

Laboratory workers lack resources for ethical reflection – p7

SKA Push to get Germany back – p5

Science advice Glover launches network to boost voice of science in policy – p4

Blame game emerges over innovation divide

Commission 'not responsible' for crisis in southern states

THE EUROPEAN COMMISSION and national researchers have clashed over whether the EU or national governments are to blame for deteriorating research conditions in southern member states.

Speakers from Spain, Italy and Greece brought some unaccustomed passion to the EuroScience Open Forum, held in Copenhagen from 21 to 26 June, as they described the dire situation in their countries following cuts in research spending. At one forum on 25 June, they were involved in heated exchanges with Robert-Jan Smits, the Commission's director-general of research, over what they regard as complacency from the Commission in the face of the research crisis in southern Europe.

"This is really the end of the road for Spanish scientists," said Amaya Moro-Martin, an astrophysicist at NASA's Space Telescope Science Institute. "The options are to take low-quality employment, to abandon a scientific career or to emigrate. Brain drain is unavoidable, and this is leading to a multi-speed Europe."

Varvara Trachana, a biologist at the University of Thessaly in Greece, said that austerity measures imposed by the EU and the International Monetary Fund were "killing" her country. Greece has experienced a 4-year freeze on public-sector recruitment for researchers and a reduction in administrative staff, resulting in numerous university closures. "This fiscal consolidation is, in reality, a humanitarian crisis," she said.

But Smits said the EU should not carry the blame for the crisis. "We have not forced the Greek, Italian or Spanish governments to cut the science budget. These were deliberate choices at the national level," he said. "We are very much pushing for fiscal consolidation to safeguard expenditure on science."

Smits added that some southern countries such as Italy had severe structural problems in their research systems that predated the economic crisis. "It is an extremely worrying situation, and the innovation divide is neither good for the south nor for the north," he said. "But the huge issues in southern countries have been compensated for by growth in the north—and Europe is still in a first-class position."

by **Laura Greenhalgh** in Copenhagen

This appeared to anger Trachana. "The fact that the north is doing OK—frankly, I don't care," she responded. "This is a European failure, not a success story."

Her view was echoed by Luc Soete, rector of Maastricht University in the Netherlands and chairman of the Commission's Research, Innovation and Science Policy Experts group. "The system in Europe for research is failing pretty significantly," he said, attributing the problem to the EU's decision, more than a decade ago, not to form a common research policy under the Lisbon treaty. "We missed the opportunity," he said.

According to Soete, the Commission faces major research policy inconsistencies, notably a lack of clarity on whether its priority is research excellence or wider participation. Plans for a 'stairway to excellence' in EU policies target newer member states, and it is unclear where this leaves southern Europe, he says.

Francesco Sylos Labini, a physicist at the CNR, Italy's national research council, and head of the national movement Return on Academic Research, said a major problem was the concentration of funds through the European Research Council. Instead of spending so much on the top 5 per cent of researchers in Europe, the EU needs to "recognise those who will be excellent tomorrow" and give funds to a greater number of people, he argued.

Policymakers must work out how to get countries to invest in research in the long term, but a more pressing issue is what to do right now, said Peter Tindemans, secretary-general of EuroScience, which organises the forum every 2 years as a cross-disciplinary meeting of researchers and policymakers. One quick fix could be to change the eligibility criteria for EU structural funds, he said, and use them to keep researchers from emigrating or changing careers. "We have to keep the systems in these countries in place—and that is no longer happening," he warned the conference. "The systems are falling apart."

Every new opportunity for research funding from every sponsor in the EU, US & beyond

Independent news

Direct from Brussels



Edited by Colin Macilwain
 Europe@ResearchResearch.com
 Tel: +44 20 7216 6500
 Fax: +44 20 7216 6501
 Unit 111, 134-146 Curtain Road, London EC2A 3AR

a **Research** publication

Falling apart?

Research divergence is a real and growing danger

The financial storm that once threatened to engulf the euro may have passed, but its ramifications are only now starting to unfold.

One of them is the potential unravelling of the European Research Area, to be replaced by a multi-speed Europe in which research and innovation become ever more concentrated in the north.

Advisers to the European Commission are warning that some, particularly southern, member states are turning into submerging economies, triggering a reduction in research capabilities, a brain drain of the most talented youngsters and a self-fulfilling negative adjustment.

