

## **Annex A**

### **Knowledge Exploitation Funding: guidance notes**

1. This note explains the arrangements for bidding for Science Enterprise Challenge, University Challenge, Public Sector Research Exploitation Fund (PSREF), and the Higher Education Innovation Fund (HEIF) awards. The bidding framework has been co-ordinated to allow bidders to make a strategic choice about the funding strands for which they wish to bid. Detailed guidelines are available for the individual funds (see Annex B for proposed guidelines on HEIF).

#### **Background**

2. The pivotal role that higher education plays in providing the UK with a highly qualified workforce and a world-class science and engineering base has long been acknowledged. Alongside their more traditional roles of teaching and research, higher education institutions (HEIs) and public sector research establishments (PSREs) have increasingly been adopting a further role as stimulators and facilitators of knowledge transfer to business and society.

3. The White Paper on enterprise, skills and innovation, 'Opportunity for all in a world of change', recognises the crucial role of HEIs in the economy as powerful drivers of innovation and change. But different HEIs and PSREs have different contributions to make: some as world class centres of research excellence and players in global markets; others primarily as collaborators with local businesses and communities, and with regional bodies. Institutions must choose the role which best suits their strengths. Public funding encourages such choice, by providing incentives for institutions to become more entrepreneurial, build closer links with business and the community, and have proper arrangements for exploiting the results of their work.

4. The strong demand for funding under the Science Enterprise Challenge and University Challenge programmes prompted the initiation of one further call for new proposals. Similarly, the PSREF was announced to address the needs of the public sector research community. The new HEIF will continue and develop the work of the Higher Education Reach-out to Business and the Community Fund (HEROBC). Collectively this funding represents a significant public investment in knowledge transfer activity. It will help institutions to develop and implement their strategic aims in this area, and to prepare for the intended migration to a permanent third stream of funding, which will reward and encourage excellence in knowledge transfer alongside research and teaching.

#### **Objectives**

5. The aim is to foster closer links between HEIs, public sector research organisations and industry, leading to greater exploitation of science, and bringing greater wealth and innovation. Specifically this will be by encouraging:

- systematic and sustainable change within institutions in how they relate to business, particularly changes in institutional and academic cultures
- more widespread and rapid transfer to businesses of new ideas, products and processes generated within the research base
- entrepreneurial activities
- the incorporation of teaching of enterprise into the science and engineering curricula
- contribution to the economic development of the nation.

### **What support is available?**

6. Knowledge transfer/exploitation funding is available for a range of complementary activities, announced in the Science and Innovation White Paper and the White Paper on enterprise, skills and innovation.

#### Higher Education Innovation Fund

7. HEIF incorporates the existing HEROBC fund. Additional funding of £80 million is offered to support:

- the continuing development of capacity in HEIs to interact with business and the community
- large strategic collaborations to establish excellence and coherence in meeting regional needs in the above areas, and to build on partnerships between business and higher education, as well as with other HEIs and HE organisations. This could possibly include specialised regionally based HE-business partnerships along the lines of the University Innovation Centres announced in the White Paper 'Opportunity for all' ([www.dti.gov.uk/opportunityforall](http://www.dti.gov.uk/opportunityforall)). Those centres provide examples of the potential for HEIs to act as hubs for economic growth and to promote the participation of small and medium enterprises in the generation and exploitation of knowledge. While there will not be another specific call for further University Innovation Centres as such, HEIs involved in assembling funding packages to develop similar centres may wish to consider applying for support under HEIF for knowledge transfer elements.

8. Institutions submitting large collaborative proposals to HEIF, which require capital for research-related infrastructure, should consider how their knowledge exploitation strategies might fit with their use of any Science Research Investment Fund (SRIF) allocations. SRIF was announced by the HEFCE in February 2001 (see HEFCE 01/11). It provides capital funding to continue the improvement to the science research infrastructure in higher education begun under the Joint Infrastructure Fund. Funding will be allocated to institutions according to a formula.

#### Science Enterprise Challenge

9. A total of £15 million is available for a final round of the Science Enterprise Challenge, to give further momentum to entrepreneurial education for science and engineering students. The aim is to increase the number of participating HEIs, either by establishing new centres or by expanding existing ones.

## University Challenge

10. £15 million is available for a final round of University Challenge, to provide seed funds that will help institutions transform good research into good business. This will build on the success of the first round, expanding the number of HEIs and public sector research institutes with access to a University Challenge seed fund. The principles remain essentially unchanged from the first round.

## Public Sector Research Exploitation Fund

11. A total of £10 million is available to public sector research establishments, who can bid for seed funding to support commercialisation of research and to develop their capacity to exploit their science and technology.

