from eligible country)	86%
Equipment acquisition	84%
Development/revision of curricula	62%
Development of teaching materials/aids	58%
Visiting professors (from Western institutions)	58%
Student mobility	54%
Development of new departments	18%
Industry placements	12%

Implementation Process

The origins of JEPs

207 The majority of the JEPs 1990/91 seem to have come about as a result of existing contacts between East and West institutions that predate TEMPUS. These were mostly personal contacts between individual but a few already had some form of collaboration experience. In Hungary, the moderate openness of Hungarian society prior to 1989 allowed universities to develop their contacts with western counterparts before they were institutionalised. In Poland and the Czech and Slovak Republics, the majority of the projects analysed also resulted from previous contacts.

208 In the first year of implementation, Western institutions took the leading role in defining JEPs. Some well known universities in the East were bombarded with offer letters. In later years, we were told that the Eastern side has taken a more active role in identifying possible projects and partner institutions. Most Western European institutions surveyed (77%) cited their reason for joining the TEMPUS programme as being the chance to work with Eastern European institutions, while 59% were motivated by the chance to work with other Western European institutions. Only 14% claimed to have joined the programme for reasons of additional finance.

Selection process

209 As far as the selection procedure is concerned (in the eligible countries and EC TEMPUS office), there are two key issues that stand out. Firstly, there have been high number of bids submitted compared to the number of accepted projects. The most recent approval rate for 1991/92 JEPs is 22.7%. One reason for this is that the criteria for projects and national priorities specified in the VADEMECUM are broadly defined, allowing wide interpretation of project possibilities. Secondly, whilst

the selection process varies between the eligible countries, in each case there is a strong presentation of academic concerns and interests, with limited involvement/influence of Government Officials. Academic advisors are appointed to review the applications with a view to their academic quality rather than their fit with national priorities. There is then some scope for the selection of projects by the TEMPUS eligible countries on broader criteria. There was concern in the first year that Brussels had too much influence on the choice of projects; recent changes have given eligible countries more say and this is to be welcomed.

210 It is clear from our interviews that a large volume of effort is put into the TEMPUS bids. Most of these efforts are not charged to the projects but funded by the partners. In the case of some Eastern European countries, this effort is regarded as a useful exercise and an important experience in learning how to deal with international cooperation projects. It was also mentioned that some of the rejected projects could be reutilised to seek other sources of funding. They also appreciate the competition aspect of the bidding procedure. Our view is that the preparation of many bids which are unlikely to be funded is inefficient. We would recommend a tighter specification of the priorities and types of projects which TEMPUS will be used to support. Competitive bids can then be invited, and the selection process can focus on choosing the best bids in the priority areas. We return to this in section 5.

JEP management

211 In the 1990/91 JEPs, the management of the projects was largely the responsibility of Western partners. This generated some negative reactions on the part of Eastern institutions who cited several instances of not being properly informed about the state of application or finances. Some Eastern partners also felt their Western counterparts took an unfair share of the JEP funding.

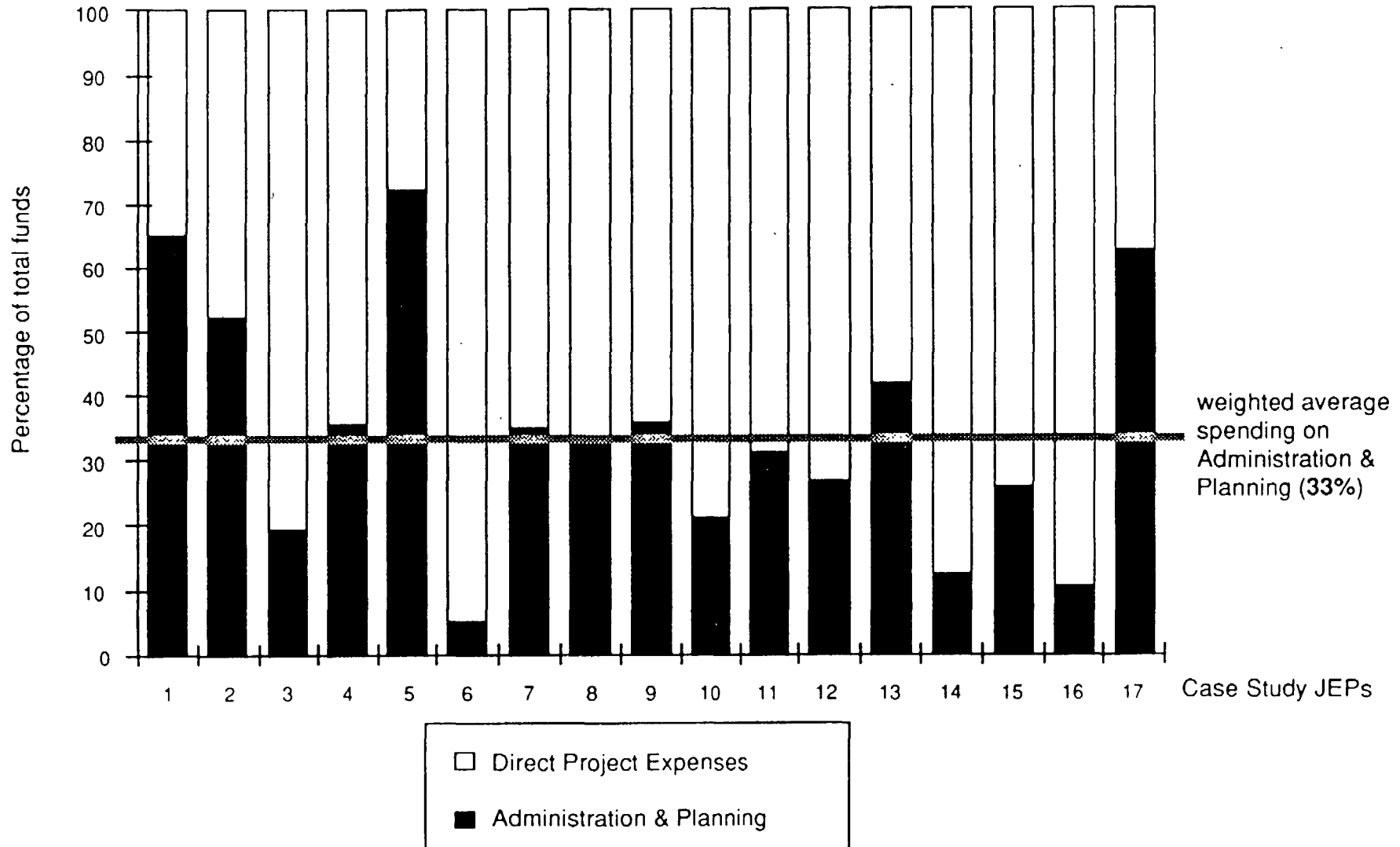
212 Our analysis of the financial reports for the 17 case studies showed that, on average, 77% of the funds in Action 1 and 2 related to direct project expenses and 23% of the funds to administration and planning expenses. The percentage spent on administration goes up if Action 2 costs are taken out. For the purposes of the analysis, we considered all Action 2 expenses (Mobility Grants for staff and students) as direct project expenses. Figure 2 on the opposite page shows our cost analysis of the 17 case study JEPs. By looking only at Action 1 costs, the weighted average spending on administration and planning goes up to 33%. In four cases, administration costs exceeded 50% of total costs for Action 1. This raises the issue of whether JEPs should have fewer partners or last longer in order to improve the administration efficiency. However these are only the costs of the first years of the JEPs. Analysis of data for subsequent years and more recent JEPs would give a better picture of the administrative efficiency of JEPs.

