

Summary

“The 6th Funding Agency Presidents’ Meeting”

Date and time	Monday, 5th October, 2015 10:20-12:40
Venue	Room 104, Kyoto International Conference Center
Co-Chairs	Dr. Michinari Hamaguchi, President, Japan Science and Technology Agency (JST) Professor Dr.-Ing. Frank Allgöwer, Vice President, German Research Foundation (DFG)

Theme: Diversity as strength in research and innovation: “monophonic, multipart and harmonious research and innovation”

<Major points raised during the 6th meeting>

- Continuous support from the STS forum by providing a venue for holding FAPM was highly appreciated.
- Gender equality is achieved in some countries, while it is still an issue in others. FAPM strongly suggests that the Global Research Council (GRC) start compiling best practices and make them available to relevant stakeholders.
- Encouraging diversity without imposing affirmative actions is a challenge. Some financial mechanisms to support researchers with growing family or making a fruitful detour (including collaboration with industry) would be effective.
- Ways of supporting young researchers to be independent and keeping them in the local innovation ecosystem is also a challenge, especially for developing countries.
- There is a need to support researchers crossing disciplines, for them to be able to cope with temporal decrease of publications, for example.
- Outreach to general public and their engagement in the innovation processes are highly important to tackle societal challenges.

<Explanation>

Tackling global and grand challenges requires more and more multi-disciplinary approaches as well as a diversity, which uses all intellectual human potential available. Furthermore, in order to ensure long-term engagement with all socially relevant areas, it is crucial that science and academia adequately represent these areas, including the people who research and teach in these fields. Therefore, no one should be excluded from a career in research on the basis of academically irrelevant factors such as gender, ethnic origin, religious believes, age or health.

The various aspects and phases of diversity in research, and how to foster it in a broad term, was the topic for FAPM 2015. Major points of discussion were the following, with the list of additional topics to further guide the discussion and encourage discussion from other aspects.

- Promotion of equal opportunity for under-represented gender, while recognizing sexual differences (best practice, hurdles)
- Fostering young researchers while retaining still active senior researchers (best practice, hurdles)
- Participation of diverse actors in research in response to societal challenges

Topics	Additional points to guide discussion
Diversity in career stages	<ul style="list-style-type: none"> ● Nurturing future scientists/technologists/innovators? ● Wider opportunities for solid career development corresponding to societal needs ● Keeping still active experienced players in the loop
Diversity of functions and partners	<ul style="list-style-type: none"> ● Broader human resources, e.g., gender and ethnicity for strength ● Gender equality and work-life balance ● Implication of geographical distance, cultural differences, etc. ● Role of mobility ● Interaction with society and empowerment of citizens/users for engagement in STI processes ● Role of FAs as facilitators and interfaces for diversity ● How FAs with different scope can cooperate to cover the entire innovation value chain? ● Cross-border cooperation vs. national/regional funding
Diversity of fields	<ul style="list-style-type: none"> ● Fostering academic diversity ● Multi-/inter-/trans-disciplinarity and cluster approach ● How to evaluate diversity? ● Aspects of diversity and impacts on the R&D performance ● From basic science / emerging technologies to industry and social application ● Open science vs conventional science in terms of fostering diversity
Governance and communication	<ul style="list-style-type: none"> ● Research integrity and diversity, RRI ● Media/journals to support multi- and inter-disciplinary researches ● Is language a barrier?

Major discussion points from Group 1

Achievements of gender equality vary according to the countries. While there is no or little problem in countries like Portugal, Poland and Romania probably due to former political systems in some cases, there are countries still struggling with the issue, including Japan and USA.

Measures aiming at improving the equal participation include establishment of dedicated office, launch of calls for proposals to which only researchers with under-represented gender can apply, possibility of extending grants to balance research career with family growth, among others.

Supporting young, less experienced researchers while retaining still active senior researchers seemed to be a widely-shared challenge. To support young researchers, reform of employment system seemed to be necessary in some countries including Japan, before the demographic change would lead to disastrous situation. In some countries, supplying preferable research environments to young researchers is an issue, to prevent brain drain. It was a common understanding that FAs could just encourage diversity but should not set quota, so how to increase diversity without recourse to affirmative actions was the key question. Inclusion of diversity as a selection criterion for funding was considered to be one of the ways to achieve this. Regarding this, one of the participants commented that when success rate is low (70% of their funding programmes were with success rate of 10%), it is not only discouraging but also systemic conservatism comes into the selection process and only well-established groups tend to be funded.

