Report
drawn up on behalf of the Committee on Energy and Research

on the proposal from the Commission of the European Communities to the Council (doc. 257/76) for a four-year period programme 1977/1980 in the field of scientific and technical education

Rapporteur: Lord BESSBOROUGH
By letter of 3 August 1976 the President of the Council of the European Communities requested the European Parliament pursuant to Article 235 of the EEC Treaty, to deliver an opinion on the proposal from the Commission of the European Communities to the Council for a decision on a four-year period programme, 1977-1980 in the field of scientific and technical education. The President of the European Parliament referred this proposal to the Committee on Energy and Research as the committee responsible and to the Committee on Budgets for its opinion.

On 10 September 1976 the Committee on Energy and Research appointed Lord Bessborough rapporteur.

It considered this proposal at its meeting of 21 October 1976.

At the same meeting the committee unanimously adopted the motion for a resolution and the explanatory statement.

Present: Mr Springorum, Chairman, Mr Normanton, Vice-Chairman, Lord Bessborough, rapporteur, Mr Ellis, Mr Noè, Mr Osborn, Mr Ripamonti, Mr Schwabe and Mrs Walz.

The opinion of the Committee on Budgets is attached to this report.
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The Committee on Energy and Research hereby submits to the European Parliament the following motion for a resolution, together with explanatory statement:

**MOTION FOR A RESOLUTION**

embodying the opinion of the European Parliament on the proposal from the Commission of the European Communities to the Council for a four-year period programme 1977/1980 in the field of scientific and technical education

The European Parliament,

- having regard to the proposal from the Commission of the European Communities to the Council;
- having been consulted by the Council (Doc. 257/76);
- having regard to the report of the Committee on Energy and Research and the opinion of the Committee on Budgets (Doc. 379/76);

1. Welcomes
   (a) the decision to base this programme on Article 235 of the EEC Treaty as well as on Article 7 of the EAEC Treaty;
   (b) the extension of the scientific and technical training programme to non-nuclear sectors;
   (c) the linking of this programme to the Community's sectoral research and development programmes;

2. Believes that this programme will contribute to the dissemination of scientific knowledge and techniques among young engineers and scientists throughout the Community;

3. Recognises the value of creating as many contacts as possible between research establishments in the different Member States;

4. Calls on the Commission to restrict eligibility for grants in respect of non-member countries to applicants with experience of the appropriate advanced technology.

5. Requests the Commission to encourage and give favourable consideration to applications from scientists and engineers working in industry;

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6. Proposes, accordingly, that the upper limit of expenditure commitments for the implementation of this programme be increased by 400,000 u.a., and the Financial Record Sheet adjusted accordingly, so as to enable more applicants from industry to participate in this programme;

7. Approves the proposal from the Commission and invites it to adopt the following amendments pursuant to Article 149, second paragraph, of the EEC Treaty and Article 119, second paragraph, of the EAEC Treaty.
PROPOSAL FOR A FOUR-YEAR PERIOD
PROGRAMME 1977/1980 IN THE FIELD
OF SCIENTIFIC AND TECHNICAL
EDUCATION

Article 2
The upper limit for expenditure
commitments and for staff necessary
for the implementation of this pro­
gramme shall be five million units
of account and seven Community
officials; the unit of account
being defined in Article 10 of the
Financial Regulation of 25 April
1973 applicable to the General
Budget of the European Communities.

The expenditure for the implementa­
tion of this programme is estimated
at 5.4 million units of account;
the unit of account being defined in
Article 10 of the Financial Regula­
tion of 25 April 1973 applicable to
the General Budget of the European
Communities.

Article 3 unchanged

Annex

Introduction unchanged

Paragraph 1
Award of grants for scientific research
work at various levels of training
(diploma dissertations, Ph.D theses,
post-doctorate research). Eligible
for these grants are students of
science or scientists and engineers
from the Member States of the Com­
munity holding a diploma or doctor­
ate. The research work must be
carried out in a Community country
other than the applicant's native
country or his country of permanent
residence.

Paragraph 1
Award of grants for scientific research
work at various levels of training
(diploma dissertations, Ph.D theses,
post-doctorate research). Eligible
for these grants are well qualified
students of science or scientists and
engineers from the Member States of
the Community including scientists and
engineers working in industry. The
research work must be carried out in a
Community country other than the
applicant's native country or his
country of permanent residence.

1 For complete text see O.J. No C 187 of 10.8.1976, pp. 6, 7.
Scientists and engineers from non-member countries with which the Community has relations in the scientific and technical field may be considered up to a maximum expenditure of 8% of the total operating funds of the programme.

