

RESEARCH GLOBAL

Growing Improvements: Promoting best practice



Incubators for
technology transfer

Skill sharing
through mentoring

Developing good
grantsmanship



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Research Global

(Formerly *Research Opportunities*)

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2-3 Making sense of expansion

John Kirkland on setting priorities and promoting growth.

4-5 Peer Review Groups and funding

Jennifer Shambrook, Carla Danielson, William Schweri and Paul Waugaman discuss.

6-7 Professional mentoring

Mark Hochman, Mark Berlage and Rod Thiele on the ARMS Mentoring Scheme.

8-9 Incubators for development

Adelani Ogunrinade on incubators and technology transfer.

10-12 Counting the cost

John Kirkland provides an overview and practical suggestions.

12-13 Applying good practice

Paul Burnett tests the utility of pre-award research management statements.

14-16 International round up

News and events from research management societies worldwide.

16-17 Conflict of interest

George Turnbull and John Chinn advise on organisational collaborations.

18-19 International funding: pitfalls and possibilities

John Westensee offers guidance.

20-21 Recent publications

Nick Mulhern summarises.

22-23 Research update

Jon Thornton provides the latest news.

24-27 Funding update

Funding opportunities from COS.

Making expa

I'm writing this editorial in the first week of January. In the UK at least, this is traditionally a time for reflection on our priorities, both as individuals and organisations, for the new year.

It seems to me that nowhere is such reflection more necessary than in the field of research management. Indeed practising research managers might well argue that, for them, the process of establishing priorities is an ongoing battle. The basic problem is that, having discovered the importance of research management, universities and governments have quickly moved on to identify more and more potential functions for the profession.

So for many of us, the 'to do' list is growing fast. Research managers are expected to make a visible impact on income generation for their institutions, and to help raise institutional profiles more widely. They are expected to help in training academic staff in management issues. Many have a quality control function in monitoring proposals to ensure that they are of a credible standard. Legal and financial issues have to be addressed in the negotiation of projects, which the research management office is often responsible for approving on the part of the institution. Project management and reporting skills are needed. And, of course, research managers are expected to help identify and exploit the ideas arising from research. This alone is an area where governments have very high expectations.

The list sometimes seems endless. Happily, in many countries the available resources have also increased, to allow a much higher degree of specialisation than ever before. In many universities, there is no longer any expectation that all of the above functions can be performed by a single office, let alone the same person. The distinction between pre and post award activity is a long-standing one. Within post award activity, technology transfer is often split up from project

sense of vision

management. Likewise, within pre-award activity, specialists are being appointed to work with specific categories of funding bodies, or within particular subject areas.

Research Global seeks to help this prioritisation process by providing a forum for practical advice to be shared. This issue contains articles from Australia, Jamaica, Denmark, the United States and the United Kingdom, plus the usual wide range of events, funding opportunities, new publications and news items from throughout the world. It also brings news of three new opportunities in which Global Research Management Network (GRMN) members are invited to share:

First, we are seeking your contributions for our new Research Management Good Practice Index – a global depository of institutional research and innovation management policies that are thought to have worked well and would be useful for those seeking to develop similar policies at their own institutions. This project, funded by the Department for International Development in the UK, is part of a wider initiative to develop research management capacity in Africa. It is intended, however, to be of widespread use, and international contributions are welcome.

Second, we invite proposals, particularly from colleagues based in developing countries, for papers to be presented at the major international research management conference to be held in Brisbane, Australia, in August 2006. Further details of the conference can be found on page 15. We are particularly keen to hear of 'success stories' in the development of research management capacity that could be replicated elsewhere, and in addition to being presented at the conference, we hope that some of the resulting articles will appear in future editions of *Research Global*.

Finally, we would like your assistance with a small survey. As a result of the substantial growth reported above, the range of skills required by research management



*The ACU Research Management team:
(back, left to right) Liam Roberts,
Dr John Kirkland, (front, left to right)
Kelly Parkatti, Julie Stackhouse, Rachel Day*

offices is huge. We'd like to hear about the background and experiences of your staff, and have designed a very short questionnaire to help us find out. We will naturally share the results through a future issue.

Of course, all of the three alternatives mentioned above involve further work. Some readers will think it ironic that an editorial that started by highlighting the many demands on the time of research managers, ends by asking them to do yet more! I hope you will agree, though, that the exchange of information across national boundaries represents part of the solution, rather than the problem, and that you will take a few minutes to respond. At a time when establishing priorities is at the forefront, please make this one of yours!

In the meantime, belated best wishes from all of us at *Research Global* for a prosperous, productive and above all, happy 2006. **RG**

Dr John Kirkland
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Universities

Join the network

The Global Research Management Network (GRMN) is a partnership between the Association of Commonwealth Universities (ACU) and the Society of Research Administrators International (SRA International) and is dedicated to the development of international collaboration amongst the research management community. The network directly provides regular information, analysis and networking opportunities to individual practitioners and their institutions.

Network members receive *Research Global* magazine, the *International Journal of Technology Management and Sustainable Development*, regular emails, including a monthly international news briefing, and are kept informed of forthcoming international events and other opportunities. Subscription rates start at GBP85 per annum for individual membership for those based at institutions in developing countries and for current SRA International and ACU members.

If you have not already registered, information on how to join can be found at www.globalrmn.org (official website launch June 2006) or email resman@acu.ac.uk for an application form and further details.

Using Peer Review Groups to help secure funding

Obtaining research funding is becoming an increasing challenge for institutions worldwide. **Jennifer Shambrook, Carla Danielson, William Scheweri** and **Paul Waugaman** present their views on how to produce more competitive proposals.

The research environment has always been competitive when it comes to obtaining funding. Now, as we hear from all sides, that obtaining funding is *more* competitive than ever before, you may ask: “What can I do to enhance my competitiveness for funding in an increasingly competitive environment?”

This question is asked at institutions with very limited resources that are just beginning to get involved in competitive funding. It is also asked at institutions that have a very significant funded research portfolio who hope to maintain or increase their level of funding.

The solution: In-house PRGs

The answer to this question is not a secret. In fact, the answer can be found in any good grantsmanship guide. It may be stated in a variety of ways, but the main message is this: *Never let the sponsor's reviewers be the first to critique your proposal for funding.*

This can be accomplished by formally establishing an in-house peer review group (PRG) that is committed to training themselves to critique proposals in-house prior to being submitted to the sponsoring agencies.

Fortunately, for those of us at institutions with limited financial resources, this solution can be implemented using intellectual rather than monetary resources. These intellectual resources are not easy to gather, however, and they can sometimes be scarcer than monetary resources. It requires competent *time management skills* in order to prepare proposals early enough before the submission date to allow time for the review group to critique the prop-

osal and for the recommendations to be followed. It requires *team building skills* to assemble and inspire a group of people that are willing to learn to effectively review each proposal. It requires *organisational skills* to arrange ongoing reviewer training, circulate the proposal for review, schedule the meeting, establish a meeting place and send reminders. It requires *commitment* by each member of the group to take an active role to assist in both review and training. Finally, it requires tremendous *self-discipline* to adhere to all of the aforementioned character resources and pledge yourself to the in-house peer review tactic to help one another.

How do we know it works?

Embracing the belief that history is the best indicator of the future, let's look at some experiences of others who have utilised the strategy of in-house PRGs.

The cornerstone example is that of Western Psychiatric Institute and Clinic (WPIC). WPIC serves as the Department of Psychiatry for the University of Pittsburgh School of Medicine in Pittsburgh, Pennsylvania, USA. They have a funded research portfolio that is made up primarily of funds from one of the most competitive and rigorous funding agencies in the world, the US National Institutes of Health (NIH). NIH has posted their award data at www.nih.gov from 1998-2004. In 1998, WPIC was listed as the top ranked Department of Psychiatry in the US, with NIH funding of USD 41.4 million. WPIC has remained at the top rank throughout the past nine years and in 2004 was awarded USD76.9m in NIH funding.

WPIC requires investigators to submit all proposals to an in-house PRG before agency submission (Wysocki, 2004). This is a part of a ‘basic training’ programme implemented in the department in the mid-90s that includes the in-house PRG, and an ongoing training series on grantsmanship and peer review technique (Reynolds, Kupfer, et al., 1998). The 85 per cent increase in NIH funding speaks to the success of their strategic efforts.

You might now ask: Can this same programme given by a well-funded department at an American medical school be employed at an institution where resources are scarce? Are the faculty members at my institution capable of adequately reviewing proposals? Is there a way to inexpensively receive training to implement a programme like this? The answer to all of these questions is definitely *yes*. Yes, you can do this anywhere with the faculty you have and the resources available.

The Society of Research Administrators International (SRA International) recently had two research management training assignments where peer review of proposals was demonstrated. SRA International was selected by the Carnegie Corporation of New York to conduct one-week workshops at six universities in Africa¹, and by The Civilian Research and Development Foundation and the Vladimir Potanin Charitable Foundation of Russia to organise and present a four-day workshop for young research managers from 18 Russian universities. The African and Russian institutions varied from little to moderate funding and/or research management experience.

At each workshop, principles of grantsmanship and peer review were included in the training curriculum (Scheweri, Waug-

1. The universities were: Obafemi Awolowo University, Nigeria; University of Education Winneba, Ghana; Makerere University, Uganda; University of Dar es Salaam, Tanzania; Ahmadu Bello University, Nigeria; and University of Jos, Nigeria.

...the main message is this: Never let the sponsor's reviewers be the first to critique your proposal for funding

aman, Shambrook, Hackett, 2005). The capstone activity for each workshop was to divide the attendees into PRGs. Each PRG member was given one to two days to read the grant, consider the grantsmanship standards that were given during the workshop, and determine what could be done to strengthen the proposal. Each PRG was allowed an opportunity to meet as a group, discuss their notes with one another and compile a consensus report. The consensus report was presented on the final day of the workshop.

Each PRG was made up of members who were from diverse academic disciplines. However, while we do encourage researchers to have someone in their field read the proposal for scientific merit, any educated person can be trained to read a proposal and know if the basic elements of a good proposal are present.

We found that the PRGs were well equipped to review proposals and offer insightful advice for strengthening their competitiveness. We used a wide variety of proposals. At each institution there were two or three PRGs and each PRG was given a different proposal for the members to critique.

We offered some proposals that had not yet been submitted or funded and asked the principal investigator to attend the PRG meeting and hear the PRG Consensus Report. The principal investigators stated that this was a valuable exercise and they planned to incorporate the advice given by the PRG in their next version of the proposal prior to submission.

We also offered proposals that had competed. We offered one proposal that had scored well and had been funded, one that had scored below the funding range, and one that had been returned without full review for lack of competitiveness. The PRG consensus reports matched the reviewing sponsor's recommendations exactly.

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At the Medical University of South Carolina (MUSC), the first and second authors of this paper organized a PRG. Last year, nine grants from new investigators were reviewed. Eight grants were considered ready for submission after PRG-recommended improvements. Seven grants were submitted to NIH and one to the Centers for Disease Control. Approximately 50 per cent of all NIH grants are considered competitive and scored by an NIH PRG. 85 per cent of the grants our PRG recommended for submission were considered competitive for scoring, 35 per cent above the norm. The application that the PRG recommended not be submitted was submitted and was returned unscored as non-competitive. Although the grant was unsuccessful, we consider this further evidence of the efficacy of the in-house PRG as the NIH PRG agreed with the in-house PRG.

We have not heard the results on all of the grants submitted. However, we do know that three of the grants considered competitive by the in-house PRG have been funded or recommended for funding. The NIH application success rate for the last fiscal year was 24.6 per cent for all investigators, including the most experien-

ced. Our group of junior investigators was 13 per cent more successful than all investigators taken together.

Conclusion

The in-house PRG is an effective means of increasing the competitiveness of the research proposals submitted by your institution. With dedication and commitment, you can make it happen at your institution and see your own funded research portfolio increase. **RG**

For information on the mechanics of developing a PRG at your institution, please read the follow up article in the next issue of *Research Global*.