In the worst case, EU research programmes could come to be perceived as sowers of division between research-intensive, economically competitive regions and the rest, rather than opportunities for collaboration.

Such fears bubbled to the surface at the EuroScience Open Forum in Copenhagen last week, when speakers from southern Europe rightly made their voices heard. Horizon 2020, for many of them, is a band-aid being applied in response to a desperate crisis, in which universities aren't hiring and freshly qualified researchers either emigrate or quit.

It fell to Robert-Jan Smits, the Commission's top research official, to remind these speakers that their own national governments, not the EU, chose to cut research spending. This observation is technically correct, but misleading. The medication prescribed by the EU was for states to impose tough cuts on social programmes and maintain longer-term investments such as research spending. That, of course, was easier said than done.

Horizon 2020 was designed to augment fundamentally healthy national research systems. One of its defining characteristics is to lean towards supporting research excellence—primarily through the European Research Council—and, therefore, less towards broadening participation.

The European Parliament succeeded in introducing a minor change in the opposite direction, through the widening-participation instrument that involves measures such as teaming and twinning. But these command a tiny proportion of the budget and are already experiencing problems as people question what is in it for the more 'excellent' partner.

The EU budget framework for 2014-20 also makes an overdue effort to align the research budget with the larger budget for structural funds, so as to build research capacity in economically weak regions.

But both measures are primarily intended to be used by newer member states within the EU-13, rather than older members such as Spain and Italy. And none of these efforts are equal to the challenge thrown down by the financial crisis.

As the EU's Innovation Union Scoreboard confirmed in March, the innovative capacities of EU regions have stopped converging and started diverging. If this trend takes hold, the EU will face doomsday, politically as well as economically, as regions become progressively less competitive.

There is no ready solution to the danger of divergence. But an unpleasant dynamic is developing and needs to be reversed. The next research commissioner must ensure that research and innovation spending is seen to be fair to all regions. That, too, will be easier said than done.

elsewhere

"Competition has been extremely tough."
Jari Kinaret, director of the EU Graphene Flagship, says Europe has some way to go to become a global leader in graphene technologies. *Pan-European Networks*, 24/6/14.

"Europe is on the brink of some very interesting and important changes."
 Research commissioner *Máire Geoghegan-Quinn* maintains her faith in Horizon 2020's capacity to be a game-changer for Europe's competitiveness and sustainability. *Horizon 2020 Projects*, 24/6/14.

"We do not have time to do this; we need immediate cooperation."
Mathias Freund, executive chairman of German medical research association the DGHO, says member state requirements to check cancer research projects against national laws are causing dangerous delays. *EurActiv*, 19/6/14.

"Europe's power markets and rules have been developed around the old electricity mix."
Frauke Thies, policy director at the European Photovoltaic Industry Association, says the EU's inflexible rules on energy distribution are hampering innovation in the renewables industry. *The Parliament*, 24/6/14.

"These companies don't suffer from a lack of ideas, but from a lack of resources."
 The University of Warsaw's head of medicine, *Zbigniew Gaciong*, says Poland's pharmaceutical industry is developing slowly because it struggles to access venture capital funding. *Science Business*, 18/6/14.

"Every research project has a story to tell—it has characters, a plot and drama."
Rhonda Smith, a member of science communication agency Minerva UK, says scientists should think more carefully about how their work can be communicated most effectively to the public, especially to children. *Nanowerk*, 20/6/14.

decade

"There needs to be some support for research management in each country. We can't just do it from the EU level."

Peter Buttner, vice-president of the European Association of Research Managers and Administrators, on the need for individual European countries to set up their own research management networks.

Research Europe, 1 July 2004

what's going on

Switzerland moves to plug Horizon 2020 funding gap

The Swiss Federal Council has approved additional measures to support researchers who are excluded from Horizon 2020 funding following the country's referendum in favour of EU immigration quotas. The measures include direct funding for Horizon 2020 cooperation programmes, including ERA-Net and the European Institute of Innovation and Technology. The move follows the creation of a national fund to replace European Research Council funding.

No exception for full text mining in copyright proposal

A European Commission-funded report has stopped short of recommending a blanket copyright exception to allow researchers to use data-mining and text-mining technologies for non-commercial purposes. Libraries and universities have lobbied for an exception to copyright so that researchers can extract information from material to which they already have legal access. However, the report warns that such a copyright exception could be interpreted too broadly.

