

**STS forum, 6-8 October 2013, International Conference Centre, Kyoto**

**Summary of the Fourth Funding Agency President's Meeting, 7th October 2013**

The 4th Annual Funding Agency President's Meeting (FAPM) was held on Monday 7th October 2013 in Kyoto on the occasion of the 10th Science and Technology in Society (STS) forum, co-chaired by Professor Dr. Peter Strohschneider, President of the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) and Dr. Michiharu Nakamura, President of the Japan Science and Technology Agency (JST). The heads of 32 funding agencies from around the world participated in this year's event, meeting to share their experiences and thoughts in open discussion of issues of common interest and concern in Science and Technology promotion, and to thereby facilitate and enhance networking and cooperation among the funding agencies. Within the broad theme of "Core values and further advancement of funding agencies from the viewpoint of the world in 2020", the two main topics of conversation were the "Potential advancement of funding agency roles" and the "Contribution of funding agencies to fostering human resources in research". The following issues were discussed in detail:

**Discussion Topic 1**

**Potential Advancement of funding agency roles**

**Preamble**

Whilst reaffirming their basic functions (e.g. domestic funding based on merit review, fellowship programs, bilateral funding for international cooperation, etc.), it was considered important to explore the potential for FAs to enhance their value and purpose corresponding to, or regardless of the trends of the times and changes in the research environment, in both contemporary and near future scenarios. The demands made of all types of FAs in terms of the functions they fulfill and the services they provide to society are likely to change in the future, and what form those changes might take and where coordination between FAs might be necessary was discussed at this FAPM.

**Discussion Content**

In meetings between global funding agencies, the promotion of social needs-oriented research in parallel with curiosity driven studies is a frequent topic of debate, and in

that respect the FAPM emphasised that there is a need to consider and respond to the trend of increasing political and social influences on the activities of funding agencies. Despite the fact that basic research is the engine that drives new discoveries and major scientific advances, there remains a strong political necessity to respond to the needs of society and feed back significant results from applied research. Although in some systems these two crucial functions are dealt with in separate institutions, it is vital that funding agencies' decision making upholds the necessary balance between basic and applied research.

Another increasing trend in the research environment today is that towards multilateralism and multidisciplinary. Many of the major global challenges faced today, including environmental degradation and biodiversity loss, climate change, natural disasters and threats to public health cannot be tackled by any single country acting alone, nor by researchers from any one discipline working in isolation. Rather, multilateral and multidisciplinary (interdisciplinary) approaches are essential, and it was agreed that funding agencies should continue to consider and develop instruments to support such initiatives for simultaneous cooperation among several countries as well as to support collaboration between researchers from the sciences, social sciences and humanities fields.

From a long-term perspective, the internationalisation of research efforts and the achievement of truly globally-applicable research outcomes can only be pursued based upon a strong network of researchers with international experience. It was recognised that supporting researchers to work and build relationships abroad can have a beneficial impact disproportionate to the relatively small initial investment required, and that funding agencies should therefore continue to prioritise such schemes. In some developing countries however, it was noted that it can be difficult to attract researchers to return to their home country after a period abroad, and so measures must be considered to ensure that researcher mobility is not only in one direction to avoid so-called brain-drain from these countries. In this context, the necessity of capacity building in developing countries, in collaboration with developed countries as appropriate, was discussed, and it was reaffirmed that the international community should continue to pay special attention to developing countries where the scientific environment has yet to mature, but where great potential for future growth lies.

However, it was not only the importance of networks among individual researchers that

was emphasised at the FAPM, but also the value of establishing connections between projects and programs. By maintaining systems of communication and exchange of relevant project information among implemented projects, it was recognised that research gaps and potential synergies can be identified to better guide future directions of research and to avoid duplication of efforts. Furthermore, frequent communication and interaction among funding agencies themselves was agreed to be invaluable to overcoming obstacles to international collaboration. It was found that mutual interchange of best practice and standardisation of procedures reduces administrative burden and streamlines collaborative efforts, resulting in more effective cooperation. Temporary exchange of staff among funding agencies was also noted to lead to lasting impact on ways of thinking.

It is thought that as a result of the changing climate, natural disasters may become a more frequent occurrence. In response to such disasters and other emergency situations therefore, it was felt that funding agencies themselves must be resilient and flexible enough to promptly react, to build and effectively support partnerships when most needed, and to fulfill several roles. Firstly, they must be able to rapidly pool knowledge and resources in order to pour them into research efforts targeted at alleviation of the most pressing needs in affected areas. Secondly, funding agencies must be able to ensure the continuity of research endeavors that may have been interrupted by the emergency situation, by providing for alternative facilities or supporting temporary exchanges. Thirdly, they must also be suitably prepared to take action, as appropriate and in a timely manner, in response to the scientific opportunities for exceptional research that are presented by such emergency situations.

Finally on this topic, cross-border scientific support is mainly limited to being carried out by foreign aid programs targeting developing countries. However, the FAPM noted that expanding the geographical scope of research funding and support to cross-borders beyond existing frameworks, while currently not a common practice, would greatly reduce the significance of barriers to international collaboration. Therefore, such measures should be carefully considered by funding agencies in future international frameworks.

## **Discussion Topic 2**

### **Contribution of funding agencies to fostering human resources in research**

#### **Preamble**

It is an established trend that as a part of their basic functions, funding agencies should invest in and foster the development of human resources in the research environment for the purpose of ensuring the future excellence of S&T research activities. More and more it is being realised that this fostering should not only support development within domestic borders, but should encourage the creation of human resources that are truly globalised and interconnected. Funding agency responsibilities, and the form, targets and scope of these fostering activities was discussed at this FAPM.