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A two-way partnership:

The ARMS Mentoring Scheme

Despite level or length of experience, all research management professionals can benefit from a mentoring relationship. Here, **Mark Hochman**, **Mark Berlage** and **Rod Thiele** discuss the Australasian Research Management Society (ARMS) Mentoring Scheme.

Background to the mentoring scheme

The Australasian Research Management Society (ARMS) endeavours to offer a range of opportunities to assist members develop as research management professionals. As part of its range of professional development offerings, the Society has offered a mentor programme since 2004. ARMS members are encouraged to enjoy and benefit from a professional relationship with an experienced research manager from their sector or a different industry sector. Importantly, participants have the opportunity to draw on the experience and guidance of someone outside their own workplace, within the friendly and supportive ARMS family.

Mentoring is a one-to-one relationship between a more skilled or experienced person (the mentor) and a less skilled or experienced person (the mentoree). It gives both parties a framework within which to share their knowledge, skills and experiences and to grow and develop in the process. A mentoring relationship is based upon encouragement, constructive feedback, openness, mutual trust, respect and a willingness to learn and share. Almost any aspect of professional practice can be mentored! The ARMS Mentoring Scheme focuses on pairs developing, over approximately a six-month period, a very specific area of need identified by the mentoree (eg how to liaise with industry).

Operation of the scheme

The following account outlines the scheme during its first two years of operation. Expressions of interest from potential mentors and mentorees were called. Members of the Professional Development Committee reviewed the expressions of interest and used the information to do an initial match of mentor-mentoree pairs. Mentors were chosen from experienced

Research Managers from a

range of industry sectors. Numbering almost 500, the membership of ARMS is both broad and deep,

ranging from primary

industry to new technology ventures and from first-level supervisors to senior management. Mentors from outside the ARMS membership were also considered where experience or expertise was required.

Pairs were put in contact with each other to explore the needs of the mentoree and, if mutually agreeable, to enter into a mentoring arrangement. Mentor-mentoree pairs were provided with written guidelines and a small level of funding support to assist them with planning and implementing their programme and meeting and/or communicating in various different ways, according to their preferences and needs. They were also required to report back to the Society and to share their experiences in ARMS Chapter forums and the Annual Conference.

So far, mentorees have mainly been beginning to middle career administrators

from both urban and regional areas of the Australian and New Zealand Chapters. They have been interested in developing their expertise in both specific areas of work (eg contracts, external funding agencies, applications, intellectual property, industry liaison and commercialisation, ethics) and more general areas of personal development (work-life balance). For some mentorees, the objective has been to do their current job better, while for others it has been to become an expert in the broader field of research management and eventually to assume a more senior leadership role. For all, it has offered the chance to see things differently:

“Having worked in this position for some time there have been many questions I have not had answered and as the only person in this role for the university I have felt isolated. Being part of this programme gives me advice in my role from a more experienced person who would have new ways of looking at things and be able to anticipate things I may need to know or would be helpful that I know” (A 2005 mentoree).

A specific example

One specific pairing in the inaugural ARMS mentoring scheme was Dr Mark Hochman, Director Research Services at the University of South Australia (mentor) with Dr Rod Thiele, Director Research and Development, Curtin University of Technology (mentee). Their pairing began in January 2004 and continued throughout the year. While the two participants' roles were very similar, Rod was new to his position and Mark had been in his for some 15 years.

During 2004, they met four times and also used phone and email to remain in weekly contact. Both Rod and Mark found



A mentoring relationship is based upon encouragement, constructive feedback, openness, mutual trust, respect and a willingness to learn and share.

that it was necessary to agree upfront on key outcomes for the mentoring relationship, with Rod outlining the prime objectives as being “1) to revise Curtin’s Research and Development (R&D) quality processes, especially relating to contract research, and 2) to benchmark personal work habits and attitudes to Mark’s, and seeking personal improvement through frequent feedback and challenge.”

Both reported that the mentoring relationship had been a partnership rather than a supervisor/employee relationship and that benefits had been two-way.

Rod said that he found it helpful to keep track of progress by writing progress reports after each meeting and being prepared to be accountable. Accountability for Rod meant sending a copy of his diary on a weekly basis and welcoming comment and questioning from Mark regarding work priorities and time allocations. Personal accountability was viewed by both Mark and Rod as important to producing a successful outcome and so they agreed in advance the scope and boundaries of the partnership and how far outside the work environment the relationship would extend.

Mark reported that that he felt it was important for the mentor to judge honestly his or her own motives for participating. “It is easy to respond to an invitation to act as a mentor for the wrong reasons, to respond on the basis of ego rather than for what you can contribute,” Mark said. “Mentors must honestly assess whether they have relevant knowledge and skills to pass on and whether they have the time and personal capacity to contribute effectively.”

Rod and Mark saw as essential the need for occasional face to face meetings. While phone and email communications were valuable, they were less valuable to the relationship than discussion over an uninterrupted hour or two, face to face, with a cup of good coffee. Similarly, both agreed that contextual understanding of the issues was enhanced through having at least one face to face meeting at the mentee’s work-place and having the mentor meet the mentee’s supervisor during one of these work-place visits.

Two years after the commencement of the programme, Mark and Rod retain a strong professional relationship and have become good friends.

Future challenges

The ARMS Professional Development Committee aims to continue to enhance the scheme by examining mentoring best practice, especially in the context of Professional Societies. While potential mentorees are strongly encouraged to identify a mentor, particularly through Society networking opportunities, a significant challenge for the future of the scheme will be to identify a diverse pool of suitably experienced mentors. To this end, a web-based database of interested mentors is being considered for 2006. For mentorees, the challenge remains to find ways to integrate their participation in the scheme with workplace demands and a broader performance and development plan. **RG**

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Commonwealth Collaboration: A Practical Guide

Network members in the United Kingdom on 24 March 2006 may be interested in a one-day conference under the title 'Collaborating with the Commonwealth'. The event is being staged jointly by the ACU and the Commonwealth Scholarships Commission (CSC) in the UK, and will be held at Universities UK, Tavistock Square, London, UK.

The event aims to provide a concise briefing on funding opportunities available to researchers looking to develop

their collaboration with developing Commonwealth countries. Presentations have already been confirmed from the UK Research Councils, Department for International Development, Royal Society, British Academy and British Council, as well as the CSC itself. It is also hoped to include up to the minute information on the new Development Partnerships in Higher Education programme, prospects for developing country collaboration in future European Union programmes and new initiatives by the UK government, following last year’s G8 summit on Africa.

Participants at the event will include a number of senior academics from developing countries visiting the UK under the Commonwealth Fellowships programme, research support officers and UK academics with an interest in developing further links. The conference fee is GBP130 plus VAT (including lunch, refreshments and documentation).

Further details and booking forms are available from Rachel Day on r.day@acu.ac.uk. **RG**

Business incubators and technology

A developing country perspective

Science Parks and Business Incubators have been a financial success for many universities, but stronger university-industry links are important for achieving wider technology transfer objectives, argues **Adelani Ogunrinade**.

Incubators¹ are increasingly perceived as effective economic development tools and agents of technology transfer globally (UNIDO, 1999). Scaramuzzi (2002) reported that well over 2000 incubators have been established worldwide with about half of these in Europe and about 500 in developing countries. While the growth of incubators in the US have been traced to the 1980s, Bateman (1999) traced the genesis of business incubators in Europe to the post World War II period and the attempt to regenerate an economy devastated by bombed-out and abandoned factories and characterised by widespread unemployment of highly technical skills and educated people living within strong local co-operative traditions.

The technology incubator concept arose as mini-industrial parks with an emphasis on the creation of high-tech jobs and local technology transfer benefits. In China and many accession countries, technology incubators cater to specific sectors like Information and Communication Technology (ICT) or biotechnology. However, the drive to turn these outfits with initial high cost outlays, into ongoing business concerns able to pay their way rather than as social capital investment, have led to the collapse of some of these incubators and limited their growth and rapid expansion.

Experience with business incubators in developing countries

A number of developing and transition economies such as South Africa, Turkey, Brazil, Jordan and some Caribbean countries (Barbados and Jamaica) have established or plan to establish incubators, business clusters in export processing zones, techno-parks and industrial parks

either as formal 'high-tech' concerns housed in beautiful architectural, glass and marble buildings or as informal clusters like the homegrown private 'computer villages' which have emerged in Lagos and Aba (Nigeria) without substantial public input. These business incubators are predicated on the similar lofty goals and objectives of early European incubators based on kick-starting businesses and entrepreneurship (especially of a high-tech nature), creating job opportunities for unemployed graduates with technical skills and jump-starting local technological transfers. Bateman (2002) identifies the following pertinent questions to be considered before creating a business incubator in developing countries:

- Is there an urgent national need for business incubators (arising from additional questions below)?
- Is there a high standard of education viz 'technology understanding' and Research and Development (R&D) support?
- Is there sufficient national (focal) expenditure on Science and Technology including availability of credit and micro-finance for start-up companies?
- What is the capacity of state structures, eg policy and governmental support for technological incubation?
- What is the legal environment for business support?
- Is there a strong infrastructure of business support bodies capable of absorbing incubator tenants and start-up companies?
- Are there available business support organisations, venture capitalists and mentors for the start-up companies?
- Is the incubator viewed as a social investment in capital or as a commercial venture?

Perhaps anticipating that such incubators stand the risk of becoming 'white elephants' or at best real estate agencies, Bateman (1999) indicated some critical key success factors for incubators. These are:

- An appropriate state or quasi-state institutional umbrella enforcing clear longer run national and local economic development objectives;
- A dedicated long term funding regime for the incubator mixing public, private and donor sources;
- The use of cost-benefit analysis to justify public expenditure;
- A local satellite of concerned joint venture partners and donors, lobbying potential tenants;
- Easily accessible financial support for incubator tenants, particularly technology-intensive ones;
- The provision of solid technical and business development support;
- Explicit linkages to other policy interventions such as cluster programmes, FDI and high profile R&D programmes.

Experience with the Technology Innovation Centre at the University of Technology, Jamaica (UTech)

The Technology Innovation Centre (TIC) was established in February 2000 under a contribution agreement signed by the Canadian International Development Agency (CIDA) and the University of Technology with counterpart funding from a Caribbean Development Bank (CDB) loan. The TIC operates a technology incubator and provides training and support services. Located on the University of Technology campus in Jamaica, the building comprises 25 office suites and four manufacturing bays, a Business Services unit, three meeting rooms and a café. The goals of the TIC project are:

- To foster the development of start-up

¹ According to the National Business Incubation Association, "Business incubators nurture the development of entrepreneurial companies, helping them survive and grow during the start-up period, when they are most vulnerable. These programs

provide their client companies with business support services and resources tailored to young firms." http://www.nbia.org/resource_center/bus_inc_facts/index.php

Technology transfer:

- technology companies;
- To promote increased entrepreneurship in UTech and Jamaica;
- To develop technology linkages between UTech and Jamaica industry.

There has been some contention whether the centre can accurately be described as a Technology Incubator Centre as opposed to the much broader concept of a Technology Innovation Centre. As to the intent of the planners, the Technology Innovation Centre was intended to be a “catalyst in the process of transferring [*sic*] knowledge linking business incubation with innovation.”

Business incubation at the TIC, Jamaica

By far, successful business incubation has been the ‘claim to fame’ of the TIC at UTech. This may well be so when viewed in terms of the impressive occupancy rates of the incubator. In 2002, the TIC was successful in attracting three types of tenants viz start-up businesses, anchor tenants (established business which can provide a form of mentorship within the incubator to start-up companies) and virtual tenants which are not physically located in TIC but pay a monthly fee to access mail services, business support services and TIC facilities (Glasgow, 2002). The criteria for a prospective tenant is that the tenant must *inter alia* be in the process of developing a product or a service in which the use of technology is a major feature, have a viable

TIC Achievements 2002-2005	Achievement	Target
Number of trainers /resource persons trained in Entrepreneurship Development	105	25
Number of companies trained in Business Management	76	100
Number of consulting assignments for companies not in the incubator programme to introduce improved business practices	54	40
Number of companies not in the incubator programme utilising business services	120	100

business plan, have knowledge of its markets and how to reach them, have ability to manage the technical aspects of its business and be able to become sufficiently independent to leave the incubator after two to three years.