Short-term funding leaves social sciences stranded

The research infrastructure for social sciences and humanities needs long-term funding in order to provide planning security for researchers and facilities, says a report by Allea, the All European Academies group. It warns that a lack of long-term funding means good social science cannot be guaranteed under Horizon 2020. Some research institutions need a relatively small budget, it says, but funding has to be consistent.

Commissioner delivers call to arms on Science 2.0

Research commissioner Máire Geoghegan-Quinn has told scientists and researchers to make their voices heard in a consultation on Science 2.0. Speaking at the EuroScience Open Forum in Copenhagen, she said it was up to researchers to say how science should be governed in an age of globalisation and digital technologies. "We as policymakers need a better understanding of the dynamics of Science 2.0 and its possible impacts on science and research policy," she said.

Austrian scientists recognise problems with research conduct

Scientists in Austria have expressed concern about widespread misconduct, in a survey by Oeawi, the Austria agency for scientific integrity. A quarter of the survey's 3,000 respondents said that they had witnessed data manipulation at their institutes and about half said they knew of scientists who were named as contributors to research articles without having done any work.

Commission launches defence research plan

The European Commission has drawn up a proposal to help align defence research activities and spending in Europe to avoid duplicating resources. The Commission intends to take a more collaborative approach to dual-use research, which involves both civilian and defence research, under Horizon 2020. The move follows concerns that EU defence research funding is being used inefficiently because it is spread across all member states.

Eureka moment for South Africa

South Africa has become the first African country to sign up to collaborate with Eureka, a small-business network of more than 40 European countries. Under the agreement, the country will work with Eureka to support businesses that struggle to fund innovation projects. The collaboration is expected to encourage the creation of technology start-ups in the country.

europe

Glover forms advisers' forum

The Commission president's chief scientific adviser hopes that a mixed panel of representatives can exert some influence across the EU, reports **Laura Greenhalgh**.

Plans for an EU network of science advisers have been on the cards since Anne Glover entered the office of José Manuel Barroso as chief scientific adviser in 2012. At the EuroScience Open Forum last week in Copenhagen, her intentions were finally realised when representatives of member states sat down for their first meeting of Esaf, the European Science Advisers Forum. "I'm chuffed," Glover told *Research Europe*.

The forum's creation coincides with plans to convene a global meeting of scientific advisers in New Zealand this summer, to promote the use of evidence-based policy. According to Glover, the creation of a distinct EU network is a big step forward in committing to this cause. "More than half of member states are now saying that they value science, and want to put science advice high on the agenda," she says.

Only three countries in the EU—the Czech Republic, Ireland and the UK—have an official government CSA, and Glover has been trying to cajole many others into finding a representative. "I've spent a lot of time going to member states and asking whether they would nominate someone to be my equivalent," she says.

As a result, the forum is a mishmash of civil servants, heads of funding organisations and science academies and official CSAs from 15 countries: Austria, Croatia, the Czech Republic, Denmark, Finland, Greece, Hungary, Ireland, Italy, the Netherlands, Portugal, Slovakia, Spain, Sweden and the UK. Interestingly, the Czech Republic has chosen Arnošt Marks, deputy prime minister and director of the country's Council for Research, Development and Innovation, to join the forum, instead of its official CSA Rudolf Haňka.

Glover says that the value of the forum will be in providing consensus opinion on scientific issues, particularly in emergency situations, to national ministers and heads of state when they meet as the Council of Ministers and EU Council. "At the moment, people trade a little bit on evidence because they're not sure what the scientific consensus is across the member states," she says. "We would be able to provide that."

And when pushed on whether the Council is likely to listen to the forum, Glover says: "As Esaf, we're not going to go to the Council and give it advice directly. But because its national advisers are on our forum, we will be able to ensure that the Council understands the evidence base." According to Glover, having a direct line to the leaders of EU member states will be extremely valuable. "I have no reason to believe that heads of state don't wish to listen to scientific advice," she says.

Another intended benefit of Esaf is to allow different countries to share experiences in the provision of advice. "We all have very different models in the member states in terms of how we deliver science advice into government," says Glover. "We very much see the opportunity of learning from each other."

