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Science advice panel struggles to find feet

Scientific Advice Mechanism's second loss is chairman

THE CHAIRMAN OF THE HIGH-LEVEL group at the Commission's Scientific Advice Mechanism has become the second of seven members to quit within two months—raising questions about the SAM's likely effectiveness.

Henrik Wegener, a food scientist, is leaving the SAM to become rector of the University of Copenhagen. In December, meteorologist Julia Slingo also left when she retired from her full-time job at the UK Met Office.

Chairing the high-level group will pass to Rolf-Dieter Heuer, former director of Cern. The deputy chairwoman will be Pearl Dykstra, a sociologist at Erasmus University, Rotterdam; and Paul Nurse, director of the Francis Crick Institute in London, joins the group.

The Commission created the SAM in 2015 to replace the chief scientific adviser to its president. It is made up of three parts: a high-level group of seven advisers, supported by a small secretariat in Brussels; parts of the Joint Research Centre, the Commission's in-house science service; and input from Europe's various science academies.

"The concept of the SAM is a clever way to get around the criticisms that the chief scientific adviser faced, regarding concentrating scientific advice into one person," says Philip Hines of Maastricht University, who assessed the SAM for a think-tank, the European Policy Centre. "But they have only just issued their first report—on carbon emissions from cars in the real world versus laboratories—so they haven't attracted much attention."

The SAM's predecessor, the post of chief scientific adviser to the president, existed for just two years and was held by Scottish biologist Anne Glover. Its 2014 abolition, alongside that of its corresponding advisory body, the Science and Technology Advisory Council, raised an outcry from scientific leaders.

"There was a need to invent something to better match the needs of the Commission," Wegener says. "The mechanism was and still is an attempt to do that. It is a piece of innovation—we are breaking new ground."

The high-level group has been meeting since January 2016, but the academies' input will come

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from a consortium called Science Advice for Policy by European Academies (Sapea), which was only formed last month. It has five members: Academia Europaea, the European Academies Science Advisory Council, All European Academies, EURO-Case, and the Federation of European Academies of Medicine.

"The first year was to some extent a proof-of-concept year," Wegener says. "As that comes to an end we enter the more important second phase, where the academies and societies become part of the mechanism. So the full potential of the mechanism remains to be seen."

When it comes to the SAM's effectiveness, "the judgement will come now," says Sven Bestmann, a neuroscientist at University College London, who has worked with SAM through the Young Academy, a pan-European group representing young scientists.

"Going forward, the most important thing is to establish a well-functioning collaboration with Sapea, and to maintain good collaboration with the Joint Research Centre and the specialised agencies," says Wegener. "And then, of course, to get sufficient recognition among the commissioners."

Elvira Fortunato, a materials scientist at the New University of Lisbon and a member of the high-level group, says: "Since we are a new mechanism, we don't yet have a lot of visibility. We want to make our work more known among politicians, scientists and society."

"Not enough has been done to publicise the SAM," says Bestmann. "Many scientists are not aware of it—and you would expect them to be, considering its scale. It's the Commission's flagship programme for delivering scientific advice."

"Now that the academies are involved they will have to deliver, and the challenge for them is to activate their members," Bestmann says. "This will be difficult if there is a lack of credibility because people just don't know about the SAM."

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Cold fudge

Commission's scientific mechanism yet to find traction

In order to assess what's happening inside the European Commission's Scientific Advice Mechanism, whose top panel has just lost two of its seven members (*see Cover story*), we need to return, briefly, to its origins.

The Commission historically relied on a combination of several layers of specialist committees, its Joint Research Council and external scientific academies for scientific advice. But in 2010, José Manuel Barroso, Commission president at the time, appointed the Scottish biologist Anne Glover as its first chief scientific adviser.

Glover is smart and articulate but she sometimes struggled in the role. Unwisely for example, she became involved in the never-ending guerilla war between environmentalists and pesticide suppliers over genetically modified crops: a highly charged and complex issue on which divisions within and between EU member states have existed for decades.

Barroso's successor Jean-Claude Juncker didn't reappoint Glover, but with scientific and industrial lobbies calling for more scientific input into policy, the Commission felt obliged to develop a compromise approach to the science advice role. After some consultation, it came up with the idea of the Scientific Advice Mechanism, a seven-strong panel of senior scientists who would remain in their external jobs, while supplying advice as required, supported by a 20-strong secretariat sitting in the Commission's research and innovation directorate.

These days, no one individual, or indeed seven individuals, can provide scientific and technical advice across all areas of likely interest: the task of the panel is rather to collate it from more specialised sources.

In doing this, ideally, the SAM would combine the responsiveness of a single adviser with the sagacity of a scientific academy. But it always seemed more likely that it would fall short of this ideal. The panel doesn't work full-time, and can't do much to shape a role for itself in the corridors of the Commission. Nor is it likely that a panel of seven will fully reflect the different perspectives that exist on contentious issues.

The crux of the problem, however, is that the SAM was brought to president Juncker, not demanded by him. And experienced scientific advisers, such as Peter Gluckman, the New Zealand prime minister's adviser who has been working to build a global network of such advisers, agree on one thing: an advisory mechanism will only work if there is a genuine appetite for its advice.

There has been scant indication that Juncker wants or needs the SAM. So, it is not surprising that some of the people who had agreed to devote their time and energy to it are feeling unwanted. Two have already left, one citing the outside commitments that every member of the panel would always be expected to hold.

One of the Commission's perennial weaknesses is its propensity to search earnestly for compromises and end up with half-measures. If there is no sign, a year from now, that the SAM is being heard, it might be as well to bite the bullet and retire it from service.

If a future president of the Commission finds that they need untainted technical advice, they will surely be able to find a way of getting it.

elsewhere

"It is simply bonkers to leave Euratom."
Steven Cowley, a former director of the Culham Centre for Fusion Energy in Oxford, reacts to news that the UK might pull out of European nuclear cooperation, including the Iter fusion project, after Brexit. *Nature*, 27/1/17.

"We have a third front undermining the European Union, and it is Donald Trump."
Guy Verhofstadt, leader of the liberal Alde group in the European Parliament, does not mince his words when discussing the danger posed to the EU by Russia and fundamental Islam. *EU Observer*, 30/1/17.

"I'm living in a big prison called the United States of America."
Ehssan Nazockdast, a fluid dynamics researcher at New York University, says he does not dare travel abroad following president Donald Trump's move to ban Iranians from entering the US. *Science*, 29/1/17.

"We're not expressing an opinion, we're presenting the cold, hard facts."
Jarostaw Szarek, head of Poland's Institute of National Remembrance, explains his decision to publish the names of all Auschwitz guards online with the view of supporting research and clarifying history. *BBC*, 30/1/17.

"Our ultimate aim is to maximise the benefits of medicines and minimise the harm."
Project coordinator *Kevin Park* describes the mission of a £14-million Innovative Medicines Initiative project on adverse reactions to drugs, launched at the University of Liverpool in January. *Eureka*, 29/1/17.

"Some member states were upset about this, but those are the rules."
Denis Roger, the European Defence Agency's head of innovation, says the European Parliament will retain budgetary control of a new defence research fund, even if the work is top secret. *Science Business*, 25/1/17.

"I feel very comfortable with Canada."
European Food Safety Authority boss *Bernhard Url* says that extra trade agreements between the EU and other parties will not increase the organisation's testing workload. *EurActiv*, 16/1/17.

decade

"This is something that is not OK."

Angelika Niebler, chairwoman of the European Parliament's industry committee, says model grant agreements for Framework 7 have been stuck at the draft stage for ages.

Research Europe, 15 February 2007

what's going on

European Research Area makes uneven progress

Variations in institutional capacity and underspending on science in the European Research Area are stalling improvements, a European Commission report has concluded. The ERA Progress Report 2016 found that there are large disparities in research performance levels and growth rates between ERA member countries. Austria, Estonia, Ireland, Italy, the Netherlands and Spain made progress on all six ERA priorities, which include effective national research systems, gender equality and transnational cooperation. However, the Czech Republic, Denmark, Hungary, Lithuania, Poland and Romania fell behind in three or more areas.

Academics slam prioritisation of research over teaching

The League of European Research Universities has argued that the resources spent on research at universities come at the expense of education, and called for EU-wide policies to promote teaching excellence. In a position paper, Leru flagged decreasing funding for teaching and educational innovation as a barrier to excellence. Science activities “are typically much better funded because of the importance of producing top-notch research for universities’ international reputation”, the paper said.

Innovation scheme pays out in final round

The European Commission will spend €33.5 million on supporting 17 projects in the sixth and final round of its Fast Track to Innovation programme. The funded projects involve 80 partners in 19 countries, and will receive about €2m each. The scheme has been running since January 2015 with an overall budget of €200m from Horizon 2020. A total of 94 projects have been funded so far.

Hundreds offer to help researchers affected by US ban

The European Molecular Biology Organisation has launched a database to help researchers affected by the United States immigration ban. The EMBO website lists researchers in Europe and Canada who are willing to offer temporary desk space, library access and accommodation for stranded researchers. Would-be hosts can sign up by filling in an online form. US president Donald Trump’s travel ban, which affected seven Muslim-majority states, was put in place on 29 January, but has been temporarily lifted by the US federal appeals court.

UK’s chief scientific adviser to lead ‘supercouncil’

Mark Walport, the UK government’s chief scientific adviser and former director of the Wellcome Trust, has been appointed as the chief executive of UK Research and Innovation—the proposed umbrella funding council that will include the seven research councils, Innovate UK and the research functions of the Higher Education Funding Council for England. The appointment has been criticised because Walport’s advocacy to reform the research councils led to the review that recommended the creation of UKRI.

Commission buries anti-corruption report

The European Commission has abandoned plans to publish its biennial report on corruption against the backdrop of anti-graft protests in Romania. The Commission quietly shelved the overdue EU Anti-Corruption Report, which is meant to provide recommendations for each EU country. The first and only such report was released in 2014. Frans Timmermans, the first vice-president of the Commission, said that the EU needed a more “versatile” approach to address “the complexity and evolving nature of corruption”, without giving more details.

europe

Opposition to Efsi expansion grows

Two EU bodies and a lobby group have warned that the extension of the European Fund for Strategic Investments has been premature, citing concerns about its effectiveness and transparency.

The European Court of Auditors, the European Parliament and the European University Association (EUA) have submitted reports indicating a lack of clear results from Efsi, and have called for an independent evaluation.

Efsi, a joint initiative between the European Commission and the European Investment Bank, was set up by Commission president Jean-Claude Juncker to fund infrastructure, innovation and research with public and private money. EU funds are used to provide a guarantee for high-risk projects struggling to get conventional funding.

In September 2016, the Commission proposed to increase the EU contribution to Efsi from €16 billion to €26bn and the contribution from the EIB from €5bn to €7.5bn.