213 In terms of our survey of Western European partners, around 82% had seen their project implemented as planned. Amongst those projects which had not been implemented as planned, the overwhelming reason was a delayed start. Only 10% quoted problems with the EC as having been a contributory factor. Two thirds of those surveyed asserted that they had completely met their project objectives, with only 2% claiming to have met none of their objectives.

FIGURE 2

COST ANALYSIS OF 17 CASE STUDY JEPS (1990/91)

TOTAL COSTS = ACTION 1 ONLY



214 In terms of project design, the initially rather passive attitude displayed by Eastern institutions has been gradually replaced by a more active one and a more equal partnership is now sought. This process sometimes took more than one year depending on the subject such as the case of the ICTR (International Centre for Technical Research) proposal on the introduction of a full time postgraduate environmental course in Hungary. One of the typical problems encountered was the poor knowledge of the Western partner about the level and content of Hungarian higher education, the country and the current situation. Eastern European institutions would like to be regarded more as full-fledged partners in a JEP rather than passive "aid recipients". There has been a tendency on the part of some Western European partners to regard their involvement with Eastern European institutions in projects as an act of philanthropy.

Views on the programme

215 The overall opinion of all the institutions concerned was that TEMPUS is a useful and positive programme. The programme is very popular with the eligible country institutions. Given the relatively short existence of the programme, the views expressed by participants reflect a rather early judgement. The following were widely viewed as strengths of the programme:

- the general concept of a Western-sponsored programme to support the education system in the East and the associated prestige and credibility;
- access to Western training and know-how;
- funds for equipment renewal;
- creation of stronger links between institutions in the East and West;
- the complimentary nature of the more technical, theoretical, Eastern European approach to higher education with the more practical approach of Western European institutions;
- good means of understanding the problems of the countries in Eastern Europe.

216 Perceived weaknesses reported in our interviews included the following points. As will be clear in the following sections, we are not necessarily in agreement with these views:

- limited funds for covering costs of mobility programmes, TEMPUS coordinator's work and teaching;
- lack of significant links with industry;
- lack of funding for research activities (not eligible within TEMPUS);
- lack of involvement of Eastern partners in coordination activities and financial control of projects;

- too many partners which result in coordination problems, high administrative costs and compound possibilities of misunderstanding.

Practical Problems

217 The initial problems encountered can be seen as "teething problems" in the sense that they occurred at the beginning of the programme and in individual projects, but were resolved during the first year. These early problems were sorted out in each country. Another set of difficulties related to the mechanics of international cooperation projects and involved sorting out responsibilities between partners, reporting structures and requirements, getting used to each other's cultural attitudes and behavioural patterns and establishing effective communication links (usually resolved by purchase of fax equipment), transfer of foreign exchange and meeting TEMPUS-imposed deadlines. Most Eastern partners were not used to the requirements of administering international aid projects and, in fact, mentioned acquisition of such a skill as one of the direct benefits of the programme.

218 On the Eastern side, continuing practical problems which have been encountered in implementing exchanges with the West caused most of the delays. Among the problems cited were the level of grants for mobility, visas, insurance and accommodation in the West. The **amount of funds made available for student and staff mobility** (East to West) was judged insufficient by some participants. It is claimed that high air fares and travel costs absorb much of the grants, so that what remains is not enough to survive in Western countries. Eastern European academic salaries are very low and, therefore, insufficient to cover the differences. Some Western European institutions have attempted to top up their Eastern European colleagues' funds from their own resources, but this is not a sustainable option for many institutions. Difficulties in obtaining visas to enter Western Europe also added to the delays and sometimes to the financial strain on the participants. Eastern mobility participants also complained about difficulty obtaining affordable accommodation during their stay in the West and limited information available on health insurance while abroad. Despite these comments, we concluded that the level of funding has not reduced the extent of East-West mobility. There should however, be regular review of the grant levels.