"When we give advice, we often get asked to benchmark how we compare with other countries," says Jens Oddershede, chairman of the Danish Council for Research and Innovation Policy and the nominated representative for Denmark. "This network will be instrumental in helping us get that information."

Oddershede adds: "It will improve the quality of advice that we're giving in our own countries, and also make it easier for us to give advice at the European level."

According to New Zealand's CSA Peter Gluckman, who is spearheading plans for the global gathering of advisers in Auckland on 28 and 29 August, such networks are useful for getting "down and dirty" on practical and structural issues. These include how best to prepare for emergency situations, and how much independence is needed between CSAs and government departments or research funding agencies, he says.

Other regions have already convened successful forums, says Gluckman, including the gathering of CSAs from the Asia-Pacific Economic Cooperation and the Carnegie Group from the G8 nations. "Glover's network highlights the diversity of models there are," he says.

However, the fact that two big players—France and Germany—are missing from the European network is a concern if it is to hold as much weight within the EU as Glover hopes for. She admits that it will be "extremely important" to bring Germany and France into the fold, but says she is confident they will join the forum before too long, once they see what they are missing out on.

"In Germany, scientific advice is so diversified that the country is having difficulty nominating a single individual," says Glover. "I am not worried that there is no science advice coming into the German government—far from it," she says. "The question is whether or not Germany sees value in being part of the network."

Glover is still in discussion with several other member states to get them to sign up. "Either it simply wasn't possible for them to send someone today, or we have not progressed the discussion enough for them to identify the value of the network." But before too long, "this will be a club that everybody wants to join", she says. "By 2016 we should have a full house of science advisers—and perhaps even before then."

SKA urges Germany to stay

South Africa and other members of the Square Kilometre Array telescope project will lobby the German government to reconsider its unexpected decision to withdraw.

Germany announced on 5 June that it would pull out of the project to build the world's most sensitive radio telescope in June 2015. Phil Diamond, the director-general of the SKA Organisation, which represents member states, says he is still seeking a fuller explanation from Germany for its decision. "Our members are going to be making contact through governmental channels to find out the real situation" and work out how to get Germany back on board, he says.

SKA partners including Canada, China, Sweden and the UK are likely to challenge the German government over its withdrawal from the project, which is hosted by South Africa and Australia. However, there are also fears that the country's exit might prompt further departures. An official at the European Southern Observatory, based in Chile, which is planning to collaborate with the SKA, says that countries should try to get Germany back on board and that the decision casts a shadow over the project's future: "We are willing to continue, but if other partners break away now it will be difficult."

The South African government is among those seeking direct talks with German representatives to resolve

by Inga Vesper

ivnews@ResearchResearch.com

the situation. Naledi Pandor, the South African minister of science, told *Research Europe* that Germany's decision had come as a shock. "I hope they will change their mind," she says.

Germany has so far provided only €3.8 million to the SKA, and its contribution was not expected to exceed 2.5 per cent of the €120m needed for the project's design phase, which runs from 2015 to 2018. The German government has said that financial constraints have forced it to withdraw.

However, other SKA members are reluctant to accept this argument, as Germany's public science budget is increasing continuously. A source in the German research ministry said that the country's research infrastructure funding was being concentrated on facilities based in or near Germany, such as the X-FEL free-electron laser in Hamburg and the European Spallation Source in Sweden.

South Africa, meanwhile, is trying to make the best of the situation. Pandor admits that the withdrawal "caused some concern among the public", but says that other partners are willing to make up for lost funding. "There is work to be done, and we must do it," she says.

Think tank warns of recession's after-effects

Europe's spending on research and innovation could suffer belatedly from the recession as stimulus measures adopted at the start of the financial crisis come to an end.

An analysis published this month by the Brussels-based Bruegel think tank looks at how public expenditure on research and innovation has fared during the financial crisis. The report, *Undercutting the future?*, says that public spending on research and innovation has been cushioned by one-off stimulus measures adopted towards the start of the crisis. Between 2007 and 2012 it fell by only 0.1 per cent, down to 1.4 per cent of all public expenditure. But as stimulus measures have come to an end, such spending has started to decline, according to the report.