Paragraph 2 unchanged
I. Introduction

1. The objective of the present proposal is to promote the training of young scientists and technologists in both the nuclear and non-nuclear fields. The programme would use existing training centres in Community countries, thereby making it unnecessary to set up special Community training centres. The main emphasis would be laid on exchanges of already qualified researchers, scientists and engineers between the training establishments in one Member State and the research establishments in another. It is hoped that it would further the training of scientists by enriching their experience, while at the same time encouraging the establishment of new links or the strengthening of existing ties between universities and research centres in the different Member States.

2. The programme proposed by the Commission is, in certain respects, a continuation of the training work started by the Community in 1958. The first training programme (1958 - 1962) was aimed at science students in Universities in the original six Member States. The second programme offered postgraduate students the possibility of working in a research centre outside their own country for the purpose of research leading to a doctorate or interdisciplinary training. Both of these programmes were aimed exclusively at specialists in the nuclear sector. In the years 1968 - 1972 there were a series of one-year programmes which continued the activities of the first two programmes.

3. The programme at present coming to its conclusion was adopted by the Council\(^1\) on 18 June 1973 and will end on 31 December 1976. It differed from its predecessors in that it included the three new Member States. This programme involved:

- the organisation of in-service traineeships at the four establishments of the JRC;
- the awarding of grants for research leading to higher degrees to be carried out at JRC establishments and presented at universities in the students' own countries;
- the awarding of grants for postgraduate studies either at the JRC or at national research establishments carrying out indirect action programmes, these grants to be used for Ph.D. research, specialisation in a particular

nuclear field through practical scientific research, and research by university research assistants or junior lecturers at nuclear research centres;
- the awarding of post-doctoral research grants;
- the organisation at Community research centres of study periods for scientists and engineers who already had some professional experience.

II. The Scope of the Present Proposal

4. The present proposal takes as its basis the Council Resolution of 14 January 1974 on the coordination of national policies and the definition of projects of interest to the Community in the field of science and technology. According to the Commission it 'will be geared to those fields of research for which nuclear or non-nuclear research programmes have already been decided or will be decided at some future date under the Commission's new research and development policy'.

5. It should be noted that this programme no longer concentrates purely on training in the nuclear field, but would cover all aspects of research and development being undertaken by the Community through either direct or indirect actions.

6. Research students, or other qualified scientists or engineers from the Member States are eligible to take part in this programme. In Paragraph 1 of the Annex to the Draft Proposal for a Council Regulation the Commission has used the term '... holding a diploma or doctorate'. Your rapporteur feels that the term 'diploma' could be misleading in English, and that reference to academic qualifications might be too restrictive. It is therefore proposed to replace the words 'holding a diploma or doctorate' with the more general term 'well qualified'.

7. In addition, about 8% of the total funds would be reserved for young scientists and engineers from non-member countries with which the Community has relations in the scientific and technological field.

8. Grants will be awarded in respect of work for theses, doctorates and post-doctoral research projects. As a general rule, in order to promote mobility, this work must be carried out outside the candidate's country of origin and, in the case of dissertations and theses, submitted in the candidate's country of origin.

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9. A series of further training courses in sectors of special importance to the Community's Research and Development policy would be organised. These are to include, inter alia, courses in radiobiology and data processing. The Community contribution would not exceed 50% of the total cost of such further training courses.

10. An Advisory Committee is to be set up to advise the Commission on both the general implementation of the programme and the allocation of the funds available.

III. Financial aspects of the proposed programme

11. The Commission proposes an upper limit of expenditure of 5 m.u.a. spread over the four years of the programme (the current programme, 1973/76, involved appropriations of 4.5 m.u.a.). The Commission points out that, in view of (i) the extension of the programme to non-nuclear areas, and (ii) the cost increases to be expected during the period of the programme, the proposed appropriations would represent a reduction in those activities being promoted by the Commission under the current programme.

12. The costs of the new programme, as proposed by the Commission, would break down as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Action Grants</td>
<td>1,463,000 u.a.</td>
</tr>
<tr>
<td>Indirect Action Grants</td>
<td>1,463,000 u.a.</td>
</tr>
<tr>
<td>Grants in respect of non-member countries</td>
<td>334,000 u.a.</td>
</tr>
<tr>
<td>Advanced training courses</td>
<td>920,000 u.a.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,180,000 u.a.</strong></td>
</tr>
</tbody>
</table>

To this figure must be added 820,000 u.a. or 16.4% of the total sum available, to cover staff costs, general administrative costs (missions, fees paid to experts, meetings, etc.) and infrastructure (contribution to overheads).