219 A second cause of delays mentioned by most Eastern participants had to do with **timing of money transfers** from the West. It is common for transfers to take up to four or five weeks to arrive. Eastern European JEP participants were able to bridge the financial gap with their own means. Since self-financing is normally difficult (for example, in Romania many Western countries demand payment with visa applications which can cost up to two months salary for a Romanian national) in many cases the result was that implementation of planned activities was delayed until the funds arrived. Again, these delays have not had a major harmful effect on the project implementation.

220 Eastern partners (except Hungarians) expressed some disappointment at their **lack of control of equipment purchases**. It was usually the JEP coordinator who decided where and what type of equipment will be acquired. More often than not, the sourcing is done in the coordinator's country and, in the cases investigated, it was never done in Eastern Europe. An interesting point to mention is that some eligible

countries had problems importing the purchased equipment due to the fact that old COCOM restrictions are still in effect and prevent the export of "sensitive technology" to former members of the East bloc. We concluded that the Eastern partners should have more say in the selection of equipment, and, where it is sensible for cost and servicing/maintenance reasons, be able to purchase equipment locally.

221 Another related issue was that very few Eastern European JEP members had seen their contracts and were, accordingly, not aware of the levels of funding that they should be receiving from the Western contractors. This is linked to the fact that Eastern European partners were not initially allowed to be the coordinator or main contractor for JEPs and, in some cases, were not treated on an equal footing by Western partners. This led to resentment by Eastern partners and a concern that the Western partners were taking an unfair share of JEP resources. This situation should improve as Eastern European institutions come to play a more important role in JEP coordination and implementation. We understand that, from 1992/93 onwards, institutions of eligible countries can act as coordinator and contractor.

222 In Romania, the country's late inclusion in the TEMPUS programme has also been seen as a source of problems. Romania was only accepted into the programme in 1991 a few weeks before the deadline for submission of applications, leading to many projects being proposed that were viewed as "second best solutions". It is hoped that this situation will be reversed in the current year.

223 On the Western side, JEP coordinators are also critical about some aspects of funding. Complaints about the lack of financial support for the TEMPUS coordinator arose in the majority of institutions surveyed in the West. Their argument was that coordinators already have a full-time job and the TEMPUS task usually loads them with another substantial workload. They claimed that altruistic reasons have played a major role in motivating coordinators so far but that their willingness to participate in TEMPUS may decrease in the future if there is no funding. We were not convinced by this argument. In the West, coordinators already receive salaries for their work and JEP administration will not typically form a major part of their workload. Furthermore, they have tended to use a significant part of the JEP funds for support costs, and receive funding to cover replacement of academic staff. However, we return below to the question of Eastern European countries where salary levels are low.

224 The ability of Eastern students to operate in Western European languages was seen as disappointing in a minority of cases. Lack of adequate linguistic abilities can seriously hinder the learning process, especially when exchanges are short-term and do not allow the students/staff a "grace period" to come to grips with the use of a foreign language. The standard of Eastern European students was also viewed as inadequate by some Western partners. This has implications for the way students and staff are selected for mobility.

225 JEP coordinators disapprove of the amount of paperwork required to comply with reporting requirements and think the system should be streamlined. The programme is seen to have, for example, complicated application forms, changes in rules from one year to another and onerous requirements for detailed interim and final reports. They claim to spend a considerable amount of their coordinating time

in getting the necessary reports to Brussels on time. The information provided in these reports, they claim, is not necessarily useful for an understanding of the project by the Commission. While they agree that some measure of control and reporting is necessary, they would like to see it reduced from its present levels. We would expect this sort of reaction in such a scheme, but suggest there may be some scope for simplifying reporting requirements - we return to this later.

226 A few Western partners also expressed their concern about what they regard as **lack of appropriate information from the TEMPUS office in Brussels**. Several JEP coordinators mentioned difficulty in getting information on TEMPUS aims and clarification on the rationale for changing policies or budget cuts. This was not a complaint in Eastern Europe, where TEMPUS offices provide a good source of information and advice.

227 The TEMPUS offices in Eastern Europe seem to have had a helpful role in providing information and dealing with administrative issues during the first phases of the programme. The importance of this role could decrease as the programme gets more established in the countries.

228 Eastern and Western partners view **inflexibility of rules** as one of their most important problems. Specifically, they claim that the deadlines and administrative rules are too strictly enforced to the point of causing damage to the projects in question. They would like to see more flexibility when it comes to adapting planned activities to changing conditions. A specific example involves selection of students for mobility actions which cannot normally be changed at a later date. Some JEPs admitted in their reports to having taken hurried decisions to meet strict deadlines for student mobility and sending less qualified student and staff abroad. This may be another explanation for the "lack of student quality" mentioned in the previous paragraphs. Timetable pressures were exacerbated because of the announcement of which JEPs were selected for funding in June, just as many of the academic staff were about to go on holiday.

III Impact of TEMPUS on Eligible Countries

301 We have identified four main levels of impact within the eligible countries: departmental level in the higher education institutions, institutional, higher education system as a whole and country level. Generally, TEMPUS' impact is more significant at the department level within a university and, as might be expected, diminishes as its effects spread to the entire institution, the higher education system and the wider economy of impact in the countries affected.

Departmental level

302 **Improvements to resources** constitute the single most important and tangible benefit as a result of the first year of JEP actions. Departments have managed to purchase up-to-date equipment (some previously unavailable) which is used for teaching. This is particularly the case with computers, language materials and laboratory equipment which are already utilised beyond the original scope of the JEPs. One example is the technical upgrading of a language lab at the Humanities Studies Department of the University of Szeged in Hungary.

