

What Potential for Research Infrastructure Networks?

On 7 and 8 May, Science Europe (SE) organised a workshop to explore the potential of the networking of Research Infrastructures (RIs) in behavioural studies. It followed a workshop which focused on the networking of 'pilot plants' and 'field trial sites'. Both were developed by the Working Group RIs (WG RI) as a pilot activity designed to collect insights into the challenges and opportunities of bottom-up networking as a policy tool for RIs. This was run in collaboration with the Scientific Committees (SCs) for Engineering (ENGITECH), Life, Environmental and Geo Sciences (LEGS), and Social Sciences (SOCIAL).

The SE Roadmap sets objectives to advance the management and networking of RIs and to identify the RI needs of the scientific communities. The pilot tests the assumption that both objectives are related, and that their development can create a virtuous circle improving both the funder's ability to support the best RIs, and the communities' ability to have access to appropriate RIs.

In some areas, scientific communities are self-organised to create and sustain RI networks that support or even drive the development of the field. For example, networks of synchrotrons benefited early from European support; this triggered the creation of the well-recognised European Association of National Research Facilities (ERF). In other areas, the European Commission or national research organisations fostered the creation of European or national networks respectively. However, in many areas, concerned communities have not been able to sustain meaningful RI networks.

In this context the WG RI considered whether it could assist communities that want to self-organise and coordinate as RI networks, in order to benefit from initial mutual exchange and, eventually, to be able to propose on behalf of their communities relevant models for the support of RIs by research (funding) programmes.



With this in mind, in April 2014 the WG RI launched a consultation amongst Member Organisations (MOs) and SCs to identify communities that may benefit from co-ordinating as RI networks and that would be well-suited for the pilot. Two types of facilities were identified: (1) Pilot Plants and Field Trial Sites—exploring RIs at the interface between academia and industry—and (2) Human Behavioural Laboratories and Living Laboratories (HBL/LL)—exploring RIs serving emerging multidisciplinary communities. A workshop was organised for each: on 18 and 19 February on PP/FTS in collaboration with ENGITECH and LEGS (see SE Newsletter February 2015); and on 7-8 May on HBL/LL in collaboration with ENGITECH and SOCIAL.

The workshop on 'behavioural' and 'living' laboratories engaged with a multidisciplinary and somewhat disparate community bridging social, medical and, engineering sciences, that studies the behaviour of human beings, individually or collectively, in a controlled environment. It was attended by representatives of SE MOs and managers as well as users of existing laboratories. They discussed what was needed for laboratories to expand beyond serving the needs of a single group and provide services to larger and diverse communities. Discussions led to assessing the feasibility to network existing HBLs and LLs as RIs tapping into the interoperability and training potential of these facilities. The combination of the diversity of the participants (their backgrounds, expertise and expectations) with the very interactive format of the workshop allowed for rich and frank discussions.

With the pilot activity now concluded, the WG RI and the

[Continues on page 2](#)

Inside

Science Europe News

Evaluation Working Group	page 2
LEGS Workshop on Food, Health & the Environment	page 2
SE View on Framework Programmes	page 3
More SE News	pages 2-4
Calendar of Meetings	page 6

European Research News

European Parliament Hearing on Vivisection	page 4
ERA Conference	page 4
Leiden Manifesto	page 5
More EU News	pages 4-5



News from the Evaluation Working Group

The Science Europe (SE) Working Group (WG) on Research Policy and Programme Evaluation has added a third work strand to its work plan. Entitled, "Shaping the societal impact of research", it follows up on the SE Roadmap objective of promoting the alignment of evaluation activities.

The WG will stimulate discussion within SE on the role that Members can play in policies regarding the societal impact of research. In the WG's opinion, such discussion is a necessary first step to explore methodological alignment on societal impact assessment: methods and techniques should follow assessments rather than vice versa.

The definitions of societal impact, and the objectives pursued in relation to it, vary greatly across organisations. However, most face similar questions, such as: should societal impact assessments be performed? What should they be used for? Should societal impact be a criterion at project evaluation level? What are the relevant characteristics of individual types of societal impact?