The TIC exceeded expectations with occupancy rates above the industrial standards (75 per cent occupancy by year one) – set by the National Business Incubation Association of the USA (NBIA). Occupancy by year one was 80 per cent, almost double the 45 per cent expected rate. These companies were able to better manage their businesses, networking among companies, credibility, and opportunities for collaboration, as well as obtain assistance with their cash flows by delaying or amortising rental and other fees from the business incubators.

There have been problems of fluctuation in occupancy, a waiting list against the backdrop of Jamaica’s economic climate and a small pool of technology outfits, a volatile financial climate, high interest rate in the region of 20 per cent and high inflation of more than 10 per cent. The clientele for training has declined because

of affordability and new content emphasis. The staff complement was predominantly new to incubators and expertise is not easily recruited to Jamaica. In early stage incubators, administrative attention tended to be put towards property management and real estate rather than business support.

More importantly, technology transfer and backward linkages with UTech and local industry are at best rudimentary. Although to date a vast majority of its occupants are in the ICT sector, these tend to constitute “users of technology rather than developers of technology”. UTech itself is a transitional university with a developing R&D capacity, research output and research infrastructure and heavy teaching load (Onyefulu and Ogunrinade, 2005).

The TIC continues to be governed by a strong board with a range of individuals from government, the private sector and UTech. Overall there is some progress that has been made for the TIC, a young outfit when benchmarked against similar incubators of its age and capacity. TIC is in a period of ‘stabilisation’ in which short term problems are triggering staff to think about new approaches to services. Some of the problems encountered by the TIC may indeed prove to be teething problems, but they may well be problems anticipated in the Bateman (2002) study which concluded that “technology incubators must be embedded in an institutional structure driven by key R&D or technology development and policy actors, in order to succeed.” **RG**

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Counting the cost

Throughout the world, universities are addressing issues of calculating the cost of their research activity – and how to persuade funders to meet that cost.

John Kirkland provides a guide for those starting off in this process.

Upon first consideration, the proposition that universities should recover the full cost of their research work for external bodies seems simple and non-contentious. In practice, this has been far from the case. In several countries, the concept of 'full cost recovery' has taken many years to define, let alone sell to the clients who will be expected to pick up the bills. In other countries, the same debate has hardly started.

The rise of full cost funding as an issue reflects much wider trends in university finance. Once upon a time, the financing of university research was relatively simple. Publicly funded institutions were given a large element of research funding as part of their core funding. This was allocated amongst departments (sometimes through a deliberate formula, sometimes not) and spent. There was little need to account for the money as distinct from other activities such as teaching, and even less need to evaluate which departments or individuals had made the most effective use of it.

This situation has changed for two main reasons. First, because competition between universities has become intense. That core funding that is now available from government is allocated on a competitive basis, a process which requires external assessment and internal discipline in resource allocation. Second, the proportion of research funding from 'core' sources is itself declining. In many countries, the past 20 years have been characterised by the growth of individually negotiated, competitive projects for a range of external bodies. If these are not costed correctly, the university will not only fail to reach its potential, but incur a significant loss.

In the United Kingdom, attempts to define what constitutes the full economic cost of research are well established, with the support not only of university

authorities, but their funders in government, who are anxious to ensure that public funds are not diverted to subsidise external research projects. This year has seen a major breakthrough with the establishment of a new model, endorsed by the Higher Education Funding Council, and the agreement that even projects supported by the Research Councils will be funded on the basis of 80 per cent of full economic cost. Other countries are moving in the same direction. For example, the Canadian government has provided earmarked funding to cover the indirect costs of government funded research since 2001, and in 2005 it proposed CAD1.2 billion over the next five years to an Indirect Cost programme for bringing funding for research overheads incurred by institutions gradually up to 40 per cent of direct costs. (Department of Finance, Canada 2005)

At first sight, the case for such mechanisms seems unanswerable. All universities seek to make the best use of their resources. Undercharging for their services clearly represents an obstacle to this aim. To the private sector, it might also represent an unfair subsidy to publicly funded universities. For those with limited resources, the problem can be particularly acute. Cliff Studman, formally of the University of Botswana, argues that understanding costs is critical from the start:

"The University was successful in expanding research, it was evident that without suitable cost models, the growth in research would prove very difficult to maintain and expand. The Botswana Government did not see the University as a key research provider, and so funded the teaching component with only limited research support. Industry assumed University research would be provided almost free, and academics thought they should be funded as a right (by Government) to spend as much as half their time on research."

Why, then, has the topic been so controversial? The barriers to full cost funding can be divided into three categories – problems of definition, overcoming opposition from funders, and what might be termed 'market forces'. Added to this can be examples of 'academic resistance' where the primary investigator may feel greater affinity with the sponsor than with his/her employing institution.

To calculate their 'full' cost, universities need both to establish their 'research overheads' and the real cost of staff time. The former depends on sophisticated models to divide the cost of central services – for example premises, support services and even the Vice Chancellor's Office. It also depends on a clear definition of what constitutes a 'research cost' – as opposed to, for example, expenditure entirely attributable to the teaching function. Full cost also needs to embrace the time of core staff working on a project, as well any staff specifically recruited for the work. Keeping records of hours spent on various activities does not always fit well with academic priorities. Many funders will require such calculations to be auditable.

Faced with these complexities, universities sometimes tend to look for an easy option. For many years, the European Commission has offered a widely accepted compromise of supporting the marginal cost of the research plus 20 per cent as an alternative to universities unable to calculate their full cost. As funding becomes more global, the problem is extending to other countries. The untying of aid in the UK, for example, has opened up development research projects to groups worldwide. According to the Economic and Social Research Council's (ESRC) Steve Morgan, who manages one such scheme jointly with the UK Department for International Development (DFID), this has caused much confusion: "Many potential applicants are worried about the idea of 80 per cent of full cost funding, although in many cases, the system is much more generous than the 100 per cent marginal



with which they are used to operating”.

Other funding bodies are opposed to full cost funding in principle. Government funders in some countries argue that much of the infrastructure that makes up institutional overheads has already been paid for from public funds. To meet the full economic cost of university projects, they argue, would be to pay twice. Often those agencies that use university research services take a different view on this to those responsible for core funding of the system. Less credibly, commercial funders sometimes argue that they too fund universities through taxation, and should not be expected to pay again for some specific work. Some charitable funders argue that it is not their role to fund costs that should be met by government, or that their endowment terms forbid them to do so.

Then there is the argument that the cost of university research services should be subject to market forces, in the same ways as any other product. Universities will undertake work at below full cost for many reasons – to fit their wider objectives, to gain wider credit from government or to meet the career aspirations of individual academics. In these circumstances, academics can often combine with funders

The rise of full cost funding as an issue reflects much wider trends in university finance.

against institutional managers to keep prices low.

Faced with such obstacles, what steps are open to a developing country university, with little tradition of full cost funding, a small base of external funders and relatively little bargaining power? As a starting point, we can suggest the following:

- Be aware of your costs – even if funding bodies will not always pay them, full cost calculations can be useful in negotiation, for example in intellectual property rights;
- Begin with something very simple. As Cliff Studman points out, an initial ball-park figure could be reached by first estimating how much the university spends on overheads by subtracting its annual salary costs from its annual operating budget. For example, within an annual operating budget of USD1 million, if USD400,000 is spent on staff costs the university is spending 1.5 times

as much again on other costs. Therefore the total cost of a project could be estimated as staffing costs (in terms of hours spent on the project) plus 1.5 times these costs plus any other direct costs. Once everyone begins to realise that research costs universities time and money, it becomes a matter of refining the calculation;

- Establish a framework for deciding which research projects you wish to support through joint funding, and why;
- Be aware of current practice – some funding bodies will pay higher costs in some cases than others;
- Keep records – make sure that the price and cost recovered for each project is recorded.

The experience of the US, the UK and Europe is that the road to full cost recovery is a long one. Getting the internal mechanisms in place, however, represents a vital starting point. **RG**

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Applying pre-award **good practice statements**

In the February 2005 issue of *Research Global*, we reported on the development of 44 statements of good practice for pre-award research management. These were developed as an outcome of an international project, managed by the Association of Commonwealth Universities (ACU) and sponsored by the Higher Education Funding Council for England (HEFCE). In this article, **Paul Burnett** tests the applicability of the statements.

This analysis is based on interviews with four universities that did not take part in the initial benchmarking exercise. Institution 1 can be described as a Regional US University, Institution 2 as a Metropolitan University, also in the United States. Institution 3 is a regional Irish university, and Institution 4 is a regional university in Australia. Findings are grouped under the same headings as the 44 good practice statements.¹

Development of internal research strategy

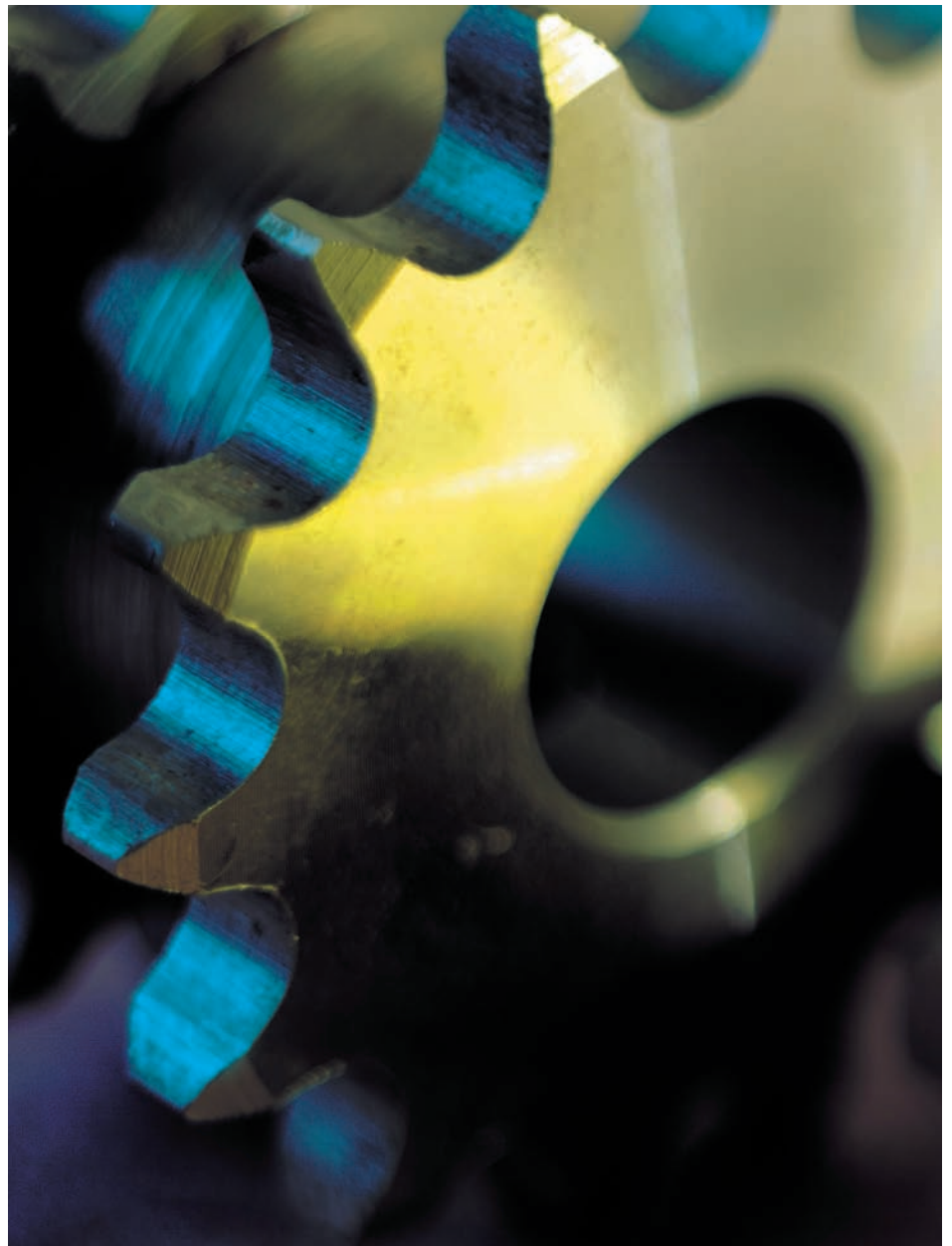
All of the institutions operated within a strategic framework. In three cases, this took the form of a clear research strategy. In Institution 2, there was no specific Research Strategic Plan, but a general approach that was transparent and widely owned. Institutions were generally confident about the communication of their Plans, and felt that they were at least partially linked to internal funding mechanisms.

