

Review of generic research funding

Report to the HEFCE by KPMG

Foreword

The HEFCE introduced generic research [GR] funding in 1994, in response to the theme of wealth creation in the 1993 Science and Technology White Paper, 'Realising Our Potential'. GR recognises and encourages collaborative research which does not have a single beneficiary, and where the institution retains some part of the intellectual property and publication rights. Under the fund £20 million has been allocated each year to HEIs, distributed in proportion to their external income for such projects.

This study was commissioned to help us assess the effects of this funding and to help inform a decision about the future of the programme. It was undertaken in parallel with the HEFCE's fundamental review of research policy and funding, which is the subject of consultation until 8 December 2000. Decisions on the future of GR funding will be taken early in 2001 in the context of the fundamental review.

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1 Introduction

1.1 Background to our Report

We are pleased to present this Report to HEFCE into the Generic Research [GR] funding stream and its effects on university research activity.

GR was first established by the Council in 1994 as a relatively small fund to support institutions' generic research collaborations with industry and commerce. It represented a positive response to the earlier publication of the Science, Engineering and Technology White Paper entitled 'Realising our Potential' (Cmd 2250). According to HEFCE publication C16/94 'Generic Research: Method and Data Collection' the Council stated the objective of GR as being '...to provide funding incentives for institutions to work with users of research and more speculative projects, where the aims of the project are consistent with the "mission" of the relevant group/department or institution, and where the sponsor cannot expect to appropriate all the outcomes or benefits of the research'.

To qualify as generic research, institutions needed to retain the intellectual property rights [IPR] to any marketable discoveries, and also retain the right to publish their findings promptly in academic journals¹. Thus GR sponsored research is able to make its publication contribution to the Research Assessment Exercise [RAE].

Since in such generic research no one sponsor or organisation receives exclusive benefit, and since - as just noted - IPR and other rights remain with the institution, such research was felt at the time to be unlikely to be a very high priority for funding from benefiting external organisations. Yet it is clearly highly important for the country and the economy as a whole. GR was designed to bridge this mismatch of perceptions, and as a market intervention to encourage and stimulate such research.

As for the great majority of HEFCE grant allocations, it was the intention that the allocation system would distribute funds by reference to objective indicators which reflected the aims of the fund. The actual pattern of distribution of grant emerging from this has indicated surprisingly wide variations in the volume of demonstrable existing activity, with some institutions known to be active in contract research receiving a lesser share than others.

There was - until this study - no conclusive direct evidence available on what GR has accomplished in those institutions benefiting from it. It is a general principle that funding tends to drive behaviour - certainly this is the case in funding for learning and teaching - and if GR funding was achieving its intended aims one would expect to see the type(s) of research that are eligible increasing in volume in the great majority of participating HEIs, and the qualifying income figures for GR growing. Indeed if GR funding in its current form is *not* driving behaviour in this way then there is little point in maintaining it.

¹ The third criterion is that the research income to be supported must come from sources of funds 3 to 8. We will return to this point later.

It was always intended that GR would be reviewed when the latest 'round' of funding finished in 1999. Accordingly, in September 1999 HEFCE invited tenders to carry out a fieldwork based review of GR in order to provide advice on the real effects of GR funding in practice. Late in the year, KPMG were appointed to carry out the work concerned and the fieldwork took place during the first four months of 2000.

1.2 The project remit

In discussion with the Council, the following remit was agreed for the study:

- the effects of GR on institutional activity, particularly in 'leveraging' additional research or reducing the cost to sponsors of research already taking place;
- the range of industrial and commercial sponsors of GR, and whether this range is wider than it might be if GR were not in place;
- the academic units and disciplines which benefited most from GR funding;
- the interplay between GR funding and an institution's mission;
- the effect of GR on other aspects of institutions' behaviour;
- institutions' views on the way GR is allocated;
- institutions' views of whether GR as a funding route should continue, be increased, or be decreased/abandoned.

Taken together, the answers to these issues were intended to give the Council the evidence to determine what the future for GR funding should be.

1.3 Project design

Our project design has included the following stages, all pursued more or less concurrently:

- visits to six institutions. Both 'old' and 'new' universities, and a specialist institution, have been included;
- interviews with a number of national bodies with a direct interest in the sponsorship of research by industry and commerce;
- an invitation to all English HEIs to comment on the issues raised above, either by writing to the consultants or through a web-based questionnaire (see Annex C);
- a number of meetings, discussions and conversations with HEFCE officers.

Of these, the institutional visits deserve amplification.

1.3.1 *Institutional visits*

Our institutional visits, typically of one or two days, included:

- review of documentation;
- interviews with the Vice Chancellor or (more usually) a Pro Vice Chancellor centrally concerned with research;

- interviews with institutions' Research Support Units - where relevant - or other members of Registrars' staff concerned with the administration of research contracts;
- interviews with Directors of Finance and/or their colleagues concerned with research income and expenditure;
- interviews with practising academics involved in GR research, usually at Dean or Principal Researcher level.

It had been our intention also to talk to employers from industry and commerce who were benefiting from GR supported research. However, with one exception our institutional contacts were of the view that employers would be unaware of GR as a funding route and therefore unable to contribute to our project. In addition, our contacts were worried about employers learning that some of the costs of their research contract were being met by HEFCE funding: this had not always been pointed out to the employer concerned.

With this one exception, therefore, we agreed with institutions not to pursue employer contacts at institutional level - but instead to rely on our national interviews for the employer view.

Annex A lists all the organisations consulted during our fieldwork.

1.4 The design of this report

Following this Introductory Section, the report is divided into five further Sections covering:

- views of GR expressed by our national interviewees;
- our findings on the administration of GR within institutions;
- conclusions, based on interviews, concerning the effects of GR funding at institutional level;
- institutions' views on the effectiveness of GR and how it might be increased;
- a brief concluding Section setting out the major options for the future.

2 National views of GR

2.1 Introduction

As mentioned in Section 1, part of our fieldwork involved a series of national interviews with key players involved in promoting research links between HEIs and industry/commerce. A list of the organisations involved can be found at Annex A.

2.2 The distribution of GR funds to institutions

The spread of GR funds covers the entire range of HEIs, and the distribution could be described as 'lumpy'. In 1999-2000:

- The largest single GR grant went to Imperial College of Science, Technology and Medicine which received £1,632,621. This represented 3.6% of the total HEFCE Research (R) funding for that institution. In addition to Imperial College, King's College London and the University of Cambridge also received over £1M.
- 10 institutions received more than £500,000 but less than £1M in GR funds. All but two of these, as it happens, have medical schools. The list includes the University of Greenwich which amongst the 'new university' group received by far the highest GR grant at £549,247 - 15.2% of that institution's total R funds.
- 14 institutions received between £200,000 and £500,000.