The analysis shows that EU structural funds have played an important role in protecting innovation spending in the countries most affected by the crisis, which began in 2008. Between 2007 and 2013, about €86 billion in structural funds went towards research and innovation, effectively doubling the research and innovation budgets of Estonia, Hungary, Lithuania, Poland and Slovakia. Latvia's research budget tripled thanks to structural funds, and Greece, Portugal and Spain also had their investments propped up by EU money.

by Penny Sarchet

psnews@ResearchResearch.com

However, structural funds will be more carefully distributed in the 2014-20 financial framework, to focus on smart specialisation. And although the European Commission can encourage states to invest the funds in innovation, decisions will ultimately be made locally.

Horst Soboll, an adviser to the Commission and a former chairman of the European Research Advisory Board, says that the expected reduction in overall EU R&D spending would create a greater need to examine how these budgets are spent. "I want to shift the discussion more towards quality and efficiency," he says, adding that the smaller a research budget is, the greater the need to examine it.

The Bruegel report highlights a role for the Commission in issuing guidance on member state spending on research during lean times, calling for an evaluation of the effectiveness of Horizon 2020 and structural funds. Jerzy Langer, a member of the Polish Academy of Sciences, says this could be a chance for the Commission to set clearer guidelines for member states to prevent a post-recession collapse in R&D spending. "The Commission could be much braver," he says.

interview jean-pierre bourguignon

The next chapter

Jean-Pierre Bourguignon, head of the European Research Council, talks to **Laura Greenhalgh** about his first 6 months in the job and the Commission changes ahead.

Jean-Pierre Bourguignon's term at the helm of the European Research Council began rather more slowly than he might have liked. "The first thing that happened was I broke my arm," he tells me. "That is a small problem because it really slows you down—I tend to prefer to type with both hands."

But 6 months into his presidency, it is clear that things are now moving full steam ahead. Interviewed at the EuroScience Open Forum in Copenhagen, Bourguignon describes how he has already made the journey from Brussels to Copenhagen twice in 4 days—torn between attending the biggest scientific conference of the year and vital meetings in the EU capital.

"The ERC is functioning, and it is functioning well," Bourguignon says. "It has in a very short time reached a fantastic level of recognition, and my priority is simply to keep this up." This, for now, is easy, not least because the ERC has the luxury of knowing its budget—€13 billion—for the next 7 years. Bourguignon also has the backing of a great scientific council, as well as the Commission, he says.

Structural changes at the Commission have led to much work being reassigned from the Directorate-General for Research and Innovation to the executive agencies, and there are worries about how this could affect the ERC. Most on the inside have been anxious to maintain that business will continue as usual for the ERC, but Bourguignon answers this question with characteristic frankness.

"The changes have been quite drastic, in the numbers of people moving in particular, and at this moment a number of services are being reorganised," he says. However, he thinks it is too early to know how the ERC will be affected, and hopes that the ERC's independence from the core of the Commission will protect it from too much disruption.

Bourguignon's good relationship with the research commissioner could also help: his contact with Máire Geoghegan-Quinn has been "very simple", he says. "She's explicit about the fact that she's not from this domain, but has learnt about the culture of science and I think she has defended it well," he says. "Both the commissioner and the director-general for research, Robert-Jan Smits, have been very supportive of the ERC."

But Geoghegan-Quinn and Smits will soon leave their posts, leaving a question mark for the ERC president over their successors. "Two absolutely key people for us will be changing, and we just have to wait and see who is coming," says Bourguignon.

When asked if he would prefer a scientist as the next commissioner, he says that background is less important than personality. "A scientist who is stubborn and too focused on what they know could be really bad. A politician who takes their job seriously and understands how you can articulate research with other issues could be extremely positive," he says. "The key point is: you need somebody who is willing to listen."

According to Bourguignon, one difficulty for the next commissioner will be the timing of his or her appointment, in the first year of Horizon 2020. "They will be in the unpleasant situation of preparing the negotiations for the next Framework programme, but not finishing it," he says. "In the case of this commissioner, it was the opposite—Geoghegan-Quinn was there just when things got started, so she could really make her mark."

THE ERC ITSELF WILL have to deal with other challenges in the next 4 years, says Bourguignon. "Science is changing quickly, and we have to make sure that we renew the people who are doing our evaluations so we can respond to emerging areas," he says.

Another concern is the success rates for female applicants to the ERC. Only about 25 per cent of applicants are women, and an even lower proportion are successful. "We are missing female candidates, which is a big disappointment," says Bourguignon. Efforts such as changes to the eligibility criteria to allow for periods of maternity leave will help, he says, but he acknowledges that this is a situation the ERC needs to keep an eye on.