### **Bidding arrangements**

12. The concurrent announcement of bidding rounds brings the funds together in a co-ordinated process which allows bidders to make a strategic choice about the funding strands for which they wish to bid. Applicants can decide which funding route best fits their needs, but cannot benefit through two funding routes for the same activity.

13. Bids should be presented within the framework of an overall strategy and demonstrate the synergy and added value that the different strands contribute, and the tangible economic benefits.

14. This approach will highlight the different ways in which the funding can contribute to the strategic development of third stream activity envisaged in the cross-cutting review of science and research, and inform discussions about permanent third stream funding awarded on a formulaic basis in the future.

### **How to apply**

15. The timetable for the competitions is given below. The competitions will be overseen by the Office of Science and Technology, and a joint advisory group will assess all bids.

<b>Fund</b>	<b>Launch consultation</b>	<b>Call for bids</b>	<b>Closing date for bids</b>	<b>Awards announced</b>
University Challenge	–	April 2001	20 July 2001	end September – early October 2001
PSREF	–	April 2001	20 July 2001	end September – early October 2001
Science Enterprise Challenge	–	April 2001	20 July 2001	end September – early October 2001
HEIF	9 April 2001	May 2001	20 July 2001	end September – early October 2001

## **Annex B**

### **Higher Education Innovation Fund: application guidelines**

1. This document explains the arrangements for inviting higher education institutions (HEIs) in England to apply for funding from the Higher Education Innovation Fund (HEIF). It should be read in conjunction with the guidance notes on Knowledge Exploitation Funding (Annex A). Note that applications for University Challenge, Science Enterprise Challenge and Public Sector Research Exploitation Fund funding should not be made via the HEFCE.

#### **Objectives**

2. The objective for HEIF is for HEIs to build capacity to work with business, in particular small and medium enterprises (SMEs).

3. The aims are:

a. Improved organisational arrangements and structures within HEIs so that they are better able to respond to business needs and to interact more effectively with business and the community, including with small companies and with a range of bodies in their regions which contribute to economic growth and competitiveness more generally. (This is not necessarily restricted to administrative regions.)

b. Better access for business and the community to the trained people, products, resources and services produced in HEIs, and more use of them.

c. More widespread systematic and rapid transfer to businesses of new ideas, products and processes generated within HEIs.

d. Improved readiness of graduates for employment through the development of work-related skills – especially enterprise, management and leadership.

e. Improved relationships between HEIs and businesses and community organisations at a personal level, including staff exchanges and transfers and the development of lasting working relationships.

f. Enhanced capacity within institutions to respond in a concerted and effective manner to other initiatives promoting employability, enterprise and skills.

g. Enhanced contribution to the economic development of the nation, particularly in economically disadvantaged regions.

h. Systematic and sustainable change within HEIs in how they relate to business and the community, particularly changes in institutional and academic cultures.

## **Funding**

4. New resources totalling £80 million over three years have been made available by the Office of Science and Technology (OST).
5. HEIs are invited to apply for funding for projects of a range of types, including strategic collaborative projects larger than those funded under previous rounds of the Higher Education Reach-out to Business and the Community fund (HEROBC). All applications will be judged on their quality although the expectation is that there will be a broad spread of models.

## **Eligibility**

6. HEIs in England are eligible to apply for funding for their individual institution and/or as part of a consortium bid, which may be for larger collaborative projects.

## **Fundable activities**

7. Applicants should bear in mind the fund's emphasis on enhancing developments initiated under HEROBC, through improving structures and systems to facilitate increased and better targeted provision on the ground, and in particular by building interactions with small companies and other organisations that contribute to economic growth.
8. Institutions are encouraged to submit innovative proposals for funding activities that best meet their aims and established strengths, and that meet identified economic needs and those of the local skills base. In considering forward plans under HEIF, institutions may wish to have regard to the advice below.
9. Most of the funded HEROBC bids included the establishment within institutions of centrally located expertise in business links – in the form of a business development office or hub unit to co-ordinate interaction with business, and to serve as a single entry port for businesses to access advice. Frequently these were established by recruiting specialist staff with expertise in, for example, intellectual property rights. Common themes in forward plans under HEROBC included:
  - a. Improving dialogue with business locally, regionally, and more widely, including market research and the analysis of needs for manpower, skills training and specialised support in the regional economy.
  - b. Making it easier for individual businesses and their staff to find out the full range of what HEIs have to offer them.
  - c. Making higher education staff more aware of business needs and opportunities for knowledge transfer, including training and secondment.
  - d. Promoting the commercialisation of research outcomes through spin-out companies, incubator units, and professional support for consultancy and licensing arrangements.