And at the other end of the range:

- 15 institutions received between £25,000 and £50,000, (including Buckinghamshire Chilterns University College - which at £41,192 received the highest GR grant among the general Colleges group).
- 7 universities, 15 general colleges and 15 specialist institutions received up to £25,000 (of whom 6 colleges received less than £1,000 each).
- 14 HEIs received no GR funding at all.

A full schedule of GR funding (with Quality-related Research [QR] funding and Collaborative Research [CollR] funding also indicated for reference) is given in Annex B.

Whilst in absolute terms the sum of money allocated via the GR route to some institutions may be small, or very small, it should be noted that in a number cases, especially amongst the general HE colleges, it represents a high proportion and perhaps 100% of the total R grant to the institution. In discussing with the Council which institutions might be included in the visit sample, it was considered important to include amongst the sample some institutions which received relatively low allocation levels.

2.3 Background and context

The Council carried out a consultation in the early summer of 1994 prior to confirming the first round of GR allocations for 1994-95 in what was regarded as a transitional funding year. There were a large number of replies, from institutions and other interested parties, in response to the invitation to respond to HEFCE.

In particular, institutions were concerned about a possible administrative burden (mainly as an earlier funding stream Contract related Research [CR] funding was rolling out at the same time as GR was to be introduced). Also, institutions pointed to the need to ensure that the criteria for identifying GR would be robust and widely understood. Criteria related to intellectual property and publication rights were, unsurprisingly, judged particularly important.

In very simple terms the Council's assessment of those responses was that they endorsed the principles underlying the fund (C16/94 paragraph 2). However it was agreed that the Council should go ahead with some caution in order to reflect institutions' misgivings about the programme.

It is fair to say that the introduction of GR was greeted with some opposition. In particular the pharmaceutical sector expressed considerable reservations in 1994 and early 1995 which were mainly centred around the IPR clauses. The Confederation of British Industry [CBI] also expressed unease. It would appear there was a body of opinion suggesting that the introduction of GR would see a reduction in the amount of collaborative activity, in particular between HE institutions and the pharmaceutical sector.

Following the 1994-95 funding allocations, HEFCE considered GR policy further: it set up a consultative group; it obtained advice in the form of an independent CR/GR policy review study; and meetings were held with some of those most concerned about GR policy, and in particular with pharmaceutical industry representatives. In the 1994-95 funding year an audit report indicated that there were some difficulties with institutions' data returns - mainly it would appear due to the different methods employed to return qualifying income. The Council introduced refinements to the GR funding mechanism before the 1995-96 funding round, designed to address the problems experienced and to make the process more robust. The process has remained in place since that time.

Our discussions with national bodies enable us to form a view on what the consensus appears to be now, after a number of years' experience.

2.4 Current views of GR

2.4.1 *Impact of GR funding in 2000.*

Amongst the national organisations we visited as part of the survey perhaps the CBI had been among the most focussed objectors to GR in 1994-95. The then Director General took the view that many companies were being confronted by demands that intellectual property properly be retained by institutions in all types of collaboration unless they provide significant increased sponsorship, and regarded this as unreasonable pressure on the part

of the institutions concerned. The introduction of GR, it was feared, would only make matters worse.

CBI's preference at the time was for a research support scheme which did not lean quite so heavily on intellectual property as a key criterion but concentrated on restrictions to publications, or, where exclusive licenses were granted to sponsors, which took account of income streams and so on. They also felt that GR was not in the spirit of the White Paper 'Realising Our Potential' and that HEIs would potentially be able to negotiate twice - once to get in line with GR funding; and second to cede IP to the highest bidder (not necessarily the sponsor). They were amongst those who forecast a reduction in the number of collaborations.

It would however be fair to say that the CBI view of GR now is more neutral. Their worst predictions have not come to pass; on the other hand they have no evidence either that GR has really helped shape or amend behaviours. They cannot say whether particular sectors or sponsors have benefited, but believe not; nor can they trace any particular changes to the research map which - for good or ill - has resulted from it. Overall, they have come to the view that the extent of GR funding is simply too small to make a real difference.

One positive point did however emerge from our discussions with the CBI. Contrary to their expectations, negotiations over IPR have not proved the sticking point that was envisaged. It has emerged that in some instances it is helpful not to have the IPR held by a sponsor, and better that it is held by a third (and independent) party in the shape of the HE institution. This can act as a help to collaboration amongst a group of potential sponsors. This insight might not have arisen without GR as a spur. The CBI would like to see this encouraged further in the future and may draft something to that effect in the current revision of their 'Research Partnerships Guide'.

Broadly speaking, our discussions with these national bodies showed that for the most part there are reservations about administration of funds out of what are seen as small and ring-fenced 'pots' but which still demand that a requisite number of hoops are gone through on the part of institutions. Most consider it unlikely that 'micro-management' (as it was described to us in one case) could be cost-effective.

Institutions had, in the majority view of these bodies, not particularly changed their behaviour as a result of GR funding and neither did they consider it to have a use as a measure for the strength of long term collaboration between HE institutions and industry. We gathered no views from these sources to the effect that institutions were not managing IPR properly or effectively - although some people we talked with felt that back in 1994-95 there were those in Government in particular who may have considered this to be the case.

2.4.2 *Looking beyond 2000*

The simple and overwhelming message we received in undertaking this part of our study is that GR is seen in the overall scheme of things as a low-key and small fund which may have reached the end of its lifespan. We did not encounter proponents for GR amongst this group, and the interest of these bodies is rather in looking to the Council to move the agenda forward.

3 The administration of GR in HE institutions

3.1 Introduction

In this and the next Section, we report on the effect of GR funding in our sample institutions. Rather than produce individual ‘case study’ descriptions of each institution - because these would be highly repetitive - we have instead painted a general picture and will refer to individual institutions only when their experience stands in particular contrast to the overall picture.

3.2 The administration of contract research within institutions

In the majority of institutions, responsibility for the administration of GR in the institutions we visited lies with the Research Support Office [RSO] or other similar office in the Registrar’s department. (In institutions with a low volume of contract research activity, a single individual may fulfil this role, perhaps as part of a wider portfolio: however the role is still identifiable.)

RSOs (variously titled) have been in existence in research active institutions for some time. They have many functions, which as might be expected differ from institution to institution. However one function which all share is advising the institution on contractual relationships with research sponsors.

Typically, the RSO will: require to see all emerging agreements for government, industrial or commercial research sponsorship at an early stage; check that the proposed costings (including treatment of overheads) fall within institutional guidelines for the type of sponsor; and check that the proposed contractual terms are fair. When the agreement has been negotiated and orally ‘finalised’ with the client, the agreed contract will come to the RSO for signature.

Finance staff typically provide advice on overhead rates where there is flexibility in these.

