



**European Participation in U.S. Federal Science & Technology
Research Funding Programmes:
Addendum - Survey of EU-based Researchers on
Department of Energy Grant Funding**

Main Report



June 2011

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Disclaimer

The information contained within this report has been compiled from public sources and communications with U.S. funding entities. This report is not an official publication of any U.S. federal government entity nor necessarily reflects the views of the U.S. federal government or of the organizations comprising the Link2US project. The opinions and any errors within the report are entirely the responsibility of the authors.

Summary

The U.S. Department of Energy (DOE), through its Office of Science, is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 per cent of total funding in this area. The Financial Assistance Programme of the Office of Science is an extramural grant programme that can and has funded EU-based researchers. The *European Participation in U.S. Federal Science & Technology Research Funding Programmes: Addendum - Survey of EU-based Researchers on Department of Energy Grant Funding* presents the results of a survey of EU-based researchers who have received direct DOE awards during 2005-2009 to identify key issues they face when applying to and participating in DOE funding programmes. Given the small number of EU-based awards during the period covered (50 awards to 16 identifiable and unique principle investigators) and even smaller number of survey respondents (6), this report can reflect only anecdotal perspectives and not present broad conclusions.

Respondents, almost all from the United Kingdom except one, indicated that a whole host of issues on participation and administration of DOE grants (e.g., communication, administrative support, intellectual property, complementary funding, audit and contractual requirements, and indirect costs recovery) were no more challenging than other, non-DOE funding programmes. Respondents noted that new DOE funding opportunities were not easy to find, with the most common sources for information being colleagues and collaborators and DOE resources (programme officers or other staff). To further improve collaborations through DOE programmes, respondents suggested targeted communications about open calls and greater specificity regarding eligibility criteria of funding programmes. Other issues that may deserve additional attention include budgeting requirements and administrative support by DOE. Future analyses of EU-based researcher participation in DOE programmes should be focused on those EU-based researchers, who do not receive DOE funding, in collaborative projects with U.S. partners funded by DOE.

Background

European Union (EU)-based researchers and institutions can and do participate (e.g., in cooperative agreements or receiving subcontracts and direct funding) in United States (U.S.) federal funding programmes. The nature of participation is considerably impacted by a diverse set of policies and regulations, the result of the decentralized nature of the U.S. federal research funding system. Federal funding authority extends across over a dozen or more federal entities (i.e., executive agencies and cabinet departments and their sub-units). Each entity has its own policies and regulations.

Out of 11 civilian U.S. science and technology (S&T) federal research funding entities examined by the Link2US project,¹ three have programmes which can directly fund EU-based researchers through their institutions -- U.S. Department of Energy (DOE), the U.S. Department of Homeland Security (DHS), and the National Institutes of Health (NIH).² While these three entities can directly fund foreign-based researchers/institutions, many of the other U.S. funding entities also do not usually restrict, and indeed oftentimes encourage, cooperation between researchers in the U.S. and foreign institutions on a project as long as the foreign-based participants are funded separately.

Objective

A set of surveys of EU-based researchers and institutions has been undertaken to identify key issues that they face when applying to and participating in U.S. funding programmes that can directly provide research grants. The main effort focused on NIH grantees based in Europe with a report available separately, *European Participation in U.S. Federal Science & Technology Research Funding Programmes: Survey of Researchers and Institutions on National Institutes of Health Grant Funding*.³ A related effort discussed in this report, *European Participation in U.S. Federal Science & Technology Research Funding Programmes: Addendum - Survey of EU-based Researchers on Department of Energy Grant Funding*, focuses on participation in DOE funding programmes that directly provide research grants. Through its Office of Science, DOE is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 percent of total funding in the thematic area. A survey was conducted of EU-based researchers who have directly received DOE grants.

The analysis of the survey seeks to inform EU and U.S. stakeholders, including the European Commission and U.S. funding entities, on the most prominent issues of programme participation from the European perspective. Secondly, it seeks to feed into efforts to further understand and address how European and U.S. researchers and

¹ U.S. Department of Agriculture, U.S. Department of Energy, U.S. Geological Survey, U.S. Department of Homeland Security, U.S. Department of Transportation, Environmental Protection Agency, National Aeronautics and Space Administration, National Institutes of Health, National Institute of Standards and Technology, National Oceanic and Atmospheric Administration, and National Science Foundation.

² NIH is part of the U.S. Department of Health and Human Services.

³ Report available at: <http://www.eusscicetechology.eu/link2us/funding-opportunities.html>

institutions can better cooperate, with reciprocal direct funding as one mechanism for cooperation.