The work strand intends to develop a document outlining a shared understanding of the rationale for demands to provide evidence of societal impact. The ambition is for this document to pave the way for a SE Position Statement and future work on broad methodological guidelines. The WG will be able to take into account the related discussions on innovation and the societal value of science that took place at the SE Round Table on Innovation (Vienna, 16 and 17 March) and ERA High Level Workshop (Vienna, 13 and 14 April).

In addition, the WG is currently busy with the analysis of the responses received from Members to the survey it launched at the beginning of the year on evaluation-related data collection and use practices. A draft report will be produced by the summer, with preliminary results being presented and discussed at a special session in September, at the 20th International Conference on Science and Technology Indicators in Lugano (<http://www.sti2015.usi.ch/>).

Food, Health and Environment: How Do They Interact?



The relationship between food, health and the environment was at the core of the workshop organised in Milan on 12 and 13 May by Science Europe's (SE) Scientific Committee (SC) for Life, Environmental and Geo-Sciences.

Members of the SC, together with policy experts from SE Member Organisations, scientists from academia and clinicians and industry representatives, met alongside the World Expo

2015 on 'Feeding the Planet, Energy for Life' to identify scientific opportunities for innovation and future research priorities in these areas.

By sharing knowledge about the relationship between food and health, and highlighting the biological processes through which food defines us, the participants discussed biotechnological advances in food production in view of the current challenges related to sustainability and environmental impact. By looking at crucial innovation in medicine and life sciences, which are providing solutions that allow individuals to actively manage their health and prevent diseases, the workshop helped orientate the future work of experts in these fields towards the development of advanced human health strategies based on personalised food policies.

Among the main recommendations and outcomes, the following needs were highlighted: to strengthen transdisciplinary research and to create a new eco-

Continues on page 3

concerned SCs will reflect upon the next steps: Are RI networks an appropriate model to promote co-operation between national infrastructure strategies and/or between national and EU infrastructure strategies? Can SE assist that model? The outcomes of this reflection will be shared with SE MOs in due course.

More SE News

Medical Sciences Committee Workshop and Meeting on Personalised Medicine

On 13 May 2015, Science Europe's Medical Sciences Committee organised a meeting on Personalised Medicine entitled, 'Personalised Medicine: what are the next steps to deliver this for patient benefit across Europe?' The meeting, which took place in Southampton General Hospital in the UK, followed a workshop on 12 May co-hosted by the Science Europe Medical Sciences Committee, the UK Academy of Medical Sciences, the Medical Research Council and the University of Southampton entitled, 'Stratified, Personalised or P4 Medicine: A new direction for placing the patient at the centre of healthcare and health education'. The workshop and meeting aimed to address some of the technical, practical, economic and societal challenges for implementing personalised medicine in healthcare settings and discuss how to move forward the agenda of Personalised Medicine at the European level. Three topics were identified as being of major importance: the need to foster economic studies on the cost-benefit of Personalised Medicine; the development of best practices to stimulate data sharing and data integration within the biomedical community; and the implementation of capacity-building strategies. A report on the meeting outcomes will soon be published.

Science Europe Reacts to News of New EC Structure for Scientific Advice

On 13 May Jean-Claude Juncker, President of the Europe Commission (EC), finally revealed the EC's plans for the scientific advice structure that had been expected ever since the position of Chief Scientific Advisor to the previous EC President expired last Autumn.

According to the proposal, the EC will put in place a Scientific Advisory Mechanism,



Continued from page 2

consisting of a small High Level Group of eminent scientists, with operational support from the Directorate General Research and Innovation of the EC and with 'structured' links to national Academies, the wider scientific communities and to specialist advisory bodies.

In reaction, Science Europe (SE) welcomed the fact that the EC has now clearly stated that it will put in place a structure for scientific advice, but that the details of the proposal are yet to be defined. SE cautioned it will be crucial that the new advisory mechanism can maintain its independence and legitimacy, that it does not deteriorate into a lobbying structure and that the advice it provides reaches the relevant recipients.