The European Court of Auditors stated in December that the Commission's reason for extending Efsi did not fit with an evidence-based impact assessment.

Then, in a draft report on 30 January, the Parliament suggested that the EIB had inappropriately benefitted from the EU guarantee and funded other, not-so-risky projects. It also said that unfair distribution had resulted in 91 per

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cent of Efsi funding going to the old EU member states.

On 25 January, the EUA criticised the investment fund's lack of benefits for research and innovation, saying that taking €2.2bn from Horizon 2020 to fund Efsi was a mistake. The organisation added that universities could not directly benefit from Efsi as the scheme provided loans and not grants, which, under EU law, universities cannot use.

Thomas Estermann, the EUA's director of governance, said that Efsi money might go to infrastructure but not to fund science. "Just because you fund laboratories where research might be undertaken, doesn't mean that you fund research and innovation," he said.

Estermann said that the main problem with Efsi was that it didn't contain any detailed information on fund recipients or explanations why a project might be chosen. "It's public money that is distributed, and not having a transparent list of the individual beneficiaries is something crazy," said Estermann.

A spokeswoman for the Commission said the Efsi proposal enacted in September 2016 aims to increase transparency, "with the exception of commercially sensitive information".

Group plans guidance on personal data use

Researchers and lawyers are working on a code of conduct for the use of personal data in health research with the aim of ironing out differences in national implementation of an impending EU law.

The initiative is being led by the Biobanking and Biomolecular Resources Research Infrastructure, BBMRI-Eric. *Research Europe* has learned that the team met with the European Commission, the pharmaceutical industry, lawyers, patient groups and research organisations last week to discuss the way forward.

The initiative focuses on the EU General Data Protection Regulation, which covers the use of personal data for research and other purposes. It will begin to apply from 25 May 2018 onwards. Research organisations have expressed concern that differences in the way that countries might interpret and apply the GDPR will make it difficult to collaborate and share personal data across national borders.

BBMRI-Eric is in contact with national data protection authorities to develop the code, while the authorities themselves work towards implementing the GDPR.

"We're developing a code of conduct that will be as understandable as possible to provide guidance for researchers and administrative staff and help reduce any

by **Craig Nicholson**

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unnecessary fear of different data protection standards in EU member states," said Jan-Eric Litton, BBMRI-Eric's director-general.

The core group developing the code of conduct will work with a broader group of interested and affected parties to help define the code's scope and content, Litton said. The organisers' aim is to have a first draft ready by the summer, which will then be opened for public consultation and refinement in the autumn.

Alea López de San Román, policy officer at the League of European Research Universities, attended the preparatory meeting. She said it would have been better if policymakers had been able to produce a more ambitious and harmonised regulation, since the GDPR only sets out "very basic common rules".

But she added that the code of conduct would be helpful. "It will be useful for demonstrating compliance with the obligations and for facilitating cross-border data transfers," she said.

López de San Román said that additional guidance would be needed, however, and that Leru might consider developing additional best practice for universities.

Output-based payments to be tested in Horizon 2020

The European Commission is to launch pilot schemes in Horizon 2020 to test paying research organisations for the outcomes of projects with a lump sum.

Carlos Moedas, the research commissioner, announced the pilots during a meeting of the European Parliament's Budgetary Control Committee in January. He said that the Commission was often asked to make its payment processes more like those of other funders, such as the United States Defense Advanced Research Projects Agency.

In the pilot schemes, project costs will be reimbursed on the basis of their outputs rather than explicitly proved spending, Moedas said. "These pilots will be part of the 2018-20 programme. The idea is that they will shift the focus from checking inputs to monitoring performance and outcome." The plan is "of extreme importance", Moedas said.

The move will implement a recommendation of the European Court of Auditors, which said last year that the Commission should trust researchers more and try evaluating them on the basis of their performance. The existing system of reimbursing researchers for proven costs is more prone to errors, the auditors said.

The Commission did not provide further information on

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which parts of Horizon 2020 the pilots will run or exactly how they will operate before *Research Europe* went to press.

The pilots are likely to make reimbursement of project costs more similar to a procurement process, said Peter Tindemans, secretary-general of the researchers' association EuroScience. If this was the case, the Commission would specify the deliverables it wanted to see and negotiate a price with the researchers, but not audit detailed cost evidence as it does at present, provided it is happy with the project outcomes, he suggested.

This would base the evaluation much more on the quality of the research outputs, Tindemans said, adding that it would be "very subjective". It wouldn't be possible for blue-sky research, so it couldn't include European Research Council calls, he said.

John Donovan, chairman of the European Association of Research Managers and Administrators, said that running the pilots was "a good idea". However, much will depend on the specifics of the implementation, and there might be "a whole lot of unforeseen consequences" around aspects such as VAT liability, he warned.

Structural funds could prop up infrastructure

The €2.4-billion price tag for research infrastructure under Horizon 2020 is "proving very limited", according to Science Europe.

The group, which represents scientists and national funders across Europe, said in a report on 31 January that more groups were seeking funding from a diminishing budget. Research infrastructure needs a more generous budget in the second half of Horizon 2020 to pay for the running costs of the most important projects, it said.

This could be achieved by creating better alignment with European structural funds, the group suggested. However, this would mean a revamp of priorities in Horizon 2020 and structural funds to ensure their finances can be combined, said Maud Evrard, a senior policy officer at Science Europe.

"From a purely administrative perspective, different timelines and criteria would be burdensome on researchers," she said. "We feel more could be done by the Commission to inform how the complementarities between these schemes could become reality."

In December, the Commission published a paper to outline how Horizon 2020 and structural funds could be

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combined to benefit research infrastructure, stating the importance of stricter rules to ensure national contributions remained in place. The paper gave the example of a fictional consortium receiving a Horizon 2020 grant for a pan-European project on embedded systems. In this case, the coordinator could also apply for structural funds if the regional government makes embedded systems a priority, the Commission suggested.

But Science Europe said that relying solely on parts of other funds does not make up for the shortfall in Horizon 2020. In its report, the group called for a reversal of the €2.2bn cut to the Horizon 2020 budget for the European Fund for Strategic Investments.

Horizon 2020 infrastructure funding "suffers from a very high demand for funding that is not properly met", said Evrard. "Excellent research is therefore facing under-financing, with decreasing success rates at the EU level."

The report said that policymakers should find an alternative funding model for Efsi that would not involve taking funds from the final years of Horizon 2020.

interview mark parsons

Data on tap

The Research Data Alliance is trying to create a world where scientific data flows as freely as electricity. **Eleni Courea** talks to Mark Parsons, its outgoing chief.

Mark Parsons, the secretary-general of the Research Data Alliance, is a busy man. His latest automated email response reads: “Oh dear, I’m out again. February is crazy. I’m visiting the capitals of Russia, the United States, the UK, and the EU. After all, open data sharing can only help in these dire times.”

Parsons is stepping down after three years of heading the RDA, a community-driven organisation launched in 2013 to build the infrastructure needed to enable open data sharing. The RDA has the backing of the European Commission, and the US and Australian governments.

As the first head of RDA, Parsons’s job has been to get the organisation off the ground. “My vision was to define the vision,” he says. His initial activities included long discussions with Fran Berman—now the US lead of the RDA—to decide on the scope and purpose of the alliance.

Since then, the RDA has evolved into a community that “builds social and technical bridges that enable open data sharing” with the aim of “addressing the grand challenges of society”.

“Those are short, catchy phrases,” Parsons says, “good mission statement, vision statement things”, which are emblazoned across the RDA website. “But it’s an ongoing process. The bridges metaphor shows how we want to build something concrete that solves the problems faced by particular communities, machines, and cultures. We’re trying to communicate across all those differences.”

Those bridges are the infrastructure that makes data sharing and data-driven research possible. Parsons envisions that such infrastructure is developed and adopted by researchers that the RDA has roped together. “Open data policies are not enough,” he says. “Although the bare principles of open data have done a really good

job, particularly in Europe, of raising the profile of data sharing, we need technical infrastructure to actually implement it.”

There are more than 80 working and interest groups in the RDA to tackle varying data infrastructure challenges—but the alliance’s nine-member secretariat has barely grown since it was founded. Yet the RDA’s membership community numbers close to 5,000, and the network now spans 118 countries.

The RDA is striving to become a global organisation, but this brings some logistical issues. The network hosts its

membership at rotating plenary sessions every six months, which is a problem for researchers who aren’t so mobile. Another problem is technical capacity, Parsons says. “The RDA is hugely reliant on the internet and bandwidth, which is not as pervasive as it needs to be around the world.”

The alliance has strategies to overcome these difficulties, particularly when working in the developing world. It is making efforts to branch out to Africa, where its focus has been to help develop good open access policies—for example by getting involved in the creation of an open science policy platform coordinated by Codata, a scientific committee of the International Council for Science.

“Another strategy is making sure that you’re working on locally relevant issues and using existing networks,” Parsons says. For example, in partnership with Global Open Data for Agriculture and Nutrition, the RDA translated lessons from its protocol for wheat data to rice when its plenary moved to Japan and engaged more delegates from the Asian continent.

“We’re always trying to balance making sure that we stay connected to our core constituencies, which are in Europe, Australia and North America, and maintaining the RDA’s momentum,” Parsons says.

But for its upcoming two plenaries, the alliance will focus its energies on the latter. All RDA plenaries so far have been hosted by high-income countries, so the alliance is planning to hold its second International Data Week somewhere in the developing world next autumn.

Parsons is reluctant to lay down a longer-term plan. “We only look a few years ahead, because trying to predict technology is a futile effort,” he says. “I like to quote Eisenhower—plans are useless, but planning is indispensable. It’s not so much the document as the ongoing process.”

The same applies to his career—three years of leading the RDA is enough, he says. Parsons is intrigued by the prospect of doing more research on the underlying principles of data sharing and mediation.

When asked to describe a world where the RDA is no longer needed, Parsons says that he hopes data sharing will evolve into a smooth, uninterrupted process that becomes as essential as water or power. He cites the example of the Internet Engineering Task Force, an open global community of engineers who strive to ensure the internet is functioning well: “Infrastructure, when it’s working, is transparent,” Parsons says. “You don’t notice electricity until it’s broken and the lights go out.”

More to say? Email comment@ResearchResearch.com

Mark Parsons

- * **2014-present** Secretary-general, Research Data Alliance
- * **2013-2014** Managing director, Research Data Alliance United States
- * **2002-2013** Lead project manager and programme manager, National Snow and Ice Data Center, University of Colorado Boulder
- * **2006-2010** MA in geography, University of Colorado Boulder

mike galsworthy **view from the top**

If Brexit is the bonfire, European science can be the phoenix

Recent events have shaken the western world. Out of this challenge, though, springs an opportunity for Europe. With Donald Trump seizing the reins in the United States, that country has immediately become less attractive to the high-skilled immigrants who would otherwise flow in high numbers to the promise of America.