303 In more technical subject areas, upgrading of facilities usually results in spillover effects since several courses can make use of laboratory equipment acquired for one specific course. The Czech Technical University in Prague received equipment to establish a new theoretical field in control engineering. The newly outfitted lab will also be used in conjunction with other courses in the Engineering Department and consequently upgrade the education of a wider group of students.

304 Up to now, the purchasing decision has usually been the Western partners' responsibility. As discussed earlier, we see value in Eastern partners having more say regarding this part of the process. By doing so, the department in the eligible country will be able to consider the eventual cessation of TEMPUS funds and the need to purchase equipment according to the wider needs of the institution. The same comments apply to books and other non-technical teaching materials purchased or developed in the course of the JEPs.

305 **Seminars and training of staff and students** represent the second direct benefit to departments as a result of JEP activities. Visiting scholars and trainers bring first-hand information of new areas and technologies and the possibility of direct interaction with sources previously unavailable (or available on a restricted basis). Visiting teachers/lecturers from the West offering on site courses have a more direct and immediate multiplier effect than visits from East to West, as wider audiences are reached and can benefit from the contacts and interaction. Holding a course or seminar on site also gives Eastern partners an opportunity to play a larger role in organisation and management of the programme.

306 Generally speaking, mobility and exchange of student and staff have increased tremendously, albeit in some cases the student exchange programme has not started yet. Some of the institutions did not have any student exchanges prior to TEMPUS and now send a number of students abroad a year. At the Catering School in Budapest, for example, 4-5 undergraduates finished their course abroad in the first year (1990-91) but in the second year 20-30 are expected to do the same. In the past,

in most of eligible countries, even language teachers were not allowed to visit their subject country (and even when they were allowed, there was still the financing problem for the visits). Around 20% of the planned East-West student mobility did not take place. This could be the result of the deadline problems previously mentioned and linked in particular to the first year of TEMPUS operations. By contrast, East-West teacher mobility exceeded plans by about 20%. Most Western staff and students spend only very short periods in Eastern Europe, whereas the Eastern Europeans tend to spend longer times abroad.

307 Some JEPs have already acquired a life of their own and continue to evolve in different contexts. Selection procedures for staff and students, for instance, have already started to break old structures that dictated who could go abroad. As selection is now by and large independent of political affiliations, younger people with better language skills are being given preference over older candidates. In that regard, some JEP officials in Bratislava referred to the fact that in the past only those people with the "right" political views had the opportunity to go abroad and that these persons often did not have any academic skills to absorb and pass on information. This new generation currently being selected under TEMPUS auspices is less identified with the previous regimes and is accordingly likely to be more open-minded and more likely to implement changes over a longer period of time.

308 Teacher mobility also has a direct impact on the department. Returning teachers bring back considerable amounts of new books and materials that are made available to the rest of the staff and students. They typically have to write reports on their experiences and present their findings in formal or informal talks. In Hungary, returning teachers give oral presentations at departmental meetings, where they can recommend and discuss any of their reform proposals. They can apply the lessons learned directly in their own teaching. It becomes therefore important for the departments to retain such individuals in order to benefit from their views and ideas over the medium to long-term. However, staff who studied abroad, and particularly those who gain some professional experience with Western industries, stand to gain the most when they come back. Their exposure to the West and newly acquired skills are likely to make them more "marketable" to the private sector in their own countries. This could undermine the benefits of staff mobility for higher education. Some JEPs have instituted rules that require candidates for mobility to commit themselves to staying in the department for a period of time before moving on.

309 Concern has been expressed about possible brain drain from Eastern Europe but we only found evidence of one case where two students decided to stay abroad. We believe that a large proportion return primarily because they only have short term work visas. There is thus no trend to justify concern at this point, but there should be continued monitoring.

310 The mobility of students has some similar immediate effects to the mobility of staff, as students report on their experience abroad to the rest of the department. Some institutions had noted increased interest in language learning with the availability of TEMPUS exchange. It is too early to assess the longer term effects of student mobility, which will need to take into account the students' post graduation career paths. Some universities have a policy of choosing students that are most likely to return to occupy university posts upon their return. However, this strategy may be

undermined by low university salaries in Eastern Europe with the effect this has on retention (we return to this in our conclusions in Chapter 5).

311 The purchase of equipment together with seminars to staff and students on site provide direct and immediate benefits to the department concerned. In contrast, staff mobilities, and to a greater degree student mobilities, provide much less in the way of immediate or visible benefits.

312 It is still early to talk about specific changes such as improved teaching styles and methods although JEP reports give us some indication that TEMPUS is contributing to the conditions that will make such changes possible. Our interviews indicate that there is a positive effect in motivation and attitudes. Some of the interviewees alluded to new motivation which is spreading around the institutions and pointing in the direction of reform. The status and reputation of a department, faculty or the whole institution have grown with their involvement in TEMPUS. Departments and individuals who have been associated with these programmes are now seen as the forerunners of reform and perceived as being better prepared than the average. The participants themselves believe more in the need for change and are less threatened by it since they have been given some tools and training that allow them to play a useful role.

313 In assessing the impact of the TEMPUS programme, we also considered two important issues: the sustainability of the changes and the additionality of the effects.

314 Sustainability is the likelihood that the changes brought about by TEMPUS will continue to exist beyond the scope of the project. It also relates to the level of effort required for this likelihood to exist i.e. the duration of the JEPs. Additionality attempts to estimate whether TEMPUS support leads to additional activities rather than mere funding of existing plans.

315 Every JEP would like to see continued TEMPUS support for its efforts. The majority of JEPs expressed their desire to apply for extension and further funding in interviews with us and their final first year reports. Many pointed out that activities would be discontinued and important developments would be wasted should further funding not be forthcoming. Others implied that they would (some already are) look for alternative sources of funding in Western Europe or the United States. We do not share this negative view of the future.