Institution 4 claimed to meet all 13 of the good practice statements in this area. Institute 1 met ten; the exceptions being that the research management office had no involvement in developing the plan, that further refinement was needed regarding the communication and monitoring of the strategy and that no external peer review of research activity took place. Institution 3 met 11 of the 13, citing lack of external review and a limited relationship between the strategy and internal funding. There were also doubts regarding the extent to which the strategy was consistent with individual school and faculty policies. The general appropriateness of external research evaluation was questioned by at least one

institution, in view of availability of other performance indicators such as research income, publications and national visibility.

Retention and support for research staff

Institutions again reported widespread conformance with the ten good practice statements in this area, which focus on effective communication appropriate induction and relevant professional career development for academic and research staff. Institution 3 met all ten, at least in part, Institutions 1 and 2 met eight of the



ten and Institution 4 met 'most'. All had some formal training opportunities in place, often as part of a central Professional Development and Training programme, which extended both to academic researchers and research administrators. Several referred to the induction programmes as having an important role, and one mentioned that a mentoring system operated within academic departments.

As with the institutions in the initial benchmarking project, it appeared that much of the activity was concentrated on new or 'emerging' research staff, and at least one institution was looking to broaden out provision to other groups. The other good practice statement that received a mixed response was the suggestion that incentives should be in place for academic research activity. Institution 2 argued that meaningful incentives were not realistic due to heavy union involvement.

External promotion of University research capacity

All of the institutions were active in the area of external promotion, with particular emphasis on informing staff of funding opportunities, and all had clear mechanisms in place, with some producing special newsletters for the purpose. In one case, a system of coordinators had been established in individual faculties to help. One university expressed a concern that, although basic funding information was disseminated, more could be done regarding the strategic direction of funders, which was often needed to understand the thinking behind individual proposals.

Areas where provision was more mixed included the availability of searchable databases of institutional research capacity; two institutions did not have this in place, and most had no facility to make previously successful applications available for staff seeking funding. One institution did not have an established mechanism for handling external enquiries, whilst most did not systematically use potential contacts such as alumni who could be useful in generating income. As with the wider study, however, it is likely that the research office

may be only one of several parts of the institution with an interest in such activity, operating alongside Public Relations, Marketing and Alumni offices.

Submission and authorisation of externally funded work

This was the area in which most variation was displayed between the four institutions, perhaps reflecting in part the national systems in which they operate. Whereas Institution 4 met all of the 12 good practice statements, others reported that they met eight or nine only.

In the case of Institution 1, areas of divergence included the lack of a systematic review mechanism through which proposals could benefit from the views of experienced researchers; such reviews were encouraged, but could not be required by

The Research Management Benchmarking Project appears to have developed a series of statements that are widely regarded as having applicability and utility.

the central research office. In a related area, Institution 2 reported that it had no systematic mechanism to use information gained from past applications in advising current applicants. Some institutions also questioned the extent to which they could ensure that proposals were consistent with wider institutional research strategies. Whilst such strategies were widely communicated, departments and faculties did not always abide by them and, in any event, new research priorities would emerge from time to time.

A major area of divergence was in the area of costing. Three out of the four institutions did not routinely calculate the full economic cost (as opposed to the price being charged) of proposals being sub-

mitted, and at least two did not claim to have a robust mechanism for defining such costs. This suggests that, although universities are generally moving towards higher rates of cost recovery, the particular needs in this area are determined by national systems. Institution 4, by contrast, reported that it met all of the 12 criteria in this section.

Summary

All of the research managers and research leaders spoken with as a part of this exercise believed that the listing of best practices for pre-award research management was appropriate and useful and all were very positive about them. Nearly all of the criteria were deemed appropriate although some were a little ambiguous, others were double-barrelled and a few were deemed not applicable. For example, all four of the universities commented that having all proposed research consistent with the institution's overall research strategy was not applicable given that academic freedom ensures that all quality proposals should be submitted irrespective of whether or not they fit with the Universities' strategic directions or focused areas of research strength.

Future research

The Research Management Benchmarking Project appears to have developed a series of statements that are widely regarded as having applicability and utility. Since the pre-award statements were reported, these have been joined by a set of post-award statements, reported in Issue 11 of *Research Global*, making a total of 87 good practice statements. The next step in the process should be to conduct a larger scale study that would investigate the applicability and implementation of all pre and post award best practice statements in a range of universities, and the ACU welcomes expressions of interest from institutions willing to take part in such an exercise. **RG**

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¹ The good practice statements can be found in Issue 9 of *Research Global*, pp 14-15, which can be accessed at www.acu.ac.uk/resman.

International round up

Annual Conference & Annual General Meeting of the Southern African Research and Innovation Management Association (SARIMA)

Building industry-higher education-government partnerships as the engine for innovation for regional development

10-12 May 2006, The Innovation Hub, Pretoria, South Africa

Proposed themes:

- Technological entrepreneurship and radical innovation
- Research development
- Management of innovation
- Technology transfer and commercialisation of university technology in Africa
- Social networks and entrepreneurship for poverty alleviation
- Best practice in research and innovation management systems

The SARIMA Annual Conference will address the importance of building research and innovation relationships and partnerships between industry, higher education and governments. It also plans

to identify additional sources of financial support for the continued development of Technological Entrepreneurship, specifically in the broader African context, as a potential means of wealth creation and poverty alleviation. To do this effectively will require 'buy-in' from a number of African countries, and collaboration between higher education, governments and industry/ business.

Workshops

The SARIMA Annual Conference intends to combine with UNESCO's 2nd African



Photo courtesy of The Innovation Hub

Workshop on Technological Entrepreneurship, aiming to expand on the objectives as envisaged in the 1st African Workshop on Technological Entrepreneurship, to identify specific research topics and agendas for the African regions, and to try and link these

to the African Renaissance and New Partnership for Africa's Development (NEPAD) agendas. Another proposed capacity building workshop will also be linked to the conference.

For any enquiries, please contact Shirley van Niekerk at sarima@sarima.co.za

New research management society in Denmark

Research managers and administrators in Denmark have never had their own national, professional society, writes John Westensee. Research management and administration is not yet seen as a profession in its own right. For a number of years, there has been an informal group which has met to discuss research management and administration in relation to EU projects, but now the time has come to move on and do something for this emerging profession in Denmark. There is now a critical mass of good, experienced research administrators, who need to develop proper research support offices in their institutions. Pre and post award issues for all types of projects – not only EU projects – need to be dealt with more professionally. We need to promote this idea in our institutions, as senior management in universities are now realising that we need to do something. For this reason, a kick-off meeting to establish a Danish society will be held in Copenhagen on 29-30 May 2006.

On the first day, the meeting will focus on institutional issues in the morning. We



Photo courtesy of Lizzie Huckle

hope to attract senior management from universities to participate in this discussion so that we can convince them to establish and fund proper research support offices. We will discuss institutional research strategies, and how to implement them and support them with professional management. After that, we will deal with the profession of research management and administration and discuss the body of knowledge. The rest of day one will be spent on issues like collecting, managing and distributing information, handling of intellectual property rights, technology transfer, and branding of research (strat-

egies for attracting researchers and funding, institutional marketing and international positioning).

On day two, we will start discussing ways to implement the body of knowledge in an institution and look at examples of how to organise research support offices, set priorities and define approaches. Then we will discuss the body of knowledge with a focus on its global applicability and identify needs for professional development. Finally, we will look at trends in research management (what is the situation in the US and the UK, for example), and we will look at US funding for non-US institutions. The meeting will finish off with looking at information sources for research administrators available now and then we will hopefully agree to set up the Danish Association of Research Managers and Administrators (DARMA) formally.

We expect Bill Schweri from SRA International and Ian Carter from ARMA to be guest speakers at this event, which has already attracted a lot of interest at the Danish universities.

For further information, please contact John Westensee at jwest@as.aaa.dk.

ARMA holds first meeting of Senior Managers

The Senior Managers' Course held at Scarman House, Warwick 16-18 January 2006 was the first ARMA Workshop for senior managers but one which ARMA hopes will become a regular feature of their calendar of events in future.

It was aimed at both administrative and academic Research Managers in, or aspiring to, senior positions, the objective being to help participants understand how different areas of activity and policy relate to each other.

The event began with an optional day focusing on management and leadership skills, including leadership styles, influencing skills, delegation and managing performance, followed by an intensive two-day course centring on the production and presentation of a research strategy and implementation plan for a mythical higher education institution. Sessions included a mixture of formal presentations, discussions and group activities. The course team included Dr Ian Carter, Director of Research at the University of Liverpool and Stuart Palmer, Deputy Vice Chancellor, University of Warwick.

The International Network of Research Management Societies (INORMS) Congress 2006

The internationalisation of research: Challenges and opportunities for research leaders and managers

22-25 August 2006, Brisbane, Queensland, Australia



As the countdown for the inaugural international congress begins for the New Year, delegates can be assured of an excellent line up of eminent speakers from around the globe – see the updated Congress Program for a full list of confirmed speakers to date at www.inorms2006.com/program.html.

The four day event commences on Tuesday 22 August 2006 with the following 'nuts and bolts' workshops:

- *The Anatomy of a Successful Research Project*
- *International Perspectives on Ethics – Agency Expectations and Institutional Responses*
- *Funding Opportunities for International Collaboration*

The workshops are followed by three days of plenary and breakout sessions involving more than thirty world experts in the area of research leadership and management across all sectors – universities, research organisations and centres, hospitals, funding bodies, industry and regulatory agencies.

One of the most important issues for

this exciting and unique event is the ability to progress the outcomes and to build on the good intentions and objectives of the International Network of Research Management Societies (INORMS). In this regard, organisers depend to a large extent on reasonable levels of sponsorship, and it is essential that all of our sister Societies contribute to this event and any subsequent events in the name of INORMS. To this end, each member society has been invited to commit a level of sponsorship to support the current Congress and to commit in principle support for any subsequent congress on behalf of and endorsed by INORMS.

You are encouraged to attend the meeting and lend your support for Society sponsorship.

For more news of progress, please contact the official conference organisers, Hoteliers International on inorms@hoteliersint.com, or to register your interest, see www.inorms2006.com/register.html

INORMS Congress bursaries

The GRMN is keen to ensure maximum participation from developing countries in the 2006 INORMS Congress, and will be staging a one-day session on the theme of research management for new and emerging research institutions.

In addition, the ACU is pleased to offer a number of bursaries for delegates from developing countries to attend the conference. The bursaries will cover registration fees and five days accommodation, but participants will be responsible for their own international travel.

Papers are still being welcomed on all aspects of research management, but we are particularly interested in abstracts of papers that give examples of implementing successful research management in developing countries. Your paper should justify why the implementation is a success and give the reasons why it succeeded. You should also describe the obstacles you faced, how they were overcome, and any remaining challenges. Those individuals who have already expressed interest following the last issue of *Research Global* will automatically be considered.

