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European Association of Research Managers and Administrators



The Future of Research Management

Embracing a more
strategic role

November 2010



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The Future of Research Management... Embracing a More Strategic Role

As we enter a new decade, the traditional rules of funding are being rewritten as the borders between disciplines and countries are quickly dissolving. Research managers in Europe and their research administrator counterparts in the United States are finding themselves at the epicenter of this fundamental shift.

In order to understand the considerable challenges as well as the significant opportunities these individuals face, Elsevier partnered with the European Association of Research Administrators (EARMA) and the National Council of University Administrators (NCURA) to host a series of roundtables discussing critical issues poised to impact the future of research management.

Insight from the gatherings is captured in this report which addresses how research management professionals on both sides of the Atlantic are navigating the evolving landscape including the changing nature of research and the ripple effect of collaboration. The report also summarizes best practices for funding success shared during the dialogue and illustrates the collective vision of research managers and administrators with respect to the role they will play in the future... one that they predict will be more strategic as they look to guide their institutions to funding success and research leadership.



Introduction

The funding environment has grown progressively more complex in the last ten years and as we enter a new decade, this trend is poised to continue. Competition for research grants is mounting while remaining economic uncertainty is impacting the availability of funding. At the same time, the very nature of research is changing with collaboration increasing across disciplines and borders.

Multidisciplinary research is quickly becoming the norm and international projects are on the rise as technology helps overcome geographic obstacles. Research administrators in the United States and research managers, as they are referred to in Europe, are at the epicenter of this change.

To better understand the new funding environment and its implications, Elsevier hosted a series of roundtables in the second half of 2009. Research administrators were gathered during a meeting of the National Council of University Research Administrators (NCURA) in Panama City, Florida and roundtables were hosted in conjunction with the European Association of Research Managers and Administrators (EARMA) during the organization's annual conference at the University of Copenhagen in Denmark. The resulting discussions, the highlights of which are captured in this report, offer a valuable peek into how research management professionals are navigating the changing landscape



The Changing Nature of Funding

As one participant in Europe pointed out, the science enterprise has changed. It has become larger, more expensive and more political. There are more grand challenges and it is no longer possible to achieve significant advances without collaborating both nationally and internationally.

Scientists naturally collaborate within their network of colleagues. This, however, is no longer enough according to participants. Research managers must push scientists outside the comfort zone of their university, field or geography if they are going to succeed in helping them secure the financial support necessary to advance the frontiers of science.

Funding opportunities, already under pressure, began to dwindle with the global economic downturn. Even in the U.S. where the \$789 billion stimulus bill was passed in 2009, funding is difficult to secure and the stimulus dollars may not be permanent. The competition for limited grants is raging and the criteria upon which proposals are evaluated increasingly include the extent to which projects are multidisciplinary and collaborative.

In the U.S. research administrators report that most of the Federal agencies are seeking these elements. Additionally, even when an opportunity does not explicitly require collaboration, funding bodies seek the involvement of "eminent scholars in the field" making collaboration a de facto need for most institutions. This is particularly true for smaller universities. However, the multidisciplinary nature of today's research makes it a challenge even for larger universities as it is near impossible for any one institution to have eminent scholars in all fields.

Another noted change in the U.S. was that funding bodies are looking for applicants to partner with industry. One participant pointed to a program from the NSF which requires an industry co-investigator on projects. A similar push towards industry collaboration was addressed by the research managers who noted that the European Commission is requiring industry partners in its grant applications.

Overall, research managers in Europe agreed there is significant evidence that international research collaboration and the funding that goes along with it is growing quickly. One research manager went as far as to say that international collaboration is becoming a requirement and, if you don't engage in it, you may not be eligible to apply for specific funding programs.

The economic climate was also mentioned as a key driver behind the increase in international collaboration. As grants on a national level have decreased, it has necessitated the pursuit of international opportunities, particularly European Union funding which requires more support from research managers.

The participants also discussed a growing dichotomy of international funding in Europe. On one side, the EU is driving an increase in bottom-up funding of individual researchers or small research groups through important mechanisms like the European Research Council. At the same time, there has been substantial growth in EU funding instruments that are fairly large like the knowledge and innovation communities in the Framework of the European Institute of Technology, or the joint technology initiatives under the Framework Programme (FP). Additionally, non-governmental organizations such as the European Science Foundation are also beginning to offer multi-million euro projects requiring larger group proposals.