316 As a result of our interviews and research, whilst we agree with funding sound projects for two or three years, we have not been convinced that efforts would be wasted if TEMPUS financial support then comes to a halt. Eligible partners in the East would prefer a longer time span (5 or 6 years) but we feel that most of the current JEP activities (upgrading of facilities, staff training, curricula development, etc) can realistically be carried out in the existing 3-year time frame. We believe that, in the majority of the JEPs, the pattern of changes is wide enough to penetrate into both institutional and personal life and make the changes irreversible.

317 As far as additionality is concerned, TEMPUS support has played a major role in making collaboration, upgrading of facilities and modernisation of teaching a reality. Although most of the institutions visited had previous contacts with the West, these

would have been unlikely to develop without TEMPUS. Contacts and ideas appear to have been present before but it was the introduction of TEMPUS that provided the impetus in the form of a framework for planning, funding and implementation of projects. Bilateral governmental programmes exist as well and predate TEMPUS but they tend to be on a much smaller scale and their funds are not necessarily educationally targeted. Within an intergovernmental agreement between Hungary and Austria, for example, one college was able to send 3 teachers abroad for 3 days.

318 TEMPUS has consequently played an "enabler" role in providing partners in the East and West with a suitable structure to develop projects that were previously confined to the idea stage. The impact of TEMPUS is thus additional in the sense that it was instrumental in achieving structural changes in academic departments which would either not have occurred or would have taken a longer time to come about.

Institutional level

319 TEMPUS projects also have an effect on the institution as a whole. Educational reform in a department or faculty may provoke further change via ripple effects within the entire organisation. In this sense, many of the comments made at the departmental level also apply to the institution as a whole, albeit to a lesser degree.

320 Ripple effects were present in several of the JEPs. New equipment purchased for one department can be shared with other departments; for example, photocopiers or computers. This is notably the case with JEPs in more technical subject areas.

321 The prestige of being associated with an EC initiative is another motivator for sharing of experiences between different areas of an institution. The Art Academy in Warsaw, for instance, claims that their successful JEP has increased the interest of other academic teachers regarding the creation of new JEPs under the TEMPUS programme. Other JEPs reported that their new status as a partner in an EC-funded scheme has given them higher profile within their institutions and prompted several inquiries into the nature of their project as well as interest in the TEMPUS operation itself.

322 Eastern European institutions have also learned project management skills through their involvement with TEMPUS. Several universities listed as an achievement their learning how to run and coordinate projects with several partners, how to write an application for funds, etc. Two of the institutions we visited in Hungary are already planning to run new TEMPUS projects as project leaders on their own on the basis of the skills acquired in the implementation of the present JEPs.

323 Institutions in Hungary mentioned that a large number of students and academics with Western European experience is necessary to generate change. The same is true in Poland where one of the JEP partners brands the entire university as "fossilized" and prescribes a large number of different projects to achieve some impact at this level. Institutions that host several JEPs already feel that the combined impact of several projects create a cumulative effect and a more conducive environment for change. It is reasonable to assume that continued TEMPUS involvement through

establishment of JEPs in different departments of the same university would have an even greater effect on institutional change.

Higher education sector level

324 TEMPUS' impact on the higher education systems of the eligible countries is much harder to assess at this early stage although there is some evidence that it is happening in some countries.

325 In Hungary, TEMPUS is seen as supporting the restructuring of the higher education system. Universities are beginning to revise their earlier approach to teaching with more independent student work compared to the old lecture-led learning process. The intention is to build on students' own work and introduce the Western concept of a triad degree system (BA, MSc, postgraduate). Hungarians agree that these changes would have occurred anyway as a result of their own reform programme. At the same time, they consider that TEMPUS is helping to support the "top down" reforms by complementary "bottom up" changes at departmental level. TEMPUS has also stimulated changes to the current foreign language teaching system.

326 In Poland, the government is also trying to dismantle the centralised model established in the 50's in order to give a larger degree of autonomy to universities. The publication of the new education act coincided with the start of TEMPUS. Polish governmental institutions that were interviewed all agreed that TEMPUS can have a positive impact on the restructuring of the educational system through establishment of contacts with Western partners, teacher training and general transfer of knowledge and improvement of quality of studies. These improvements, however, can only be ascertained in the long term. Polish JEPs interviewed were hard put to provide evidence of impact at this level.

327 In the Czech and Slovak Republic it is even more difficult to assess the impact at this level. Our discussion with government officials indicate that TEMPUS presently has very limited linkage to overall educational policy and objectives in the country because the decision making process for TEMPUS is largely independent of the Ministries of Education. On the other hand, the impetus for change in educational policy may be outside the Ministries of Education. However, as in the other eligible countries, the national TEMPUS offices are established by the national authorities who also appoint the academic experts responsible for selection and are asked for final opinion on projects to be selected. Whilst some policy reforms are being introduced, the overall policy direction was less clear to us; this impedes the assessment of TEMPUS' contribution.

328 In Bulgaria, the TEMPUS programme is viewed as fitting in ideally with the changes that are being proposed to the higher education system. It is the consensus of opinion that the programme will have a significant impact in 5 years time, although in the shorter term it is only likely to have a modest impact given the entrenchment of outmoded attitudes. Its impact is seen as being likely to continue, albeit at a reduced level, even if funding was to be discontinued.

329 Up to the present, TEMPUS is not seen as having been very successful in Bulgaria². This is due to a number of factors:

- there have been wide-ranging changes in the personnel and Ministries responsible for administering the programme and priorities established by the old Ministries are no longer seen as being relevant;
- the programme is not yet well targeted and the money available is not seen as being sufficient - Bulgaria would like at least 10% of the total PHARE funds available to be directed towards it;
- not enough projects with mobility elements have come forward and there is not a sufficient level of industry involvement. There is also perceived to be a severe bias towards projects based in Sofia.