This all comes at a time when the EU's science programme has been taking off as a brand and is becoming more confident and innovative. The huge hub of European countries is perfectly placed for taking the lead in 21st-century science from the heart of the global science network.

You would have thought that Brexit would damage this. In the absence of creativity, it will. However, European science is a rich ecosystem that is larger than the EU. If the UK can make the smart move and seize a leading role in building and proactively marketing the wider European Research Area, then things change.

The UK and EU in partnership, along with Switzerland and Norway, can develop the brand of European science. This would attract investment, talent and collaborative links to Europe, and also build much-needed stability and leadership in global science at this critical time. The opportunities are substantial.

Europe's economic future needs an inspiring new vision. And the UK government badly needs some glue to offset the breakages of Brexit—something to keep the country culturally and politically working with Europe. Research can provide that vision and that glue.

Three superpowers

The EU is the world's leading science superpower. Its cohesion of policy, funding, infrastructure sharing and regulatory harmonisation mean that it can be treated as a multinational hub.

According to the Unesco Science Report of November 2015, 22 per cent of the world's researchers are in the EU, compared with 19 per cent in China and 17 per cent in the US. In terms of scientific output, the EU produces 34 per cent of the world's publications—rising to 39 per cent for all of Europe—with the US on 25 per cent and China on 20 per cent. Together, these three territories dominate science production.

What of their future prospects? US science has an excellent pedigree and branding, but it is starting to wane. Funding remains high, but it is faltering. The EU's lead over the US is widening, in terms of both its research base and its scientific output.

America also has political problems with science.

There is increasing popular opposition to mainstream scientific positions on issues such as climate change, vaccinations and evolution. These cultural problems were starting to hamstring progress, and Trump's election will exacerbate them sharply. His approach to China, meanwhile, will certainly not help the US to continue to attract Chinese talent.

China itself is rising fast as a science superpower. It doubled its share of the world's science publications between 2008 and 2014. With some huge science infrastructure projects, China is riding a formidable surge.

In terms of quality, however, much of its output still has to do a lot of catching up. Its level of international networking remains relatively low. Further, its future prospects are limited by a political environment that will struggle to embrace the emerging transition to open data across science, society and government.

Europe, however, is perfectly placed to extend its lead in areas critical to the new era of science. It is already seen as the home of international science, with Cern, the European Space Agency and dozens of pan-European research infrastructures playing alongside Horizon 2020.

Europe's openness is helping it forge a leadership position as the dominant hub of international activity—Horizon 2020's predecessor, Framework 7, involved 170 countries. The EU's mechanisms for multinational joint decision-making on standards and policy give it extra legitimacy in forging new initiatives.

Beyond the competition between the science superpowers, there is a broader issue of carrying the torch. It is vital for science, as a global entity, to have at least one powerful location with a political framework that champions science on science's own terms. The EU and Europe are increasingly finding themselves in that role.

During the UK referendum debate, researchers and universities strongly backed remaining in the EU. The EU's collaborative networks, shared policies, harmonised regulation and freedom of movement all factored into overwhelming support.

The 23 June vote to leave left the UK science community deeply dispirited, a gloom made deeper still by prime minister Theresa May's prioritisation of a hard Brexit. Any form of Brexit would end the UK's strong voice within EU science policy and potentially reduce access to the EU science programme. A hard Brexit puts the UK in a much more precarious situation.

Continued on page 8

'The EU's lead over the US is widening in terms of its research base and scientific output.'

Brexit and European science from page 7

Those who have pointed to Tunisia and Israel as examples of countries that enjoy full associated country status within Horizon 2020 without allowing free movement with the EU are missing the bigger picture. To see what kind of deal the UK should seek and expect on science, we must also factor in Switzerland's relationship with Horizon 2020, the size of the UK, the potential disruption to team spirit, and the balance of interests of the remaining 27 member states, which must look to their own scientists' and institutions' advantages.

Post-Brexit collaboration

The UK government has recognised that Brexit is already hurting its national brand for science, draining the enthusiasm of UK researchers and the country's attractiveness to foreign talent. As a result, the government has thrown money at R&D, pledging an extra £4.7 billion (€5.5bn) between now and 2020. It has also moved quickly to place science at the heart of a new industrial strategy.

This will serve only to buffer some damage, unless the UK can find a way to inspire its Europhile scientists and keep them within the ecosystem of European collaboration.

The proponents of Brexit have little objection to the UK retaining and strengthening frameworks of collaboration in areas such as science, technology, security and health. Therefore, regardless of other divisions, collaboration in these areas can be rebuilt as a broader safety net for continued European cohesion.

Neither the EU nor the UK should fixate on Horizon 2020 as the be-all and end-all for science. Given the global picture, there's a much greater opportunity to be had in both the UK and the EU doubling down on the European Research Area and developing the European science brand.

With Horizon 2020, the UK may have to take a slight hit and accept partial association to the programme for a short while, as Switzerland did following a 2014 referendum vote to limit migration from the EU. This stops Brexit Britain being rewarded with continuing domination of Horizon 2020 alongside a new ability to set its own rules, while other countries, including Switzerland and Norway, have played 'fair'.

With luck, this would be a temporary measure while the remaining EU member states can rethink collective strategy. However, it's also in the interests of continental Europe to keep the UK in the fold as a team player, not a rival. A strong show of goodwill from all sides could yield dividends for all.

The UK's potential downfall is its

current mien of selfishness and superiority. This will achieve nothing. A much better strategy would be to launch a mutually beneficial marketing strategy for European science in partnership with the EU.

The UK must give conspicuous credit where credit is due and acknowledge the EU's remarkable success and vision in driving European science. This will not only ease tensions across the channel, but send a signal to the rest of the world about the best home for science talent and investment.

There are many areas within the European science ecosystem—across networks, policy initiatives, global linking and so on—where the UK can complement the work of the EU.

One savvy move would be to build stronger bilateral initiatives with eastern European countries, many of which are underrepresented on the EU's science programmes. Structural funds can only go so far in closing this gap. What these countries really need is more know-how and talent from countries like the UK. Eastern Europe has untapped reserves in science and technology, and it would benefit the UK's own networks and soft power on the continent to help release its potential.

A new deal

Let us now zoom down to the citizen level—to families in the 'left-behind' areas that voted for Brexit. People worry about their jobs in the future. Parents worry about what work will be available for their kids. With technology's capacity to take away jobs and the gig economy making existence more precarious, deep solutions are needed for the new era.

First, a strong welfare and healthcare system provides a more robust buffer against technological disruption. Second, there is a strong community role for universities in the new economy. Universities can spin out innovative companies, support other new local businesses, assist local hospitals with research and initiatives, help schools, and fulfil a vital role in retraining the adult population.

In a world where big companies can move and start-ups can go bust, universities can and should be bastions of local economic opportunity. When that bond is secure, it becomes better understood that local communities benefit when their universities can draw in international students, entrepreneurs and investment, forming bridges of collaboration across the continent and around the world.

In summary, the geopolitical shake-up has brought science to the fore. Specifically, it has created a need and an opportunity for strong leadership by European science. Getting there will require UK-EU collaboration, global promotion, and real reach into local communities across Europe.

More to say? Email comment@ResearchResearch.com

Mike Galsworthy is programme director of Scientists for EU.

'The UK's potential downfall is its mien of selfishness and superiority.'

funding opportunities

Research Europe
9 February 2017

every new opportunity every discipline

highlights

Urban actions

The Directorate-General for Regional and Urban Policy invites proposals for its second call for urban innovative actions. Funding is worth up to €5 million per action [16].

Diabetes mentorship

The European Foundation for the Study of Diabetes, invites applications for its future leaders mentorship programme for clinical diabetologists. Awards are worth USD 75,000 (€69,300) over three years [28].

Biochemistry grants

The Federation of European Biochemical Societies invites proposals for its advanced lecture courses grants. Grants are worth up to €30,000 each [33].

Antimicrobial surveillance

The European Centre for Disease Prevention and Control invites tenders for the European gonococcal antimicrobial surveillance programme. The contract is worth €1 million over 48 months [50].

Breast cancer research

Breast Cancer Now invites expressions of interest for its catalyst grants. Grants are worth up to €1.5 million (€1.8m) [61].

deadlines

Opportunities from previous issues of *Research Europe*, listed by closing date. European Commission and associated funders marked EU.

Each entry is followed by a Web id

February

- 17 **UK** Alzheimer's Society/Alzheimer's Drug Discovery Foundation academic-led clinical studies in drug discovery 1172846
EU EUREKA Eurogia2020 call for projects 1161448
- 18 **CH** Brocher Foundation researcher residency 260299
- 19 **DK** European Wound Management Association travel grants 1165252
- 20 **JP** Daiichi Sankyo drug discovery programme 1182167
EU SOLAR-ERA.NET joint transnational call on solar energy 1192574
UK European Association of National Metrology Institutes call on metrology for industry 1177453
UK European Association of National Metrology Institutes fundamental metrology 1193243
UK European Association of National Metrology Institutes metrology for pre- and co-normative research 1185548
UK European Association of National Metrology Institutes research potential 1177456
BE European Foundation for Alcohol research grants 202268
CH Louis-Jeantet Foundation for Medicine prize 189760
FI Nordic Council of Ministers network funding 1193408
- 21 **EU** Consumers, Health and Food Executive Agency study to support the assessment of the socio-economic impacts of potential future EU initiatives on HIV/AIDS, viral hepatitis and tuberculosis 1193432
- 22 **EU** Education, Audiovisual, and Culture Executive Agency framework partnership agreements with European policy networks 1192629
- 23 **EU** Education, Audiovisual and Culture Executive Agency Jean Monnet activities 1163895
- 24 **EU** Directorate-General for Energy European study on clinical diagnostic reference levels for X-ray medical imaging 1193367
EU European Food Safety Authority European food risk assessment (EU-FORA) fellowship programme – call for fellows 1192706

AU University of Queensland Fryer Library award 1172240

27 **UK** Action on Hearing Loss international project grant 198200

UK European Society for Paediatric Endocrinology research unit 1193373

SE Royal Swedish Academy of Sciences/Japan Society for the Promotion of Science postdoctoral scholarship – standard 208679

28 **UK** British Pharmacological Society Bülbring award 1193535

UK British Pharmacological Society Novartis prize 181573

UK British Pharmacological Society Pickford award 1193539

UK British Society for Antimicrobial Chemotherapy project grants 209801

UK British Society for Antimicrobial Chemotherapy overseas scholarship 209808

CH CERN junior fellowships 1189600

CH CERN post-career break fellowship 1176979

CH CERN senior fellowships 206706

UK Department for International Development postdoctoral fellowships on innovative methods and metrics for agriculture and nutrition actions 1182733

UK Department for International Development tackling deadly diseases in Africa programme 1192438

EU Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs economic studies and analyses related to impact assessments and evaluations 1192855

EU Directorate-General for Migration and Home Affairs ISFP-2016-AG-SRMR call for proposals for law enforcement cooperation 1192928

EU Directorate-General for Regional and Urban Policy study on the complaints-handling systems in member states for dealing with complaints concerning the European structural and investment funds 1193628

EU Education, Audiovisual and Culture Executive Agency knowledge alliances 1176973

EU Education, Audiovisual and Culture Executive Agency support to international co-production funds 1188270

NL European Federation of Immunological Societies world fellowships 1177162

NL European Hematology Association/Japanese Society of Hematology fellowship exchange programme 1167325

europa

EU digital economy

The Directorate-General for Communications Networks, Content and Technology invites tenders for a study on the strategic use of public procurement for innovation in the digital economy. The tenderer will develop an approach that enables systematic monitoring of the progress across different countries in Europe on implementing policy measures to encourage innovation procurement. The contract is worth €400,000 over 26 months.

