



From the Minister of State
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New Secretary of State,

FRAMEWORK PROGRAMME FOR EUROPEAN COMMUNITY RESEARCH AND DEVELOPMENT

I know that you are well aware that discussion in the Community of proposals for a new Framework Programme for Research and Development will be one of the major issues for the United Kingdom Presidency later this year.

The Commission have already tabled their preliminary ideas and the Research Council will hold a first debate on 8 April. I shall be arguing, in essence, that the Commission's proposed expenditure (10 billion ecu over 5 years) is substantially too high and that any increase should be gradual and concentrated on programmes which will make an effective contribution to Europe's industrial competitiveness. This line was agreed in the Steering Committee on European Questions on 25 March where it was also recommended that I should send the text of the statement I intend to use at the Council meeting to you and to other colleagues with an interest in research and development issues for information. This is now attached.

I am copying this letter to the Chancellor of the Exchequer and to the members of E(RD).

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i. Gaitless

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GEOFFREY PATTIE

(Approved by the Minister and signed in his absence.)

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BOARD OF TRADE
BICENTENARY

DRAFT SPEECH

AGENDA ITEM 2 : FRAMEWORK PROGRAMME FOR RESEARCH AND DEVELOPMENT

MR PRESIDENT

I welcome this opportunity for an early discussion of the Commission's proposals for a new Framework Programme for research and development. I think we would all recognise that the size, shape and structure of the current Framework Programme are a legacy of the 1970s when energy was our central concern. This is not to disparage it. It has served us well. Of course we have tried through programmes like ESPRIT and BRITE to adapt to changing circumstances - and with some success - but the lineage of the current programme remains all too clear.

This is why I believe that, even though the present programme has another year to run, we must seek agreement now for a new and different approach which will equip the Community to deal with the challenge of the 1980s and the 1990s, which centres on industrial needs and competitiveness.

For us, as research ministers, the heart of the matter lies in the need to develop Europe's research and technology and to harness its scientific potential in order to meet those industrial needs and to ensure that Europe remains competitive in the world economy. The President of the Commission recognised this in a cogent and persuasive speech in Paris on 17 January. M. Delors then argued that the European Community could and should make a positive contribution towards meeting this challenge. I agree with him and I believe that the Framework Programme should be the vehicle to carry forward our ideas. But the decisions we take this year will set our course for the next five years. It is vital therefore that before we start we should be clear about where we are heading and how we plan to get there.

Recent Developments

Fortunately, Mr President, there are a number of signs that Europe is ready to respond to the challenge. The picture is by no means one of doom and gloom.

Within the Community the response to the challenge can be traced, Mr President, to the initiative of your own Prime Minister, Mr Lubbers, at the Dublin European Council in December 1984 when he tabled proposals for a new Technological Community. The Commission subsequently took up these ideas and developed them in a series of papers throughout 1985 which have culminated in the one which is now before us. Over the same period this Council agreed on ten new programmes to give substance and effect to the gradual shift in priorities away from energy and towards more industrially relevant programmes. Finally at Luxembourg in December last year the European Council agreed to incorporate a new chapter on research and technological development in the Treaties of the European Economic Community.

Outside the Community, in the area of basic science, we have seen agreement on the European Synchrotron Radiation Facility, on the Spallation Neutron Source and the opening of new astronomical facilities in the Canary Islands. In space technology we have seen the Ministerial Council of the European Space Agency agree on the construction of Ariane Five and on European participation in the Columbus space station and the emergence of ideas for possible future collaboration like HERMES and HOTOL. We have seen the consolidation of long standing industrial collaborations such as Airbus and the emergence of new ventures such as the Channel Tunnel. And of course we have seen the successful launch of EUREKA which has already generated twenty six new areas of collaboration involving both research institutes and industry.

I believe that all of these developments provide us with valuable pointers to the way in which we should proceed in future. I shall return to some of these later but I should like to concentrate now on the one which is perhaps the most significant for our purposes today, namely the new Treaty Articles on Technology.