#### **Discussion Content**

The development and training of human resources in research is an issue important to all funding agencies, and the obligation that funding agencies continue to make a substantial contribution to fostering such resources was accordingly re-emphasised at the FAPM. Although the spatial and temporal development of young researchers, including PhDs and post-docs, often receives the most attention in this respect, the importance of improving the representation of female researchers at all levels of the research hierarchy was also highlighted. In relation to these points, ensuring employment opportunities, attractive salaries and suitable working conditions to allow young researchers and women to pursue their careers as scientists, and encouraging the development of their skills through training courses were identified as some of the most pressing issues.

Another vital aspect in the development of these human resources in research, considering the importance of an international network of researchers mentioned above, was recognised to be the enabling of their greater mobility. Giving young researchers greater access to international experience through exchange programs and networking events was identified as a vital consideration. Similarly, in terms of developing human resources in developing countries, it was agreed that funding agencies should endeavor to establish environments that facilitate the pursuit of education to PhD level and beyond in developing countries, and to collaborate internationally to enhance the global access of their researchers.

In addition to supporting researchers themselves, it was also emphasised that funding agencies should make concerted efforts for the development and training of the various research support professionals, including research managers, administrators and laboratory technicians that provide invaluable support to the overall research environment and make today's increasingly complex and specialised research activities possible. It was noted that funding agencies should make efforts to identify vital skill-sets necessary for researchers and those necessary for research supporters, in order to differentiate between them and to establish these categories of professionals, for which it was also mentioned that full-time positions and clear career-paths should be developed.

## Participants

Title	First Name	Last Name	Organization	Title in Org	Country
Prof.	Aidan	Byrne	Australian Research Council (ARC)	Chief Executive Officer	Australia
Dr.	Hernan	Chaimovich	State of São Paulo Research Foundation (FAPESP)	Special Advisor to the Science Director	Brazil
Dr.	Alan	Bernstein	Canadian Institute for Advanced Research (CIFAR)	President and CEO	Canada
Prof. Ing.	Jiří	Drahoš	Academy of Sciences of the Czech Republic (ASCR)	President	Czech Republic
Dr.	Hazem	Mansour	Science and Technology Development Fund (STDF)	Director of Programs	Egypt
Mr.	Reijo	Munther	Finnish Funding Agency for Technology and Innovation (Tekes)	Secretary General, Innovative Cities	Finland
Dr.	Philippe	Freyssinet	Agence Nationale de la Recherche (ANR)	Deputy Director General	France
Dr.	Alain	Fuchs	Centre National de la Recherche Scientifique (CNRS)	President	France
Prof. Dr.	Peter	Strohschneider	German Research Foundation (DFG)	President	Germany
Mr.	Felix	Kahle	Max Planck Society (MPG)	Head of Division of International Relations	Germany
Dr.	Krishan	Lal	Indian National Science Academy (INSA)	President	India
Prof.	Ernst-Ludwig	Winnacker	Human Frontier Science Program Organization (HFSP)	Secretary General	International
Prof.	Romain	Murenzi	The World Academy of Sciences (TWAS)	Executive Director	International
Prof.	Hanoch	Gutfreund	Israel Science Foundation (ISF)	Executive Committee Chairperson	Israel
Mr.	Satoru	Ohtake	Japan Science and Technology Agency (JST)	Senior Executive Director	Japan
Dr.	Michiharu	Nakamura	Japan Science and Technology Agency (JST)	President	Japan
Dr.	Yuichiro	Anzai	Japan Society for the Promotion of Science (JSPS)	President	Japan
Prof.	Shaukat Ali	Abdulrazak	National Commission for Science, Technology and Innovation (NACOSTI)	Secretary / CEO	Kenya
Dr.	Enrique	Cabrero Mendoza	Consejo Nacional de Ciencia y Tecnología (CONACYT)	Director General	Mexico
Dr.	Hilal	Al-Hinai	The Research Council of Oman (TRC)	Secretary General	Oman
Prof.	Andrzej	Jajszczyk	National Science Centre (NCN)	Director	Poland
Dr.	Miguel	Seabra	Foundation for Science and Technology (FCT)	President	Portugal
Mr.	Faisal M.	Al Suwaidi	Qatar Foundation for Education, Science and Community Development (QF)	President of Research and Development	Qatar
Dr.	Mikhail	Rogachev	Russian Foundation for Technological Development	Director	Russia
Mr.	Chuan Poh	Lim	Agency for Science, Technology and Research (A*STAR)	Chairman	Singapore
Mr.	Philip	Ong	National Research Foundation (NRF)	Deputy Chief Executive Officer	Singapore
Prof.	Jaromir	Pastorek	Slovak Academy of Sciences (SAS)	President	Slovakia
Prof.	Aldo	Stroebe	National Research Foundation (NRF)	Executive Director	South Africa
Dr.	Andreas	Göthenberg	The Swedish Foundation for International Cooperation In Research and Higher Education (STINT)	Executive Director	Sweden
Dr.	Thaweesak	Koanantakool	National Science and Technology Development Agency (NSTDA)	President	Thailand
Mr.	Steve	Visscher	Biotechnology and Biological Sciences Research Council (BBSRC)	Deputy Chief Executive and Chief Operating Officer	U.K.
Prof.	Paul	Boyle	Economic & Social Research Council (ESRC)	Chief Executive	U.K.
Dr.	Le Dinh	Tien	Ministry of Science and Technology (MOST)	Vice Minister	Vietnam