Methodology

Grantees who received direct funding from DOE were the focus of this survey. EU-based researchers who have received DOE grants and other awards were surveyed about their experiences in various aspects of seeking, applying for, and receiving DOE grants. The survey was conducted using a questionnaire, administered through a commercial web-based system – SurveyMonkey™ (www.surveymonkey.com). The survey focused on awards received in 2005-2009. Each individual surveyed received an introductory letter via email about the Link2US project and the goal of the questionnaire, along with a link to fill out the questionnaire online. Individuals were able to complete the questionnaire in multiple sessions. See appendices A and B for the DOE introductory letter and questionnaire.

A questionnaire was administered to DOE principal investigators (PI's) who directly received DOE awards through EU-based institutions. PI information was requested and received from the DOE central procurement office. The information received was limited to institution, PI name, and grant size; no information was available about the specific DOE programme. Contact information was found through internet searches, primarily from the websites of the researchers' institutions. Two rounds of questionnaires were administered, 5-19 November 2010 and 4-18 January 2011, in order to reach as many PI's as possible.

The questionnaire contained three broad types of questions: the first type related to basic demographic information of the respondent and their background in relation to DOE; the second addressed various aspects of the respondent's experience with DOE and its programmes (e.g., awareness, legal, policy, and administrative issues); and the third addressed recommendations for lessons and improvements.

Results

The Department of Energy, through its Office of Science, is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 per cent of total funding in this area, which includes high-energy physics, nuclear physics, and fusion energy sciences. The Financial Assistance Programme of the Office of Science, as well as similar programmes in the Office of Energy Efficiency and Renewable Energy and the Office of Fossil Energy, is an extramural grant programme open to EU-based researchers and institutions.

The Department of Energy awarded 50 new grants to EU-based researchers during 2005-2009. Out of these awards, 43 had PI information available, representing 16 unique PI's. Six PI's (38% of unique awardees) responded to the Link2US DOE survey. The low numbers of PI's and survey respondents make broad conclusions about DOE programmes and comparisons with non-DOE programmes challenging. Therefore, the summary of responses presented below is meant only to provide anecdotal perspectives.

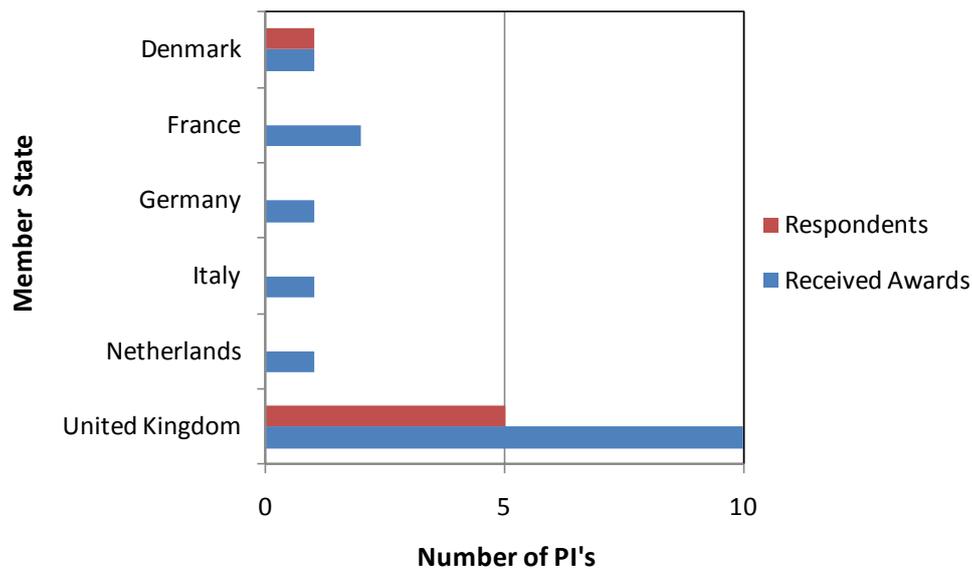


Figure 1.1: Location of Researchers and Respondents

Responding PI's were from institutions located in the United Kingdom (5) and Denmark (1), shown in Figure 1.1, of which 83% were higher education institutions and 17% research organizations. Each respondent had received between 1-3 direct awards, all from the Office of Science. The plurality (4) of the respondents has previously collaborated with U.S. federal institutions, while half has previously studied in the United States. See appendices C-G for further demographic data.