Industrial Orientation

Article 130(f) of the Single European Act states explicitly and unambiguously that the Community's aim shall be to strengthen the scientific and technological base of European industry and to encourage it to become more competitive at international level. For the first time the Community's research and development programme has been given a clear objective. Moreover, and perhaps more importantly, the Article goes on to link the research and

development effort with the Community's wider aims and objectives, in particular the establishment of the internal market and the implementation of common policies as regards competition and trade.

For the United Kingdom the achievement of this objective should be the thread which runs throughout the Community's whole research and development proposals. And it should be bolstered by other linkages between research and Community policies, for example in the field of environment or health and safety. In these fields Community research should, in short, underpin Community policy-making. I am glad to say Mr President that I find substantial recognition of this thought in the Commission's proposals. We fully support the emphasis which has been given to programmes designed to promote the competitiveness of European industry. This must be the way forward.

Priorities

Mr President, against the background of those new articles we have attempted to assess the Commission's proposals for the new Framework Programme. I am happy to tell you our conclusions, though I should make it absolutely clear that this is entirely without commitment to either the overall level of resources or the size of individual programmes.

We accept that the seven areas identified are all legitimate ones for Community action. But we find a wide range of priorities across them. It will come as no surprise if I say to you that it is in Area 3 - Competitiveness of Industry and Services - that we believe the heart of the programme should lie. In particular we regard the effort on information technologies and telecommunications technologies, closely followed by technologies for manufacturing industry and materials science and technology as the sectors of highest priority.

Moving outside this sector there is a wide range of other programmes embracing Health, Safety, Environmental Protection, Science and Technology for Development, Stimulation and several of the general support programmes where we believe there is a substantial case for continuing Community action, though not necessarily with quite the same balance of content. The way in which these programmes develop in future must depend on the results the current efforts produce. Our preference will be to build on those programmes which can demonstrate their effectiveness.

There are, however, other sectors, Mr President, where we think there is already a need for reappraisal. Central to this is the management of energy. We recognise that although the commercial exploitation of fusion energy remains a distant objective, we must maintain the current commitment to the Community's JET programme. But as that comes to an end we shall need to think carefully about the volume of resources to be committed to its successor. Meanwhile in the areas of nuclear fission and new and renewable energy sources we believe that these programmes have now made an adequate contribution and that it should be possible to shift resources towards higher priority programmes. The same is true of the raw materials programme.

In a number of other sectors the Commission are proposing new or virtually new programmes or, as in the case of agriculture and fisheries, the implementation of programmes which have been under consideration without decision for a long time. It is clearly difficult to form a view of these proposals without any evidence of past performance. As more details emerge therefore we will want to look closely at the new proposals to identify their relationship to national and other international programmes and to see whether there is a clear Community dimension.

Our very preliminary assessment is that programmes in the areas of agriculture and marine science and technology might be potentially useful though the appropriate level of support would depend on the way in which they are developed. On Researcher's Europe the increase proposed is so large as to change the whole character of the present stimulation programme and we do have reservations. Not because of the desirable objectives but on grounds of priority and the undesirability of a new commitment of this scale before we have had any proper evaluation of current activities. In other areas such as the integration of information and telecommunications into new applications, or transport we believe that they may be better suited to collaborative programmes such as those in COST or EUREKA. In yet other such as space or aeronautics while there is a clear European dimension we do not believe there is a Community one.

JRC

While discussing priorities, Mr President, I cannot avoid mentioning the Joint Research Centre. We shall be dealing with the Centre fully under a later agenda item and so I will just make a brief reference at this stage because I believe it is essential to consider it in the context of the Framework Programme. The Commission paper is not very helpful in this regard and we would welcome greater clarity and precision on the way in which the Centre's work is integrated into the overall programme.

However, a certain amount is already clear. In 1986 expenditure on the JRC will amount to 28% of the total Community expenditure on research and development. At current rates of average expenditure the Community spends more in a year on the JRC than it does on ESPRIT; six times more than it does on BRITE, ten times more than it does on Biotechnology and thirty times more than it plans to spend

on advanced materials. If this is the signal we are giving to Japan and the United States of Europe's determination to compete for technical supremacy then I can only say Mr President that the Chairman of Mitsubishi or Hewlett-Packard must be sleeping peacefully in their beds. This picture must change and not simply by increasing expenditure on other areas. Every mecu spent on the JRC is potentially one less for other programmes which directly address Europe's current needs.