10. In addition to promoting HE-business interactions, it is hoped that the funding will contribute to the development of interactions between HEIs and a broader range of bodies within the community, where this has the potential to make a significant contribution to wealth creation and economic development. For example, this might include using the HEI's expertise to assist productive innovation in local health organisations and voluntary bodies as well as in commercial business.

11. High quality new proposals along the lines of the above are invited. In addition, proposals are welcome for the following:

- a. Large strategic collaborations to establish excellence and coherence in meeting regional needs in the areas outlined in paragraph 7, and which build upon partnerships between business and higher education, as well as with other HEIs and HE organisations. This could include specialised regionally based HE-business partnerships along the lines of the University Innovation Centres announced in the White Paper 'Opportunity for all' ([www.dti.gov.uk/opportunityforall](http://www.dti.gov.uk/opportunityforall)). The centres provide examples of the potential for HEIs to act as hubs for economic growth and to promote the participation of SMEs in the generation and exploitation of knowledge. While there will not be another specific call for further University Innovation Centres as such, HEIs involved in assembling funding packages to develop similar centres may wish to consider applying for support under HEIF for knowledge transfer elements.
- b. Training and development for staff, including enhanced programmes of staff exchange.
- c. The creation and development of units within the institution to promote and ensure wider awareness by students and staff of employment outside higher education.
- d. Development of systems for recognising and rewarding staff engaged in knowledge transfer.
- e. The creation and development of business-friendly mechanisms and materials to promote and explain HE products, processes and services to small businesses.
- f. The creation and development of business incubator units in HEIs.
- g. Setting in place arrangements within the HEI to improve the responsiveness of continuing vocational education programmes to local and regional needs.
- h. Developing expertise in understanding, protecting and exploiting intellectual property (either in-house or collaboratively), including the recruitment of specialist staff.

12. The above are given only as examples of the sorts of activity the funding might support, and to indicate the wide-ranging nature of the fund. It will be for institutions themselves to propose activities which will enable them to implement their strategic approach, and which are consistent with the aims and objectives of the fund, and to demonstrate how they will measure their performance.

13. The fund will not support activities for which funding is already available from other sources, but proposals may be made for activities to complement and build upon work funded from elsewhere – provided that added value can be clearly demonstrated. In particular, institutions proposing large collaborative projects, that will incur both capital and recurrent costs, should bear in mind the possibility of putting together a package using both HEIF and the Science Research Investment Fund, if there is a research element.

### **Information required**

14. All applications should include the following information:

- a. Business plans, flowing from and directly related to the institution's corporate plan, mission and objectives, and describing the institution's strategic approach to securing the aims of the fund. These should specify milestones, targets for the delivery of specified services, and the management structures and other internal arrangements to be introduced to ensure the necessary action. The expected impact of the actions, and the performance indicators against which the institution will measure progress and from what baseline, should be clearly defined. *Applications without clear, quantitative and qualitative targets are unlikely to be funded.*
- b. Credible and effective proposals for measures to establish better links with a range of businesses, including small companies and other organisations, which are designed to encourage informed interaction and improved understanding. These should address in particular the need to offer smaller companies and other organisations a range of services through a single point of contact. This role should be assigned to staff who both understand the companies' needs and those of the wider community and are well placed to ensure an appropriate response.
- c. Evidence of how the proposed action will help to change the culture within the HEI, including measures to encourage individual staff to forge links with business.
- d. Evidence that the proposals respond, where appropriate, to identified regional skills and economic development agendas, and reflect co-ordinated planning at regional level. This should include confirmation from the Regional Development Agency that proposals are compatible with and/or further the Regional Economic Strategy.
- e. Evidence that costs of the provision to be funded cannot be fully recovered, and will be both additional to existing provision and sustainable in the longer term.
- f. Evidence that the possibility of collaborative action has been considered, with both HEIs and others (such as businesses, community bodies and Regional Development Agencies). Such collaboration might be based on regional planning or a shared interest in a particular area of work, and is encouraged especially where scarce specialist skills are to be deployed. Applications proposing that an HEI would take some actions alone and others in consortium would also be welcome.
- g. Arrangements for building upon and drawing together existing good practice within HE, and previous and current initiatives in the field by other agencies. This would

include arrangements for ensuring that activities funded by HEIF complement and do not duplicate the continuing work of such agencies. HEIs may find it helpful to refer to the list of major current initiatives in HE-business links published on the HEFCE website ([www.hefce.ac.uk](http://www.hefce.ac.uk) under 'Business and the community').

h. Evidence of progress made with any existing HEROBC awards, including a summary report of achievement against the targets set out in the HEROBC proposal.

i. Evidence of the effectiveness of pre-existing interaction between the HEI and business and other organisations. This could include income generated, spin-out companies, people-based links such as business involvement in course design or teaching, and strategic level interaction such as business representation on the HEI governing body, and HEI representation on economic and business groups. One way to provide this information would be to attach a copy of the HEI's response to the recent HEFCE sponsored survey of HE-business interactions, but HEIs may include different or additional information if they wish.