Researchers were asked about general issues, shown in Figure 1.2, and specific legal, policy, or administrative issues concerning DOE funding programmes, shown in Figure 1.3. Researchers were asked to rate, from 0-5 by increasing degree of challenge, how each issue was a "high" (if rated 5-4), a "medium" (if rated 3), or a "low" (if rated 2-0) challenge as compared with other, non-DOE programmes. Regarding general issues, the lack of administrative support from their own organization and lack of complementary funding were identified by the plurality of respondents, 67% and 83% respectively, as "low" relative challenges. A plurality of respondents categorized the following as "medium" challenges: communication and information awareness of programmes, contractual issue and intellectual property, cultural differences in management of grants, and lack of administrative support from U.S. funding body. See appendix H for details. On specific legal, policy, or administrative issues, all were rated by the majority of respondents as less or equally challenging as non-DOE programmes; the view regarding the issue of budgeting requirements was split evenly among "high", "medium", and "low" ratings. See appendix I for details.

With specific regards to the awareness of DOE programmes, 67% of researchers indicated that new opportunities were not easy to find. The most common source for programme opportunities is U.S. colleagues and collaborators. Other sources indicated by respondents are DOE programme officers or other staff, colleagues/collaborators at own or

other non-U.S. institution, or, to a much lesser extent, the DOE website. See appendix J-L for data.

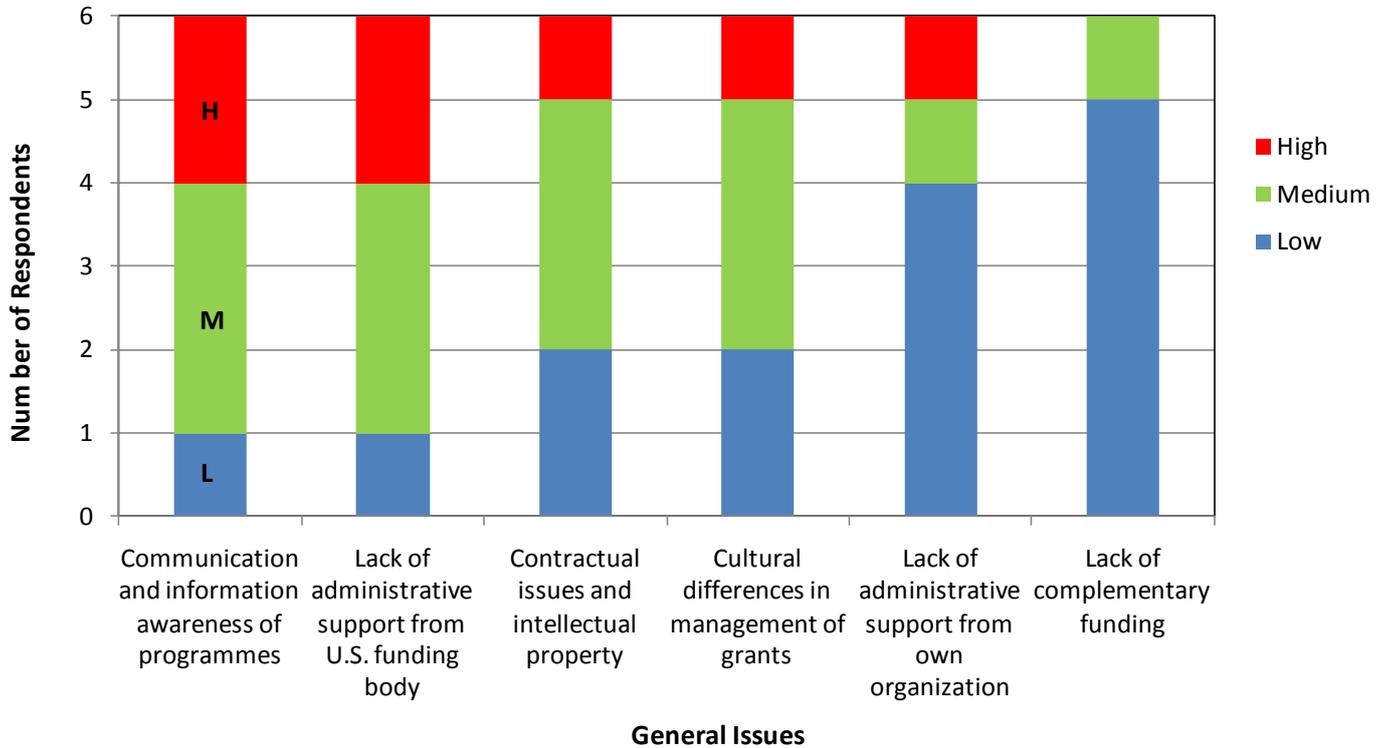


Figure 1.2: General Issues and their Degrees of Challenge ([L]ow, [M]edium, or [H]igh)