Web id: 1193822

Email: cnect-r2-eoi@ec.europa.eu

Deadline: 28 February 2017 [1]

Anaesthesia grant

The European Society of Anaesthesiology invites applications for the Baxter grant. This is awarded to a clinical or a laboratory publication in the area of anaesthesia and intensive care medicine. The grant is worth €10,000.

Web id: 1174535

Email: research@esahq.org

Deadline: 1 March 2017 [2]

Advanced computing business

The Partnership for Advanced Computing in Europe invites applications for its business prototype projects. These enable research groups in high-performance computing to identify and evaluate business cases based on their research results. Funding is worth €25,000 per team.

Web id: 1190144

Deadline: 1 March 2017 [3]

Innovative science award

The European Chemical Industry Council, in collaboration with the Society of Environmental Toxicology and Chemistry, the Association of European Toxicologists and European Societies of Toxicology and the International Society of Exposure Sciences, invites applications for the long-range research initiative innovative science award. This supports promising new research in the field of dose-response of synergy in combined exposure to humans or environmental species. The prize is worth €100,000.

Web id: 261055

Email: lrj@cefic.be

Deadline: 19 March 2017 [4]

EU Erasmus+ skills alliances

The Education, Audiovisual and Culture Executive Agency's Erasmus+ programme invites applications for its call for cooperation for innovation and exchange of good practices – sector skills alliances. This aims to enhance the responsiveness of vocational education and training systems to sector-specific labour market needs. Grants are worth up to €4 million each.

Web id: 1177048

Email: eacea-info@ec.europa.eu

Deadline: 2 May 2017 [5]

Baltic work environment

The Nordic Council of Ministers invites tenders for a pilot study on information services for SMEs in the Baltics. The tenderer will conduct a pilot study on how

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information services for SMEs in the Baltics, that are carrying out business related activities in a Nordic country, could be built up and financed. The budget may not exceed DKK 250,000 (€33,600).

Web id: 1193802

Email: ulan@norden.org

Deadline: 24 February 2017 [7]

Cancer travel grant

The Danish Association for Cancer Research invites applications for its presentation and poster prizes. These recognise the best oral presentation and poster within clinical, experimental and epidemiological cancer research at the association's annual meeting. The award is worth up to DKK 10,000 (€1,300).

Web id: 1171428

Email: dscf08@gmail.com

Deadline: 27 February 2017 [8]

Biomedical tech development

The Novo Nordisk Foundation invites applications for its exploratory pre-seed grants. These support application-oriented research and the testing of new ideas that may lead to the development of new medical treatments, disease prevention, devices and diagnostic methods as well as new industrial biotechnology in life sciences. Up to 20 projects will be supported with up to DKK 500,000 (€67,200) each, over up to 12 months.

Web id: 1165027

Email: cnmh@novo.dk

Deadline: 5 April 2017 [9]

Ecosystem service analysis

The Working Group on the Environment and Economy, under the Nordic Council of Ministers, invites tenders for the following opportunities:

- call for communication projects on ecosystem services, in collaboration with the Terrestrial Ecosystem Group, worth DKK 200,000 (€26,900). **Web id: 1193756**
- project on policy instrument evaluation – a tool for increasing efficiency in environmental policy, worth DKK 400,000. **Web id: 1193763**
- project on policy instruments for sustainable tourism, worth DKK 400,000. **Web id: 1193758**

Email: jens.perus@ely-keskus.fi

Deadline: 28 February 2017 [13]

Mediterranean cooperation

The INTERREG MED Programme invites proposals for its second call for modular projects. This aims to promote sustainable growth in the Mediterranean area by fostering innovative practices and supporting social integration through integrated and territorially based cooperation approaches. The total budget is worth €67.6 million.

Web id: 1193337

Email: info@interreg-med.eu

Deadline: 31 March 2017 [14]

Postdoctoral study grants

The Fyssen Foundation invites applications for its postdoctoral study grants. These enable either French postdoctoral researchers to visit foreign laboratories, or foreign postdoctoral researchers to visit French laboratories. Grants are worth up to €25,000 per year.

Web id: 201218

Email: secretariat@fondationfyssen.fr

Deadline: 6 April 2017 [15]

EU urban actions

The Directorate-General for Regional and Urban Policy invites proposals for its second call for urban innovative actions. This enables urban authorities throughout Europe to test innovative solutions to the main urban challenges. Funding is worth up to €5 million per action.

Web id: 1188105

Email: r.barbato@uia-initiative.eu

Deadline: 14 April 2017 [16]

Geosciences conferences

The European Geosciences Union invites applications for its Galileo conferences support. This enables members to organise Galileo conferences addressing topics at the frontier of geosciences research. Grants are worth up to €5,000.

Web id: 1193736

Email: info@egu.eu

Deadline: 28 February 2017 [19]

Social psychology awards

The European Association of Social Psychology invites applications for its research knowledge transfer scheme. This supports initiatives serving association members from regions where access to scientific information, facilities or funding is scarce. Grants are worth up to €3,500 to support visits.

Web id: 250965

Email: sibylle@easp.eu

Deadline: 31 March 2017 [20]

Ecology prize

The Inter-Research Science Center's International Ecology Institute invites nominations for the ECI prize. This is awarded to an ecologist for distinguished and sustained scientific achievements. The prize is worth €6,000.

Web id: 1165324

Email: Angela@int-res.com

Deadline: 31 March 2017 [21]

Disaster risk reduction

The Volkswagen Foundation invites applications for its travel grants. These enable young PhD and early postdoctoral researchers to attend the Herrenhausen conference on dangerous landscapes – re-thinking environmental risk in low-income communities, from 27 to 29 November 2017 in Hannover, Germany. Up to 30 grants are available.

Web id: 1193616

Email: kremers@volkswagenstiftung.de

Deadline: 31 March 2017 [22]

Microvascular complications

The European Foundation for the Study of Diabetes, in collaboration with Boehringer Ingelheim, invites applications for its European research programme. This aims to stimulate and accelerate European basic and clinical research focusing on microvascular complications of diabetes. Grants are worth up to €300,00.

Web id: 1172958

Email: foundation@easd.org

Deadline: 1 April 2017 [23]

Molecular biology

The European Molecular Biology Organisation invites applications for its young investigator programme. This aims to give young independent researchers in Europe networking opportunities, as well as other financial and practical support. Grants are worth up to €15,000. Additionally,

investigators may apply for small grants of up to €10,000 per year.

Web id: 206990

Email: yip@embo.org

Deadline: 1 April 2017 [24]

EU health research

The JPI A Healthy Diet for a Healthy Life invites pre-proposals for its joint transnational call on interrelation of intestinal microbiome, diet and health. This supports multinational, collaborative research projects that address research questions regarding the cause-and-effect relationships between diet, the intestinal microbiome and human health.

Web id: 1193340

Email: nutrition-hdhl@dlr.de

Deadline: 5 April 2017 [25]

Access to radiation sources

The Helmholtz-Zentrum Dresden-Rossendorf invites proposals for beamtime at their centre for high-power radiation sources. The centre hosts different radiation sources which enable user groups to carry out experiments in a variety of fields from material sciences to medicine. Access is free of charge.

Web id: 253943

Email: b.schramm@hzdr.de

Deadline: 26 April 2017 [27]

Diabetes mentorship

The European Foundation for the Study of Diabetes, in association with AstraZeneca, invites applications for its future leaders mentorship programme for clinical diabetologists. This promotes the advancement of the next generation of leading clinical diabetologists in Europe. Awards are worth USD 75,000 (€69,300) over three years.

Web id: 1193580

Email: foundation@easd.org

Deadline: 28 April 2017 [28]

Greek research grants

The Alexander S Onassis Public Benefit Foundation invites applications for its scholarships for foreigners. These aim to promote Greek language, history and culture abroad, thereby encouraging ties of friendship and cooperation between members of the foreign academic community and their Greek counterparts. Scholarships cover a round trip air ticket of up to €1,000 and a monthly allowance.

Web id: 157906

Email: fhadgiantoniou.fpp@onassis.org

Deadline: 28 February 2017 [32]

Biochemistry grants

The Federation of European Biochemical Societies invites proposals for its advanced lecture courses grants. These enable individuals to organise lecture courses in fields relating to biochemistry, biophysics, molecular biology, cell biology and developmental biology. Grants are worth up to €30,000 each.

Web id: 1179476

Email: vertessy@mail.bme.hu

Deadline: 1 March 2017 [33]

Volcanology fellowships

The Nordic Volcanological Center invites applications for its research fellowships in geoscience. These are aimed at young Nordic researchers who are interested in working with local experts on research related to petrology and geochemistry.

Fellowships are available for one year and cover project related expenses and travel.

Web id: 1170624

Deadline: 1 March 2017 [34]

Labour market projects

The Labour Market Committee, under the Nordic Council of Ministers, invites tenders for its call for projects. This promotes Nordic cooperation on employment policy, labour-market policy and research into labour-market issues. The total budget is worth DKK 2 million (€270,000).

Web id: 1193737

Email: tryggvi.haraldsson@vmst.is

Deadline: 5 March 2017 [35]

Organ transplantation

The European Society for Organ Transplantation invites applications for its congress awards. These are awarded for abstracts submitted to the society congress taking place in September 2017 in Barcelona, Spain. Eight awards are available, worth up to €5,000 each.

Web id: 1193661

Email: esot2017@esot.org

Deadline: 12 March 2017 [36]

Audit research

The Foundation for Auditing Research invites proposals for its research project grants. These support projects using multiple research approaches and methods to enhance the knowledge of the factors that affect audit quality in daily practice. Support may include access to data from participating audit firms, travel and support for research assistants and students.