15. An HEI should submit only one application unless it also proposes to conduct some activities in consortium (see paragraph 16 below). Applications should not be longer than eight A4 pages. Brief appendices setting out relevant additional material, including statistical information, may be attached to these, but are not required. Where applications refer to material already provided to the HEFCE (for example, institutions' current strategic plans) this need not be reproduced in full.

#### **Applications from consortia**

16. Where two or more HEIs propose collaborative action to be funded within the programme, or where large strategic collaborations are being developed:

a. A single joint application should be submitted by each group of HEIs, identifying the activities for which the consortium seeks funding.

b. The application should identify a co-ordinating institution within the consortium which would receive the grant, be accountable for securing proper application of the grant, and provide monitoring statements.

c. The application should indicate clearly the additional benefits which acting in collaboration would achieve, either within a single region or across regional boundaries.

d. The HEIs concerned may also submit separate individual applications. If an institution applies successfully both individually and in consortium, its likely share of any collaborative funding may be taken into account in determining its grant for individual activities.

e. Collaborative bids will be particularly welcome, especially where institutions with a need to develop capacity are able to work with and learn from more experienced partners.

## **Assessment criteria**

17. Applications will be assessed in the light of advice from an expert advisory group, having regard to the HEI's past achievements in interacting with business and its future plans in this field. In particular, the group will consider:

- a. Overall strength and practicality, value for money, and contribution to the objectives of the fund.
- b. Conformity with the HEI's or consortium's corporate plan, mission and objectives.
- c. Response to identified national, regional and local needs, and the creation and strengthening of strategic partnerships. Key partners are Regional Development Agencies, the Small Business Service, and representatives of the business community.
- d. The effectiveness of the HEI's pre-existing interaction with business, as indicated by the information in the application and by reference to statistical information from other sources.
- e. The scope for improvement in the economic well-being of the region or sub-region in which the HEI is located.
- f. The ability to draw in other sources of funding, especially from the private sector, and particularly from collaboration.
- g. The extent to which activities are co-ordinated.

## **Allocations**

18. Once applications have been selected for funding on this basis, funds will be allocated to HEIs at a level depending on:

- the strength of the application
- the size of the HEI, or scale of consortium
- the scale of its current activities and of the proposed funded activity in this field
- responsiveness to defined needs and the outcomes which will be generated.

## **Award of funding**

19. Awards will only be made where the quality of bids exceeds a minimum threshold. Part only, or none, of the funding available will be allocated if the overall quality of bids is insufficiently high.

20. Following the call for applications, awards will be made for the three year period 2001-04 to HEIs (including consortia of HEIs) whose applications best meet the criteria in these guidelines.

21. The funding levels will be finalised when applications have been scrutinised according to the considerations in paragraph 18, but we expect that awards in the region of £0.5 million will be available for smaller bids for HEROBC-type projects. We do not expect to make awards below £250, 000.

22. Awards in the region of £5 million are expected for contributions to larger strategic collaborative HEIF projects. We do not expect to make awards below £3 million.

### **Management**

23. Funds are being provided by the DTI/OST. The expert advisory group to consider applications will include representatives from OST, HEFCE, DTI, DfEE, HEIs and business. The group will take advice from HEFCE regional consultants on how the applications relate to the mission and strengths of the HEI, and to regional needs and developments. This advice will reflect discussion between the regional consultants and regional agencies, including Government Offices and Regional Development Agencies.

24. The final decision on awards will be taken by DTI ministers.

25. The fund will be administered by the HEFCE on behalf of DTI/OST and the HEFCE jointly. This will build upon work undertaken to manage the HEROBC fund, which includes informal monitoring of progress.

### **Monitoring and evaluation**

26. Progress in implementing HEIs' plans will be monitored within the wider framework for HEI corporate plans, annual operating statements and data on knowledge transfer performance. Recipients of funding will be required to provide monitoring information each year (as set out in Annex B of HEFCE 00/05 'HEROBC: second invitation to apply for special funding'). In addition, the HEFCE will commission, on behalf of OST and the HEFCE jointly, independent evaluations of the fund, associated closely with the evaluations of HEROBC.