It is not necessary to propose a paper in order to apply for a bursary, but preference will be given to potential presenters. To propose a paper and/or apply for a bursary, please submit materials electronically to Rachel Day by 30 April 2006 at resman@acu.ac.uk. Abstracts should not exceed 500 words. If you are not proposing an abstract, please include a statement of up to 200 words on why the conference themes are relevant to your future work. Please note that the bursaries are only available to staff employed at ACU member universities. **RG**

SRA International Chapter Development

SRA is currently working with African Research Administrators to organise a SRA International Africa Chapter. We appreciate any input that Global Research Management Network members can provide to the organisers. Please contact Christine Banning, University of Ghana, at cabaning@ug.edu.gh or Isdore Husayihwevu, University of Zimbabwe at isdore@uz-ucsf.co.zw to become involved in this exciting endeavour!

Meeting diary

5 – 7 April 2006

Association for University Research and Industry Links (AURIL)

Spring Conference

Thistle Hotel in Brighton, UK

For further details contact Katy Fleming on k.fleming@qub.ac.uk or see www.auril.org.uk

22 – 25 April 2006

SRA International

Midwest Section Meeting*

Detroit, Michigan, USA

6 – 10 May

SRA International

Western Section Meeting*

Portland, Oregon, USA

10 – 12 May 2006

SARIMA Annual Conference

See page 14

25 – 26 May 2006

Association of Research Managers and Administrators (ARMA)

Spring Conference – Joining the dots: research management across organisations

Carlton Hotel, Edinburgh, UK

For further details see www.arma.ac.uk

29 – 30 May 2006

Meeting to establish Danish Research Management Society *See page 14*

3 – 7 June 2006

SRA International

Northeast & Southern Sections*

Joint Meeting

Charleston, South Carolina, USA

15 – 16 June 2006

European Association of Research Managers and Administrators

(EARMA) Annual Conference

Hémicycle du Conseil Régional

d'Ile-de-France, Paris, France

For further details see www.earma.org

14 – 18 October 2006

SRA International Annual Meeting*

Quebec City, Canada

* For further details see www.srainternational.org

Conflict of Interest in

Conflicts of interest are becoming increasingly common in the research process due to more and varied collaborations. Here, **George Turnbull** and **John Chinn** discuss how to identify and resolve these.

Collaboration between different organisational entities in their pursuit of research has become increasingly frequent and complex. Research universities and start-up companies team with each other to seek grant funds for the development of new technologies and processes, but usually with significantly divergent interests. Government entities want to develop better means for fulfilling their missions in many different fields, from advanced communications to vaccines and pharmaceuticals. Corporations are interested in new processes that will provide a financial advantage, and small start-up companies are seeking a niche that will allow them to prosper and grow. Universities are concerned with the conduct of unbiased academic research that will contribute to the general body of knowledge. Even if the ultimate goal might appear to be shared on a particular project, the differing missions underlying the collaboration will require entity specific processes for management of Conflicts of Interest (COI).

The first step in managing COI in research is to identify the conflict, and that is very dependent on the good faith and understanding of COI principles by the parties who have conflicts to disclose. Many conflicts are not readily apparent to administrators in the research process, as it can be very difficult to bring all the pertinent information together at the same time. For example, a researcher employed by a government granting agency as their principal investigator for a particular project, might also have been previously

employed by a university, still have an adjunct appointment there, and so be technically eligible to also be the principal investigator on that project for the university. While unacceptable, this situation would be very difficult to discover through an examination of the agency or university records, with the result that the researcher's integrity and loyalty can be questioned.

Similarly, many situations arise where faculty members are involved with small start-up corporations that will operate within the same areas of research the university is pursuing. In such situations it only makes sense for the university and the start up company to collaborate for their mutual interests. If, however, the faculty member has equity or options for equity in the start up company, or is employed by a company, there would be serious questions pertaining to the divided loyalties, and whether the research could be influenced thereby. Again, the relationships can be difficult to discover in the absence of a disclosure by the faculty member. Because of this situation, one of the most important responsibilities for those involved in the administration related to COI is the dissemination of information about COI to those who are potentially involved.

Institutional COI can be even more elusive. Universities usually expect to have licensing agreements to protect their interests in the technology that is expected to result from collaborations with companies (whether small start-ups or established corporations). It is not unusual for a university to take some equity in a start-up, since it would not be unusual for a

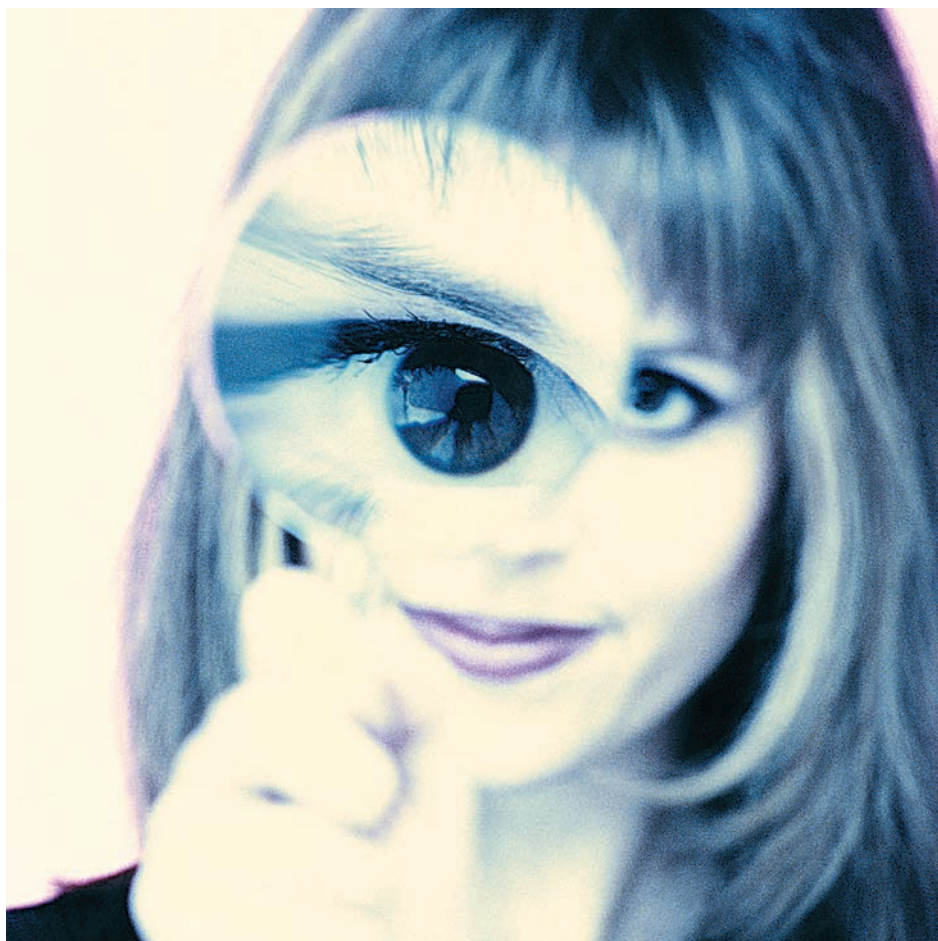
...while the ultimate goal might appear to be shared on a particular project, the differing missions underlying the collaboration will require entity specific processes for management of Conflicts of Interest (COI)

Research

start-up to lack the cash to pay for licenses, and offer stock instead. In such instances, the University can find itself in the role of venture capitalist. COI issues can easily result from these relationships, since it could be suggested that the possibility of financial gain could influence the university's decisions concerning the path of the research, or the resources applied. Identification of institutional conflicts is usually a matter for the university's COI committee and its governing body.

Once a perceived or potential COI has been identified and disclosed, the next step is to determine what must be done to mitigate or manage it. One choice would be to simply eliminate it by removing any individuals from the project who might have a conflict. Unfortunately, this is often impractical because the loss of key expertise would usually be so great as to seriously hamper the conduct of the research. Another solution is the introduction of third parties into the project who do not have an involvement with the business or agency in question, and who do not report to the individual with the conflict. In the situation where the investigator has an equity or employment interest in a company or agency that is collaborating in the research, another faculty member with no connections to the collaborator would be appointed as Principal Investigator or Co-Principal Investigator to ensure that the conduct of the project is continued in an un-conflicted path. A similar solution applies where students are involved. When a student is advised by a faculty member who has an interest in a company, and the student expects to work as an intern for that company, the potential conflict between employment and advisement can be resolved by appointing another advisor and being careful that the student's educational agenda is not compromised.

The resolution of institutional COI is similar in nature, but it is important to note that to help the institution judge itself, some members of the institutional COI committee should come from the



Once a perceived or potential COI has been identified and disclosed, the next step is to determine what must be done to mitigate or manage it.

community outside the institution. This is especially important for universities that are required by law or procedure to avoid not only an actual conflict, but even the mere appearance of a COI. This may seem extreme, but it must be taken into consideration that when a particular issue is publicly reported in a newspaper, it will most likely be reported sensationally, without an explanation of the legal issues involved or the steps that have been taken to manage the conflict. The average reader would not have the expertise to compensate accordingly. Even where the integrity of the research has been carefully protected, a general perception to the contrary could have serious repercussions on future research activities and the reputation of the institution.

The final step is to monitor each instance for compliance with specified decisions and to review the effectiveness of the management plans. Changes to the man-

agement plans should be made to address any loopholes or unforeseen events. This activity will usually require an investment in record-keeping, but can also provide very useful information about the nature and extent of the COI activities requiring action for a given institution. As a result, management plans can be developed and improved, situations can be more readily identified and more expeditiously handled, and an element of predictability can be introduced into the process. **RG**

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John Chinn is Compliance Officer at Carnegie Mellon University.
Email: jwchinn@andrew.cmu.edu

Working with international donors: Possibilities and pitfalls

When it comes to seeking funding from international donors, complications can arise in the area of compliance. **John Westensee** provides insight into the implementation and monitoring of policies, procedures and controls.

On 17 November 2005, the front page article in *Research Europe* was headlined “Speaking American”. It is an all too familiar story about an institution that just carries on doing business as usual without checking the specific rules for a project funded by an international donor. It is also a story about how one small detail in this process can escalate into a big problem.

Gothenburg University in Sweden receives funding for ten projects worth EUR3 million from the National Institutes of Health (NIH) in the US. In order to receive NIH grants, the institution needs to have a Federalwide Assurance (FWA), which basically states which recognised Institutional Review Board (IRB) examines the ethics of research proposals and which rules and regulations are to be followed. On the surface, the form is very easy to fill in and acceptance is easy to obtain. The tricky part is that by filling in the form, you certify that you are in compliance with many different rules and regulations. When submitting proposals, you may be caught up in the practical details, and it is not uncommon to simply fill in such a form with the intention to have a look at the details when there is more time. Somehow, however, you never seem to get the time to do it.

In this case, closer scrutiny of the details would have shown that the role of the IRB differs between the US and Sweden. In Sweden, the IRB approves a project at the application stage and it does not perform regular oversight during the project period, if the project runs according to plan. This is done according to national law. In the US however, the IRB has to review the research at least once a year. This creates a

kind of ‘catch 22’ situation: the Swedish university has to comply with national law, and according to national law the IRB only performs its review once. The IRB is not obliged to comply with US rules. The US funder on the other hand states that their rules apply for US money and they do not accept national laws in other countries that are not as stringent as in the US. So who is right? For sure, the university is caught in the middle when its ten grants have been suspended until the issue with the FWA has been resolved.

It would be quite easy to draw up a list of similar cases, especially in relation to US federal and EU Commission funding. These funders are mentioned as they are large scale funders and therefore can offer a picture of where we are headed when dealing with external grants in the future.

In terms of the area of external funding for research projects, conditions have changed dramatically over the last 20-30 years. Just the last ten years have seen big changes. The level of detail and control has increased dramatically. It has now become

The level of detail and control has increased dramatically. It has now become more and more difficult for an individual researcher just to write a simple five-page project description and get any significant funding that way.

more and more difficult for an individual researcher just to write a simple five-page project description and get any significant funding that way. Similarly, it is almost impossible for a single researcher to manage a project since you now need extensive administrative expertise when dealing with the rules and regulations in big projects. This is the reason why problems started in Gothenburg University; the researchers tried to resolve the issues themselves instead of using the proper administrative expertise.