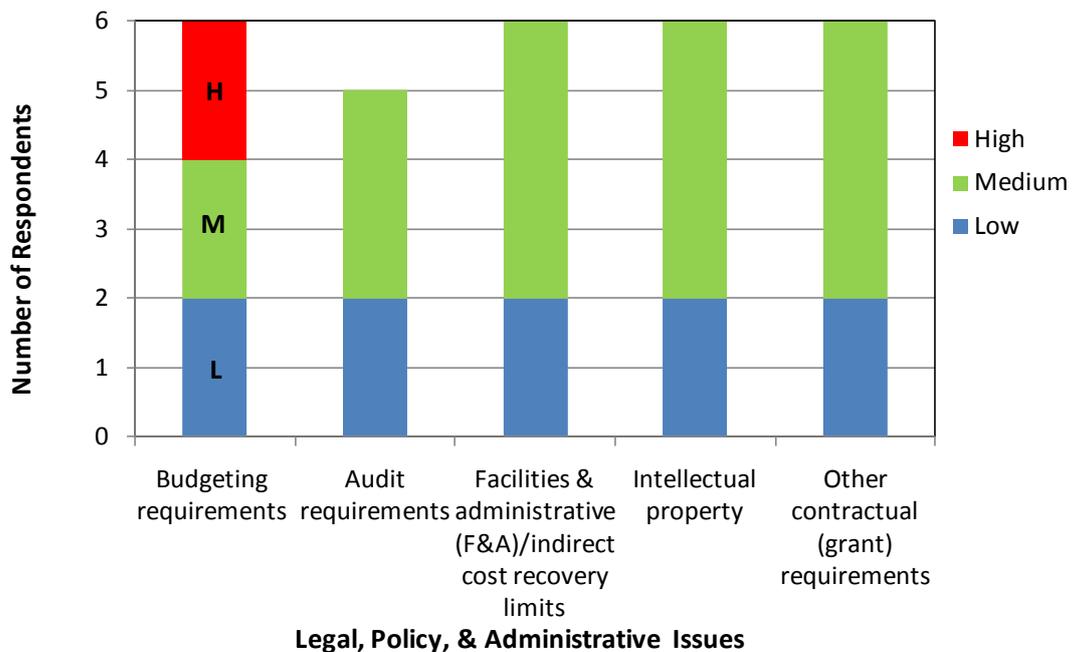


Figure 1.3: Legal, Policy, and Administrative Issues and their Degrees of Challenge ([L]ow, [M]edium, or [H]igh)

When asked about DOE funding contribution to their overall research programme, 67% of researchers indicated that DOE funding served to provide them access to U.S. researchers and institutions; 50% stated that DOE funding is a significant (i.e., greater than 25% of their research programme's funding) financial resource. See appendix M for data.

In addition to asking researchers to identify and rate various issues, they were asked to comment on positive aspects of DOE funding and recommend areas to address for improved research collaboration. Researchers remarked about ease of administration procedures of the Office of Science programme and benefits from improved awareness of other relevant programmes and potential partners. Recommendations from researchers focused on having clearer presentation of policies, including eligibility criteria. See appendices N and O for specific comments.

Findings and Conclusions

The few responses received were dominated by researchers from the United Kingdom, unsurprising given that the awards received were dominated by UK-based researchers/institutions; respondents were primarily from higher education institutions. All awards received by respondents were through the DOE Office of Science. The researchers indicated that participation in the programme was not any more challenging compared with other programmes. Issues of awareness of opportunities, budgeting requirements, and administrative support by DOE may be further examined.

Awareness of DOE programmes could probably be improved. Researchers indicated that they hear from colleagues and collaborators or from the DOE staff. Half of the respondents previously studied in the United States before receiving their first grant from DOE. Fewer researchers rely on their colleagues at non-U.S. institutions for information. To further improve EU-based researcher/institution collaborations with DOE, respondents suggested targeted communications on open calls and greater specificity regarding eligibility criteria for funding programmes.

Given the relatively small number of EU-based researcher grantees and even smaller number of survey respondents, no specific conclusions can be made. The responses that were received indicated that the issues of participation and administration of DOE grants were no more challenging than other funding programmes. Future analyses of EU-based researcher participation in DOE programmes should be focused on those EU-based researchers, who do not receive DOE funding, in collaborative projects with U.S. partners funded by DOE.