27. We will invite the advisory group to consider the conclusions to be drawn from these evaluations, which will aim to:

- establish if the fund is improving interaction between HEIs and business
- assess the success of individual elements of funding
- provide good practice material for wider dissemination.

## **Annex C**

### **List of acronyms**

DfEE	Department for Education and Employment
DTI	Department of Trade and Industry
HE	Higher education
HEFCE	Higher Education Funding Council for England
HEI	Higher education institution
HEIF	Higher Education Innovation Fund
HEROBC	Higher Education Reach-out to Business and the Community
OST	Office of Science and Technology
PSRE	Public sector research establishment
PSREF	Public Sector Research Exploitation Fund
SMEs	Small and medium sized enterprises
SRIF	Science Research Investment Fund

## **Annex D**

### **Analysis of responses to the consultation on HEIF**

1. The consultation paper (HEFCE 01/22) published in April 2001 invited feedback from higher education institutions (HEIs) on the proposed Higher Education Innovation Fund (HEIF). Responses were received from 73 HEIs and related organisations. The key issues are detailed below.

#### **Support for the initiative**

2. Firm support for the fund was shown from across the sector, with only one HEI not openly welcoming it. Most respondents made positive suggestions for improvement, greater clarity and related actions, and most indicated an eagerness to apply for available funding. However, it was noted that funding levels are still too modest to embed third stream activity alongside teaching and research.

#### **Knowledge exploitation**

3. A significant number of respondents urged that the OST focus on science and technology should not marginalise the wider issues of third stream funding. Many institutions commented that work with the creative and cultural sectors has a high potential for wealth creation, as well as opportunities for wider community involvement. Comments were also made on the need for diversity in knowledge exploitation projects.

#### **Partner organisations**

4. Some HEIs expressed interest in further examples of SMEs' direct desire or need for closer links with HE, particularly with respect to larger strategic collaborations. Some HEIs wanted to concentrate on what they see as more worthwhile and/or established partners. Smaller specialist HEIs felt that micro-industries had an important place, while some larger HEIs looked more toward global partners. Wider involvement with non-industrial partners, including further education colleges was stressed, as was the need not to limit regional collaboration to pre-set boundaries. Some HEIs also noted that establishing closer links had to be a two-way process.

#### **Process and assessment**

5. There were many responses concerning the high administrative burden placed on HEIs by the competitive bidding process. Most welcomed the concurrent process of HEIF, University Challenge, Science Enterprise Challenge and the Public Sector Research Exploitation Fund as a positive step towards an embedded permanent third stream of funding. However, they commented on the added level of complexity in co-ordinating applications so as not to overlap, both in applications to two or more of the programmes, and the consideration of any collaborative funding when assessing solo applications. Some HEIs were concerned that there might be overlap problems between potential applications to HEIF and Science Enterprise Challenge.

6. Many HEIs were concerned that they might be disadvantaged in an individual application for funding by account being taken of their likely share of funding under a collaborative application in which they were a partner. This concern was drawn from the uncertainty surrounding the number of larger strategic bids. HEIs agreed that while a share in such a bid would be significant, lesser funded and wider collaborations, similar to those of HEROBC, should not be prejudiced.

7. While many respondents accepted the focus on wealth creation, there were numerous comments about the need to effect improvements in infrastructure, and about the importance of cultural change and work with not-for-profit organisations.

8. A significant proportion of HEIs expressed support for the role to be played by HEFCE regional consultants, Government Offices and Regional Development Agencies.

9. A number of respondents stressed the need for allocations to be assessed on individual strengths and potential rather than primarily focusing on the size of institution.

#### **Other concerns**

10. Some HEIs expressed concern about the phasing of funding available, and in particular the expected funding levels after 2003-04 (post HEIF). This was linked in some cases to the desire to attract and recruit specialists on more stable terms. Many respondents also commented on the short timescale to organise complex collaborative bids, especially if incorporating reference to SRIF applications. HEIs given one year start-up HEROBC funding commented on the shortfall between the end of their HEROBC funding in July, and the inception of HEIF in September.

11. A number of HEIs said that too much emphasis on collaboration could be detrimental to the effective implementation of HEIF aims via projects by individual institutions.

12. Some post-1992 HEIs and those with more modest funding from HEROBC noted their wish to catch up with more established institutions. Linked to this was the idea that larger pre-1992 institutions might consider that they have little to gain by collaborating with post-1992 HEIs.

13. A minority of respondents also commented on the need for maintaining a national focus of activity, while others wished to see the relative development levels of the regions taken into account.