Bourguignon is continuing efforts to push for national support for ERC applicants who miss out on EU funding. "The ERC funds the top, but the very top can only exist if the other components are there," he says. "To support research at the European level without any connection to what's happening in member states doesn't make sense."

But the primary goal in the coming months will be for the ERC to keep doing what it is doing, and do it well, says Bourguignon. "To maintain this level of success requires some effort, and I think this should be our priority."

More to say? Email comment@ResearchResearch.com

'The ERC funds the top, but the top can only exist if the other components are there.'

fern wickson **view from the top**

Watching the regulatory tail wag the scientific dog

The first time I sought to conduct anthropological observations in a laboratory, one of the scientists I hoped to study asked me: “How would you like it if I sat in the corner of your office to watch what you did all day?”

I realised then that I could not simply ask scientists to be my research objects; I had to give something in return. So, for my second attempt, I offered myself as a kind of migrant labourer—doing unskilled work such as washing beakers and recording numbers. This got me inside the lab, and enabled me to observe the daily practice of science and ask questions without it feeling like an interrogation. I became an untrained yet curious colleague, building knowledge, competence and trust.

These studies were funded as part of efforts by Forskningsrådet, Norway’s research council, to advance responsible research, innovation and technology development through ‘integrated research’. In this approach, scholars from the social sciences and humanities work with natural scientists, engineers and technology developers to identify and address the ethical, legal and social aspects of their work. An underlying assumption is that sponsoring such collaborations will help to develop more reflective and responsible scientists, able to consider the social and ethical implications of their work, and enable the redirection of R&D to achieve more socially robust and environmentally sustainable innovation.

The integrated research project I managed for the past three years examined ethical aspects of ecotoxicology research into bio and nanotechnologies. Given the role of ecotoxicology in providing the scientific basis for environmental regulation, the project was interested in the ethical issues encountered by ecotoxicologists, and how these could be handled in practice.

Talking to researchers in three labs—one biotechnological and two nanotechnological—during routine work at the bench or while waiting for assay components to complete, I learned, perhaps unsurprisingly, that most scientists do not lack the ability to reflect on the social and ethical dimensions of their work. They do, however, often lack the time for such considerations.

One effect of my presence was to open a space for collaborative ethical reflection. From this emerged the realisation that the research choices of ecotoxicologists are often highly constrained.

For example, ecotoxicologists working with biotechnologies have limited access to test materials. Genetically

modified plants are often the patented property of corporations. As a result, the researchers I worked with saw their work as in the public interest, yet they could not legally gain access to many of the materials—up for approval in European markets—that they wanted to test.

This was one of their major ethical issues and one of the most significant challenges to responsible innovation in this area. But as scientific researchers, they had little power to address the issue.

For those working with nanotechnologies, one of the largest ethical challenges was that many of the standard tests bore little relation to how nanomaterials might behave in the real world. Efforts are under way to develop and improve standard test methods for nanomaterials, but participating in the the work of standardisation organisations such as the International Organization for Standardization and the OECD requires the money to attend meetings held in ever-changing international locations, and the time to keep up with the constant stream of communication in the years or decades it takes to develop an internationally recognised standard.

Very few publicly funded scientists have the necessary resources, which means that industry interests often dominate the process and the results reflect political compromise more than scientific consensus. Even so, policymakers often uncritically adopt such international standards as a proxy for scientific quality, and ecotoxicologists who want their work to have an impact on regulation then feel obliged to use them.

The model of integrated research assumes that if problems are identified in the laboratory, the work can be steered in a better direction. Ultimately, though, I discovered that this puts too much weight on the agency of researchers, and too little on the broader socioeconomic and political forces shaping what they do.

Given how our knowledge of the potential for environmental harm from emerging technologies is restricted by patenting regimes, international standards organisations and powerful economic forces, it seems naive to assume that responsible research and innovation can be achieved by simply having ethicists and social scientists collaborate with natural scientists and technology developers. Innovation takes place within complex networks and work needs to extend to a range of other actors and institutional spaces if responsible innovation is to effect real change.

Something to add? Email comment@ResearchResearch.com

Fern Wickson works in the GenØk Centre for Biosafety in Tromsø, Norway.