In particular, RSOs are centres of expertise on issues of intellectual property. They have for some time advised their institutional colleagues over issues of IPR, and over the importance of securing agreement over publication rights; they claim their interest in these issues considerably predates GR. Naturally they do not seek to impose an absolute condition that all contracts should retain IPR and publication rights in the institution, because this would jeopardise many commercially sensitive research contracts. However they see it as their role not to let these issues go by default, and would insist that they were covered in a contract - one way or the other. Indeed most institutions have a standard research/consultancy contract which they encourage colleagues to use in cases where the research sponsor does not insist on a contract of his or her own.

In general, we have been told, RSOs and academics recognise that where an industrial and commercial sponsor seeks to retain IPR, and/or the right to publish (or block publication of) findings, institutions should charge a higher price for their services. They justify this higher price (to us) in terms of the research being ‘contract’ rather than ‘collaborative’, and in particular of the way in which inability to publish the outcomes of

research disadvantages institutions for the RAE. No mention was made of GR in this context (but see below).

3.3 The administration of GR

With this as background, we now give a general description of how the claiming and subsequent disbursement of GR has typically been handled within institutions in our sample.

All institutions had a mechanism in place which scrutinised each signed contract as it was returned to the RSO to see whether the income associated with the contract was eligible to be included in the GR funding Return. Most institutions find that the majority of contracts from Sources of Funds [SoF] 3 to 8 are eligible, with perhaps 65% of research income from these Sources of Funds being admissible in the Return. (The remaining 35%, by definition, represents instances where the sponsor has either retained IPR, has sought to control publication, or both.) Typically, a database of eligible contract/account numbers is built up.

When the GR Return is due, the income actually collected from these eligible contracts is then downloaded from the institution's financial accounting system and the Return completed.

In due course, notification of GR funding is received from HEFCE; in the institutions we visited, the most recent year's GR funding represented around 7% of the total amount of eligible income submitted on the Return. All institutions visited were clear that this funding, once received, formed part of their general, unhypothecated income. What actually happened to the funds thereafter varied according to the internal budgeting policies of the institutions concerned.

It should be stated that institutions generally saw the administration of GR - as described above - as completely straightforward. Nevertheless we did receive comments from some individuals along the lines of it being a disproportionately time consuming exercise for administrative staff, especially in finance, given the amount of funding received. Assuming that appropriate accounting systems were in place within the institution to flag contract research projects as 'GR-able' - and it is clearly not HEFCE's fault if they are not - completing the annual GR return should be as simple as running a customised report off the finance system. At worst, a spreadsheet of contracts against Sources of Funds needs to be filled in and the SoF totals transferred to the return.

3.4 The destinations of GR funding

3.4.1 *Institutional budgeting policies*

What happens to GR funding when it is received by an institution can best be understood with reference to that institution's overall policies for internal resource allocation and the delegation of budgets. Although the variation in practice between institutions is complex, it is possible to distinguish a continuum between hypothetical extreme 'opaque' and extreme 'transparent' resource allocation models. Most institutions fall somewhere between the two.

Under the ‘opaque’ internal resource allocation model, all income that comes to the University, from whatever source, that is not already ‘earmarked’ is paid into a central fund. [‘Earmarked’ income, in this context, is income which has been bid for to meet a specific need, and which is subject to audit. For example, a sponsor who is providing funding for a lecturer may reserve the right to check that a lecturer is being employed under the funding provided, and is being paid what is claimed in the sponsorship contract.] The institution then divides up the central fund to meet institutional expenditure without reference to the source of the income. Typically in such institutions, decisions over staffing, expenditure by departments on equipment, etc. are taken centrally with little or no delegation to departments.

Under the ‘transparent’ resource allocation model, no ‘pooling’ of income in the centre takes place. Instead, income received by the institution is passed straight on to the department (or other cost centre) which ‘earned’ it, after an appropriate deduction - usually a percentage - is taken to fund central administration and those other services (library, IS) which the departments have jointly taken a decision to fund centrally. Such institutions will normally have internal models for redistributing teaching grant that replicate HEFCE’s funding methodology, and will similarly pass R funding on to the departments who ‘earned’ it. Typically all decisions over staffing, etc. under this model are delegated to the department or cost centre, with the central administration keeping only the lightest of watching briefs over how departments spend ‘their’ money.

These are, as already pointed out, extremes, and a number of intermediate positions are possible. Most otherwise ‘transparent’ institutions retain a share of some types of income centrally as an ‘intervention fund’, for instance. Equally some institutions use different subject weightings for their internal resource allocation of teaching grant than HEFCE uses, believing that the local cost base is different from the one applied in HEFCE’s Teaching (T) formula.

Equally otherwise ‘opaque’ institutions are taking increasing pains at least to separate ‘R’ and ‘T’ income into separate central funds, and allocate them separately, as part of their general preparations for meeting what they believe will be the eventual demands of the Research Transparency Exercise.

3.4.2 *The consequences for GR*

What happens to GR grant can now be interpreted using these models. In the ‘opaque’ model institutions, GR grant is paid into central fund - or at best the central research fund - and is then tracked no further. Institutions are unable to track the destination of the funds further in any meaningful way, nor do they believe they are required to.

In the more ‘transparent’ institutions, practices vary. Some institutions in our sample actually hand over GR income to the departments that earned it, breaking down the claim made for GR to departmental level and allocating GR income to these departments *pro rata* (i.e. at around 7%). Individual departments were then free to spend the money as they chose; most used it to build up research infrastructure. Other institutions amalgamated GR and QR into one fund, and then allocated the combined fund formulaically (usually based on research activity and RAE ratings, but, as in the example above, without necessarily using HEFCE weightings).

In no institutions, however, did we find evidence of institutions specifically using GR income claimed as a result of *last* year's generic research activity being directly applied to reduce the price of *this* year's.²

² Theoretically, assuming that volumes of GR locally and nationally (and funding) remained constant, one could offer a 7% "discount" to research sponsors from SoFs 3 to 8 in exchange for IPR and the right to publish. We came across no examples of this kind of consideration being formally applied.

4 The effects of GR funding

4.1 Introduction

The previous Section discussed the routine administration of GR funding within institutions, and pointed out that tracing the effects of the funds allocated *per se* was difficult. However providing funds to institutions is only one of the two purposes for which GR was set up. The other was to seek to influence institutional behaviour in contract research. Put bluntly, by setting out to maximise their income from GR, institutions would also act in a way which HEFCE wished to encourage: namely, to seek more opportunities to undertake collaborative research for industry and commerce, and when negotiating contracts for this research to take more trouble to ensure that matters of intellectual property and publications rights were negotiated in the institutions' favour.

A central question for our project, therefore, was to investigate whether there was any evidence that institutions had acted in this way as a result of GR funding.

Naturally it would be difficult to find incontrovertible evidence. However we hoped that some evidence of changed institutional behaviour would emerge, at least in the perceptions of individuals.