The government is attempting to address these issues, for example, by mounting an information campaign to attract more industry interest.

330 Romanian³ authorities have not yet decided on their policy to reform of higher education. As a result it is difficult to ascertain the effects of TEMPUS. During our interviews a difference of views emerged among relevant Romanian authorities as to the effectiveness of TEMPUS. There is limited cooperation between the Romanian National Agency for Development (NAD - coordinating the PHARE programme in Romania) and the Ministry of Education, which coordinates TEMPUS. NAD have questioned the rationale behind putting in so much money to the education sector (ECU 14 million out of ECU 130 million) at the expense of other sectors. NAD also questions the extent to which changes introduced by TEMPUS will be disseminated throughout the system, as well as questioning whether students and staff will actually return.

331 As a general comment valid for all eligible countries, we would like to note that the full effect of TEMPUS' impact at this level, however, is being severely undermined by the precarious state of most higher education systems in the East.

332 The situation in Hungary is indicative of the entire region. Hungary is usually cited as one of the better-off countries in the East but as the country goes through its political-economic restructuring, education funding has been constrained. The need for reform has been recognised, with plans to increase student numbers and to harmonise with the European Community's standards. However, the salaries of young lecturers are extremely low, which endangers staff stability within institutions and within the country. Institutions currently receive 70% of their running costs and, while struggling to cover the deficit, have no funds to expand their facilities or modernise their technical infrastructure. The TEMPUS programme is designed to provide marginal funding for the extra costs of JEPs and mobility, assuming the basic education system is funded. It cannot work without a base level of support to higher education institutions.

² limited involvement in initial year - see footnote 1 in Introduction

³ limited involvement in initial year - see footnote 1 in Introduction

Wider impact on economic and social restructuring

333 In a wider sense, TEMPUS has an impact on both students and academic staff that should result in knock-on effects for the economy at large. After they have been abroad for a period of time, they return with a better appreciation of the Western Europe, culture, customs and people in addition to the formal training received as part of the JEP activities. They will thus represent a well trained, good quality employee group equipped to deal with a market-driven economy and Western counterparts in the future.

334 A short-term impact of TEMPUS is the emphasis and importance it has lent to language training. In a modest way, TEMPUS has contributed to raise the level of foreign language proficiency and, at the very least, the awareness of its importance for future dealings with the West.

335 Contact development with industry, as a result of JEP actions, has been very modest. This is not surprising in Eastern Europe, where industry is preoccupied with restructuring attempts. Some individual achievements have been recorded but they are not the norm. For example the Czech Technical University reported that other universities and local companies have shown keen interest in using JEP findings on control engineering to develop products on a commercial basis. In Poland, the Agricultural University in Cracow plans to install equipment purchased under the JEP at a Regional Milk Processing Cooperative so that students can practice in a real work environment. This will also have a positive impact on the cooperative's output and the level of skills of the workers involved. From these examples it seems that practical, technical applications resulting from JEPs in technical subject areas are more likely to have a modest, short to medium effect on the overall economic situation of the countries concerned.

336 The changes in attitudes and its desired impact on economic and social restructuring are long term goals and no real evidence is apparent yet.

337 The potential is there to train people in more modern, westernised standards and to build up Eastern European institutions' capacity to train. However, the issue seems to be whether the JEPs currently running focus on priority training needs. In order to do so, the eligible country governments need clear strategies for restructuring their economies and which identify their requirements for retraining. As discussed in section 2, the definition of country priorities in the VADEMECUM currently tends to be broad, excluding little. Clearer specification of training priorities could be used as a means of targeting JEPs to the needs of the economy. We discuss further whether this is appropriate in our conclusion in section 5.

IV Impact on Western European Partners

Benefits of involvement

401 The impact on Western European JEP partners is not expected to have been as significant as that of the Eastern European partners, given that the programme was specifically designed to assist restructuring in Eastern Europe. However, our survey also investigated the positive and negative impacts of the programme on Western European partners.

402 As mentioned in Section 2, many of the Western European partners listed altruistic reasons of being able to be seen to assist Eastern European institutions as being the main reason for their involvement in TEMPUS (around 73% of those surveyed). Two thirds of respondents claimed that their project was entirely inspired by TEMPUS, with another 30% claiming that the project was larger because of TEMPUS.

403 More than half of those surveyed had already undertaken student exchanges, while almost 80% had seen some staff exchanges. Exchanges of materials and equipment had also been seen in a quarter of our survey respondents. Some Western institutions also mentioned their surprise at the high technical level of Eastern institutions and the fact that they learnt from the Eastern theoretical approach, which led to benefits for their courses.

404 Other benefits that accrue to Western partners have included:

- an expanded network of academic contacts, particularly with Western European institutions
- more funding
- prestige of being involved with EC-funded activities
- widening of personal horizons for staff and students personally involved in projects
- good technical capabilities of many Eastern European students
- improved mobility of staff and students
- interesting cultural exchanges.

405 The aspect of additional funding as having been the motivating factor appears to have been played down by most of the respondents. Nevertheless, we believe that the monetary aspect was important to the Western institutions.

406 On balance, however, most participants were enthusiastic overall and did not regret their participation in the programme.

V Conclusions and Recommendations

501 TEMPUS has made an impressive start, with a wide range of collaborative projects established in the first year, and expansion of the programme since then. We identified no fundamental practical problems which are hindering implementation; early difficulties have been overcome through proposals made by the eligible countries, through experience or through modifications to the rules and procedures introduced by the Task Force for Human Resources.