Web id: 1193785

Email: info@foundationfor

auditingresearch.org

Deadline: 17 March 2017 [37]

EU sustainability

ERA-Net NORFACE invites applications for its joint call on transformations to sustainability. This supports international, transdisciplinary projects addressing transformations to sustainability with the aim to develop and promote research of social, economic and policy concern. Projects may receive up to €1.5 million each for up to three years.

Web id: 1192443

Email: norface@nwo.nl

Deadline: 5 April 2017 [38]

Sustainable energy

KIC InnoEnergy invites applications for its call for proposals on sustainable energy. This supports businesses in developing innovative products, services and solutions that have a high commercial potential. Funding is worth up to €5 million.

Web id: 1188504

Deadline: 7 April 2017 [39]

Humanities fellowships

The Netherlands Institute for Advanced Study in the Humanities and Social Sciences invites applications for its theme group fellowships. These aim to bring scholars of different backgrounds with specific expertise to work together on a daily basis, to advance knowledge on a particular theme within the social sciences and humanities. Fellowships have a duration of five months.

Web id: 1177334

Email: application@nias.knaw.nl

Deadline: 15 April 2017 [40]

History of technology prizes

The Society for the History of Technology invites applications for the Melvin Kranzberg dissertation fellowship. This is presented to a doctoral student preparing a dissertation on the history of technology. The fellowship is worth USD 4,000 (€3,700).
Web id: 200387
Email: shot.secretariat@tue.nl
Deadline: 15 April 2017 [41]

Vaccine development

The Coalition for Epidemic Preparedness Innovations invites proposals for its call on vaccine development against prioritised epidemic infectious diseases. This aims to advance up to six vaccines from late preclinical through clinical phase II development.
Web id: 1193694
Email: cfp@cepi.net
Deadline: 8 March 2017 [44]

Inclusive education

NordForsk, in collaboration with the Netherlands Initiative for Education Research, invites applications for a joint call on inclusive education across borders. The objective of this call is to explore research questions related to inclusive education. A minimum of three projects, worth up to €750,000 each for three years, may be funded.
Web id: 1190646
Email: kaisa.vaahtera@nordforsk.org
Deadline: 4 April 2017 [45]

EU antimicrobial resistance

The Joint Programming Initiative on Antimicrobial Resistance invites pre-proposals for its fifth joint call on prevention and intervention strategies to control antimicrobial resistance infections. This supports prevention, control and intervention strategies to prevent the development and transmission of AMR infections.
Web id: 1192804
Email: malwina.gebalska@ncn.gov.pl
Deadline: 21 March 2017 [46]

EU elderly technology call

JPI Demographics invites proposals for its joint transnational call for research proposals – ageing and place in a digitising world. This supports projects that improve the health and wellbeing of older people, to enable less-active elderly to be more engaged in social life.
Web id: 1193079
Email: callmybl@iscii.es
Deadline: 3 April 2017 [47]

EU occupational safety

The European Agency for Safety and Health at Work invites tenders for an estimation of the costs of work-related injuries, illnesses and deaths in EU, Iceland and Norway. The tenderer will evaluate the costs of work related injuries, illnesses and deaths in at least five target countries, using national occupational safety, health and economic data. The contract is worth €275,000 over 18 months.
Web id: 1193828
Email: information@osha.europa.eu
Deadline: 7 April 2017 [48]

EU antimicrobial surveillance

The European Centre for Disease Prevention and Control invites tenders for the European gonococcal antimicrobial

surveillance programme. The tenderer will implement the programme, conduct molecular typing, external quality assurance, laboratory training and country support. The contract is worth €1 million over 48 months.

Web id: 1193908
Email: ecdc.procurement@ecdc.europa.eu
Deadline: 6 March 2017 [50]

Disability aids grants

The Promobilia Foundation invites applications for its research and development project grants. These promote the development of technical aids to help disabled people benefit from a more active life. Grants are worth up to SEK 500,000 (€53,000) each.
Web id: 259398
Email: info@promobilia.se
Deadline: 23 March 2017 [51]

Agriculture and medicine

The Ekhaqa Foundation invites applications for its agricultural and medical research grants. These support research projects within the field of agriculture and medicine, and planning-grants, which may be used for final application of further studies.
Web id: 208311
Email: info@ekhagastiftelsen.se
Deadline: 20 May 2017 [52]

Cancer research

The Union for International Cancer Control invites applications for the Yamagiwa-Yoshida memorial international study fellowships. These enable cancer investigators to carry out bilateral research projects abroad that exploit complementary materials or skills, including advanced training in experimental methods. Up to 16 grants, worth an average of USD 10,000 (€9,300) each, are available.
Web id: 211248
Email: fellows@uicc.org
Deadline: 15 March 2017 [53]

Oncology clinical visits

The European Society for Medical Oncology invites applications for its clinical unit visits. These enable young oncologists to gain insight into clinical research at a leading European centre of excellence. Grants are worth €5,000 each for a period of six weeks. The host institute receives €1,000 towards administration costs.
Web id: 260967
Email: esmo@esmo.org
Deadline: 4 April 2017 [54]

Doctoral programme

CERN invites applications for its doctoral student programme. This enables postgraduate students to spend time at CERN preparing a doctoral thesis in applied physics, engineering or computing. Grants include a monthly living allowance of CHF 3,679 (€3,440) and a travel allowance.
Web id: 259952
Email: cern.reception@cern.ch
Deadline: 12 April 2017 [55]

Dermatology and venereology

The European Academy of Dermatology and Venereology invites applications for its research fellowship. This enables young scientists to receive advanced training on basic or clinical research in dermatology or venereology in a country

other than their own. Funding is worth up to €30,000 over 12 months.

Web id: 1189379
Email: office@eadv.org
Deadline: 30 April 2017 [56]

Ovarian cancer therapy trial

University College London invites tenders for the ICON9 clinical trial. The tenderer will run an international study to evaluate the efficacy of maintenance cediranib and olaparib combination therapy, or olaparib alone, in patients with relapsed platinum-sensitive ovarian cancer following a response to platinum-based chemotherapy. The contract is worth £3 million (€3.5m) over seven years.
Web id: 1193887
Email: tenders.procurement@ucl.ac.uk
Deadline: 6 March 2017 [60]

Breast cancer research

Breast Cancer Now, in collaboration with Pfizer, invites expressions of interest for its catalyst grants. These support single research projects that address problems in breast cancer and involve the use of drugs available from Pfizer. Grants are worth up to £1.5 million (€1.8m).
Web id: 1189538
Email: catalyst@breastcancer.org
Deadline: 31 March 2017 [61]

Women's health

The Department for International Development invites tenders for its women's integrated sexual health programme. The tenderer will provide a comprehensive package of sexual and reproductive health and rights, focusing on increasing the number of additional family planning users, alongside reducing maternal mortality and improving access to safe abortion across Africa and Asia. The anticipated budget is £200 million (€235m).
Web id: 1193865
Email: p-paterson@dfid.gsx.gov.uk
Deadline: 31 March 2017 [62]

Science book prizes

The Royal Society invites entries for its insight investment science book prize. This recognises books that contribute to making science more accessible to public adult audiences. Prizes are worth up to £25,000 (€29,000) each.
Web id: 1161915
Email: sciencebooks@royalsociety.org
Deadline: 31 March 2017 [63]

Healthcare and life sciences

The William Harvey Research Institute at Queen Mary University of London invites proposals for its fellowships. These support international mobility and career development of researchers in healthcare and life sciences. Fellowships are worth €37,250 each per fellow-year.
Web id: 1177359
Email: x.sandin@qmul.ac.uk
Deadline: 3 April 2017 [64]

Mental disorders

The Medical Research Council, together with the Global Alliance for Chronic Disease, invites applications for prevention and management of mental disorders. This supports implementation research focusing on mental disorders in low- and middle income countries. The total budget is £2 million (€2.3m), to fund several awards.

Web id: 1193233
Email: sandeep.sandhu@headoffice.mrc.ac.uk
Deadline: 11 April 2017 [65]

Asian anthropology

The University of Cambridge invites applications for the Evans fund. This supports fellowships in the fields of anthropology and archaeology largely based in Cambridge. The stipend is worth up to £6,000 (€7,000) per year, for up to two years.
Web id: 1172154
Email: mmw23@cam.ac.uk
Deadline: 24 April 2017 [66]

Cardiothoracic awards

The European Association for Cardio-Thoracic Surgery invites abstract submissions for the following opportunities:

- the C Walton Lillehei young investigator award, worth USD 10,000 (€9,250). **Web id: 183963**
- the Hans G Borst award for thoracic aortic surgery, worth €5,000. **Web id: 183961**
- cardiac surgery innovation award, together with LivaNova, worth €5,000. **Web id: 1193188**
- young investigator awards, worth €3,000 each. **Web id: 183957**

Email: info@eacts.org
Deadline: 30 April 2017 [72]

rest of world

Botanical illustration

The Royal Botanic Gardens and Domain Trust invites applications for the Margaret Flockton Award. This recognises excellence in contemporary scientific botanical illustration. Awards are worth up to AUD 5,000 (€3,500).
Web id: 1166281
Email: botanical.illustration@rbgsyd.nsw.gov.au
Deadline: 28 February 2017 [73]

Maternal health

Grand Challenges Canada, together with the Agency for International Development, the Government of Norway, the Bill and Melinda Gates Foundation, the Department for International Development and the Korea International Cooperation Agency, invites applications for the seventh round of saving lives at birth – a grand challenge for development. This supports prevention and treatment approaches for pregnant women and newborns in poor, hard-to-reach communities. Grants are worth up to USD 2 million (€1.85m).
Web id: 1184000
Email: info@grandchallenges.ca
Deadline: 24 February 2017 [74]

Desert research fellows

The Ben Gurion University of the Negev's Jacob Blaustein Institute for Desert Research invites applications for its postdoctoral fellowships. These support postdoctoral research on topics related to drylands. Fellowships are worth approximately USD 50,000 (€46,300) for up to two years. Applicants will also be considered for the Jacob Blaustein fellowship worth approximately USD 27,000.
Web id: 210332
Email: inter@bgu.ac.il
Deadline: 2 March 2017 [75]

tenders

Green spacecraft *ESA

The European Space Agency invites tenders for the design of a spacecraft using an environmentally friendly approach. The tenderer will redesign a space mission taking into account eco-design fundamentals in order to design a spacecraft that complies with all regulations linked debris mitigation. The contract is worth between €200,000 and €500,000. Ref: 16.197.27. **Deadline: 3 March 2017**

Virtual reality training *ESA

The European Space Agency invites tenders for the provision of augmented and virtual reality techniques to enhance the execution of operational procedures by astronauts and spacecraft operators. The aim is to avert human mistakes arising from the discrepancy between abstract 2D and textual description of operational procedures and a 3D reality. The contract is worth between €100,000 and €200,000. Ref: 16.197.13. **Deadline: 6 March 2017**