The biggest problem is that many institutions in reality do not have the necessary administrative expertise at hand to deal with many of these complex issues. In the US and the UK, however, many universities have set up research support offices (or sponsored programmes offices) to deal with these issues. In many other countries, universities are now realising that they need to upgrade the administrative side as in the US and UK and are now setting up offices with the specific task of supporting the research area in all phases (proposals, administration, dissemination and exploitation). A research intensive university needs offices like the above to deal with these issues professionally, and there is a huge need for information sharing, best practice, further and continuing education. The idea is to recognise research administration as a profession; these offices now need a whole arsenal of expertise and knowledge. To help achieve this, the Society of Research Administrators International (SRA International) has ventured to define a ‘body of knowledge’ on their homepage at www.srainternational.org. It is very much focused on American issues but is an excellent starting point for discussions between the research administration societies on how to define a global body of knowledge.

Going back to the problem at Gothenburg University, the lesson to be learned must be that you approach a new funder



like the NIH professionally and with your eyes open. It is not enough to assume that it is just 'business as usual'. In this case, it would be helpful to have a look at the relevant section of the abovementioned body of knowledge to give you an idea of what to prepare for. Examples of issues to deal with could be:

A Compliance & Assurances

1. Overview of Federal Regulatory Compliance
2. Establishment and Management of Compliance Programs

B Project Integrity

1. Promotion of Responsible Conduct in Research
2. Conflict of Interest
3. Research Misconduct
4. Protection of Human Subjects
5. Humane Care and Use of Animals
6. Biohazards and Radiation Safety
7. Representations and Certifications

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These are just examples of which policies, procedures and controls the university should introduce, and the research

support office is an essential unit in this respect. It is not enough to simply write down a policy. It must also be implemented and updated, and implementation should be monitored in order to make sure that the right people are trained and the proper procedures are used. Most institutions have policies addressing these issues, but I think in many cases there is no active follow-up or monitoring being performed by the institution, and instead researchers are relied upon to 'do the right thing'. This approach is not enough; you can easily imagine the reaction if somebody from management or administration were to bother the researcher with an educational programme and control mechanisms in these areas.

Yet, in my mind there is no way of

avoiding this situation, and I do not think we should try to avoid it. It is a healthy sign that you address these issues in a professional and structured way, and a sign of responsibility that helps you keep the public trust in your institution. In order to achieve this, you need to invest a tremendous amount of time integrating these practices into everyday business at all levels – it is not just the responsibility of a certain office. It has to be supported from the top-level management down to others in the organisation.

Finally, when actually dealing with the NIH, you should access their homepage at www.nih.gov to get all relevant information. Information on protection of human subjects can be found at www.hhs.gov/ohrp and www.nihtraining.com/ohrsite. **RG**



John Westensee is Head of Research Support at Aarhus University Hospital in Aarhus, Denmark. Email: jwest@as.aaa.dk. Watch for his upcoming book directed toward new researchers with practical advice on how to carry out research projects and the search for external funding, due out in December 2006.

Recent publications

ACU Librarian, **Nick Mulhern**, summarises.

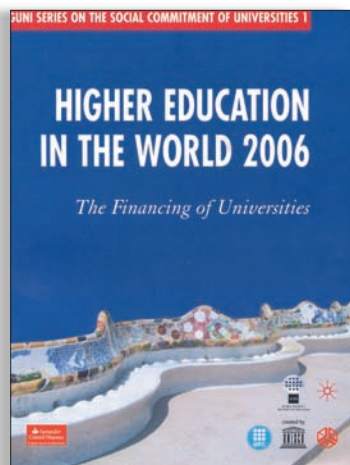
International

Higher Education in the World: The Financing of Universities

is the first in a new series of annual reports prepared by the Global University Network for Innovation (GUNI), which as a group has as its aims innovation and social commitment within the HE sector. This annual analysis is intended as a contribution to “putting

higher education at centre stage of development policy making”. University financing, this year’s theme, is interpreted in relation to global trends but also specific regions (eg Sub-Saharan Africa, Asia, Latin America). A series of contributed papers examines current funding practice and possible recommendations, particularly with the development of private HE and changes in public expenditure on tertiary education. Detailed statistics and bibliographies are included for each study, as well as in concluding appendices. As an inclusive and comparative analysis it could be particularly useful for providing a context for studying the varying dependence on external funding. [Palgrave, 2005, Global University Network for Innovation (GUNI) Series on the Social Commitment of Universities, GUNI, 0-230-00046-0 (www.palgrave.co.uk/reference)]

Towards Knowledge Societies is the first report in a new UNESCO series incorporating analysis of developments to which new technologies, and specifically the effects of the internet, have contributed. It argues for the value of ‘shared knowledge’ as the ‘cornerstone of true knowledge societies’ and the source of sustainable development. Innovation, lifelong education, and ‘e-learning’ are some of the contexts reviewed. In relation to R&D, it



considers the ‘scientific divide’ based not simply on economics but the development of integrated, supportive structures. The report also includes a series of policy proposals and a useful bibliography. [UNESCO World Report series, UNESCO, 2005, 92-3-104000-6 (www.unesco.org/publications)]

The *UNESCO Science Report*, last issued in 1998, examines the current state of science worldwide. Organised by chapter to focus on how R&D is being carried out in a given region or country, the report also includes essays on emerging trends in research priorities, and figures and tables to illustrate the effects of contemporary issues on science. [UNESCO Reference Works Series, UNESCO, 2005, 92-3-103967-9 (www.unesco.org/publications)]

North America

Creating Knowledge, Strengthening Nations: The Changing Role of Higher Education

is a collection of essays which examines “how universities contribute to economic growth and entrepreneurialism while also contributing to strategic societal goals of equity and redistributive justice”. It reviews the perceived function of the university in different countries and traditions. Contributors include Scott, Egron-Polak, Duderstadt and Subotzky among others. [Jones, G.; McCarney, P.; Skolnik, M., 2005, University of Toronto Press, 0-8020-3856-5 (www.utpress.utoronto.ca)]

Momentum: The 2005 Report on University Research and Knowledge Transfer

has significance as the “first periodic public report by Association of Universities and Colleges of Canada (AUCC) on the collective efforts of universities with respect to research and knowledge transfer”. An introductory chapter provides a historical context, with an outline of how R&D in Canada has been developed, structured, located and above all funded. The expansion of higher education’s role in this process is demonstrated: “A key development in Canadian R&D investments over the last 10 years, and one that will influence the country’s R&D policy in the years ahead, is the growing demand across all sectors for university research. As of 2004, universities performed fully 38% of all research in Canada”. The AUCC’s analysis recognises the improvement in research infrastructure and HE collaboration which has been enabled through initiatives such as the Canadian Foundation for Innovation (CFI), and reviews the planned targets for commercialisation performance – particularly with reference to international indicators. The report’s central focus, however, is the direct impact on and benefit to Canada of university R&D, whether in general achievements or specific products and values (affecting the economy, health, the environment, quality of life, etc.). As such the report is presented both as a way of communicating what has been achieved and as a means to promote discussion as to what “types and levels of investments are required in the years to come”. [Association of Universities and Colleges of Canada, 0-88876-231-3, 2005 (www.aucc.ca)]

Partnerships for Smart Growth: University-Community Collaboration for Better Public Places

incorporates several US-based case studies reviewing effective university partnerships, particularly in relation to local commu-

ities and their projects. A variety of contexts are considered: urban, suburban and rural. [Wiewel, W.; Knaap, G-J, 2005, M.E.Sharpe, 0-7656-1559-2 (www.mesharpe.com)]

Africa

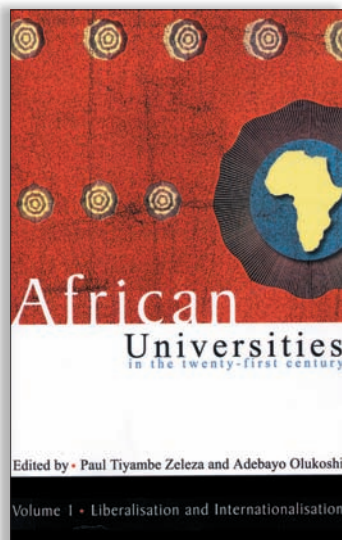
African Universities in the Twenty-First Century

includes a varied collection of papers, many of which were originally prepared for an innovative dual-centre conference (Champaign & Dakar, 4/02), as well as one overview study (University-Industry Relations in Nigeria) that references HE/industry models from Australia, Canada & the UK.

[Zezeza, P; Olukoshi, A., 2004, (Vol. 1: Liberalisation and Internationalisation; Vol. 2: Knowledge and Society), Council for the Development of Social Science Research, 2-86978-124-5; 2-86978-125-3 (www.codesria.org)]

African Universities, the Private Sector and Civil Society: Forging Partnerships for Development

consists of several relevant papers on HE and industry partnerships by contributors from Ghana, Ethiopia and the UK. [Benneh, G. (ed), 2004, (Proceedings Of The First Conference Of The Regional Council Of The International Association Of University Presidents, Accra, Ghana, June 9-11, 1999), Ghana Universities Press, 9964-3-0305-X]



Europe

Universities and the Europe of Knowledge: Ideas, Institutions and Policy Entrepreneurship in European Union Higher Education 1955-2005

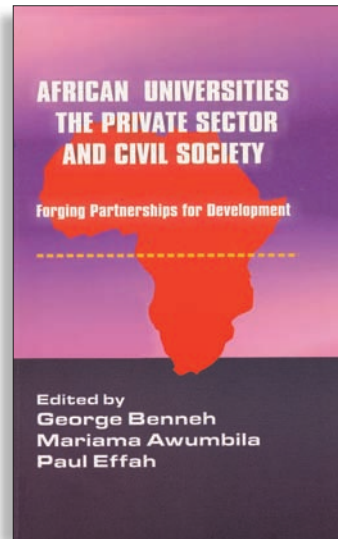
is a study of EU policy in relation to HE. [Corbett, A., 2005, Palgrave Macmillan, 1-4039-3245-X (www.palgrave.co.uk)]

Higher Education: Meeting International Business Demand

reviews the competitiveness of UK HE, while concentrating on R&D in the international market. [Council for Industry & Higher Education, 2005, 1-874223-55-6 (www.cihe-uk.com)]

Working Partnerships in Higher Education, Industry and Innovation: Financial or Intellectual Imperatives

maps research links and practice in South Africa between HE and industry in specific contexts: ICT, biotechnology, and new materials development. It analyses the forms and patterns of partnership which exist, including entrepreneurial and 'network' types, and shows how partnerships have developed in distinctive institutional settings, and the government's role in promoting such research links. The publication is very useful given its detail and its recognition of diverse practice: "The study shows that there is no blueprint, and that apparent 'success' stories in South Africa



are shaped by each institution's context and research culture".

[Krauss, G., 2005, Human Sciences Research Council of South Africa Press, 0-7969-2108-3 (www.hsrapress.ac.za) (www.hsrapress.ac.za)]

Statistics

Education Trends in Perspective: Analysis of the World Education Indicators

is the fourth in a series from the World Education Indicators (WEI) programme analysing indicators on key education policy issues. This latest issue focuses on trends between 1995 and 2003, examining the factors which affected different national outcomes. Principally concentrated on participation levels, it is also useful in a more general context for its comparison of trends in resources invested in education in some 19 WEI countries.

[Organisation for Economic and Co-operation and Development/UNESCO, 2005, 92-9189-024-3 (www.uis.unesco.org)]

Global Education Digest is an annual comparative report covering international education indicators. Made available on the UNESCO Institute for Statistics site, the report covers aspects of HE including enrolment, faculty numbers, graduates, and expenditure. [UNESCO Institute for Statistics (UIS), 2005 (www.uis.unesco.org)]

The Condition of Education 2005 is an annual statistical summary produced by the National Center for Educational Statistics (NCES) – part of the US Department of Education. [National Centre for Educational Statistics, 2005 (www.nces.ed.gov)]

RG

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Sierra Leone opens disease research laboratory

(First published 08/12/05)

A new disease research laboratory has been launched in Sierra Leone, reports *The Concord Times*. The laboratory was unveiled by Daudi Mwakago, UN special representative of the Secretary General, who said the project was a clear result of the UN's commitment to rebuilding Sierra Leone.