502 The TEMPUS programme has enjoyed wide popularity in both East and West. There are several main reasons that account for that. Projects have been implemented in a relatively short timeframe if considered against other programmes (including other elements of PHARE). It adopted a "bottom up" approach by creating a framework that allows JEP ideas to emanate from the institutions themselves. It thus creates a feeling of ownership and acceptance of the reforms it achieves. This approach has also helped to achieve the quick start of the projects and the changes in attitudes and teaching methods in higher education in the target countries. However, the question remains of how well it fits with national policy for higher education and the social and economic reconstruction of Eastern Europe.

503 It is an early stage to be assessing the impact of TEMPUS, as the first round of projects are not yet complete, and the programme is intended to have long-term impact on the eligible countries. Despite that, we found that in its short period of existence, TEMPUS has already had some direct impact on the institutions concerned in the eligible countries. Impact ranges from concrete results such as upgrading of laboratory facilities and computers to institutions learning to participate in cooperation projects. To a lesser extent, it has had some impact on the social and economic restructuring of these countries, by helping to build a cadre of staff with Western exposure and linguistic ability. Industry links remain limited although there are some isolated cases which point to successful collaboration in technical areas.

504 Our findings indicate that TEMPUS projects resulted in a good degree of additionality. Although previous contacts between partners (on a personal level) was the norm, we estimate that around two-thirds of the projects were inspired by the TEMPUS concept and the vast majority would not have carried out collaborative activity without it.

505 Considering the relative cost effectiveness of the components within TEMPUS actions, we conclude that the highest impact is achieved by funding of equipment and transfer of know-how on site in Eastern Europe as opposed to staff and student mobility to the West. We drew this conclusion on the basis of both coordination/monitoring costs, benefits to date and our own assumptions with regards to costs per output as indicated in the table below:

	Monitoring effort	Costs/person	Benefits/person
Student Mobility	HIGH	HIGH	LOW/untested
Staff Mobility	MEDIUM	MEDIUM	MEDIUM
Equip/konw-how	LOW	LOW	HIGH

506 Whilst the JEPs and associated mobility are succeeding in upgrading and modernising higher education at departmental level, we conclude that the impact of TEMPUS has been, and is likely to remain, limited in terms of the programme's broader objectives of reforming higher education systems and supporting economic and social restructuring. This limited impact reflects both by the limited linkage between the JEPs selected and national higher education policies on economic priorities as well as the ambitious scope of present TEMPUS objectives.

507 In considering how TEMPUS can be developed in order to enhance its impact, we have concluded that the programme should develop in different ways, depending whether it is primarily **to support higher education reforms** or **to contribute directly to social and economic restructuring**. Because eligible countries are taking different approaches to higher education reform and are at different stages of restructuring, we conclude that the choice of objectives, and the way the programme develops within those objectives, should be determined at country level. Once the primary objectives of TEMPUS in each country are determined, then a strategy for targeting TEMPUS can be agreed.

TEMPUS targeted to reform of Higher Education.

508 If TEMPUS is to be used to support planned reforms to the higher education system, then we recommend that the first step must be a review of how TEMPUS can best be used to support the planned reform policies in each eligible country. The role of TEMPUS will need to be considered in the light of other funding and reform mechanisms. Clearly, ministries of education in the eligible countries will take a leading role in this process.

509 Many of the reforms planned in eligible countries are intended to move towards Western European models, for example, in the structure of degrees and teaching approaches, as well as modernising equipment and curricula. The JEPs, by providing opportunities for collaboration with Western European higher education, seem to be a valid and useful mechanism for assisting the transfer of approaches and expertise. There is still a need to consider how best JEPs can support planned higher education reforms and whether their current scale and scope should be modified to target them where they are most needed.

510 The current size and nature of JEPs may still be the most appropriate use of TEMPUS funding. As discussed in section 3, a series of relatively small JEPs in various departments within an institution are likely to have a cumulative effect on attitudes and teaching methods in the institution. If this approach is favoured, then one of the criteria for JEP selection could be that the department should not have had JEP support in the past, and JEPs should continue to be limited to size and duration as at present.

511. There may also be a case for considering new types of JEPs which will support planned reforms, for example:

- JEPs focused on reforming the management of higher education institutions,
- JEPs to develop new types of institutions,
- JEPs to disseminate and share the results of earlier JEPs (e.g. new curricula) between institutions.

Depending on the purpose of the JEPs, the scale and duration of support may need to be adapted, for example, establishment of a new type of institution may well mean support for longer than 3 years. In this case, funding should be granted for the duration of the project but made conditional on the results of annual reviews by TEMPUS. On the other hand, dissemination of new curricula and equipment upgrading may be achievable in one year.

512. If the JEPs are to have a sustained impact on attitudes and teaching methods within higher education, then our findings suggest that mobility of staff will be more effective than student mobility - although the impact of staff mobility from East to West will only be maximised if there is a strategy for retaining relevant staff within higher education. Provision of equipment and materials, curricular development and visiting staff from West to East are likely to be the most cost effective ways of achieving curricular change.

TEMPUS targeted to economic restructuring needs.