Navigating this dichotomy and the complex national and international mix of funding opportunities will require added support from research managers in Europe. Increasing collaboration both nationally and internationally, however, is a universal goal. One research administrator in the U.S. said that in the current economic climate, it is very risky to be dependent on only national funding programs. He suggested institutions broaden their funding horizons to make sure they have other resources to depend on in case there are unforeseen fluctuations in national research funding. Based on the dialogue, it was clear the participants agreed that research management professionals across the globe must take the lead on this strategy for their institutions



The Ripple Effect of Collaboration

The benefits of collaboration range from shared resources and equipment to increased funding opportunities, successful project outcomes and prestige. Many U.S. participants noted that collaboration within their institution is a given, working with universities across the country is commonplace and increasing international collaboration has become a part of the strategic research plan of their universities.

The strategic focus on international work was echoed in Europe, where some research managers said their institutions were looking to double their international collaborative funding from the current levels which ranged between five and 15 percent of overall external financial support.

“Interestingly, many of the audience members pointed out that the actual funding received for specific international projects was not significant nor was it viewed as the end-goal. The larger benefit was the ripple effect.”

In Europe, taking part in a big international project is looked upon positively by the national government and national ministry. Some countries even match EU funding. Many universities have EU targets and incentives for researchers who help meet them.

However, as one research manager noted, EU funding is less about the money as the networking opportunity, prestige and need to meet the goals of the university – making it critically important for the careers of our researchers. The pursuit of international funding allows scientists to expand their network, often beyond their own field, which in turn allows institutions to access the best researchers in numerous specialties when developing future proposals.

Overall, international funding was recognized in both Europe and the U.S. as a door opener for applying and winning other projects – creating the funding momentum necessary for long-term success.



Understanding the Challenges

The many levels of collaboration give rise to new and different challenges for research management professionals. Facilitating projects between departments or colleges within one's university, for example, requires coordination with another chair or dean, adding approval layers and paperwork. However, these layers seem insignificant compared to the elements required when looking outside one's university or country. While the added paperwork is a burden research administrators and managers realize they must bear, the real challenge is encouraging the researchers themselves and facilitating the administrative components in a timely fashion.

As one research administrator pointed out, scientists are focused on the science. They don't recognize or account for the administrative steps and often fear them. Unless research management is aware of and on top of the administrative deadlines, there can be significant consequences.

One example given was the need in joint submissions to get each university's sponsor programs office (SPO), or its equivalent, to approve the proposal – a step often overlooked or left to the last moment by many scientists. In fact, there is a significant amount of paperwork that must be coordinated in any multiple university project ranging from official sign offs such as this to the development and submission of bios, letters of support and budgets.

Participants noted that as the lead or primary institution on a proposal the opportunity for paperwork missteps is even greater. While the burden can be significant, so can the reward in terms of the relationships scientists and research managers build with other universities, the recognition received within one's institution and the track-record established with funding bodies.

Further discussing the paperwork required for submitting proposals, there was overall agreement that it can keep scientists from applying – particularly on an international level. It was noted that scientists, busy trying to both conduct research and stay ahead of the latest literature in their own as well as related fields, often find the grant seeking process itself overwhelming. As such, preparing a cross-border project can be a daunting task. Add the complicated paperwork requirements for developing EU proposals as well as administering EU projects, and international collaborative initiatives can seem overwhelming and unrealistic.

While there was a consensus among roundtable participants that the extra paperwork surrounding EU funding is sizeable, including European Commission contracts, the consortium agreements and FP forms (which include new terminology that seems to evolve with each FP), it was noted that the perception of the paperwork is even worse than the reality. This is particularly true in cases where universities have strong research management offices that play an active role in helping scientists handle the administrative elements, shielding them from much of the extensive pre- and post-award administrative requirements.



In fact, several participants suggested that research managers should play a more active role in debunking some of the myths around the “challenging nature” of EU funding. By actively educating scientists on the process as well as the support available, research managers can eliminate the existing fear of this important category of international funding.