This Section is largely based on our interviews in our selected institutions, but we have also drawn on the responses to our questionnaire survey (see Annex C) where appropriate.

In general, there was more positive response to our questions on GR among our questionnaire respondents than among our interviewees. However in fairness we should point out that only a very small proportion (less than 20%) of institutions took the trouble to complete and return the questionnaire. The danger with such a small self-selecting response, of course, is that those institutions with a particular interest in GR will be over-represented in the sample.

4.2 The effects on volume of activity

Notwithstanding our willingness to accept our interviewees' perceptions of changed behaviour, we found no evidence that the availability of GR funding in any way contributed to the volume of collaborative work undertaken by institutions³. It may have done so originally, but none of our interviewees reported that it affected their behaviour now.

There were a number of reasons for this. First of all, GR was, in the words of one interviewee, 'pushing at an open door'. There are already so many factors encouraging academics to engage in research collaboratively with industry and commerce - income generation, the need to keep up to date with current 'real world' issues, the need to

³ We use the term "collaborative" in its normal English sense, for example to cover collaboration between institutions and industry/commerce, and not in the technical sense which refers to the particular requirements of CollR funding.

publish, the shortage of ‘white list’ research funding⁴ - that the effect of a 7% subsidy (which is what GR is widely perceived as being) is lost in the list. Indeed, many of our academic interviewees, even at a senior level, acknowledged that without ‘the helpful briefing from the RSO’ in advance of our visit they would not have known what GR was! Moreover these various factors impinge so equally on all departments now (including those that are not traditionally active in contract research) that the effect of GR in encouraging previously inactive departments to begin contract research activity in this way cannot be disentangled from other pressures on them.

A small proportion of our questionnaire respondents (around one third) believed that GR had ‘shaped the research/consultancy agenda of [our] institution’ (question 4) but very few regarded the ‘levering’ effect of GR funding as any greater than the cash value of the resources received (questions 12, 13).

We are therefore unable to conclude, from our sample, that any proportion of current collaborative research activity can be regarded as ‘levered’ by GR.

4.3 The effects on research contracts

The second purpose of GR, as discussed in Section 4.1 above, was to encourage institutions to be more systematic in ensuring that issues of IPR and publication rights were properly addressed in contracts made with external sponsors. Here we are able to be more positive.

All institutions claim to be fully sensitised now to issues of IPR and publication. However, they might not have been when GR was introduced, and some of our interviewees readily acknowledged this. In at least two of the institutions visited, the RSO acknowledged that in the early days (and even today) GR had formed a useful spur to reminding Registrars’ staff and academic researchers alike that these issues were worth negotiating with the client, and to an extent continued to do so. RSO staff could still telephone an academic researcher and ask if he/she was sure that rights over IP and publication could not be negotiated for the University; in doing so they could point out that the University would benefit directly from GR funding if appropriate contractual arrangements were made. This put the RSO in a slightly stronger position than if it were merely recommending consideration of IP and publication issues as good practice.

One institution was particularly concerned to stress that the existence of (a relatively low level in absolute terms of) GR funding had served to spur the institution into becoming ‘smarter’ in this whole area. The same institution considered that GR funding still acts as a useful ‘in-house lever’ for the RSO and facilitates, for instance, a more standard and consistent approach across the institution.

⁴ “White list” funding, in this context, refers to research funding which is issued to institutions following peer review of applications. Research Council funds are included, together with the funds allocated by the major national charities (including medical charities). However funds supplied by charities already tied in to one institution, and funds allocated by national or European government departments without peer review by *academics*, are not.

It may therefore be, at least in two of the sample institutions visited, that the availability of GR funding has led to at least some contracts being renegotiated more favourably to the University. Unsurprisingly, however, neither of the institutions concerned were able to estimate the number of contracts concerned.

Confirming this, 12 out of our 38 questionnaire respondents believed GR funding had sharpened up discussions about the forms of contracts with research clients, increased institutions' leverage when negotiating, and/or placed a particular focus upon improving the treatment of IPR in the future (question 5).

4.4 The balance of GR between institutions

From the discussions documented at the time, one of the important intentions of GR was to provide a source of research support funds for institutions which - through not being particularly research active - did not qualify for significant QR funding. Since GR was based on income from collaborative research, all institutions which took part in collaborative research were eligible to apply for GR, irrespective of their achievements in the Research Assessment Exercise [RAE].

HEFCE had perhaps hoped that a disproportionate share of GR might go to institutions which were less research active in RAE terms. However GR funding was available to all institutions who completed a return, and the GR application form took no account of the level of QR funds received by an institution. In the event - as is clear from the Council's records - the distribution of GR showed no particular bias to the 'non-research active' institutions, and indeed was in fact ultimately broadly proportional across the sector to the distribution of QR. In particular the lion's share of GR monies was received by one of the largest beneficiaries from QR.

Our interviewees were asked why this might be. They pointed out that GR would have focussed largely on non-RAE institutions only if contract research and 'white list' research were perceived by the sector as mutually exclusive: in other words, if institutions with strong sources of income from SoF 1 and 2 had largely ignored the potential of industrial and commercial research, and *vice versa*. However there is no evidence that this is the case. Our interviewees saw 'white list' research and contract research as entirely complementary. Indeed, a department's track record in securing grants from Research Councils and charities was a powerful selling point when negotiating collaborative research contracts with industry and commerce; at the same time, the higher income (particularly overheads) attainable from industry and commerce was necessary to offset the low overhead recovery from Research Councils and charities. It was therefore perhaps not surprising that the distribution of GR informally matched that of QR.

An analysis of the match between QR and GR in the figures quoted in Annex C shows that there are five institutions whose share of GR is proportionately much greater than their share of QR, and who would be significantly disadvantaged in cash terms if GR and QR were combined. All of these receive less than £6M in QR⁵. Conversely, the three

⁵ The institutions are Greenwich University, London School of Hygiene and Tropical Medicine, St George's University Medical School, London Business School and Keele University.

institutions which receive the highest levels of QR funding do receive less than their proportionate share of GR, and would receive more GR (around twice as much per institution) if GR and QR were brigaded together⁶. In all other institutions, the sharing out of GR and QR is broadly proportionate, at least to within a few thousands of pounds.

4.5 The balance of GR between academic (subject) areas

At the time GR was designed, there was also perhaps a hope that GR funding might support a widening of collaborative contract research away from the traditional science and technological areas into the social sciences, humanities and arts.

It is fair to say that the scope of contract research has widened considerably in recent years, and a number of research sponsors (particularly public sector sponsors such as local authorities and health authorities) are making considerable use of research contracts with social sciences departments. Education research contracts are particularly strong in some institutions. However it is, as before, difficult to ascribe any particular share of success here to GR funding.