Link to SE Press release:
<http://www.scienceeurope.org/urls/sam>

Link to EC press release:
http://europa.eu/rapid/press-release_IP-15-4970_en.htm

Open Access Principles Generate Record Online Engagement

On April 27 it was publicly announced that Science Europe's Member Organisations had adopted four new common principles on Open Access Publisher Services (<http://www.scienceeurope.org/urls/open>). The news was extremely well received on social media, leading to almost 80 separate engagements with Science Europe's Twitter account. It also generated 1,846 hits on the Alpha Galileo website, placing it in the top five most read news items.

Scholarly publishers in particular have shown great interest in the new principles, as well as influential commentators in the Open Access discussion, including the Directory of Open Access Journals (DOAJ) and many others, who stressed their strong nature and potential impact. Mainstream press in different European countries also picked up on the adoption of the principles. Their public release will be followed by a re-issue of the SE Principles for the Transition to OA of 2013 with the new principles added.

system for more innovation opportunities in breakthrough research; to assess various aspects of health and environmental economics related to a paradigm shift towards risk alleviation and prevention; and to increase consumers' empowerment and models of social engagement, thanks to the promotion of research infrastructures and appropriate funding schemes where key players can combine the need to promote health, nutritious food, and quality of life in parallel with the environmental sustainability.

Science Europe Gives View on Previous and Current Framework Programmes

The Science Europe (SE) Working Group (WG) on Horizon 2020 met in Brussels in May to finalise input into two important processes. The first is the ex-post evaluation of the Seventh EU Framework Programme for Research and Technological Development (FP7), which is currently under way. The second is the initial preparation for the upcoming mid-term review of the current Horizon 2020 Programme, which will begin in earnest in 2016.

Regarding the FP ex-post evaluation, the Horizon 2020 WG prepared a response to the online consultation which closed on 22 May. The response highlights some of the aspects of FP7 that SE Member Organisations (MOs) – in their experience as main beneficiaries of that programme – found had worked particularly well, as well as some of the deficiencies of that Programme. The funding available for excellent basic research in a bottom-up way through the setting up of the European research Council (ERC), as well as the collaborative projects of the Co-operation Specific Programme of FP7, are only a few examples of clear strengths of FP7, which need to be safeguarded in current and future Framework Programmes. The complexity of FP7, and of many associated schemes, was one of the main points to be improved in the future, according to the WG.

The WG input also formed the basis of SE's participation in a meeting of the High Level Expert Group mandated to carry out the ex-post evaluation. Amanda Crowfoot, Director of the SE Office, participated in the meeting, to which a range of umbrella organisations of stakeholders from academia and industry were invited, including the European university Association (EUA), LERU, Business Europe, and EARTO.

Regarding the upcoming mid-term review of Horizon 2020, the WG prepared some key messages as input to a Hearing at the European Parliament (EP), held by a newly created Working Group of the EP's Industry, Research and Energy (ITRE) Committee which will lead preparations for the mid-term review on the EP's side. The Working Group – chaired by German MEP Christian Ehler – invited 4 umbrella stakeholder organisations (Science Europe, LERU, EUA and EARTO) to a first hearing on 12 May. The SE Horizon 2020 WG used the opportunity to identify some broad critical areas into which the mid-term review should look more closely, such the budget and structure, the types of instruments available, the proposal and evaluation procedures and project management issues.

The Horizon 2020 WG's work on these two files is of high value for SE's continued engagement with Horizon 2020, as well as for developing a strategy towards the preparation of the next Framework Programme, soon to get underway.



European Parliament Hearing on Vivisection

On 11 May the European Parliament Committee on Agriculture and Rural Development (AGRI), in association with the Committee on Petitions, the Committee on the Environment, Public Health and Food Safety and the Committee on Industry, Research and Energy, hosted a public hearing of the European Citizens' Initiative (ECI), entitled 'Stop Vivisection.'

This initiative urges the "European Commission to abrogate directive 2010/63/EU on the protection of animals used for scientific purposes and put forward a new proposal aimed at phasing out the practice of animal experimentation, making compulsory the use - in biomedical and toxicological research - of data directly relevant for the human species." Its organisers invited experts, and the audience expressed their different perspectives on the current legislative framework, the value of the animal model for predicting human responses and alternatives to animal testing.