Moving beyond the paperwork issue, another real challenge of international collaboration is coping with both the language barriers as well as the cultural differences that arise when multiple countries are involved in a project. Additionally, there are often significant variances in the accounting systems of each country.

Another complication considered equally significant by the group on a national and international basis stems from the need to partner with industry. Aside from the intellectual property issues it raises, working with industry is a new experience for most university-based scientists and they must cope with new constraints around sharing information and publishing. As many find this inhibiting, they tend to avoid industry partnerships and must be encouraged to pursue this avenue as it is becoming an increasing requirement.

On a more strategic level, participants identified a need for more careful coordination of proposals as they are finding an increasing number of agencies limiting the amount of submissions an organization can have as both the lead PI and the sub. Unless actively managed, a university may not identify and put forth its strongest submissions, losing out on valuable funding opportunities.

Another sensitive concern surrounding collaboration that needs to be managed with an eye on the larger picture according to research administrators is the political implications. Unless mindful of how collaboration is approached, taking into consideration who the key players are in a given field or institution, the fallout can be significant. Individual scientists may not have a broad enough perspective to recognize these issues alone and it was suggested that research management professionals bear this in mind and play gatekeeper where necessary.

Ultimately, the challenge for research managers and administrators alike is two-fold:

1) Motivating scientists to apply for the most appropriate funding opportunities.

2) Ensuring that they build the strongest possible proposals – neither of which can be accomplished today without collaboration.

In the end game, if research management handles the brunt of the added administration requirements, scientists will be able to focus on solving the important environmental, medical and social challenges our society is facing.



Best Practices for Funding Success

There was agreement among all of the roundtable participants that future success will require research administrators and managers to serve as collaboration facilitators, building a bridge between fields and across continents. While meeting the operational funding needs of scientists will remain the backbone of the position, there will increasingly be social and emotional components to the role. It will be critical for research management

professionals to become trusted agents in navigating the complex and evolving global funding landscape – guiding scientists through the process and offering institutional decision makers insight for building strong research strategies.

Roundtable participants shared best practices for taking on this expanded, more strategic role:

● Building Trust Through Knowledge

Like in all good relationships, participants acknowledged that building a sense of trust with researchers is critical on many levels. The first step addressed was investing time in understanding the special interests of the researchers both professionally and personally.

Equally important, many pointed out, was staying up-to-date on funding body news in order to alert scientists to opportunities and be able to comfortably walk them through the process. An in-depth understanding of proposal requirements was noted as particularly critical for complex international funding opportunities.

Participants agreed that part of the role is battling the perception that the paperwork required for pursuing international funding, particularly from the EU, is impossible. One research administrator shared that researchers who find it easy to explain the most complex scientific processes become frozen when asked to fill out forms related to project administration – especially as EU forms use terminology that can seem like a “foreign language.” In fact, many research managers said as a common practice they either handle or walk scientists through the completion of the necessary EU forms.

It was recognized that serving as a translator and voice of calm, research administrators and managers can become true partners not only in preparing the administrative elements of proposals but in reviewing and offering input on the overall content as well as identifying opportunities to pursue.



• Fostering Collaboration

There was broad agreement that researchers are very particular about choosing collaborators. While most know the people within their field, they find it harder to identify and rely on peers in other disciplines, creating a barrier to multidisciplinary collaboration.

There were numerous ideas shared with respect to fostering internal as well as external multidisciplinary collaboration ranging from forums, workshops and lunches to the development of new positions focused on this goal.

One research manager described networking events held at his institution aimed at bridging research silos and fostering international collaboration as a bit like speed dating. Internal faculty, scientists from other universities and industry representatives are invited in to speak to a large audience for five minutes. Afterward the group chats over food and shares a few beers. The result has been international partnerships actively pursuing EU funding.

The group agreed that events like these not only stimulate collaboration but increase the likelihood of success as projects are implemented. One research manager noted events such as these can be particularly helpful in breaking down cultural barriers – avoiding future issues. Another suggested that you need a good network to begin with before seeking EU funding, saying that collaborations constructed during the grant application process tend not to work. Participants concluded that there needs to be a good basis for collaboration as programs built on pre-developed relationships are more likely to be successful.

