



The Save British Science Society

SUPPORTING SCIENCE & THE APPLICATIONS OF SCIENCE

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SBS 02/07

The funding of research through the Framework Programmes of European Union

In February 2001, SBS issued a document entitled *Science Policies for the Next Government: Agenda for the Next Five Years*, which set out a series of policies needed to support and enhance scientific research and education in the UK, and to strengthen both the links between science and the economy and the place of science in society.

That document inevitably requires updating and supplementing, partly because it did not cover every aspect of science policy and partly because circumstances are continually changing. With this in mind, during the course of the current Parliament, SBS is publishing a series of supplements to our *Agenda for the Next Five Years*. This document is the first such supplement.

The money involved

1 This document deals with the only with research investment distributed via the Framework Programme of the European Commission's Research Directorate-General, and not with the multiplicity of other tendering and funding opportunities offered by other Agencies and Directorates-General.

2 The UK's contribution to the EU research budget is substantial, estimated at £371 million for the financial year 2001-2002, which is approximately 5% of the total UK Government investment in research and development. This has risen from 2% in 1986.ⁱ

3 This investment represents more than the budget of any of the individual Research Councils except the Engineering & Physical Sciences Research Council.

4 Although the Framework Programme management office says that the complexities of EU funding mean that "[w]e are not able to give accurate statistics on the exact amount of funds flowing to each Member State,"ⁱⁱ the UK Research Office in Brussels believes that the UK receives just over 13% of the funding from Framework 5, against a UK contribution of approximately 12-13% of the overall Framework budget.ⁱⁱⁱ

5 Data on the number of partners involved in collaborations funded by the European Union show that the UK has about 6.4 collaborating partners per 1,000 full-time equivalent researchers compared to 4.3 in Germany, 5.0 in France, 7.2 in Sweden, 15.5 in Ireland and 19.4 in Greece.^{iv}

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Concerns about what the Framework Programme Funds

6. The same principles of openness, scientific excellence and effective peer review and scrutiny should apply to European Union funding as apply to funds distributed through national mechanisms.

7. There is a strong feeling among parts of the UK scientific community that European Union funds for research and development are not properly targeted, and that the systems of accountability are deeply flawed. Concerns centre around three issues, namely (i) the purpose of the EU research programme, (ii) the UK's policy of "attribution" and (iii) inadequate provision for indirect costs.

The purpose of EU research funds

8. One concern among many practising scientists is that the rationale for EU-funded research is not always abundantly clear. While some believe that funds should be directed exclusively towards the best scientific ideas and projects, others perceive the Framework Programme as an instrument of social policy, in which funds are deliberately skewed towards countries and regions in greatest need of economic assistance.

9. The Framework Programme management office, in refusing to give out information about the amount of EU research funds that are spent in each Member State, gave as one reason that "[s]uch statistics do not fit in with the overall philosophy of the Framework Programme, which is by nature a programme of international co-operation and its added value consists in European collaboration".^v

10. Sir William Stewart, when he was Chief Scientific Adviser to the UK Government in the 1990s, believed that money was being diverted "from the budgets...which support science for use in support of European policy".^{vi}

11. In fact, the Treaties under which EU research policy is approved do not allow for decisions to be taken on the basis of which regions or countries most need the investment. Research is for "strengthening the scientific and technological bases of Community industry...whilst promoting all of the research activities deemed necessary of by virtue of other Chapters of this Treaty".^{vii}

12. Suspicions that EU research funds are not distributed according to a clear scientific rationale were shared by the Independent Expert Panel that undertook a five-yearly assessment of the Framework Programme in 1999. The panel suggested that the European Union needed a research policy, "a policy which does not exist today".^{viii}

13. The panel also concluded that the "results of projects...were not adequately communicated or utilised" and that "an urgent review is needed of the ...procedures needed to deliver". Although the panel members felt that "[t]he work conducted within collaborative projects funded by the Framework Programme needs to be of a high quality if the research base of the EU is to remain world class," their report, somewhat damningly, did not contain any statement that this was indeed the case.

14. It is unclear to what extent the Framework Programme is aimed at funding world-class science and technology, and to what extent it is aimed at knowledge transfer. This leads to unhealthy confusion about the criteria for the selection of projects, and makes it difficult to believe that member states are obtaining value for money for their contributions to the EU Framework Programme.

What should the Framework Programme fund?

15. The principal explicit purpose of European Research, as set out in the Treaty of Amsterdam is to build the technological capacity of industry.^{ix}

16. To achieve these ends, the Framework programme should offer value-for-money science, including not just applied research, but also basic, fundamental organisations. Fundamental research is essential to industrial technology, just two examples of which come from monoclonal antibodies, and global positioning systems. Both of these technologies are now worth billions of dollars euros per year, and both sprang from basic science.^x If the Framework Programme is genuinely to support the technological development of European industry, this kind of basic science is essential.

17. The research funded by the Framework Programme should be of the same quality as research funded by the UK Research Councils. If it is not, the UK taxpayer is being short-changed.