Annual appropriations as proposed by the Commission

(in million u.a.)

<table>
<thead>
<tr>
<th>Year</th>
<th>1977</th>
<th>1978</th>
<th>1979</th>
<th>1980</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.2</td>
<td>1.5</td>
<td>1.5</td>
<td>0.8</td>
<td>5.0</td>
</tr>
</tbody>
</table>

13. This committee feels very strongly that this scheme should be more heavily biased towards young scientists, technologists and engineers working in industry in the Member States, without excluding academic recipients of grants (see para. 19 below). It is therefore proposed to increase the
appropriations for this programme by 400,000 u.a. over the four years of the programme.

14. Article 2 of the Proposal for a Council Decision refers to the sum of 5 m u.a. as 'The upper limit for expenditure commitments'. The Committee on Energy and Research feels that this should be replaced by the words 'The expenditure for the implementation of this programme is estimated at ....'. The Committee also proposes that any reference to the number of staff necessary for the implementation of this programme be deleted from Article 2.

IV. Comments on the proposed programme

15. It is noted with approval that the present proposed programme is the first to be based not only on Article 7 of the EAEC Treaty, but also on Article 235 of the EEC Treaty. This corresponds to the wishes of the Committee on Energy and Research as Article 7 of the EAEC Treaty, unlike Article 235 of the EEC Treaty, does not provide for parliamentary consultation.

16. In extending the Commission's activities to non-nuclear fields, this proposal would appear to meet the requirements of the European Parliament as expressed in the following resolutions:

- Resolution on the future of the JRC and the setting up of a Multiannual Programme for Research and Training (Doc. 153/72)\(^1\);
- Resolution contained in the Gerlach Report on the new multiannual Research and Training Programme of the JRC (Doc. 240/72)\(^2\);
- Resolution contained in the Glesener Report on the Proposals from the Commission to the Council for decisions to set up two research programmes in the field of new technologies and recycling raw materials (Doc. 89/73)\(^3\).

17. This committee hopes that the present proposal will encourage the dissemination of scientific knowledge throughout the Community. It could also be hoped that this might lead to further exchanges, both of personnel and of ideas, and to greater coordination between European research institutes. This Committee has repeatedly stressed the importance of cooperation and the coordination of research throughout the Community. Such cooperation and coordination would be of particular interest for scientists and researchers in the smaller Community countries, without any disadvantages for the bigger Member States.

\(^1\) O.J. No C 112 of 27.10.1972, p. 19.
18. It is also noteworthy that, within certain limits, young scientists and engineers from third countries with which the Community has relations in the scientific and technological field will be eligible under this programme.

The Commission has proposed that about 8% of the total funds should be set aside for this purpose. This committee wishes to stress the importance of restricting eligibility to countries with a high level of technological development, so that the visiting engineers and scientists can also contribute to Community research projects. Researchers from countries such as Sweden, Norway, Switzerland and Austria would seem particularly suitable, though this list of four countries is, of course, not exhaustive. The two-way movement of knowledge resulting from the programme would thus be of benefit to the Community as well as to the recipients of the grants.

19. The Commission's proposal, while not excluding them, does not go far enough in encouraging young engineers and scientists working in industry to take advantage of these grants. This committee feels that experience such as could be gained from the present proposal would be of considerable benefit to industrial scientists and technologists. For this reason it is proposed (i) to request the Commission to give particularly favourable consideration to applications from scientists and engineers working in European industry, and (ii) to increase the appropriations for this programme by 400,000 u.a. over four years, thereby bringing the total to 5.4 m.u.a. (this would be entered in the financial record sheet). The extra funds would be specifically earmarked for personnel working in industry.

V. Conclusions

20. The Committee on Energy and Research believes that the Commission's proposal should make a worthwhile contribution towards the formation of a new generation of European scientists, technologists and engineers. It welcomes the programme's extension to non-nuclear fields, and its link with the Community's sectoral Research and Development programmes. This committee calls on the Commission to open the programme more to industrial scientists and engineers, and accordingly proposes that appropriations be increased by 400,000 u.a. This committee believes that Article 2 of the proposed Council Decision should also be amended as outlined in Paragraph 14 above. In order to make the programme less restrictive, it is proposed to replace the words 'students of science or scientists and engineers from the Member States of the Community holding a diploma or doctorate' with 'well qualified students of science or scientists and engineers from the Member States of the Community' in the Annex to the Proposed Council Decision. With the suggestions outlined above, the Committee on Energy and Research approves the Commission's proposal.
At its meeting on 10 September 1976, the Committee on Budgets appointed Mr DALYELL draftsman.