‘I offered myself as a kind of unskilled migrant labourer.’

view from the top jan staman

Only technical universities can make the third mission a success

Governments are increasingly keen to see universities and academics have an impact on society, contribute to economic growth and technological progress, and help to tackle the complex, multifaceted issues known as grand challenges. This has been called the third mission of universities, to sit alongside the traditional imperatives of teaching and research.

And yet, if you ask industry leaders where innovation comes from, university researchers will be among the last people they name. Instead, they will say competitors or consultants. There are several more important and more interesting sources for novel ideas than academics, most of whom have little or no contact with the world of industrial innovation.

The idea of societal and economic impact flowing from the traditional university where academics focus on basic research was never the point. So it's no surprise that such institutions were initially reluctant to even discuss the idea of societal impact. Attempts by the European Commission to gather data on the impact of universities in the EU, and from this to come up with broadened performance indicators, were scuppered by the reluctance of universities to cooperate.

Instead, traditional universities sought to define themselves as fonts of basic research that would, at some unspecified point and in some unspecified way, yield tangible benefits as well as insights. These benefits have often been seen, but the general attitude was, nonetheless, a conversation-stopper. The message it put across was simple: 'Leave me alone.'

That message changed when money began to flow for research collaborations related to grand challenges and impact. But traditional universities' interest in such work is still driven mostly by the grants and publications that it yields, rather than by a genuine ability to tackle the problems that the work is intended to solve.

Another type of higher education and research institution is, however, well placed to yield the impact that society demands. This is the technical university.

There is no shortage of basic research at such institutions. In the Netherlands, for example, the biology at the agricultural-college-turned-university in Wageningen, and the physics at the Delft University of Technology, are of international quality.

But work at such institutions is also targeted towards specific problems and

societal and business demands, on the pathway that delivers products to market. These universities are often embedded in their local areas, having built long-term relationships with industry and local government, and they have forged strong links with small and medium-sized businesses.

Most crucially, technical universities bring together a wider variety of people than is seen in their more traditional counterparts. Scientists collaborate not just with other scientists but with experts in business, economics and design. These are the combinations that are truly needed to deliver impact and innovation, and to work with business.

THE GREATER DEMANDS that society is making of its universities and researchers will trigger, I believe, a rise in the status of technical universities. This shift is being accelerated by the nature of the networked, digital world, with an increasing number of disciplines, including those in the arts and humanities, 'going technical'.

Disciplines such as history and philosophy are, partly owing to intellectual excitement and partly for their own survival, becoming increasingly linked to technology and innovation, via developments such as big data. The choice for the humanities, it seems, is to get connected or disappear.

What then will become of traditional research universities? Might there come a time when society turns its back, leaving them to their ranking tables and citation counts?

It's possible, but not likely. Apart from their missions in higher education and basic research, universities' main contribution to innovation has always been people, not ideas or products. Universities will still be what they were originally founded as: finishing schools for the elite. The financial industry will still snap up mathematics graduates from top schools in the UK, the United States and France. And big, prestigious universities are important as infrastructure—part of the package that cities offer in the global competition for talent and resources.

But perhaps these universities should stop trying to deliver direct societal and economic impact, and the people who support them should stop expecting them to. Other institutions are better placed to do that.

More to say? Email comment@ResearchResearch.com

Jan Staman is director of the Rathenau Institute in The Hague, the Netherlands. The institute carries out science policy research and promotes public and political debate on science and technology.

'Technical institutions target specific societal and business demands.'

every new opportunity every discipline

highlights

EU personal data

The Directorate-General for Justice invites tenders for a framework service contract concerning research services in relation to issues of the protection of personal data. The contract is worth €3 million [7].

EU environment grants 1

The Directorate-General for the Environment invites proposals for its traditional projects call under the LIFE programme action grants. The total budget is approximately €283 million [24].

Student space competition

The European Space Agency, in collaboration with the Swedish National Space Board and the German Space Agency, invites proposals for the Rexus and Bexus fly your experiment programme [31].

Young scientist award

The Alexander von Humboldt Foundation invites applications for the Sofja Kovalevskaja award. The award is worth €1.65 million [33].

WHO polio grants

The World Health Organization invites proposals for research projects. The majority of projects receive funding worth up to US\$300,000 (€220,600) [49].