Primarily this is because (as has been argued a number of times already) the scale of subsidy represented by GR is too small to have any direct lever on activity. From the institutions' side, the expansion of contract research into the social sciences (and, in a smaller way, the humanities and arts) has been driven by the need to support RAE returns and also to compensate for declining levels of resource for learning and teaching. As far as the sponsors are concerned, funding pressures on local authorities - and health authorities - coupled with progressive reductions in staff numbers as roles have changed make it all the more necessary to contract out research and quasi-research activities rather than assign these activities to an in-house junior manager/researcher.

Certainly the range of subject areas benefiting from GR listed by our questionnaire respondents showed an overall bias towards science, technology, engineering and medicine (question 6).

4.6 GR and HEROBC

Finally, interviewees were also asked whether GR had provided, or helped trigger, any useful experience in negotiating and dealing with industrial and commercial employers which might improve the effectiveness of institutional HEROBC initiatives. None of our interviewees had made any direct connection in their minds between GR and HEROBC before we questioned them; none reported any such effects. Some interviewees did, however, wish to make a point along the lines that with the future in mind there was logic in an argument to boost so-called 'third leg' funding through reallocation of the current GR stream given the emphasis on promoting effective practice in collaboration between HE and industrial partners and sponsors. And a proportion of our questionnaire respondents (though less than a third) said that the experience of GR-eligible research

⁶ Oxford University, Cambridge University and University College London. They might stand to gain a further £1M each if GR was allocated pro rata to QR.

projects - whether or not these projects were prompted by GR funding - had enabled them to prepare for HEROBC in strategic terms.

5 Institutions' views of GR funding

5.1 Introduction

In the previous two Sections, we reported on the effects of GR funding, as we assessed them through interview and document search, in our sample institutions. However we also asked our interviewees *directly* for their opinions of GR funding, and for their own recommendations for the future of GR. We are also able to draw on our questionnaire respondents.

We have grouped these opinions and recommendations under two major headings: the design of GR, and institutions' perceptions of the philosophy underlying it.

5.2 The design of GR

Our interviewees started, as we do, from the position that GR is designed both to deliver resources to institutions and to affect behaviour. Interviewees paid particular attention to effects on behaviour; if resource delivery were the only issue, then GR could be amalgamated with QR (say) and administration effort saved.

5.2.1 *The scale of GR funding*

The point most frequently made - and most stressed - by our interviewees was that in its present form GR funding was simply not on a sufficient scale to influence institutional behaviour in most institutions. Representing, as it did in our institutions, a subsidy of around 7% of eligible collaborative research expenditure, GR simply did not have the impact to change behaviour. Only occasionally, in institutions whose QR income was very low, was it reported that GR monies, though also low in absolute terms, provided invaluable funding at the margins (often used to purchase part-time teaching hours to release pressed academics to undertake research). In one institution we visited, funding support from GR had helped the organisation to establish discrete 'university research centres' - enabling a hub for boosting both applied research effort in designated areas and consultancy development. Interviewees in that institution all considered that the existence of the GR monies had been fundamental to making what was seen as an important step for the institution.

This conclusion is borne out by our questionnaire responses (question 13). The more positive respondents were those whose QR funding is indeed low.

As a general rule of thumb, interviewees suggested that public funding subsidies/interventions of between 25% and 50% of total cost were usually necessary to persuade organisations to change behaviour; throughout the UK and Europe, most 'proportionate funding' grants schemes tended to offer this level of intervention. Even then, of course, there are no guarantees against displacement funding - that is, subsidising activity which would have taken place anyway - but it is *prima facie* more likely that new activity will be triggered by intervention on this scale.

Interviewees recognised that it was never the intention of the Council that intervention should be only at 7%; rather, the overall level of resource for GR had been fixed and the

percentage contribution then followed from the levels of eligible activity reported by the sector. Perhaps these levels of activity were higher than HEFCE had anticipated. If so, perhaps the scope of GR funding might also have been too wide.

5.2.2 *The scope of GR funding*

As already mentioned, GR funding is available for all contract research where IP and publication rights are safeguarded provided the research income comes from Source of Funds 3 to 8. A list of the SoF categories (including 1 and 2 for completeness) is given in the box below. (Descriptions given are abbreviated.)

Interviewees made the point that the scope of the funding is remarkably wide. Although it is reasonable to exclude Research Councils and charities, who through their status have no interest in retaining IPR or in blocking publication, every other form of contract research funding is included.

1	OST, Research Councils
2	UK Charities
3	Government departments, local authorities, health authorities, QANGOs
4	UK industry and commerce
5	EU government organisations
6	Other EU
7	Other overseas
8	Miscellaneous

Box 1. Sources of Funds classification

Thus GR funding is available to support research funded by EU governmental organisations, which (we were told) never seek to claim IPR nor to restrict publication - and indeed who often require institutions to demonstrate the IPR issues have been adequately covered before any contract is signed. It is also available for international charities, who are similarly open about IP and publication.

Our interviewees suggested that the philosophy of GR might be better served by restricting it to SoF 4 - UK industry and commerce - which better fits the original description of the philosophy of the programme. Moreover, if eligible expenditure was restricted to SoF 4 then the resource available for GR would of course form a much larger percentage of eligible research income - possibly as much as 37%. This is of course above the threshold proposed above at which public funding intervention does become effective.

There was also some support from our questionnaire respondents for the idea of focussing GR more tightly. Although the idea was not specifically suggested in the questionnaire, two respondents independently volunteered it. (In fairness, other respondents advocated abandoning all restrictions on GR funding, both IPR and SoF

related, and effectively making it a blanket subsidy on all commercial research. These were the same respondents who questioned the value of the programme at all.)

5.2.3 *GR and institutional eligibility*

We also asked interviewees whether - if GR was intended to be targeted at the less 'research active' institutions - there was any way of modifying its effects to ensure this happened. Given the way in which GR tends to follow QR (described above), interviewees suggested that the only way to ensure GR was 'countercultural' would be to restrict it to departments/units of assessment which had scored (say) 2 or lower in the research ratings. Again, this idea also arose spontaneously in one questionnaire response. However, interviewees (particularly from research active universities) did not necessarily endorse this as a recommendation. We return to this point below.

5.3 The philosophy of GR

5.3.1 *GR as intervention*

It will be clear from the analysis already put forward that most of our interviewees did not endorse the current design of GR. Whilst interviewees from the 'old' universities expressed initial views in favour of winding up GR and transferring the resources into QR, those from the 'new' universities considered there would be more value in making the transfer into the 'third leg' funding stream where HE-industry collaboration is a key focus.

When we moved interviewees away from this straightforward suggestion, however, other more varied views started to emerge.