It considered the draft opinion at its meeting of 3 and 4 November 1976 and adopted it unanimously.

Present: Mr Lange, Chairman; Mr Aigner, First Vice-Chairman; Mr Dalyell, draftsman; Mr Artzinger, Lord Bruce of Donington, Mr Gerlach, Mr Notenboom, Mr Shaw and Mr Suck.
Situation up to now

1. A programme for the training of Community scientific and technical staff, and particularly the training and educational development of specialists in the nuclear field, has existed for several years in the six original Member States.

   The first such programme ran from 1958-1962.
   The second such programme ran from 1963-1967.

   Over the years 1968 to 1972, there were only one-year programmes which did little more than continue existing activities - a situation which was less than satisfactory because it lacked medium term content. The present programme, signed on 18 June 1973, covers the years 1973-1976 and will terminate on 31 December 1976.

Aims of the proposed programme

2. The aims of the proposed future training programme are more coherent than those that have gone before and, briefly, are as follows:-

   - training of recruits and specialists in fields of research that have specific significance in relation to Community scientific and technological projects;
   - closer meshing with Community research policy; and
   - promotion of mobility at all levels of training within the Community's research and development programmes.

   The programme will benefit primarily students of science or scientists and engineers from the Member States holding doctorates and diplomas. However, about 8% of funds may be reserved for young scientists and engineers from non-Member States with which the Community has relations in the scientific and technological fields. This provision appears to be reasonable, in view of the need to ensure maximum cross-fertilisation of ideas and the fostering of an international flow of knowledge in these spheres.

Costs

3. For the period 1977-1980, a staff of seven officials will be needed to serve the programme; this is one less than the number required up to now. The appropriations required for the four years are 5 m.u.a.; this represents an increase of $\frac{1}{2}$ m.u.a. on the appropriations for the previous four years. The breakdown by years is as follows:
4. This money will, it is estimated, be spent as follows:

<table>
<thead>
<tr>
<th></th>
<th>m.u.a.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct action grants</td>
<td>1.463</td>
<td>29.3</td>
</tr>
<tr>
<td>Indirect action grants</td>
<td>1.463</td>
<td>29.3</td>
</tr>
<tr>
<td>Grants in respect of non-Member States</td>
<td>.334</td>
<td>6.7</td>
</tr>
<tr>
<td>Advanced training courses</td>
<td>.920</td>
<td>18.4</td>
</tr>
<tr>
<td>Administration and general overheads</td>
<td>.820</td>
<td>16.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5.000</strong></td>
<td><strong>100.</strong></td>
</tr>
</tbody>
</table>

While the administrative expenses and general overheads appear to be rather on the high side, the Committee on Budgets accepted that special factors were at work and approved the proposal subject to Article 2 of the draft decision being deleted. Such a deletion would be in line with the resolution of Parliament on 18 June 1976 (OJ C.159, page 38) on the Cointat report on unfreezing appropriations for the JRC. It would also be consistent with an amendment on the Howell report on the marketing and processing of agricultural products adopted in the July session (8 July, OJ C.178, page 36). Furthermore, it would be in line with the amendment adopted in the European Parliament on 14 September 1976 on the JRC draft programme for the years 1977-1980.

Summary

5. The Committee on Budgets
- gave its approval to the proposal;
- accepted that the budgetary checks and control measures envisaged would appear to be adequate; and
- called for the deletion of Article 2 of the proposal for a Council decision and for a consequential modification to the preamble and asked the Committee with basic responsibility in the matter to take account, in its report, of these amendments.
PROPOSAL FOR A FOUR-YEAR PERIOD PROGRAMME 1977/1980 IN THE FIELD OF SCIENTIFIC AND TECHNICAL EDUCATION

Preamble amended, as follows:

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to the Treaty establishing the European Atomic Energy Community, and in particular Article 7 thereof,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 235 thereof,

Having regard to the proposal from the Commission, submitted after consultation with the Scientific and Technical Committee (CST),

Remainder of preamble unchanged

Article 1 unchanged

Article 2

The upper limit for expenditure commitments and for staff necessary for the implementation of this programme shall be five million units of account and seven Community officials; the unit of account being defined in Article 10 of the Financial Regulation of 25 April 1973 applicable to the General Budget of the European Communities.

Article 3, Annex and Financial record sheet unchanged