Evaluation

Finally on priorities Mr President, and to end on a less sombre note, there is one further area in the Framework Programme to which I would like to lend wholehearted support. By the standards of ESPRIT and RACE it is tiny but in terms of its significance on the way in which the programme is conducted it could be almost as important. I am referring to evaluation.

The absence of any effective evaluation of current programmes is a major handicap in our work this year, just as it was last year when we came to consider the raw materials and environment programmes. It is something with, regrettably, we must live with in the short term but which we must eliminate as quickly as possible. The only sound basis for developing an effective research and development programme is by a close assessment and evaluation of the extent to which it achieves its objectives. This is in the interests of the Member States who want to be sure they are getting value for money and of the Commission who want to demonstrate that their programmes are achieving results. I would therefore like to add evaluation to the short list of programmes of the highest priority which should have a share of any additional resources which might be available.

Resources

Mr President I think I should now turn to the question of the overall volume of resources which should be devoted to the new Framework Programme.

Successive European Councils have endorsed the concept of devoting a greater proportion of the Community's own resources to research and development. But that has implicitly assumed a transfer of resources from elsewhere in the budget. In current circumstances, I think we must all be realistic about the likelihood of achieving that. For our part we, in this Council, have agreed on the need for a gradual increase in resources spent on R & D. I remain fully committed to that. But I have to say Mr President that I do not believe that the Commission's proposal for expenditure of 10 billion ecu is consistent with the concept of a gradual increase. I believe that a programme of this size is neither necessary nor realistic; we must lower our sights substantially.

The Commission's argument rests in large measure on a comparison of Europe's performance in R & D with that of the US and Japan. This is the part of their paper which I find most questionable. It is easy to become mesmerised by statistics on the research and development expenditure of the United States and Japan. Indeed sometimes I think we are rather like a snake being mesmerised by the mongoose and we all know what happens to the snake. But the picture is more complex than that. The Commission have provided a lot of statistics. But they raise as many questions as they answer about the right level of R and D for any particular economy. They do not, in my view, provide a safe basis for the kind of conclusions that are drawn.

Of course we must be aware of what our competitors are doing and we should not close our eyes to unpalatable facts. But there are substantial differences between the situation in Japan and the USA and both have been successful. The US spends much more on basic science and on defence than Japan; the Japanese effort is much more centrally co-ordinated and directed. What conclusions should we draw? If we follow the American example on R & D we should be going down one road; if we follow the Japanese model we should follow an entirely different one. Where there is a substantial similarity is in the large domestic markets on which both the US and Japan base their industrial effort. This is

indeed something we must emulate through our efforts to establish a genuine European common market.

I cannot accept the implication that the European Community's R & D should be conceived largely as a matching response to US and Japanese efforts. What is right for the Community will depend on levels of national R & D expenditure and the alternative methods of international collaboration. It will be built up from a series of programmes whose Community dimension is thoroughly justified and whose economic effectiveness can be demonstrated. It will involve increases in some areas, but savings in others.

Community Dimension

Mr President, I would now like to return to the lessons to emerge from the developments of the last eighteen months. One is that successful international collaboration takes place when the participants can identify a clear added value beyond that which would arise from going it alone. International co-operation carries inherently higher costs. If those are to be overcome then it must hold out the prospect of even greater benefits. Whether these arise from economies of scale, access to markets, agreement on standards, greater variety of skill and experience, or simply because the problem is trans-national in character, does not really matter. But the benefit has to be clear and tangible.

This means that the new Framework Programme will need clear and explicit criteria which are truly selective and help to establish priorities within the resources likely to be available. They should be rigorously applied to all proposals for action to ensure that there is a genuine Community dimension. Again I am glad to see the Commission paper recognises the importance of this, but the criteria suggested are framed too broadly to help with selection. When we come to look more closely at the content of the Framework Programme we will then need to consider carefully the precise terms of these criteria and the way in which they are applied.