We posed the argument that GR was intended to be an intervention fund to compensate for a 'market failure' in the market that exists between HEIs and putative sponsors of industrial and commercial research: its subsidy was intended to bridge the gap between the (unreasonably low) value that sponsors put on collaborative research with HEIs and the cost to HEIs of delivering that research. In point of fact, there was not a great deal of evidence that such a market failure existed, and the level of subsidy represented by GR, spread thinly as it is, is too low to bridge any market failure there might be or have been.

But are there any other areas of 'market failure' in the contract research market which might reasonably be bridged by an intervention fund of the size and scale of GR?

Some interviewees believed there were not; some indeed questioned HEFCE's role as a funding council to intervene in the market in this way. As we have seen, some questionnaire respondents also raised the same question. However, among other interviewees and questionnaire respondents three examples of possible market failure, towards which a fund such as GR might be addressed, were identified. We discuss each in turn.

5.3.2 *Intervention for specific institutions*

Our first example has already been introduced above: the suggestion that GR should be targeted at specific institutions.

There is, it is widely acknowledged, some degree of market failure represented in the difficulties experienced by some ‘non research active’ institutions (i.e. those with low scores in the RAE) in developing their contract research. As already pointed out, many contract research sponsors are naturally attracted towards highly prestigious ‘research active’ institutions as the best homes for their contract research. Meanwhile Research Councils increasingly look for experience of contract research, particularly in the applied sciences, to support bids to them for funding. A ‘virtuous spiral’ is therefore created in the research active institutions which it is difficult for a non research active institution to break into.

One possibility, therefore, is specifically to restrict GR to those institutions, and units of assessment within institutions, which have scored less than a given level (say 3a) on the most recent RAE. This might genuinely provide a way for institutions without a research track record to start to build one up through research collaboration with industry and commerce.

5.3.3 *Intervention in specific (academic) areas*

Another way of focussing GR funding more specifically (and therefore increasing its effectiveness) would be to restrict it to specific academic areas. There *may* be a market failure here - for instance that certain areas of academic expertise, perhaps in the arts and humanities, are not seen as particularly applicable in industrial and commercial contexts, or even in the public sector. Our questionnaire responses (question 6) perhaps bear this out.

Again it would be possible to target GR at contract research carried out within specific RAE units of assessment within the arts and humanities, making it possible for academics in these areas to offer to undertake collaborative contract research for sponsors at much reduced prices (up to 50% subsidy, for example). Again, IPR and the right to publish might reasonably remain as a prerequisite for funding

5.3.4 *Young researchers*

Our third, and last, example of possible market failure concerns the involvement of young⁷ researchers in contract research.

Interviewees suggested to us that many potential sponsors of contract research were attracted to their departments by a combination of the prestige of the department and the reputation of its professorial and other senior staff. Sponsors consequently believed that ‘the Professor’ or other leading figure would be engaged in all aspects of the institution’s work with them, while on the other hand the department concerned tried to establish a balance of supervision by the senior academic concerned and direct involvement of younger, recently postgraduate qualified lecturers and research staff.

One solution to this difficulty might be to target the GR fund as a subsidy to the costs of using recently qualified staff in contract research. In this way, external research sponsors could be reassured that even if the staff allocated to their project were apparently not as

⁷ To deflect criticism, “young” here is being used as a shorthand for relatively recently qualified and inexperienced, rather than of any particular age.

experienced, the rate they were being charged for their input was considerably subsidised.

5.3.5 *Combinations of the above*

So far, we have in this Section reported interviewees' suggestions that GR be restricted to:

- specific sources of funds - particularly SoF 4;
- specific institutions (or parts of institutions);
- specific subject areas;
- specific researchers - in fact, young researchers.

Although none of our interviewees suggested it - since none had the overview of all the recommendations we were receiving - two or more of these four restrictions could reasonably be applied in combination. Applying more than one restriction, of course, has the effect of targeting the available funds for GR ever more closely, and therefore increasing the share of research costs which GR funding might reasonably represent.

Not all combinations necessarily make sense. However some combinations might be considered, for example:

- young researchers in non research active institutions (on the grounds that research active institutions will ultimately reward their young researchers adequately, since they depend on them for the next generation of research leaders);
- young researchers in specific subject areas, such as arts and humanities (since research in these areas tends to be specifically attributed to a senior member of staff more commonly than in the 'multi-author' world of the sciences and medicine);
- SoF 4 in non-research active institutions.

Other combinations are also possible.

5.3.6 *A generic research intervention fund*

It could be argued that the central difficulty with GR was that it purported to identify a market failure in collaborative research (that may well not exist now, or have existed then) and then tried to address it formulaically. In doing so, the scheme's designers lost control of the *proportion* of intervention represented by GR - the current figure of 7% is not a decision, rather the consequence of dividing a fixed allocation by the level of eligible activity currently reported - and also made it difficult to change the *direction* of intervention without revising the whole scheme.

The complete opposite of a fund like GR, therefore, would be one where the proportion *and* direction of intervention remain at all times readily controllable. In practice, this involves a bidding scheme linked to published criteria and offering pre-defined levels of subsidy (for example, '25% up to a maximum of £40,000 over four years'). Self-evidently the Council has a wealth of experience in running such schemes in other areas.

Such a scheme could easily be designed for GR. The fund could be entirely competitive, or putative amounts could be 'ring-fenced' to specific institutions in the first instance based on objective criteria.

6 Conclusion

6.1 Our review in context

In the Invitation to Tender which commissioned this project, we were asked not to make direct recommendations to the Council about what it should do next with GR. Instead, we were invited to ‘draw out lessons for the future’. The distinction is a fine one, but critical. Without a full understanding of the policy context of research within the Council, we are not in a position to make firm recommendations on GR alone. Instead, this report has set out to summarise the issues which surround the current implementation of GR and the consequences of these issues for the Council’s planning of future research. We summarise these ‘lessons for the future’ here.

6.2 Some lessons for the future

It is difficult to argue that GR, as currently constituted, is an effective part of the Council’s research funding programme. The two main weaknesses in GR, as summarised in this Report, are that

- it is not in fact addressing an area of ‘market failure’: that is, it is hardly encouraging any activity that institutions and their industrial and commercial research partners would not undertake anyway;
- the level of subsidy it provides (currently around 7%) is too small to have any effect for the most part.

This suggests that GR should either be re-focussed, or abolished. Our work does, however, suggest that in the case of at least some institutions which receive what in absolute terms may be considered a low level of funding, that support has made a positive difference and withdrawal may hit such HEIs harder than might otherwise be envisaged.

‘Re-focussing’ of GR, in this context, involves specifically addressing the two weaknesses listed above:

- first, identifying a particular area of ‘market failure’ in the collaborative research market where subsidy/intervention might be expected to address the failure concerned. Ideally, under the effects of subsidy the failure may abate over time, releasing GR funds in future to target another market failure instead. We have given some suggestions for where these areas of market failure might be;
- secondly, focussing GR sufficiently on this area of market failure that the amount of resource available for GR represents a sufficiently high proportion of market activity to have a reasonable effect. Again we have suggested that a target of 25% funding (or more) is reasonable.