The Kenema-based laboratory is intended as a research centre to diagnose diseases like lassa fever, polio and malaria. Abu Koroma, head of the Kenema government hospital, described the facility as a "step towards development in the medical field", with both national and international medical practitioners visiting the hospital for research.

Framework 7 starts low but grows in budget deal

(First published 21/12/05)

The budget deal agreed by EU leaders in Brussels on 17 December will probably mean that Framework 7 starts life with little more money than Framework 6 ended.

At the summit, EU leaders agreed funding of just over EUR72 billion for heading 1a, which contains Framework 7 – a cut of nearly EUR61bn from the Commission's original proposals. It was by far the most heavily cut of the EU's major budgets.

But the leaders did agree that funding for research in 2013 should be around 75 per cent higher than that available in 2006.

And in the coming battle over how to divide budget 1a – which also includes the EU's road building, education and nuclear decommissioning budgets – the leaders insisted "particular priority" be given to research.

Although the total size of Framework 7 is unclear, it is possible to put rough upper and lower limits on its budget. An optimistic scenario would have Framework 7 taking as much as 71 per cent of budget 1a starting in 2007 – giving it a total of around EUR50bn. More conservative assumptions yield a lower figure. Either way, the budget will be much less than the EUR73bn that the Commission asked for.

Janez Potocnik, the Research Commissioner, expressed disappointment at the funding for research, but said no budget deal at all would have been a worse outcome, in a speech on 19th December.

"Clearly, this agreement is not everything we wanted", he said. "The cost of not having an agreement would have been enormous."

He said, "Within the constraints of the lower overall expenditure ceiling – 1.05 per cent of the EU GDP – research therefore receives a fair share, more than would have been the case in earlier scenarios."

Austria takes over the presidency of the EU in January and will set a timetable to take negotiations forward. Discussions will begin early next year with a modified proposal from the Commission for Framework 7 based on the new budget. Commission officials say the end of the process, a vote on the detail of the Framework 7 specific programmes by EU ministers, is not expected until after April.

GM rules will damage South Africa's biotech industry, says Monsanto

(First published 19/01/06)

GM giant Monsanto and South African scientists have warned of the economic and development costs of tightening legislation on GM crops, reports *Business Day*.

The critique comes as the South African parliament began hearings on proposed changes to the Genetically Modified Organisms Act, intended to align the country's policies with the Cartagena Protocol on Biosafety.

The protocol requires scientists to conduct detailed, and potentially costly, risk assessments before exchanging experimental material. Some scientists argue it will only serve to drive up R&D costs and make international collaboration more difficult.

Willie de Greef, a consultant formerly employed by seed company Syngenta, said that "the protocol slows down technology transfer, especially in Africa". A spokesperson from the Agricultural Research Council said that research organisations would find it difficult to comply with the protocol's requirements for moving GM material between countries. According to Monsanto, the proposed changes would damage South Africa's biotech industry.

However, the African Centre for Biosafety and the environmental advocacy group Biowatch said there must be tougher rules regarding research permits and commercialisation licences in order to protect the public. "We do not have any faith in the regulatory process as it now stands," said Mariam Mayet from the African Centre for Biosafety, "Approvals take place like a sausage machine with no clear obligations on industry, while locking the public out of the process."

Biowatch advocacy officer Ardiel Soeker called for the government to assume liability for unintended damage caused by GM crops and asked that food manufacturers be required to label products containing GM ingredients.

South Africa is the only African country growing GM crops on a commercial scale.

Islamic states propose ten-year science plan

(First published 15/12/05)

Senior officials of 57 Islamic states recently endorsed a new ten-year plan to promote science and technology in the Muslim world, reports *SciDev.net*.

The plan is intended to increase R&D in the Islamic world to reduce the technology gap faced by many Muslim states compared with the developed world. Several targets are identified, including a proposal for 30 per cent of students aged 18 to 24 to have the opportunity to go to university by the year 2015. The plan also envisions Muslim countries spending 1.2 per cent of their GDP on R&D by that same year.

According to General Pervez Musharraf, the president of Pakistan, most Islamic countries "remain far removed from the expanding frontiers of knowledge, education, and science and technology". He added that the Muslim world needed to break free from a "stagnation of centuries".

The plan proposes that each member state prepare a national science and technology strategy, establish centres of excellence and reform higher education.

Anwar Nasim, president of the Federation of Asian Biotech Associations, agrees that for Muslim countries "to make any progress, science is crucial".

UK industry wants to increase collaborations with academia

(First published 07/12/05)

A survey from the Confederation of British Industry (CBI) has found businesses want to increase their links with academia, despite rating the success of academic collaborations below industry-industry partnerships.

The CBI looked at 162 companies, 11 universities and some government research institutes. They found more than three quarters of the businesses collaborated with universities on innovation. These partner-

ships were seen by business as some of their least successful – only links with government research institutes were rated lower. In contrast, collaborations with other firms, especially those in the supply chain, were rated much more highly.

However, 88 per cent of the firms said they intended to maintain or increase their links with universities. The most important factors for companies were access to knowledge, specialist skills and ideas. This enthusiasm for collaboration may reflect the importance firms place on innovation. 95 per cent of businesses said they intended to either increase or maintain innovation spending over the next 12 months.

The CBI found companies spend an average 12 per cent of their turnover on innovation (including R&D), six times more than the 2 per cent identified as "research spending" by the DTI's R&D scoreboard. As a result, according to the CBI, government is missing an opportunity to support "large swathes of innovation activity" because it focuses too much on R&D and not enough on broader innovation issues.

"Government expresses strong support for business innovation, but most of it is focused at the R&D technology end," said Digby Jones, CBI director-general. "Service sector innovation may be more difficult to pin down, but as services now account for 70 per cent of the UK economy, government has got to put this sector firmly on its innovation policy radar."

ARC Announces Tougher Funding Rules

(First published 17/01/06)

The Australian Research Council (ARC) is revamp-

ing its funding rules, signaling closer scrutiny of grants in light of fierce competition for research money, reports The Australian newspaper.

Under the new rules for 2006 discovery projects, researchers with grant-winning track records will not be allowed to over-commit themselves and delegate work to others.

Hoj said the ARC would reserve the right to judge whether a lead researcher is well placed to take "significant intellectual responsibility" for any one project.

The ARC rules also put on notice researchers who have a record of failing to deliver on projects. A team involving such a researcher as a chief investigator, for example, may not get a grant. **RG**

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Funding opportunities

In this issue of *Research Global*, COS presents less obvious sources of support open to researchers in universities throughout the world, which are among the more than 22,000 records catalogued in the COS Funding Opportunities database. Each of these opportunities is open to researchers regardless of nationality or location, and they are sponsored by corporate, private, academic or governmental organizations from around the globe.

For full details of one of these opportunities, follow the link to the full COS record, available to all *Research Global* readers.

To learn more about COS and the Funding Opportunities database please contact uk@cos.com.

Michael J. Fox Foundation for Parkinson's Research (MJFF)

Closing date: To be confirmed for 2006 applications.

Details: The Michael J. Fox Foundation for Parkinson's Research (MJFF) has announced the launch of Community Fast Track, a grant programme supported by MJFF and Parkinson's organisations including the Parkinson's Disease Foundation and Parkinson's Unity Walk/The Parkinson Alliance. Under this programme, researchers are invited to submit investigator initiated grant applications to conduct research relevant to the cure, cause, prevention, or improved treatment of Parkinson's disease and its complications. The intent of this programme is to stimulate novel, innovative, or high impact approaches to the field of Parkinson's disease as well as to fill funding gaps missed by more conventional funding sources.

Link: <http://fundingopps.cos.com/rg/80706>

National Fish and Wildlife Foundation (NFWF)

Closing date: January 2006

Details: The National Fish and Wildlife Foundation (NFWF) is accepting proposals for projects that build public/private partnerships to reduce and prevent degradation of coral reefs and associated reef habitats (eg seagrass beds, mangroves, etc). Projects may address causes of coral reef degradation wherever they occur, from coastal watersheds to the reefs and sur-

rounding marine environment. Proposals should support partnerships that provide solutions to specific problems to help prevent coral reef degradation.

Link: <http://fundingopps.cos.com/rg/57242>

Sasakawa Peace Foundation (SPF)

Closing date: Continuous

Details: Sasakawa Peace Foundation (SPF) will support grant schemes and projects in the following areas:

- 1) Toward the Coexistence of Pluralistic Values
- 2) Fostering Human Security and Private Nonprofit Activities
- 3) Japan and Asia in the World

Link: <http://fundingopps.cos.com/rg/48937>

Elsa U. Pardee Foundation

Closing date: Continuous

Details: The Elsa U. Pardee Foundation makes grants for projects related to the cure and control of cancer, and in general does not provide for building funds, equipment (except that used in a specific project), fellowships, or fundraising campaign contributions. The Elsa U. Pardee Foundation particularly welcomes innovative small scale, short term cancer research projects from young or new investigators where they may have difficulty finding funds until some promising results are obtained.

Link: <http://fundingopps.cos.com/rg/3367>

Lupus Research Institute

Closing date: June 2006

Details: The Lupus Research Institute's (LRI) novel grant programme seeks projects that deal with less investigated aspects of lupus erythematosus as well as applications from investigators who may not have previously worked in lupus. Grants are made to support novel research projects that evidence high promise for advancing the understanding of lupus erythematosus. Projects that focus on aspects of the disease that have been less extensively studied and applications from investigators who may not have previously worked in lupus (eg cardiology, nephrology, dermatology, neurology) are especially encouraged.

Link: <http://fundingopps.cos.com/rg/91131>

Reed Foundation

Closing date: Continuous

Details: The Reed Foundation's focus is on the support of programmes in the arts, including dance, music and related libraries, social services, and civil rights. These are carried out primarily through established educational and cultural institutions and occasionally by independent organisations. Programmes addressing both domestic and international civil rights are funded through four university law schools. The arts and literature of the Caribbean Basin, through programmes at a university and a research institute, are of major interest at present. The translation of important works in the Spanish language produced in the Western hemisphere into English is a developing project of the foundation. A project focusing on translation of academic works written in English relating to the arts and culture of Central America is also under consideration.

Link: <http://fundingopps.cos.com/rg/30264>

Abbott Laboratories Fund

Closing date: Continuous

Details: The fund makes contributions to institutions of higher learning that are potential sources of professional, managerial, and technical personnel for the

healthcare industry. The fund generally gives preference to requests for onetime contributions and for programmatic and operating purposes. However, grants extending over a defined period of years or directed toward the support of specific building or other capital projects are considered as exceptions. The fund's contributions are directed to areas in which Abbott has an immediate or long range interest and relevant expertise. Priority is given to organisations that serve Abbott communities; to institutions that provide education or service to present or potential Abbott employees; and to organisations with activities directed toward the support of professions that directly or indirectly provide health care or other services in fields related to Abbott's primary areas of operation, which include basic sciences; clinical and laboratory medicine; and pharmacy, nursing, and nutrition.

Link: <http://fundingopps.cos.com/rg/33565>

Foundation for the Future

Closing date: 30 April 2006

Details: The Foundation for the Future has developed a research grant programme to provide financial support to scholars undertaking research that is directly related to a better understanding of the factors affecting the quality of life for the long term future of humanity. The foundation invites applications in one or more of the following categories:

- 1) Future of Humanity Research Programmes
- 2) International Collaboration on the Future of Humanity

The first category includes all of those fields that may have a significant impact on the quality of human life during the new millenia. Projects in the second category include those that develop international collaboration through cooperative research, or those that enable individuals at smaller institutions to participate in international future of humanity research projects.