Initiative representatives and their scientific advisors delivered the usual anti-vivisection claims, misrepresenting data and even venturing into conspiracy theories. The voice of reason was represented by Ms Barré-Sinoussi, whose contributions were convincing and often poignant in making reference to her research on HIV. The hearing engaged debate with the members of the European Parliament, many of whom acknowledged the importance of the European Citizens' Initiative tool and welcomed the constructive dialogue on the current topic, but there was a strong sense that ceasing animal experimentation would be detrimental to biomedical research and development.

On the basis of the hearing, it is a near certainty that the Commission will reject the 'Stop Vivisection' initiative in its formal reply, due before June 3. The Directive will undergo its first 5 year review in 2017 and the Commission made a commitment to organise a scientific conference that year to discuss the validity of animal research.

A workshop entitled, "Improving the Science Quality through the Replacement, Refinement and Reduction of Animals in Biomedical R&D", will be held on 21 and 22 September 2015 in Brussels, co-organised by the Medical Committee of Science Europe and the UK's National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3R). This is extremely timely and will no doubt contribute to the emotive debate.

Big Brussels Conference Set to Present Approach of New Commission on Research and Innovation Policy

The European Commission (EC) is organising a conference on 22 and 23 June entitled, 'A New Start for Europe: Opening up to an ERA of Innovation'. It will be targeted at research and innovation organisations, and will cover three main topics: Open Science, including the outcome of the 'Science 2.0: Science in Transition' consultation, the European Research Area (ERA) and innovation.

The conference is presented as an opportunity to reflect on the future of the European Union's research and innovation policy, which is currently structured around the Innovation Union (IU) Flagship initiative, and ERA policy as defined by an EC Communication (see http://ec.europa.eu/research/era/era_communication_en.htm).

The Commission will seek to introduce new topics on the EU research policy agenda, namely 'Open Science' and innovation, and will also inaugurate the

Continues on page 5



Humanities Committee Meeting in Basel

The Humanities Scientific Committee met in Basel on 28 and 29 April 2015, with a busy agenda that focused on taking stock of the Committee's work and developing the work plan, which is delivering consistently high-impact output.

It was noted in the discussions that the output of the Humanities Committee has proved to be both relevant and unique. It has supported discussions at Member Organisation level in several areas (e.g. open access, evaluations), and has emphasised the role of art and humanities in research policy setting. Members of the Committee have been widely acknowledged as key representatives around Europe and beyond, raising Science Europe's visibility. The capacity of the Committee to represent the community's interests was also highlighted, particularly with regard to the dialogue with the European Institutions. Key outputs such as the brochure on Humanities and Social Sciences in Horizon 2020 Societal Challenges (<http://www.scienceeurope.org/urls/challenges>) and the Opinion Paper on the Human Factor in the 2014-15 Work Programme of the Horizon 2020 Societal Challenges (<http://www.scienceeurope.org/urls/human>) are references for a wide audience.

More EU News

The European Commission Digital Single Market Strategy

On 6 May the European Commission (EC) adopted its Digital Single Market Strategy. It is designed to foster a more competitive digital economy in Europe along three pillars: 1) better access for consumers and businesses to digital goods and services across Europe; 2)



Continues on page 5

SCIENCE EUROPE Members' Newsletter | 4

Continued from page 4

creating the right conditions and a level playing field for digital networks and innovative services to flourish; and 3) maximising the growth potential of the digital economy.

Among the various measures put forward, the most relevant ones for the research sector address 'Better access to digital content - A modern, more European copyright framework'. The EC recognises the barriers to an effective cross-border use of content for research, education, and text and data mining.

This positively echoes some of the concerns raised by Science Europe's Working Group on Research Data in its recent Briefing Paper on Text and Data Mining (See Science Europe newsletter, April 2015). However, there is still a long way to go to achieve a science-friendly EU Copyright Reform.