Frequency management *ESA

The European Space Agency invites tenders for frequency management studies and support activities required to protect the interest of ESA in the frequency management area at European and global scale. This includes all necessary preparatory activities in support of ESA for relevant meetings. The contract is worth between €200,000 and €500,000. Ref: A08867. **Deadline: 7 March 2017**

Data access services *ESA

The European Space Agency invites tenders for the Copernicus data and information access services operations. The tenderer will participate in making Copernicus data and information available to users through a cloud-based architecture, including availability for local use on the platform by users and the establishment. The contract is worth more than €500,000. Ref: 16.187.05. **Deadline: 24 March 2017**

Magnetic field *ESA

The European Space Agency invites tenders for a study on magnetic field perturbations by thermo-electric effects. The tenderer will study the effects from a multi-disciplinary perspective encompassing thermal, electric, magnetic and material aspects with special attention to possible mitigations, to improve data exploitations for the actual and future magnetic missions. The contract is worth between €100,000 and €200,000. Ref: 16.197.30. **Deadline: 24 March 2017**

Internet of things *ESA

The European Space Agency invites tenders for a space based service integrating internet of things. The tenderer will identify and investigate solutions that can benefit from capabilities enabled through satellite communication, satellite navigation, earth observation, human spaceflight and other space assets. The contract is worth between €100,000 and €200,000. Ref: 16.1AA.06. **Deadline: 13 April 2017**

*ESA is at: <http://emits.esa.intw>

usa

Brain and Behaviour Research Foundation NARSAD young investigator grant
Web id: 196413
Deadline: 27 February 2017 [82]

American Society of Colon and Rectal Surgeons international fellowship
Web id: 253803
Deadline: 1 March 2017 [83]

Cave Research Foundation Philip M Smith graduate research grants for cave and karst research
Web id: 194385
Deadline: 1 March 2017 [84]

Institute of Management Accountants doctoral summer research scholarship
Web id: 1171810
Deadline: 1 March 2017 [85]

International Retinal Research Foundation research grants
Web id: 207021
Deadline: 1 March 2017 [86]

Library Company of Philadelphia programme in early American economy and society dissertation-level fellowship
Web id: 186598
Deadline: 1 March 2017 [87]

Department of State request for population, refugees and migration humanitarian research concept notes
Web id: 1188416
Deadline: 10 March 2017 [88]

American Association for Clinical Chemistry point-of-care testing research grant
Web id: 181817
Deadline: 15 March 2017 [89]

Sigma Xi grants-in-aid of research
Web id: 180668
Deadline: 15 March 2017 [90]

Society for Pediatric Radiology Research and Education Foundation pilot award
Web id: 1159640
Deadline: 15 March 2017 [91]

Society for Pediatric Radiology Research and Education Foundation seed grants
Web id: 208017
Deadline: 15 March 2017 [92]

Society of Vertebrate Paleontology Cohen prize
Web id: 1193788
Deadline: 15 March 2017 [93]

Society of Vertebrate Paleontology Dawson grant
Web id: 198445
Deadline: 15 March 2017 [94]

Society of Vertebrate Paleontology Jackson student travel grants
Web id: 198457
Deadline: 15 March 2017 [95]

Society of Vertebrate Paleontology Marvin and Beth Hix preparators' grant
Web id: 198454
Deadline: 15 March 2017 [96]

American Astronomical Society Chrétien international research grants
Web id: 199825
Deadline: 1 April 2017 [97]

American Physical Society John Dawson award for excellence in plasma physics research
Web id: 181093
Deadline: 3 April 2017 [99]

Centers for Disease Control and Prevention strengthening HIV/AIDS research in Kenya
Web id: 1193497
Deadline: 4 April 2017 [100]

policy diary

February

16 Quantum Technologies, La Valetta, Malta. To 17.
<http://rsrch.co/2fD0o6j>

- AAAS Annual Meeting, Boston, United States. To 20.
<http://rsrch.co/10Lfc4M>

19 Competitiveness Council, Brussels, Belgium. To 20.
<http://rsrch.co/2j0PhVk>

22 Heads of Medicines Agencies Meeting, Valletta, Malta. To 24.
<http://rsrch.co/2juKEBX>

28 European Industry Day, Brussels, Belgium.
<http://rsrch.co/2jxDOHk>

- The Future of (Bio)Pharmaceutical Manufacturing, Brussels, Belgium.
<http://rsrch.co/2k3Z1kg>

March

1 Risk Governance for Key Enabling Technologies, Venice, Italy. To 3.
<http://rsrch.co/2gIXRqw>

8 The Future of European Industry, Brussels, Belgium.
<http://rsrch.co/2jS3yDW>

15 UAS4EUROPE Conference, Brussels, Belgium.
<http://rsrch.co/2j50ULg>

16 Protection of Critical Infrastructures, Brussels, Belgium. To 17.
<http://rsrch.co/2k3VaUs>

21 Open Science Conference 2017, Berlin, Germany. To 22.
<http://rsrch.co/2cPVBhf>

- CleanSky Joint Undertaking Forum, Brussels, Belgium.
<http://rsrch.co/2k3ZrYf>

29 EARTO Annual Conference 2017, Munich, Germany. To 30.
<http://rsrch.co/2danRgF>

30 EURASHE Annual Conference 2017, Le Havre, France. To 31.
<http://rsrch.co/2gVz9Gf>

April

3 Connected and Automated Driving, Brussels, Belgium. To 4.
<http://rsrch.co/2k0y9kR>

6 EUA Annual Conference, Bergen, Norway. To 7.
<http://rsrch.co/2e5zUdz>

24 EARMA Annual Conference 2017, Valletta, Malta. To 26.
<http://rsrch.co/1Z72hIf>

25 Fourth Arab-Euro Conference on Higher Education, Rabat, Morocco. To 26.
<http://rsrch.co/2jCXq5o>

May

10 Digital Innovation Forum, Amsterdam, the Netherlands. To 11. <http://rsrch.co/2hIeEtb>

18 Knowledge for Growth, Gent, Belgium.
<http://rsrch.co/2k1L5FT>

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The fog of war

The UK government must set out its plans for future research and innovation collaboration with the EU, **Craig Nicholson** says.

Last month, the UK's Supreme Court ruled that only an act of parliament could trigger the country's exit from the EU. That ruling finally brought an end to the government's defiant silence on its Brexit plans—but on research and innovation collaboration the message remains dangerously garbled.

In a speech the day after the ruling, prime minister Theresa May said that she wants to end the UK's membership of the EU single market and the free movement of people between the country and the bloc. But with regards to research and innovation, the speech was a series of vague contradictions, and a subsequent white paper provided no further clarity.

May made science and innovation one of 12 objectives for the Brexit negotiations. She said she would "welcome agreement to continue to collaborate with our European partners on major science, research, and technology initiatives", and that "there may be some specific European programmes in which we might want to participate".

However, she also rejected "associate membership of the EU, or anything that leaves us half-in, half-out". She added: "We do not seek to adopt a model already enjoyed by other countries." Cue chaos.

Thomas Jørgensen, senior policy coordinator at the European University Association, says the speech gave him reason to be hopeful that the UK would become an associate member of the EU's Framework programme for research, with full participation, albeit reduced influence and possibly at a higher financial cost.

But Kurt Deketelaere, secretary-general of the League of European Research Universities, says he believes May is seeking a bespoke relationship with the Framework programme, similar to the unique arrangements she wants for the UK's financial services and automotive industry.

The one thing the speech made clear, inadvertently, was that those outside the government loop have no consensus interpretation of the plan.

To some extent that's understandable. If the government were to say that it wants the UK to become an associate member of Horizon 2020 and then emerge without associate membership, that would be seen by some people as a failure.

But the degree of uncertainty we have now is already threatening to undermine research collaboration. As Deketelaere points out, recipients of European Research Council grants are required to conduct their research in an EU member state or Horizon 2020 associated country.

So what would a lapse of full UK Framework membership mean for the UK's hundreds of existing ERC grantees?

And without knowing whether UK-based researchers will be able to participate in the Framework programme as fully as now, does it make sense for researchers elsewhere in the EU to spend time building relationships with them?

Such questions might already be influencing researchers' decisions about where they should work and who they should work with. Prolonging the uncertainty will only make the situation worse.

The government needs to be explicit about whether it is aiming for the UK to become an associate member of Horizon 2020 and future Framework programmes. If some hedging is needed, couching the aim in conditions of affordability ought to provide some wiggle room.

Association to the programme will be "crucial", says Jørgensen. "If you don't associate, even if you're a big player, then you don't participate much," he says.

Securing this might not be easy. Some say that ending free movement will be incompatible with associate membership for the UK because it was for Switzerland, although others point to association agreements with smaller countries that do not involve free movement, and to the UK's lower ambitions for single market access.

EU countries might not want to allow the UK to use the Framework programme to entice their best minds away, or might want financial compensation. And even if they don't want more cash than the minimum needed to cover the UK's participation, it's still questionable whether the UK will be able to afford associate membership, given its high present participation and the predicted economic hit of withdrawing from the single market.

But an ambition to associate to the Framework programme should be popular among most UK taxpayers, while being insignificant enough in the overall picture to avoid being used as a lever in the negotiations. Association is also the wish of most commentators from other European countries, who tend to prize collaboration with the UK more than they lament brain drain to it.

And if it turns out that the UK can't afford associate membership, so be it: at least the government will have tried. In that event, British citizens will have bigger problems to worry about than research collaboration.

Something to add? Email comment@ResearchResearch.com

'Uncertainty is already threatening to undermine research collaboration.'

uk & ireland

UK plans to leave Euratom and renegotiate

The UK government has announced that it will leave the European Atomic Energy Community and seek to set up a new relationship with the organisation after Brexit.

The decision to withdraw from Euratom, the agency responsible for nuclear safety and security in Europe, was included in the notes accompanying a government bill to trigger Article 50 of the Lisbon treaty, published on 26 January.

The proposed move quickly came under fire in the UK, since it would risk the future of the Culham Centre for Fusion Energy in Oxfordshire, which hosts the Joint European Torus (JET)—the world's largest tokamak plasma confiner. It could also put in jeopardy UK scientists' involvement in the fusion energy demonstration project ITER, which is under construction in France.

Speaking at a House of Commons debate on the Article 50 bill on 31 January, David Davis, the secretary of state for exiting the EU, said that leaving Euratom was necessary because the organisation is subject to the European Court of Justice, which the UK also seeks to withdraw from.

"If it is not possible to come to a conclusion involving some sort of relationship with Euratom, we will no doubt be able to reach one with the International Atomic

by **Cristina Gallardo**

cgnews@ResearchResearch.com

Energy Agency, which is possibly the most respectable international body in the world," Davis said.