We and our interviewees have proposed two models - either a continuation of the existing ‘rule-based’ model, though with different and more focussed ‘rules’; or a ‘bid-based’ model with bidding criteria issued annually to reflect current analyses of ‘market failure’.

If none of these models are attractive, then perhaps it is time to conclude that GR has run its term. However this decision in particular can only be made in the light of a full analysis of all the Council's interventions in research funding and support.

Annex A

Participating organisations and individuals

We would like to express our thanks to the following institutions, organisations and individuals for their support of our project:

The University of Bournemouth
The University of Hertfordshire
The University of Lancaster
The University of Liverpool
The University of Warwick
Imperial College

The Confederation of British Industry
The Association for University Research and Industry Liaison
The Committee of Vice-Chancellors and Principals
The Standing Conference of Principals

The Department of Trade and Industry
The Office for Science and Technology

The Higher Education Funding Council for England

Annex B

Research funding allocated by HEFCE in 1999-2000

Institution	QR	GR	Coll R
Universities			
Anglia Polytechnic University	218,265	46,668	311,460
Aston University	3,547,654	51,042	0
University of Bath	11,073,463	142,320	0
Birkbeck College	5,043,275	28,298	0
University of Birmingham	26,260,161	346,361	63,498
Bournemouth University	156,383	52,469	122,649
University of Bradford	6,038,046	157,218	0
University of Brighton	2,044,615	29,407	465,522
University of Bristol	23,955,132	443,427	0
Brunel University	5,580,159	161,924	134,351
University of Cambridge	60,346,679	1,001,062	0
University of Central England	673,296	71,350	412,207
University of Central Lancashire	799,767	26,445	261,363
City University	4,827,282	88,099	0
Coventry University	1,176,209	95,995	303,723
De Montfort University	2,616,541	108,636	1,227,498
University of Derby	415,026	36,647	279,290
University of Durham	11,266,795	192,810	0
University of East Anglia	9,074,794	189,612	0
University of East London	1,135,275	17,888	307,532
University of Essex	6,335,761	72,647	0
University of Exeter	7,359,590	117,755	0
Goldsmiths College	4,665,335	7,578	0
University of Greenwich	3,073,049	549,297	299,544
University of Hertfordshire	2,042,317	105,608	341,288
University of Huddersfield	821,428	46,478	630,610
University of Hull	5,886,666	130,128	0
Imperial College	52,727,561	1,632,621	0
Keele University	5,320,238	238,841	0
University of Kent at Canterbury	5,877,356	155,216	0
King's College London	34,037,380	1,267,101	0
Kingston University	930,629	30,905	462,533
Lancaster University	10,717,854	169,550	0
University of Leeds	26,930,617	598,354	0
Leeds Metropolitan University	889,340	122,652	321,381
University of Leicester	12,236,090	278,887	0
University of Lincolnshire & Humberside	388,126	20,162	193,760
University of Liverpool	18,462,873	569,303	0
Liverpool John Moores University	2,004,774	114,870	604,338
London Guildhall University	253,069	8,196	222,252
Loughborough University	10,079,396	236,149	70,935

University of Luton	58,167	23,248	294,995
University of Manchester	30,636,234	666,748	0
UMIST	13,050,351	209,551	0
Manchester Metropolitan University	3,492,947	92,576	715,182
Middlesex University	1,688,718	47,913	552,186
University of Newcastle upon Tyne	20,221,799	585,265	0
University of North London	892,927	26,610	305,135
University of Northumbria at Newcastle	1,402,411	83,050	439,750
University of Nottingham	22,517,548	649,137	0
Nottingham Trent University	2,228,628	55,155	371,240
Open University	6,817,921	56,244	0
University of Oxford	62,210,899	838,847	0
Oxford Brookes University	1,874,777	71,418	319,328
University of Plymouth	2,564,658	98,865	437,840
University of Portsmouth	3,557,313	55,599	425,604
Queen Mary and Westfield College	13,072,074	403,362	0
University of Reading	14,296,642	368,205	0
Royal Holloway, University of London	6,456,797	88,618	0
University of Salford	5,132,219	134,687	122,828
University of Sheffield	25,673,392	538,833	0
Sheffield Hallam University	2,949,462	61,880	352,326
University of Southampton	23,733,088	643,538	38,865
South Bank University	1,666,420	59,031	355,846
Staffordshire University	719,809	118,683	460,924
University of Sunderland	1,035,987	92,707	324,633
University of Surrey	10,442,949	272,550	0
University of Sussex	12,362,575	206,851	0
University of Teesside	192,727	40,389	284,677
Thames Valley University	124,110	10,040	63,758
University College London	60,501,153	804,445	0
University of Warwick	16,818,913	388,690	0
University of West of England, Bristol	1,949,750	101,491	348,742
University of Westminster	1,934,613	25,487	323,596
University of Wolverhampton	321,699	21,554	423,847
University of York	11,584,646	286,963	0
General colleges			
Bath Spa University College	367,254	7,840	120,197
Bolton Institute of HE	116,535	4,029	191,627
Buckinghamshire Chilterns University Col	611,741	41,192	75,580
Canterbury Christ Church University Col	359,026	10,205	69,826
Cheltenham and Gloucester CHE	667,011	13,452	264,427
Chester College of HE	0	2,638	62,559
Chichester Institute of HE	155,689	0	151,813
Edge Hill College of HE	121,661	3,343	100,905
King Alfred's College, Winchester	65,875	669	98,668
Liverpool Hope	27,005	3,523	119,164
University College Northampton	63,752	10,750	93,436
North Riding College	13,243	267	16,037
College of Ripon & York St John	23,176	1,406	78,057