Types of grants include:

- 1) New Futures/Special Projects Grants
- 2) Future of Humanity Grants

The first type of grants are seed money grants for new scholars, new projects, and new organisations. The second type consists of funding for established

scholars, significant research projects, and established organisations.

Link: <http://fundingopps.cos.com/rg/43059>

Partners in Research: Micron Technology

Closing date: Continuous

Details: The focus of the University Relations efforts is to advance education in specific science and technology fields, and to promote awareness, interest, and relevant research in the semiconductor industry. Some of the activities that Micron engages in include sponsored research, visiting faculty, student design projects, and equipment and product donations. Micron encourages the development of research relationships with outside parties that complement existing company research efforts. The primary goals of this programme are to develop research partnerships of potential technical benefit to Micron, and to enhance relationships with a wider range of universities.

Link: <http://fundingopps.cos.com/rg/61920>

Alzheimer's Disease Research (ADR) Pilot Project Awards

Closing date: 14 October 2006

Details: The American Health Assistance Foundation (AHAF) will provide Alzheimer's Disease Research (ADR) Pilot Project Awards to fund basic, academic research on the causes of or treatments for Alzheimer's disease. Grants will be awarded on the basis of the scientific merit of the proposed research and the relevance of the research to improving the understanding of Alzheimer's disease. The major criterion for evaluation of applications is the potential for the proposed research to meaningfully change the direction of scientific inquiry in Alzheimer's disease by improving the understanding and therapy of the disease process.

Link: <http://fundingopps.cos.com/rg/63446>

Inflammatory Bowel Disease (IBD) Grants

Closing date: Continuous

Details: The Eli and Edythe L. Broad Foundation created the Broad Medical Research Programme (BMRP) for Inflamm-

atory Bowel Disease (IBD) Grants in 2001. IBD refers to two chronic inflammatory disorders: Crohn's disease and ulcerative colitis. The BMRP provides funds for research that will lead to improvements in the diagnosis, therapy, and prevention of Crohn's disease and ulcerative colitis. In addition, the BMRP wants to attract scientists who are not currently working in IBD to apply their knowledge, expertise, and techniques to IBD research. The BMRP is interested in providing rapid funding for generating preliminary data in clinical or basic research that is innovative and will open new directions in IBD research, will improve the lives of IBD patients in the foreseeable future, is scientifically sound, is in the early stages of exploration, and will lead to subsequent funding by other more traditional granting agencies.

Link: <http://fundingopps.cos.com/rg/64463>

The Spalding Trust

Closing date: Continuous

Details: The Spalding Trust aims to promote a better understanding between the cultures of the world by encouraging the study of the religious principles on which they are based. To further this purpose, the trust makes grants to institutions and to individuals. Grants to institutions may be given for the purchase of books; the provision of a subsidy towards the cost of a visiting lecturer's fee, or, in exceptional cases, for the establishment of a professorial chair or lectureship. Grants to individuals may be offered to support the costs involved in a research project or the cost of publication of the results of research. The trustees are particularly interested in research backed by a professional ability to raise the standard of knowledge of religious principles and practices, and to interpret their relation to contemporary society. Consideration is also given to applications that are not academically oriented, provided that they will have a practical and beneficial effect on interreligious understanding. Applications for assistance with travel expenses may be considered, for projects with a specific bearing on the trust's interests.

Link: <http://fundingopps.cos.com/rg/23490>

Exxon Valdez Oil Spill Trustee Council

Closing date: 15 April 2006

Details: The Exxon Valdez Oil Spill Trustee Council is soliciting proposals for the restoration of resources and services injured by the Exxon Valdez oil spill. The council's annual work plan includes monitoring, research, and general restoration projects. The research topics include cross-habitat tools and strategies (synthesis, modelling, and community involvement), habitat topics, and watersheds (intertidal/ subtidal, Alaska coastal current and offshore).

Link: <http://fundingopps.cos.com/rg/48584>

NASDAQ Stock Market Educational Foundation

Closing date: March and September 2006

Details: The NASDAQ Stock Market Educational Foundation, Inc seeks grant proposals for educational projects or programmes; curriculum development efforts; and study and research that will advance the foundation's mission of "financial markets literacy" by engaging in and promoting innovative thinking and learning about the role of capital formation and financial markets in a free enterprise system. The foundation seeks grant proposals for the following types of projects and programmes that foster financial markets literacy:

- 1) Development of curricula on business, finance, capital formation, free markets, and entrepreneurial concepts for target audiences;
- 2) Dissertation and research fellowships in the areas of capital formation or the operation and functioning of securities markets;
- 3) College/University trading rooms and investment centers developed as realistic and interactive oncampus, simulation labs;
- 4) Educational projects or programmes that advance the foundation's mission with or for target audiences.

Link: <http://fundingopps.cos.com/rg/55693>

Royal Institution of Chartered Surveyors (RICS) Education Trust

Closing date: February and September 2006

Details: The Royal Institution of Chartered Surveyors (RICS) Education Trust is a registered charity aiming to promote and advance education in the theory and practice of surveying in any of its branches, through the provision of awards, scholarships, prizes, or otherwise, and to promote and advance study of and research into matters relating to the theory and practice of surveying in any of its branches, through the provision of awards, scholarships, prizes, or otherwise to chartered surveyors or other persons who are, in the opinion of the trustees, qualified to undertake the work.

Link: <http://fundingopps.cos.com/rg/22186>

Earth and Space Foundation

Closing date: To be confirmed

Details: The Earth and Space Foundation is an international charity that funds scientific exploration that helps us both to understand the Earth's environment and to explore the frontier of space. The foundation will administer the Betty Adamson Expedition Award to an expedition that demonstrates a sense of adventure slightly out of the ordinary and that demonstrates a willingness to pursue an objective whose outcome is not certain.

Link: <http://fundingopps.cos.com/rg/76833>

The Allen Foundation

Closing date: 31 December 2006

Details: The Allen Foundation's priorities have not changed since its establishment. The connections between diet and health remain a basic and primary priority, and consideration has always been given to projects that benefit nutritional programmes in the areas of education, training, and research. The foundation has in the past tended to give preference to proposals that train children and young adults to improve their health and development or that educate mothers during pregnancy and after the birth of their children in order to foster good nutritional habits at an early age. Low priority has traditionally been given to proposals that help solve

immediate or emergency hunger and malnutrition problems. One specific hope of the board of trustees in the future is to encourage the inclusion of mandatory courses in nutrition in medical schools. Another desire is to bring the promise of "nutrigenomics" or nutritional genomics to realisation, thus creating the possibility for empowering individuals to make informed choices based on genetic information for their diet in order to influence the balance between health and disease.

Link: <http://fundingopps.cos.com/rg/15773>

Organic Farming Research Foundation (OFRF)

Closing date: 15 December 2006

Details: The Organic Farming Research Foundation (OFRF) funds research into organic farming and food systems and the dissemination of research results to organic farmers and to growers interested in making the transition to organic production systems. Projects should involve farmers in both design and execution, and should take place on working organic farms whenever possible and appropriate. OFRF may support innovative educational grants that reach or benefit a significant number of organic farmers and ranchers.

Link: <http://fundingopps.cos.com/rg/44735>

The PADI Foundation

Closing date: 15 February 2006

Details: The PADI Foundation encourages and supports underwater science, environmental projects, and education. The foundation will fund and assist worthwhile projects that will enrich mankind's understanding of the aquatic environment and encourage sensitivity to, and protection of, the delicate ecological balance of underwater life. The foundation will also fund worthwhile projects to increase understanding of sport diving physics and physiology that will benefit the general diving public and add to the scientific understanding of man's relationship and ability to survive in the underwater environment.

Link: <http://fundingopps.cos.com/rg/13796>

BamfordLahey Children's Foundation

Closing date: February and September each year

Details: Children's Foundation funds projects that have broad implications for the learning and use of spoken language in children with developmental language disorders. Projects for children with cognitive, emotional, attention deficit, motor, or sensory disorders will not be considered unless the project has implications for language learning among children who do not have such problems.

Link: <http://fundingopps.cos.com/rg/89250>

Water Environment Research Foundation

Closing date: To be confirmed

Details: The Water Environment Research Foundation has issued requests for proposals (RFPs) for three decentralised projects. The projects that will result from these requests RFPs will address fundamental research questions regarding decentralised systems, including the impact of decentralised systems on watersheds, performance limits of septic tanks as primary treatment devices, and the effectiveness of community sized systems. The objective of this project is to develop a user friendly guidance document for the selection and application of watershed modelling tools that enable users to make informed decisions regarding the current and future impacts of decentralised wastewater systems on water quality in a watershed relative to other pollutant sources (eg point discharges from centralised wastewater treatment plants, storm water discharges, and agricultural runoff).

Link: <http://fundingopps.cos.com/rg/92544>

RISM Landes Awards

Closing date: 15 February 2006

Details: The RISM Landes Awards are for field research on subjects that were of interest to her as an anthropologist. These subjects include race or ethnic relations, gender issues, education in a comparative perspective, and problems of aging. The

awards seek to encourage outstanding scholarship that will advance our interdisciplinary understanding of the topics specified above. For the 2005/2006 award year, priority will be given to proposals for supervised fieldwork that include student projects related to race and ethnic relations or issues in political economy.

Link: <http://fundingopps.cos.com/rg/18229>

Sophie Danforth Conservation Biology Fund

Closing date: May/June 2006

Details: The Sophie Danforth Conservation Biology Fund, established by the Roger Williams Park Zoo and the Rhode Island Zoo-

logical Society, supports conservation programmes to help protect threatened wildlife and habitats worldwide. Field studies and other projects that demonstrate a multidisciplinary approach to biodiversity and ecosystem conservation receive the highest funding priority. Environmental education programmes, development of techniques that can be used in a natural environment, and captive propagation programmes that stress an integrative approach to conservation are also appropriate.

Link: <http://fundingopps.cos.com/rg/30685>

Geneva Association

Closing date: 30 September 2006

Details: The Geneva

Association was established for the purpose of promoting economic research in the sector of risk and insurance. The consulting service of the association is at the disposal of professors, researchers, and students who seek advice regarding the definition of subjects for study, who wish to discuss their research programmes, contact specialists, or receive assistance with their bibliographical research. Each year, the association offers two grants for research into risk and insurance economics. The grants are primarily intended for research for a thesis leading to a doctoral degree in economics.

Link: <http://fundingopps.cos.com/rg/5325>

RG

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Global Research Management

Research management has a genuinely global dimension. An increasing proportion of research involves international collaboration, or is funded by international funding bodies. It is vital that stakeholders approach their endeavours with a degree of common understanding. And, of course, many of the issues that researchers seek to address have global implications. It is critical that results are disseminated or exploited on a world-wide scale, and according to common standards. A global network is the only way to achieve this goal.

Why you should join the Global Research Management Network
The network, a joint ACU-SRA International initiative, combines regular information, analysis and networking opportunities to keep you informed and connected to research management activities throughout the globe. It provides a structure relevant both to practitioners in the developing and developed world and is based around five main strands of activity:

Research Global magazine

Based on ACU's successful *Research Opportunities* magazine, *Research Global* brings news, articles and funding information to members three times per year.

Free academic journal

To help provide a more theoretical background to the research management debate, all members of the network will receive a free subscription to the *International Journal of Technology Management & Sustainable Development*. The journal provides analysis and studies from a range of countries.

Benchmarking & good practice

The network will seek new ways to compare good practice and performance in a constructive manner – helping members to identify policies for implementation in their own work.

Electronic updates

Those members registering an email address will receive a regular briefing covering news and policy items.

Events & seminars

Given the global nature of the network, opportunities for face-to-face contact will be limited. Examples include the 'Research as an Agent for Transformation and Development' conference held in Cape Town in May 2004, jointly sponsored by ACU and the Southern African Research & Innovation Management Association (SARIMA), and the upcoming International Network of Research Management Societies (INORMS) Congress in Brisbane, Australia in August 2006.

Information on how to join can be found at www.globalrmn.org (official website launch June 2006) or email info@globalrmn.org or resman@acu.ac.uk for an application form and further details.



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