He added that the UK would seek to preserve its participation in both ITER and JET, but acknowledged that it would not be easy because under the Euratom treaty decisions are made by unanimity of its members. "We essentially have to win over the entire group."

Keir Starmer, Labour's shadow secretary of state for exiting the EU, urged the government to try to retain membership of all the EU agencies, including Euratom, the European Medicines Agency, and the European Environment Agency.

Steven Cowley, a former chief executive of the UK Atomic Energy Authority, said that leaving Euratom would deliver a "tremendous blow" to nuclear research.

"By pulling out of ITER, the UK will be damaging both the programme and our own domestic research," Cowley said. "Britain contributes some of the European cost of ITER but, more importantly, the UK leads on science and engineering. ITER will probably face delays and struggle with technical issues without the British on board."

uk & i in brief

Scientists lobby UK parliament on mobility

Researchers in the UK lobbied Members of Parliament at an event organised by the campaign group Science is Vital on 31 January. The aim was to increase awareness of the possible impact of Brexit and to push for close ties with the EU to be maintained. At the same time MPs were debating a bill to allow the UK government to trigger the country's exit from the EU.

Research funders against hard Brexit

Jeremy Farrar, the director of the Wellcome Trust, and Harpal Kumar, the chief executive of Cancer Research UK, have said that the UK must remain open to scientists and funding from the EU after Brexit. Funding from the European Research Council, they said, "has transformed our ability to collaborate with people from other countries".

Alzheimer charity eyes big donors

Alzheimer's Research UK says it wants to boost its fundraising efforts now that former prime minister David Cameron is its president. In a statement, Cameron said that dementia should not lag behind cancer research and stroke research in terms of funding. The charity is also calling on the British government to include medical research charities in its industrial strategy, to ensure that they are supported in their work in the life sciences.

Royal papers in public domain

The Royal Archives has published online the first tranche of thousands of documents digitised by the Georgian Papers Project. By 2020, the five-year project aims to release more than 350,000 papers from 1714-1837. The documents—relating to George I, II, III, IV, William IV and other members of the royal family, along with politicians, courtiers and others—will be freely available for research.

Irish public R&D spending rises 3%

Government spending on R&D in Ireland touched an estimated €761 million in 2016, up 3.2 per cent on the €736m spent during 2015, according to annual research figures from the Central Statistics Office and Eurostat. Spending as a percentage of GDP for 2015 stood at 0.29 per cent, and in 2016 it is expected to be about the same. However, there was more cash for R&D in 2016 because of strong growth in Ireland's economy.

Ireland commits to commercialisation

The Irish government has allocated €34.5 million over the coming five years to smooth the commercialisation of publicly funded research. The funding was announced in the context of the third round of indigenous-company development body Enterprise Ireland's Technology Transfer Strengthening Initiative, which is used by tech-transfer offices on campus to transfer research with good commercial potential into products and services.

German scientists warn of funding imbalance

A lack of coordination between federal and state governments in Germany is holding universities back, Manfred Prenzel, outgoing chairman of the Wissenschaftsrat council of scientists that advises the federal government, has warned.

Prenzel listed several problems faced by Germany's higher education system in his final report as chairman. He presented the report at a conference held from 18 to 20 January in Berlin.

One problem was the gap between basic funding for non-university research institutions, which get both federal and state funding, and that for universities, which are largely funded by the states alone. An imbalance between research and teaching is also holding universities back, with the Excellence Initiative—a funding programme targeting top universities—neglecting the importance of good teaching, the report said.

A funding shortage for infrastructure projects in higher education due to a lack of coordinated national monitoring was another problem that Prenzel brought up. Using figures from the KMK, an assembly of state education ministers, he predicted that the infrastructure budget deficit would reach €47 billion by 2025.

Prenzel recommended that the federal and state gov-

by Martyn Jones

news@ResearchResearch.com

ernments take greater advantage of a 2014 law change that allowed the federal government to fund universities directly and enabled closer cooperation between the federal and state governments.

Another problem with university funding was highlighted by a separate analysis commissioned by the government and published in December. The *Qualitätspakt Lehre*, a national funding initiative aimed at improving teaching quality in universities, has led to a more stratified higher education system, the analysis found.

The programme, which runs from 2010 to 2020, has awarded a total of €2 billion through competitive funding. Roland Bloch, a researcher at the Martin Luther University of Halle-Wittenberg's sociology institute and one of the report's authors, said that lower-ranked universities have tended to spread the programme funding thinly across faculties and courses, whereas higher-ranked institutions have been able to build strengths in priority areas.

"It will be a long time before we reach the stratification that you see in the American system, but we are seeing a difference for the first time in how resources in teaching are distributed," Bloch said.

nations in brief

CNRS 'faces existential threat' from funding shortfall

The CNRS, France's largest publicly funded research organisation, could lose its place as a global leader in research if its funding is not increased, a report has warned. An international review committee concluded that the CNRS had been "greatly weakened" because its budget allocation had not increased in real terms since 2010. The budget should be increased by between €300 million and €400m every year for the next few years, the committee said.

Bavarian parliament divided over gender equality

The ruling and opposition parties in the Bavarian parliament are in disagreement over whether the state should intervene to improve gender equality in its universities. The socialist SPD and the Green Party want to submit eight parliamentary motions to try to increase gender equality, but the ruling conservative CSU is likely to reject all of them, the *Süddeutsche Zeitung* newspaper has reported. The male-dominated Berufungskommission, which advises universities on appointments, is one of the main problems, the Green's spokeswoman said.

Green MP to lead university in Germany

Eveline Lemke, a Green MP without a university degree, has been appointed president of the Karlsruhochschule International University in Baden-Württemberg. The

Karlsruhochschule's governing council was advised by lawyers that as a private institution it did not have to abide by state rules requiring university heads to have a degree. It then voted unanimously to change its own rules to allow Lemke to become president. Lemke said she intends to resign as Rhineland-Palatinate's minister for economics, climate, energy and regional planning on 1 April.

France eyes UK tech talent

Axelle Lemaire, France's secretary of state for digital affairs, is attempting to lure UK-based technology professionals to her country in the light of Brexit. Lemaire told the news site Business Insider that a Tech Visa programme for highly skilled technology professionals, due to launch in the spring, would allow France to fast-track applications for visas. People based in the UK specifically were welcome to apply, she said.

Hamon claims backing

French economist Thomas Piketty is among 10 French economists who support Socialist presidential nominee Benoît Hamon's proposed plan for a universal basic income, Hamon has said. Piketty, a professor at the EHESS grande école in Paris and a best-selling author, wrote in *Le Monde* that a universal basic income could help tackle economic and social ills. Hamon secured the Socialist nomination on 29 January after winning more votes than former prime minister Manuel Valls.

nordic

Norway puts pressure on university funding

The Norwegian government has announced plans to create a funding system for higher education in which institutions will compete for teaching funds from a national budget.

The government said in a white paper published on 27 January that within two years all universities should establish a system for rewarding good teaching.

The aim is to improve the quality of higher education and to better prepare students for work, it said.

At present, higher education is mostly funded through basic grants to institutions, while research is to a greater degree funded through competitive grants.

Torbjørn Røe Isaksen, Norway's research minister, said: "We want to do the same for education [as research], which is why we've put in place a broad competitive national arena for education."

Isaksen said in the foreword to the white paper that one of the main goals was to ensure students receive an education that is more relevant to their future employment. "Thousands of jobs have disappeared from the oil and gas industry in a short time. We need employees with ideas on how new value can be created in other sectors," he said.

The paper said that institutions would be given more say over the entry requirements for their degree

by **Jenny Maukola**

news@ResearchResearch.com

programmes, adding that the government wouldn't "micromanage". Isaksen said that this was a "clear invitation for universities and university colleges to take a leadership role".

Additionally, the research minister said that he would establish a portal that would gather data to inform on the quality of different programmes.

"Today, information is scattered around in several different places," he said. "We will make it easier to find information on activities and results of study programmes at universities and university colleges. Open and accessible knowledge about the quality of education will contribute to quality and confidence in the education system."

However, Petter Aaslestad, head of the Norwegian Association of Researchers, said in a statement that he was critical of the competitive system to distribute teaching funds.

"There is no reason to believe that a national funding pot will lead to better teaching," he said. "On the contrary, it would mean that institutions that have more to improve on would have fewer resources available. The aim should be to raise the quality for all students."



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Sweden seeks gender-neutral power

Sweden has big clean-energy ambitions for fossil-fuel-free transport by 2030 and renewable electricity by 2040. Less publicised is the country's push for gender equality in energy research as part of its energy-funding strategy for 2017-20.

To meet the first two goals, the Swedish Energy Agency announced a 23 per cent increase in research funding between 2016 and 2020. And this money comes with a focus on gender.

For those outside Sweden this might look peculiar, as Sweden is known for being one of the most progressive of western societies. But the country's women still battle for opportunities at university and often struggle to establish themselves in the energy field.

In 2015, for example, the ratio of men to women graduating with a PhD in energy transport was 16:3, and in power systems it was 20:3. The road towards gender equality in these fields remains long.

Semida Silveira, head of energy and climate studies at the Royal Institute of Technology (KTH) in Stockholm, said that the technical domains of energy research are still dominated by men, even though applications for funding come from both men and women in abundance.

The shortcomings of Sweden's gender-equal research policy are reflected at KTH, which in 2015 had only 38 female professors compared with 239 male ones. The

**nordic
outlook**

by **Antoaneta Roussi**

arnews@ResearchResearch.com

institute elected its first female president last year.

All in all, energy lags behind other fields when it comes to gender equality. The country's energy funder, the Swedish Energy Agency, was among the last government agencies to implement a gender focus, said Lars Guldbrand, senior adviser at the energy ministry. Other government agencies had instigated a gender focus long before, he said.

"Why this clause wasn't included earlier I'm not sure, but this doesn't mean that the energy agency has been unaware," Guldbrand said.

But there are efforts underway to give women greater visibility in the energy field. "The government will also try to include women in all expert and scientific committees that review proposals," Guldbrand explained.

Guldbrand and Silveira agree that if the number of women in technical science degrees and energy PhD programmes does not increase, there will be no change at senior levels. But while Guldbrand said that the government would consider introducing preference for energy research projects from women to up their presence in the field, Semida argued that such measures were not necessary.

"There are so many good applications coming from women," Semida said. "We're really running out of this argument that there aren't enough."

nordic in brief

Researchers spend a month on finding money

The median time that academics spent on grant applications to the Research Council of Norway in 2016 was four weeks of work for the main applicant, and one week for the partner institution, a survey has found. The council's centres of excellence programme was the most time-consuming to apply for, and often required 20 weeks of work.

Bill pushes universities to investigate misconduct

Universities should set up better systems for investigating scientific misconduct, a government bill has proposed. The bill, published on 25 January, would mean that the government-led Danish Committee on Scientific Dishonesty would only investigate serious cases. The proposal follows a 2015 report, which suggested that institutions should take the lead in dealing with misconduct.