University of Surrey Roehampton	1,027,394	23,900	376,410
St Mary's College	59,218	58	23,392
Southampton Institute	272,163	11,647	111,660
University College Worcester	150,542	18,019	70,473
Specialist institutions			
Bishop Grosseteste College	0	0	0
Bretton Hall	201,232	7,503	106,382
Central School of Speech and Drama	33,554	346	17,259
Cranfield University	7,425,522	176,995	0
Cumbria College of Art & Design	0	0	0
Dartington College of Arts	79,296	0	31,130
Institute of Education	4,594,669	97,378	0
Falmouth College of Arts	306,675	0	0
The College of Guidance Studies	0	553	0
Harper Adams University College	178,268	23,511	25,718
Homerton College, Cambridge	497,988	4,677	0
Kent Institute of Art & Design	70,403	220	25,939
University of London	10,179,766	196,536	0
London Business School	2,004,889	195,055	0
London Sch of Economics & Political Sci	10,159,393	191,115	0
London Sch. of Hygiene & Tropical Med.	5,075,292	346,310	0
The London Institute	1,682,719	9,728	85,019
Newman College	11,138	1,175	0
Northern School of Contemporary Dance	0	0	0
Norwich School of Art & Design	112,428	3,596	15,051
School of Oriental and African Studies	3,922,701	33,736	0
School of Pharmacy	1,829,554	32,367	0
Ravensbourne College	0	0	0
RCN Institute	329,928	17,539	0
Rose Bruford College	0	0	0
Royal Academy of Music	405,605	0	0
Royal College of Art	1,334,037	53,380	0
Royal College of Music	384,400	0	0
Royal Northern College of Music	259,958	0	0
Royal Veterinary College	2,471,391	35,181	0
St George's Hospital Medical School	3,559,942	273,000	0
College of St Mark & St John	44,120	2,647	42,338
St Martin's College	0	10,666	151,975
The Surrey Inst of Art & Design Univ Col	25,448	0	4,924
Trinity & All Saints	19,469	2,241	14,916
Trinity College of Music	0	0	0
Westminster College, Oxford	0	2,001	160,601
Wimbledon School of Art	1,061,150	0	12,986
Writtle College	0	7,489	26,856
Wye College, University of London	1,207,353	65,566	0
Total	835,042,170	19,931,653	16,742,361

Annex C

The Questionnaire Survey

At the start of the project, a questionnaire seeking views on the effectiveness of GR funding was posted on the HEFCE web site. The questions in the questionnaire were (with one exception) deliberately open-ended rather than multiple choice to allow institutions to answer questions as fully as they wished. A letter was sent to every Vice Chancellor and Principal asking them if they would be prepared to complete the questionnaire, either on-line or in print, and a two month deadline given for responses.

In the event, 38 responses were received from a range of old and new universities and colleges. In this Annex, we set out a summary of the responses received.

Naturally, it is rare to find two responses to an open question that are worded exactly the same. Nevertheless, in all the open questions we asked certain common themes emerged in responses. Below we set out the text of each question as asked, and a summary of the themes that emerged in the answers. Where appropriate, tables are used. Responses are listed in descending order, with negative answers grouped at the end of the tables.

1 *How would you describe the 'national' aims of GR funding?*

All respondents described the aims accurately (in our view). Although no comment on the aims was requested, five of the 38 praised or welcomed the aims; on the other hand one respondent queried the right of HEFCE to intervene in research funding in this way.

2 *What are the 'local' benefits to your institution of GR funding?*

The following were the major benefits identified (restricted to one per institution - in fact very few institutions suggested more than one).

GR underpins collaborative work	10
GR encourages a greater focus on IPR issues	2
It offsets the lower return we receive when IPR is retained by us	2
Seedcorn funding for new ideas	2
It helps create a network of links with industry etc.	1
No benefits	11
No benefits apart from the resources involved	10

N=38

- 3 *Please identify the three most important research achievements that GR has helped to facilitate.*

Of the 38 respondents, 16 institutions were able to identify achievements; 22 were not.

- 4 *How (if at all) has GR funding shaped the research/consultancy agenda of your institution?*

Again only the most important answer per institution was analysed (most only gave one answer anyway).

It has encouraged the development of research agendas	10
As a result, we have changed our contracts to resolve IPR issues	7
Contact with industry has increased	1
Increased regional focus	1
Not at all (except cash)	19

N=38

- 5 *How (if at all) has GR funding influenced your approaches to industrial and commercial sponsors? [Who you approach; how you approach them]*

Again, only the major response has been analysed.

It has sharpened up our discussion of the issues	4
It has particularly sharpened up our discussion of IPR	4
It has increased our leverage with sponsors	4
It has enabled us to release academic time	1
No effect	19
Only a minor effect (unspecified)	6

N=38

- 6 *Which schools/departments/subject areas in your institution benefit most from GR?*

Seven institutions could not identify any benefit, or attribute it to institutions. Of the remaining 31 institutions, most mentioned more than one curriculum area.

Engineering/Technology	14
Science (generally)	14
Medicine, Nursing, Professions Allied	9
Biological sciences	8
Humanities	7
Physical sciences	4
Information technology, computer science	4
Geology	3
Psychology	3
Art & Design	2
Chemistry	2
Business studies	2
Economics	1
Geography	1

Total responses 74: average 2.4 per positive respondent

7 *[If not covered in 6] What impact does GR have on your institution's activity in the arts and social sciences?*

Substantial	7
Some	3
Little or none	28

N=38

8 *Has the experience of GR-related projects helped you prepare for HEROBC?*

Yes (usually through capacity or profile building)	12
No	25
Don't know yet	1

N=38

9 *What changes would you like to see to the 'terms and conditions' of GR funding?
Could an alternative scheme be designed?*

Responses here followed no easily analysable pattern, nor is it straightforward to list them in a logical order. The following table is therefore strictly in order of frequency. Again one change per institution was analysed.

No change; don't know; don't see it as important	17
Abandon the IPR restriction, widen applicability	8
Widen scope to include all Sources of Funds	4
Discontinue GR grant programme entirely	4
Focus it more tightly on industrial projects (SoF 4)	2
Focus it on small institutions; and/or on some specific subjects	1
Increase the amounts of funding available	1
Combine with HEROBC	1

N=38

10 *In particular, what are the effects of the 'retention of IPR' condition?*

Again, responses are in descending frequency order; one per institution.

Damaging or worrying restrictions	17
No effect; no problems	14
A useful reminder of our negotiating position	6
It points up the importance of negotiating adequately	1

N=38

11 *Is the GR allocation process understandable? Do you believe you get your fair share?*

A number of respondents answered this question in two parts.

Clear	30
Clear but complex	2
Unclear	5
Encourages 'work-rounds' to maximise funding	1

N=38

For those who answered the 'fair' question separately:

Fair	11
Unfair	10
Impossible to say/depends on one's point of view	3

N=24

12 *What might be the impact on your institution if GR funding were doubled?*

Significant improvement in accomplishing the scheme's aims	9
Some short term benefit	2
Increase in prices for 'captive' research	1
A more than pro rata increase in research activity	1
No effect (apart from pro rata extra resources)	24
Don't know	1

N=38

13 *What would be the impact if it were done away with altogether? What types of activity might no longer happen?*

A substantial negative effect on collaborative research	11
---	----

Will move the balance more towards applied research	1
Mixed effects	3
No effects (apart from the resources involved)	23

N=38

14 *Assuming 'zero sum', do you think a greater share of public funding for research be invested in GR? Lesser?*

This was a multiple choice closed question.

Much greater	1
Greater	7
The same	11
Not answered/don't know	8
Less	2
Much less	2
Discontinue the programme	7

N=38