The UK's policy of "attribution"

18. The UK operates a policy known as "attribution," whereby domestic ministries could experience budget cuts for research as the EU budget grows.^{xi}

19. The basic principle is that EU research expenditure is attributed to the ministry that would have carried out the research if it had been part of the domestic research budget. Put crudely, UK Government departments must pay for EU research out of the own budgets.

20. It is possible for Ministers to overrule the process, by reallocating resources within a domestic ministry (but only at the expense of other national expenditure) or by making a specific case for extra resources for his or her departmental budget.

21. The rationale for the scheme is that UK ministers and officials must be conscious of all UK tax expenditure in their area of responsibility, and must assess the likely direction of EU activities against carefully-identified national priorities. The system "ensures that Departments and others have proper incentives to balance funding via EU mechanisms against spending via domestic mechanisms, given that EU spending ultimately has to be financed by taxpayers in the same way as other spending".^{xii}

22. Problems arise because other countries do not operate the scheme. Most other countries operate a principle of "additionality," whereby their EU budget contribution is top-sliced from overall expenditure, and not allocated to individual domestic ministries.

23. This means that as the EU's research budget grows anyway, there is generally a fall in the amount of money available to UK departmental domestic research budgets, but ministries in other countries do not experience such a reduction in their budgets.

24. Given concerns expressed in paragraphs 8 to 17 about the purpose of EU research, the net effect of this policy is to reduce the overall amount of money being invested in high quality research, directed towards policies and priorities that have been carefully considered by accountable politicians and officials.

25. Not only is this entirely undesirable, it appears to go against the European Union's own rules. The Treaty of Rome states explicitly that EU research and technological development should be activities "complementing the activities carried out in Member States".^{xiii} This policy remained unchanged when the Treaty was amended by the Treaty of Amsterdam in 1999.

26. According to the late EU Commissioner for Research, Professor Antonio Ruberti, this meant that although questions of national funding were "essentially, matters for [the] Member State," it was intended that "[EU] research activity should not lead

automatically to a matching cut in activities in Member States". He found that the UK's policy caused "negotiating problems".^{xiv}

The costs and benefits of EU grants

27. Many institutions, notably universities, believe that accepting EU research grants, rather than increasing their financial resources, actually costs them money. A particular problem is that the standard rate paid for indirect costs (such as lighting and heating basic infrastructure) is just 20% of the direct costs of a grant, compared to 46% for Research Council grants, which is itself known to be inadequate to meet the true economic costs of performing research.

28. One estimate is that there would be a shortfall of £31,000 for a grant of £120,000, of which approximately half is accounted for by salary costs, and in which £24,000 is the element allocated to indirect costs, with the balance made up of specified, direct costs.^{xv}

Specific Policy Recommendations

1. The UK Government should argue within the EU for a clear and unambiguous statement of the overall purpose of the scientific projects funded by the Framework Programme. In particular, it should be made clear whether the Programme exists to fund world-class science of relevance to the development and implementation of agreed European policies, or whether it is also an instrument of social policy.

2. The UK Government should end the policy of "attribution".

3. EU research grants should carry an element for indirect costs that meets the true cost of the things for which it is supposed to pay.

March 2002

Notes and References

ⁱ *SET Statistics 2000: A handbook of science, engineering and technology indicators*, Office of Science and Technology, 2000.

ⁱⁱ Email message from the Framework Office to SBS, dated 3 July 2001.

ⁱⁱⁱ Email message from the UKRO to SBS, dated 31 October 2001.

^{iv} *Research and Technological Development Activities of the European Union: 2000 Annual Report*, Commission of the European Communities (2000) [Com(2000) 842 final]; data on full-time equivalent researchers from the OECD.

^v Email message from the Framework Office to SBS, dated 3 July 2001.

^{vi} *EU Framework Programme for European Research and Technological Development*, 2nd Report of the House of Lords Select Committee on Science & Technology, Session 1996-1997, Volume II, Question 413. [HL 49]

^{vii} *Consolidated Version of the Treaty Establishing the European Community*, Article 163 [known as The Treaty of Amsterdam, or The Treaty of Rome as amended by the Treaty of Amsterdam].

^{viii} *Five-Year Assessment of the European Union Research and Technological Development Programmes, 1995-1999*. European Commission, 2000.

^{ix} *Consolidated Version of the Treaty Establishing the EC*, Article 163.

^x *Science Policies for the Next Parliament: Agenda for the Next Five Years*, SBS, 2001 [SBS 01/03].

^{xi} *EU Framework Programme for European Research and Technological Development*, 2nd Report of the House of Lords Select Committee on Science & Technology, Session 1996-1997. [HL 49]

^{xii} Letter from Her Majesty's Treasury to SBS, dated 2 November 2001.

^{xiii} *Consolidated Version of the Treaty Establishing the EC*, Article 164.

^{xiv} *EU Framework Programme for European Research and Technological Development*, 2nd Report of the House of Lords Select Committee on Science & Technology, Session 1996-1997. [HL 49]

^{xv} Calculation by a senior academic with administrative functions in a UK university.