Food strategy targets research

Improving science and innovation around food production and consumption is one of the three priorities of a long-

term food strategy for Sweden. The other two goals of the strategy, which the government presented to parliament on 30 January, are improving rules and conditions for a sustainable food chain, and bringing together the consumer and the market. The aim is to invest in the sustainable production and consumption of food, the government said.

VTT tops list of Finnish patents

The VTT Technical Research Centre of Finland applied for 52 patents in 2016, the largest number of patents applied for by one organisation in Finland that year. This was followed by Aalto University in Helsinki and the chemical company Kemira. The patent office received 1,368 patent applications in 2016.

Ottersen to head Karolinska

Ole Petter Ottersen, the rector of the University of Oslo, has rejected a job in Gothenburg and is instead set to become the rector of the Karolinska Institute in Stockholm. Karolinska said that its recruitment committee would nominate Ottersen, a neuroscientist, as its next rector. The final appointment will be made by the Swedish government.

usa

Environment agency relaxes grants freeze

The United States Environmental Protection Agency has said that it has completed a review during which its grants were temporarily frozen, and will now continue to fund its programmes.

Acting administrator Catherine McCabe emailed EPA staff on 27 January to say that the review of grants and contracts—which officials said was part of the normal process of a new administration taking power—was finished, and the agency would continue paying them without interruption. A review of external contracts that go in part to supporting the agency's scientific research is still underway.

The announcement came at the end of a hectic week, during which rumours and confusion spread quickly about president Donald Trump's plans for several agencies.

The White House appeared to back down from a plan to remove an EPA web page that hosted climate change data. The news agency Reuters reported that EPA employees were told to take the page down, but the next day the energy news site E&E News said that the administration had reversed course.

Mixed messages from the White House left some members of Trump's team just as confused as EPA staff. In an email to agency employees, Don Benton, leader of the

by Sam Lemonick

news@ResearchResearch.com

EPA transition team, said that he was just as surprised as they were by things he was seeing in the news.

The EPA wasn't the only agency worried about what the White House has planned. There was also fear that the Trump administration was trying to muzzle researchers at the Department of Agriculture after a memo instructed employees not to release public-facing documents.

The official who sent out that memo, Agricultural Research Service communications director Christopher Bentley, told *Science* magazine that it was a mistake. He had intended to remind staffers of the department's existing policy that leadership should be in the loop about media requests. Instead, some interpreted 'public-facing documents' to mean research papers.

That explanation lines up with Bentley saying on 24 January that there was no prohibition on scientific publications, manuscripts or abstracts.

The status of an apparent ban on Department of Health and Human Services employees talking to public officials is unclear. Those reports may also have been the result of a misunderstanding, as the HHS has a freeze on making new rules and regulations.

usa in brief

AAAS chief: scientists haven't helped themselves

Former congressman Rush Holt has said that condescension from scientists is one reason that voters and elected officials seemed increasingly willing to ignore them. Holt, once a Democratic representative from New Jersey and now chief executive of the American Association for the Advancement of Science, told a meeting of the American Physical Society: "Too often, we scientists have presented the evidence in a way that was condescending and hierarchical."

Common rule revised

On its last day in office, 19 January, the Obama administration finally implemented a revised version of the Common Rule, which governs research on human subjects. The final rule did not include stricter provisions on the sharing of data and samples, which scientific groups had strenuously opposed. One controversial element that remains will require researchers collaborating across institutions to go through a single ethics-review process.

Biologist to run for Senate

Michael Eisen, an insect biologist at the University of California, Berkeley, has said that he will launch an independent bid to run for a Californian seat in the United States Senate—despite his lack of political experience. He may have to challenge Democrat Dianne Feinstein,

who hasn't said if she'll run when her fifth term ends in 2018. Eisen announced his plans days after President Donald Trump's inauguration.

Trump budget could shrink energy department

President Donald Trump has reportedly suggested making deep cuts at the Department of Energy and eliminating the National Endowment for the Humanities, which funds humanities research and education. *The Hill* newspaper reported in January that Trump planned to eliminate several offices from the DOE, including the Office of Energy Efficiency and Renewable Energy, and the department's Advanced Research Projects Agency, Arpa-E. His proposed budget would also reduce funding for research on nuclear physics and advance computing to 2008 levels.

Complaint of misconduct at animal lab disputed

An environmental not-for-profit organisation has said that animals at a federal research facility are not getting adequate treatment. Public Employees for Environmental Responsibility said that the National Wildlife Health Center in Madison, Wisconsin, had let a number of research animals die on its watch, and that it had failed to adequately investigate those incidents. A spokeswoman for the United States Geological Survey, which operates the centre, said that the allegations were largely inaccurate, and that the lab met the highest standards of care for a research facility.

World science academy chief banned from entering United States

Mohamed Hassan, the interim director of the World Academy of Sciences, has been forced to withdraw from a conference in the United States because of President Donald Trump's executive order barring citizens of seven countries from entry.

Hassan told *Research Europe* that he has had to cancel his trip to the annual conference of the American Association for the Advancement of Science—taking place in Boston between 16 and 20 February—in light of the ban, because of his Sudanese citizenship.

The ban, which came into force on 29 January, applies to citizens of seven Muslim-majority countries: Iran, Iraq, Libya, Somalia, Sudan, Syria and Yemen. Its purpose is to protect the US from terrorism, President Trump has claimed.

As *Research Europe* went to press, the travel ban had been temporarily lifted by a US federal judge pending a legal review.

"The executive order signed by the US president is profoundly disruptive. It will immediately have a negative effect on scientific research and the essential scientific processes of exchanging information and ideas," Hassan

by Cristina Gallardo and Eleni Courea

said. "In the long run, the order will erode trust in the US and undermine the sense that the US is a reliable partner for scientific research. This is very disturbing both for scientists from the developing world and for our colleagues in North America and Europe."

The AAAS will hold an awards ceremony at the conference to honour five female scientists from low-income countries. One of the award winners, Sudanese electronics engineer Rania Abdel Hameed Mokhtar, is also likely to have to cancel her visit because of the ban, Hassan said.

The AAAS told *Research Europe* that it has contacted those affected by the ban and will encourage them to participate remotely via video conference.

Rush Holt, chief executive of the AAAS, said that the detaining of students who have already been issued US visas was "contrary to the spirit of science to pursue scholarly and professional interests." He also "strongly recommends" that Trump work closely with the AAAS to balance national security demands with the free flow of scientific talent.

world in brief

Trump to review funding for UN agencies

United States President Donald Trump is preparing executive

orders that could lead to slashed financial support for UN agencies and withdrawal of United States' membership of multilateral treaties, such as the Intergovernmental Panel on Climate Change and UN Framework Convention on Climate Change. The US is the single largest national contributor to the IPCC: of the \$146 million (€136m) it has received since its inception, \$44m came from the US.

WHO shortlists three candidates for top post

The World Health Organization has announced that David Nabarro, Tedros Adhanom Ghebreyesus and Sania Nishtar—nominated by the UK, Ethiopia and Pakistan respectively—are the names on its final shortlist for the post of director-general. The candidates will be voted on by member states at the World Health Assembly in May. The WHO has previously been criticised for a lack of transparency in the selection process for the post.

No boost for science in Indian budget

The Indian government has earmarked 374 billion rupees (€5.2bn) for science in its budget, ignoring persistent calls for investment to be doubled to 2 per cent of GDP. Kiran Mazumdar-Shaw, managing director of Biocon, India's largest pharmaceutical company, was

quoted as saying that the budget was "safe" and that "sadly" it gave no impetus to science and technology.

Brazil to launch first satellite

The Brazilian government has announced that it will launch its first satellite on 21 March, with the aim of improving the independence and security of its strategic communications. The satellite is expected to provide speedy internet access to remote regions of the country.

Unesco announces research centre in Rwanda

The UN's education and science agency Unesco is to create an institute to provide training and research facilities for east African scientists. The institute, hosted by the University of Rwanda in Kigali, will develop high-level scientific programmes that meet the needs of African countries, in order to support the implementation of the 2030 Agenda for Sustainable Development.

Science council announces Canadian partnership

The International Council for Science will receive funding from Canada's International Development Research Centre to build science capacity in developing countries, by funding training workshops and a fellowship programme for researchers. The grant will be administered by the International Network for Government Science Advice, Icsu's arm for promoting the use of scientific evidence in government policy.

SHOCKING DISPLAY A trespasser at the site of the Large Hadron Collider who met an untimely end courtesy of an 18,000-volt electrical transformer, knocking out the power to the machine in the process, is on show at Rotterdam Natural History Museum, *The Guardian* newspaper reports. The unfortunate stone marten, a type of weasel, is in the Dead Animal Tales exhibition, which museum director Kees Moeliker said “shows that animal and human life collide more and more, with dramatic results”: probably not the kind of collisions Cern had in mind.

SIGN OF THE TIMES When Eurosceptic British MEP Nigel Farage took the opportunity recently to defend the seven-country travel ban implemented by US president Donald Trump, it was all too much for one fellow parliamentarian. Seb Dance, a centre-left MEP and fellow Brit sat behind Farage in Parliament, was so unimpressed that he hastily scrawled “He’s lying to you” on a piece of paper and held it up for the camera. Despite a complaint to the Parliament’s president, Dance was unrepentant, telling *The Guardian*: “It’s time to stop the nuanced language and call out lies where we see them.”

WARM WELCOME Another of Trump’s associates—Myron Ebell, a climate-change denier who oversaw the transition of the Environmental Protection Agency to Trump’s administration—got an even harsher reception on a

recent Brussels trip. Chants of “shame” rang out from environmental protestors as Ebell was hustled into a meeting of the centre-right Alliance of Conservatives and Reformists in Europe. Even inside Ebell wasn’t safe, as a Greenpeace protestor interrupted his keynote speech to denounce his invitation.

FIRST FLIGHT OUT The UK government’s white paper on its plans for exiting the EU was a disappointing rehash of a vague speech given by prime minister Theresa May, with nothing new to say about research and innovation. But we were excited to see an infographic in it informing us that being based in London we are entitled to 14 weeks of annual holiday, as opposed to the measly EU minimum of four. We’re eagerly awaiting a legal opinion on whether the typo is binding.

HIDE THE SUITCASES It’s not just us who value time out of the office: minutes from a January meeting of the College of Commissioners reveal that Commission president Jean-Claude Juncker felt the need to instruct his underlings that “a more limited presence would have been preferable” at the World Economic Forum in Davos. “Above all, he recommended avoiding any form of political one-upmanship,” the minutes said. Research and innovation commissioner Carlos Moedas was one of those who made the jaunt to the festival of self-aggrandisement.



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