Other participant commented on the diversity of research careers. We should recognize that researchers of today need to take much wider set of tasks, incl. research, teaching, research management, public outreach, translation to users and collaboration with users. Relative importance may well be different according to career stages, but the value all of those aspects should be increased.

Related to this, necessity of supporting researchers who dare to change their subjects/disciplines was recognized. Such changes require enormous personal efforts while those researchers may suffer from less publication until they re-establish themselves in the new field. Another one of the participants was said to be offering discipline hopping grants to help researchers with tackling different topics.

In terms of research topics, one of the participants told that Universities are not necessarily good at driving interdisciplinary researches while FAs can steer that, without substituting the responsibility of Universities.

As the challenges researchers tackle become closer to the society and more and more of global nature, involving non-conventional actors becomes important.

Some countries and regions including the EU and Israel have introduced policies that dissemination and out-reach activities should be part of research projects.

One of the participants reported that their Living labs programme was open to general public, and evaluation were made by mixed people, including both researchers and representatives of public, etc.

Major discussion points from Group 2

“Diversity as strength in research and innovation” turned out to be an issue of interest to all of the seven represented countries (complemented by the EU), each of them having brought relatively similar problems to the table. During the group discussion, it became evident that it was especially questions about diversity of gender, age and experience as well as diversity of scientific fields and nationality that matter in the funding agencies’ daily work and their funding programs. Diversity in terms of ethnicity, religion or health, on the other hand, was seen as rather irrelevant topics – at least for the represented agencies.

In general, diversity in research may range from a more negative perspective, treating diversity as a danger or problem, to a more positive view of diversity as an advantage or even a useful resource. The representatives acknowledged that diversity research is practically not yet recognized as a resource, however, effective diversity research management is becoming more important. In order to gain basic knowledge on research diversity and its management, the funding agencies agreed that at least agencies with top-down programs should address these issues through appointed programs on diversity research. As important follow-up tasks, the participating funding agencies decided that male and female researchers on all different career levels should be supported more diversely. FAPM would recommend that best practice examples to be collected by GRC and made available to relevant stakeholders in order to share information between countries and to give guidance.

Major discussion points from Group 3

Discussion Point #1 Gender

- It is important to collect data on gender balance matter. For instance, UK is collecting data from research applications. Institutes must be accountable for the gender balance, and there should be a regulation to keep that balance, e.g., violation may result in an

ineligibility of the funding for a few years.

- Like Poland's BRIDGE program, 3-4 years grant for the researchers on leave can be recommended.
- Mentorship and sponsorship for women should be considered.
- Gender balance is different in disciplines. Female rate is high in bio and medical fields, but low in physics, mathematics and engineering. Education before undergraduate should be considered to encourage female to get in those areas.
- Publishing success stories of female researchers is a good way to attract female students to science and engineering fields and also to let parents learn about successful female researchers.

Discussion Point #2 Young researchers

- Special programs or scholarships should be introduced for young researchers to become independent and have their own laboratories.
- Diversity of the career paths is important. We need to open up as many career paths as possible for young researchers.
- Industry-academia collaboration is also important for securing young researchers' career paths. Best practices introduced in the discussion include the following:
 - Government supports the salary of young researchers taking an internship for 2 to 3 years at industry.
 - Government supports PhD's salary fully or partially (co-fund with industry) for first 2 years or so at industry.
 - Swedish Mobility Program covers family's moving and living cost.
 - There is a scheme to dispatch young researchers to industry for 1-3 years and have them back to original organizations.
 - Hiring an innovation consultant to link between academia and industry.
- Brain drain is an issue.
- PhD population is gradually ageing. For instance, Japan currently has 17,000 postdocs. 10% of that is over 40 years old, and 1/3 is over 35. The average age to get a major research fund (such as R01 of US NIH) for his/her first time or to become independent is getting higher.