Flexibility

A second lesson to emerge is the importance of flexibility. Many of the successful new developments, and some of the successful older programmes like COST, have at their heart a degree of variable geometry. Participants are able to opt into those programmes which reflect their interests and opt out of those which do not. The Commission will need to develop new modalities, consistent with the new technology Articles, which will recognise this wish for flexibility and reflect the diversity of interest of the Member States. These should include ideas for avoiding the automatic use of the 50% funding approach for shared cost work, particularly important if scarce resources are to be widely spread. This need is alluded to in the Commission's paper but so far the proposals have been disappointingly short of ideas in this direction. I hope we

can see more in future.

Pre competitive Research

The third lesson to emerge is that there are already a wide range of instruments available both in the form of national programmes and international programmes. The Community should not be in the business of seeking alternatives or substitutes for these. Rather it should be identifying opportunities where can make a particular and unique contribution and where it has demonstrable competence. Experience shows this to be in the area of pre-competitive applied research. We need not be doctrinaire about this. But we should be clear about the main area of emphasis.

Cohesion

There is one further consideration, which I have not mentioned, but which is given prominence in the Commission's paper. This concerns the strengthening of the Community's economic and social cohesion. I entirely accept that that is a desirable objective, but it is not one we should explicitly set out to achieve through the research and development programme. In saying this I do not suggest for a moment that all Member States should not have the opportunity to benefit fully from the results of the research and development programme. But there are other parts of the Commission and other parts of the Community budget which have the strengthening of economic and social cohesion as their primary objectives. We should assist them with that task, but not try to do it ourselves.

Conclusion

Mr President, if I may summarise my argument it is as follows. The financial and human resources available to the Community are simply those of its Member States. They can only be used once. The Community should therefore concentrate on a limited range of programmes of the highest scientific and technological quality which have as their objective the strengthening of the competitiveness of European industry. This is where any increase in resources should go. We cannot afford increases on all fronts at the same time. Indeed we must achieve savings in areas which no longer central to Europe's needs. I believe we can do this and produce an effective Framework Programme at a substantially lower cost.

than the Commission have so far proposed. I would like them to think again.

JOINT RESEARCH CENTRE (JRC)

Mr President, as I said in my earlier intervention I am glad that we have this opportunity to consider the role of the Joint Research Centre in parallel with our consideration of the future direction of the Community's research and development. It is right that we should do this because, as I said, the Joint Research Centre pre-empted at present some 28 per cent of the Community's R & D expenditure and this money is spent on activities which for the most part are no longer among the Community's highest priorities.

Mr President, in preparation for this debate we have carried out a careful survey of the whole range of the JRC's work as it is perceived by the Departments in the UK who work in the same field. The outcome is depressing. Almost 50% of the work is perceived to be of such low quality and relevance that Departments would be content to see it end. Only 10% is perceived to be of such quality and relevance that Departments would be prepared to sacrifice domestic programmes to pay for it. These are not figures which are plucked out of the air; they represent the considered judgement of practitioners in the field.

This judgement appears to sit in stark contrast to that of the Scientific Council which comments favourably on the quality of the Centre's work. Obviously I respect the honesty and sincerity of the Council's judgement and there will always be scope for differing opinions on scientific merit. But the differences are too great to be simply explained away like that. The fundamental difference is that the United Kingdom's analysis took into account not just the quality of the research, but also its timeliness, its utility and most significantly its value for money. As far as I can see the Scientific Council chose not to take these other considerations into account. This is a legitimate standpoint. But it is a luxury which I do not believe the Council can afford. The JRC is pre-empting resources which might otherwise be spent on other sectors of the Framework Programme and I believe the time is now right for a fundamental reassessment of its role.

I was heartened to read in the opening paragraph of the Commission's discussion paper that they too had reached a similar conclusion. The paper

states that the time has come "to re-examine the JRC without preconceived ideas beginning with the technological needs of Europe and with the EC role in satisfying them." I am sorry to say that the remainder of the paper did not live up to the promise of the opening paragraph. It very soon slips back into a justification of the status quo.

In brief the Commission's arguments for a new role for the JRC are:

1. Work on norms and standards needs independent technical competence within the Commission;
2. Some of this work is binding under Treaty obligations;
3. Nuclear safety work requires a central role;

The point about Treaty obligations obviously has to be taken seriously. But no attempt is made to present a serious case to support the assertion that work on norms and standards needs to be done at the JRC rather than, for example, by coordination of the work in reputable national laboratories. Nor does the paper address the fact that in the standards area which are most central to the Community's high technology effort - I am thinking of information technology and telecommunications - fall well outside the JRC's competence. The arguments about nuclear safety are of undoubted importance, but they relate to the present role of the JRC, not a new one.