Another research administrator said his university hired an individual to help build multi-institution collaborations. Focused on pre-award services, the role includes meeting with faculty members within the university and at targeted institutions where there is potential for collaboration.

Technology tools were also referenced several times during the discussions. Helping faculty build electronic profiles was cited as important. One participant noted that while many senior researchers have developed networks of colleagues, junior faculty have good project ideas but are unfamiliar with the players. As a result, his institution keeps a virtual rolodex to help find appropriate collaborators.



• **Strategic Insight**

With a rise in limited submission grants, the participants agreed research management professionals have an opportunity to play a greater role in ensuring that the strongest possible proposals are submitted. Many reported being involved in the development of selection processes as well as helping to identify opportunities within their institutions where different groups could work together to submit a single joint proposal.

As the role of trusted advisor expands, research managers can also play an important part in advising their institutions on how best to encourage, incentivize and support international collaboration.

Another potential strategic growth area addressed was around tracking and reporting outcomes of collaborative projects. Currently, the number of collaborative ongoing grants is reported, but research managers agreed that total funds received as the PI as well as the sub would be worth tracking in the future. Scholarly output of collaborations was another outcome participants agreed was worth measuring for institutional leadership.

One research administrator mentioned a National Science Foundation program just underway with four different agencies that requires an evaluation of the partnership from beginning to end, saying this may set a precedent for the future.



● Building the Right Team and Enhancing the Profession

In addressing the baseline skills necessary to succeed in the new funding reality, the list continued to grow as the conversation evolved including an understanding of:

- The process of scientific research
- Financial issues and statements
- Multiple funding sources
- Compliance
- Regulation
- Basic knowledge of intellectual property
- Complex documents
- Project management
- Integration
- Technology

Beyond skills, research managers agreed that “high energy” should be on top of the job description. Networking abilities were also considered critical. It became clear from the discussions that no one individual could embody all these needs, making a team approach necessary. As one participant pointed out, you need to look at the human resources you have and how you can piece them together, adding individuals where necessary, to build a successful team.

Addressing the need to continue to professionalize the research management role, training and certification at a national and global level were discussed. One participant suggested the development of national training in order to have certified research managers so that institutions can be assured that at minimum the individuals they hire have an understanding of the basics.

The dialogue also revealed an expectation of support from the EU with one participant suggesting the EU provide funding for the training of research managers. While in agreement, another research manager noted that the EU would be limited in the scope of standardized training it could offer on a European level as difficulties would arise because of the differences in legislation between countries. Research managers participating in this type of training it was agreed, would have to be aware of these differences, or at least be aware of the local limitations and registration and how that translates into the EU.

Others suggested that even with EU support, it is up to each institution to improve its research management and that it is up to the research managers themselves to facilitate the exchange of ideas to help grow the role – participating in forums such as this roundtable and others offered by associations such as NCURA and EARMA as well as creating their own.



Vision of the Future

As we move into a new decade, the scientific research community must face challenging funding hurdles that are intertwined in a fundamental shift in the way research is being conducted. The internationalization and multidisciplinary nature of research is quickly rewriting the funding rules.

Research administrators and managers, at the core of the funding process, have a significant opportunity to serve as a Sherpa and partner to both scientists and institutional leadership alike. Excited by the opportunity they have to help open new funding doors for scientists and elevate the overall reputation of their institution, research administrators and managers are exploring and embracing new practices.

Research management professionals are ready to take their institution's funding to the next level by nurturing the development of broader peer networks for their scientists and identifying and simplifying cross-discipline and cross-border funding opportunities. They also realize the potential this work has to elevate their institution's position on the global research playing field as a recognized leader in a given field or specialty.

Working more closely with institutional leadership, research administrators and managers envision themselves offering increasingly valuable insight to their organization's research strategy. They also recognize the opportunity they have to serve as a bridge – conveying institutional goals to the researchers and working together to make them a reality.

While the issues may be somewhat different on each side of the Atlantic, there is a universal theme emerging. Research administrators and managers collectively agree that the time is right to play a more strategic and integral role in guiding their institutions to funding success and research leadership.

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