513. If TEMPUS is seen as an instrument to support short term economic reforms, then we suggest that its main contribution should be to meet the high level manpower needs and skill shortages which emerge with restructuring. If this is the priority objective for TEMPUS, then we suggest that the programme be developed along the following lines:

- Eligible country governments need to identify key skill shortages and retraining required in order to support planned economic reforms (with a leading role for economic ministries in identifying these skill needs);
- TEMPUS applications would be requested to address the identified and clearly specified training needs. The JEP mechanism can still be appropriate to obtain the expertise required. For some skill needs, the large numbers requiring training will merit larger JEPs, involving several (possibly all) of the relevant institutions in the eligible country; a longer time scale may also be justified. As in the previous alternative, funding should be granted for the duration of the JEP and made conditional on the results of annual review by TEMPUS;
- Where difficulty retaining staff is likely to undermine the capacity to provide training, there may be a case for supporting key academies or trainers from the eligible countries with TEMPUS funds;

- If there are small numbers requiring training in particular specialist areas, then student mobility may be cost effective; in general, however, we conclude that transfer of staff, equipment and materials from Western Europe are likely to be the most efficient way of achieving training objectives;
- Depending on the training needs, there may also be a case for greater industrial involvement. In practice, however, this has been difficult to achieve with Western enterprises and we see limited scope at present. Closer involvement of employers in eligible countries is desirable and should be achievable where the training is linked to their needs.

Next Steps

514 We recommend that each eligible country reviews how best it can apply TEMPUS to support its reform programme - whether as a source of funding and expertise for relatively short term training needs, or as a mechanism for reform of higher education. The choice will depend in part on the availability of other sources of funds, as well as on national priorities.

515 We would then recommend development of a strategy for using TEMPUS, which would consider the scale and scope of JEPs, the arrangements and criteria for selecting JEPs and for managing TEMPUS and identify targets for the mix of activities and use of funds under TEMPUS. This strategy would need to be discussed and agreed with the Task Force for Human Resources, Education, Training and Youth of the Commission of the European Communities.

516 The new focus and targeting of TEMPUS could then be introduced in the next annual round. If eligible countries develop very different strategies, then separate application and monitoring procedures may be needed.

Annex 1

List of interviews undertaken

List of people met in Bulgaria

1 Ministry of Finance

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Phare Country Coordinator/Dept of International Relations
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2 Ministry of Education/Tempus Office

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3 University Coordinators/JEP representatives

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(b) Technical University of Sofia

	JEP
• Assistant Professor Ilerio Astinov	2605 - 91/1
• Assistant Professor Racho Ivanov	2374 - 91
• Professor Vladim Ganovski	1864 - 91/1
• Associate Professor Tskankove	1674 - 91
• Associate Professor A Moskov	2154 - 91
• Associate Professor Dgranchev	1728 - 91
• Professor B Alvasov	1718 - 91/1
• Professor M Mikhailov	1881 - 91
• Assistant Professor W Vitanov	2388 - 91
• Professor B Cheshankov	2262 - 91
• Associate Professor K Krachanov	2614 - 91
• Associate Professor D Dimitriov	
• Deputy Dean Georgi Tsvetkov	

List of people met in Romania

1 Ministry of Education and Science

Mr Rosu
Vice-Minister
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Mr J Beju Ph. D
Head of Mechanical Engineering Division
Department of Engineering Sciences
University of Bucharest
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Romania

2 Romanian Development Agency

Maria Angela Stolnicu
Desk Officer
Economic Assistance Division
7 Blvd. Magheru
Bucharest
Romania

3 Tempus Office

Carmen Batatorescu
Administrative Officer
Individual Mobility Grants
Romanian Tempus Office
Stefan Furtuna Str. 140
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List of people met in Slovakia**1 Ministry of Education, Youth and Sport of Republic**

Ing. Marta Šimková
Head of Section
Department of Foreign Relations
Hibokà 2
813 30 Bratislava

Ing. Klaudius Kosnàč
Department of Foreign Relations
Hibokà 2
813 30 Bratislava

People met in the Czech Republic

1 Tempus Office

JUDr. Josef Vochozka
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U Lužického semináře 13/90
118 00 Praha 1

Ing. Ivana Cerhova
Tempus Office
U Lužického semináře 13/90
118 00 Praha 1

2 Institute of Biotechnology

Professor Jaroslav Drobnik
Director
Institute of Biotechnology
Charles University
Viničná 5
128 44 Prague 2

3 Federal Ministry of Economy

Dipl. Ing. Jaroslav Jarovyi
Nábřeží kpt. Jaroš 1000
170 32 Prague 7

List of people met in Poland

1 Council of Ministers

Tadeusz Zoltowski Ph.D.,D.Sc
Directorate Education, Training,
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Council of Ministers
Al. Ujazdowskie 9
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List of people met in Hungary**1 Tempus Office**

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Dr András Szucs
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2 Commission of the European Communities

Balás Dajka
conseiller, chef de service
Ministère de l'Education et de la Culture
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3 Coopers & Lybrand

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Annex 2

List of case studies chosen

CASE STUDIES CHOSEN

	SUBJECT	ELIGIBLE COUNTRY	CONTRACTOR
1138	20	C	E
0886	30	C	F
1189	60	C	NL
1302	80	C	I
0567	10	C	UK
0971	30	P	F
0035	40	P	UK
1073	50	P	UK
0972	70	P	NL
0021	10	H	IRL
0182	30	H	F
0070	40	H	D
0238	60	H	UK
0445	80	H	D
0725	70	CHPR	NL
0145	92	HP	UK
0005	98	CHPBY	I

CASE STUDY SELECTION CRITERIA

MIX ACROSS

- **ELIGIBLE COUNTRIES**
- **EC PARTICIPANTS**
- **COORDINATING COUNTRY**
- **SUBJECT MATTER**
- **SIZE (FUNDING)**

CASE STUDIES : CHARACTERISTICS

ELIGIBLE COUNTRY	POLAND	HUNGARY	CZECHOSLOVAKIA	MULTI COUNTRY
	4	5	5	3

SUBJECT AREA	10	20	30	40	50	60	70	80	92	98
	2	1	3	2	1	2	2	2	1	1

CONTRACTOR COUNTRY	E	F	NL	I	UK	IRL	D
	1	3	3	2	5	1	2

EC PARTNERS	All EC members represented
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