The paper goes on to suggest that this new role would amount to a "transformation" of the JRC. But when we look at the figures in Annex 2 we find that the "transformation" amounts to a shift of effort of little more than 2 per cent per annum. Over five years only about 10% of total resources will be moved from nuclear to industrial and environmental work. If we agree to this proposal, even in 1991 fission, fusion and the high flux reactor will still account for 57 per cent of the effort of the JRC. And we must remember that much of the industrial programme has a decidedly nuclear flavour. By no stretch of the imagination can this be seen as a "transformation".

Even if one accepted the arguments over the future JRC role on norms and standards which, as I have indicated, I do not, the whole package would be too conveniently neat and tidy. It would be a remarkable coincidence if the growing demand in Europe for work on norms and standards should so exactly match the

declining requirement for work on nuclear fission. I am sorry, Mr President, but this simply does not add up to the kind of thorough, searching and rigorous examination of the role of the JRC which we have a right to expect.

What I think we must do Mr President is to take the opening paragraph of the Commission's paper at face value and institute a re-examination of the JRC's role that is truly without preconceptions. It should be a re-examination which consults the potential users of the JRC services in a systematic and comprehensive way. This means consulting the industries, the research institutes, and the governments of the Member States to establish precisely the scale and nature of the demand for direct action by the Community. It means exploring ways in which the Centre can become more cost effective, reduce its overheads and install better management systems.

Mr President what I am asking for may seem a lot. But it is no less than we have come to expect during the development of the ESPRIT and RACE proposals and, as I have said before, the JRC threatens to consume even more of the Community's resources than either of those two programmes. The task may appear more difficult and complicated because it involves an existing institution rather than a new proposal. But it will only be after a re-examination of this kind has been completed that we will be able to build up a picture of the kind of service the JRC should provide in future.

Mr President, it is these very strong doubts whether we have yet identified the future role of the JRC that leads me to the conclusion that it is unrealistic to expect to agree a new JRC programme this year. You will recall that, anticipating this potential problem, I requested at the last Research Council, that the alternative option of a revision of the present programme to be presented to us. I regret very much that the Commission has chosen not to do this. Article 3 of the 1983 resolution of the JRC is quite explicit that this decision is for the Council and not the Commission to take.

Mr President, the Commission paper puts forward three arguments for proceeding with the new programme. The first asserts "that a need has been identified" for direct action. It follows from what I have said that I do not accept that this "need" has yet been identified.

The second reason given is that the JRC programme should coincide with the

Framework Programme. I agree that this is a bureaucratic ideal, but it is not essential. There are many other programmes, some of equivalent size and of greater importance such as RACE which will also not be ready for decision in the course of this year.

The third reason given is that the changes recommended by the Scientific Council should be put into effect bearing in mind medium term objectives. This is a truism. But first we have to be sure that the medium term objectives are the right ones and we are far from being sure of that.

Therefore Mr President I should like to repeat my request that for the next meeting of this Council we should have before us a proposal from the Commission explaining how the present JRC programme might be revised to carry on into 1987. This should set out clearly how the Commission propose to manage the remaining shortfall in budgetary provision and why they felt unable to find the additional 5 mecu savings in 1986 and 1987 that I suggested last December they should look for. In the meantime work should begin on the preparation of a more rigorous examination of the Centre's longer term role.

Mr President I do not wish to pre-judge the kind of re-examination of the role of the JRC which I hope this Council will agree should now be carried out. But I have to say that my impression is that the JRC is rather like a dinosaur which has grown up in an age when resources were plentiful, with its own carefully demarcated territory free from predators. Now the climate has changed. Resources are no longer plentiful. The dinosaur has to move out of its protected territory to look for new supplies. But the adjoining territories are already inhabited by an altogether different species of beast, one which is much more nimble and flexible, with a smaller appetite and used to fighting for scarce resources. Unless it can evolve rapidly into one of the new species the JRC dinosaur will not survive.