Parliament and Commission Agree to Spare ERC funds Amid Substantial Cuts to Horizon 2020 Budget

The campaign calling on the EU institutions to avoid cuts to the Horizon 2020 budget, led by Science Europe Member Organisations, the Science Europe Office and other stakeholder organisations, has provided important support to the European Parliament's (EP) position in the ongoing negotiations on the European Fund for Strategic Investment (EFSI). At the very last moment the EP and the European Commission reached an agreement in an all-night negotiation round on 27 May. As this newsletter went to press, details about the deal reached were still coming in, however sources confirmed that the agreement would reduce the planned cuts to Horizon 2020 by €500 million, so that in the end the budget would be shrunk by €2.2bn and not €2.7bn as initially planned. This means that the funds of the European Research Council (ERC) and the Marie Skłodowska Curie Actions would be spared from any cuts. However the €2.2bn cut to the €80bn budget is still substantial and the collaborative research and innovation projects funded through Pillars 2 and 3 of Horizon 2020 – already suffering from very low success rates – will bear the full impact of the cuts.

Continued from page 4

post-2014 ERA approach, with a new partnership agreement with stakeholder organisations (to be launched and signed at the conference), and a new ERA Roadmap drafted by the EU Member States.

The President of Science Europe, Miguel Seabra, will participate in a panel on ERA implementation, while the Chair of the Gender and Other Diversity Issues Working Group, Sabine Haubenwallner, will speak in a session on gender equality and research integrity.

In addition to renewing its commitment to the ERA Partnership, Science Europe will seek to pass on key messages for EU policy in relation to Research Integrity and Research Infrastructures. Science Europe will also respond to a survey launched by the EC ahead of the conference on the strengths and weaknesses of the IU strategy (see <https://ec.europa.eu/eusurvey/runner/OpeningERA>).

Group of Scientometricians Releases 'Leiden Manifesto on Research Metrics'

Following up on a debate that began last year which was reported in the May 2014 issue of this newsletter (see 'Bibliometricians Reach out to Users to Address Quantitative Assessment Malpractices'), a community of academics specialised in scientometrics and research evaluation published in *Nature* (<http://goo.gl/LiyWWe>) a manifesto outlining ten principles that they deem as fundamental for all organisations involved with the governance of research when handling and using metrics.

The authors of the manifesto are concerned that the abuse of research metrics has become too widespread to ignore, and, as a result, they offer a 'distillation of best practice in metrics-based research assessment, so that researchers can hold evaluators to account, and evaluators can hold their indicators to account'.

The initiative is meant to fill a vacuum in terms of codification of best practices that the scientometricians feel should be filled. The principles try to caution organisations against the unintended effects of mishandled metrics, such as the fact that metrics end up working as a substitute for peer review (first principle), that they end up underrating locally-relevant research that is not in English or in less mainstream journals (third principle), or that they induce incorrect comparisons across disciplines when citation rates are not normalised to take into account the field-specificity of impact factors (sixth principle).

The authors now wish to stir a lively discussion within the scientific community, the next opportunity being the 15th International Conference on Scientometrics and Informetrics taking place in Istanbul from 29 June to 3 July (<http://www.issi2015.org/en/>). At the same time, the academics are very keen to involve stakeholders in the debate. In this regard, the Science Europe Working Group (WG) on Research Policy and Programme Evaluation has sent feedback on an early draft of the manifesto, and the discussion may continue in the coming months, if the WG decides to keep its active engagement on the issue.



Calendar of Meetings

Working Groups

- 23-24/06/15 Research Policy and Programme Evaluation, in Brussels
30/06/15 Research Data, in Brussels
02-3/07/15 Research Infrastructures, in London
27-28/08/15 Gender and Other Diversity Issues, in Brussels

Scientific Committees

- 12/06/15 SOCIAL, in Brussels
25-26/06/15 PHYCHEMA, in Budapest
21/09/15 MED, in Brussels
29-30/09/15 LEGS, in Rome
28-29/10/15 HUMAN, TBC
12-13/04/16 HUMAN, TBC

General Assembly and Governing Board

- 25/06/15 Governing Board, in Brussels
01/10/15 Governing Board, in Brussels
20/11/15 General Assembly, in Brussels

Other Meetings

- 11/06/15 SOCIAL workshop on 'Ethics in Social Science Research', in Brussels
25/06/15 MED 'opening dinner' for 3Rs workshop, in Brussels
21-22/09/15 MED workshop on 'Improving Science Quality through the 3Rs Implementation', in Brussels
02/10/15 Science Europe Chairs-to-Chairs Meeting, in Brussels

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