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

July

- 11 **FR** Institut Pasteur doctoral programme Calmette and Yersin 1178495
UK Instruct research and development pilot project application 1180108
- 14 **EU** Directorate-General for Climate Action strengthening independent monitoring of greenhouse gas emissions from land activities 1179872
EU Directorate-General for Internal Market and Services measuring the prevalence of occupational regulation in the EU 1179943
EU Directorate-General for the Environment how much biodiversity does Natura 2000 cover? 1179984
IT IMT Institute for Advanced Studies PhD scholarships 1169275
AE Mubadala Development Company Zayed future energy prizes for corporations and non-profits 1160614
UK Royal Academy of Engineering Queen Elizabeth prize for engineering 1165339
- 15 **DE** Bayer Carl Duisberg scholarships 1165253
DE Bayer Hermann Strenger scholarships 1165257
DE Bayer Otto Bayer scholarships 1165251
EU Directorate-General for Climate Action study on different pass-through factors to assess the impact of the EU emission trading system carbon cost 1179969
EU European Ceramic Society student exchange programme 1180059
DE European Foundation for the Study of Diabetes European research programme in microvascular complications of diabetes 1172958
UK Natural Environment Research Council future climate for Africa regional consortium grants 1179365
- 16 **EU** Directorate-General for the Climate Action new tools and functionalities developing the EU strategy on adaptation to climate change 1179972
EU Directorate-General for Climate Action assisting the European Commission in the assessment of new entrants, significant capacity

changes and closure applications 1179978

- EU** Directorate-General for Communications Networks, Content and Technology study on measuring the economic impact of cloud computing in Europe 1179812
- EU** European Institute for Gender Equality study on area G of the Beijing platform for action – women in power and decision-making 1179990
- EU** European Union Agency for Fundamental Rights second European Union minorities and discrimination survey 1180133
- 18 **IT** Telethon Foundation career award programme 151356
EU Directorate-General for Economic and Financial Affairs expenditure-based consolidation: experiences and outcomes 1179846
- 20 **CH** CERN Atlas PhD grants 1173947
- 21 **EU** Cedefop economic and social costs of low-skills adults in the EU 1180051
EU European Centre for Disease Prevention and Control ranking infectious disease risks to assist public health planning 1180019
UK Wellcome Trust postdoctoral research training fellowships for clinicians 1173654
- 25 **UK** British Society for Antimicrobial Chemotherapy Terry Hennessey microbiology fellowship 1177721
UK Wellcome Trust sustaining health 1174734
- 28 **EU** Directorate-General for Mobility and Transport study on differentiated port infrastructure charges to promote environmentally friendly maritime transport activities and sustainable transport 1179957
- 29 **EU** Directorate-General for Regional and Urban Policy ex post evaluation of the cohesion policy programme 2007-2013 financed by the European Regional Development Fund and Cohesion Fund: urban development and social infrastructure 1180053
- 30 **EU** Directorate-General for Employment, Social Affairs & Inclusion social policy innovations supporting reforms in social services 1179695
EU Directorate-General for Mobility and Transport study on cruise ship security 1174172
EU Directorate-General for Mobility and Transport study on the collation and dissemination of information regarding piracy and armed robbery 1174148
- 31 **UK** Centre for Economic Policy Research exploratory grants 1165770

europa

EU materials science

ERA-Net M-ERA.NET invites proposals for its transnational joint call. This aims to fund transnational high risk R&D projects addressing materials science and engineering, including micro- and nanotechnologies, production processes and technologies.

Web id: 1173688

Email: office@m-era.net

Deadline: 16 September 2014 [1]

EU environmental legislation

The Directorate-General for the Environment invites tenders for the following projects:

- to analyse legislative and policy options regarding efficient functioning of waste markets in the European Union. The contract is worth up to €200,000.

Web id: 1180178

- to support the evaluation of the environmental noise directive. The contract is worth up to €300,000. **Web id:** 1180177

Email: env-tenders@ec.europa.eu

Deadline: 7 August 2014 [2]

EU radio equipment

The Directorate-General for Communications Networks, Content and Technology invites tenders for a study on identification of the market radio equipment operating in licence-exempt frequency bands. The tenderer will provide a spectrum inventory in licence-exempt bands within the range from 400 MHz to 6 GHz. The contract is worth up to €150,000.

Web id: 1180221

Email: cnect-bos@ec.europa.eu

Deadline: 18 August 2014 [4]

EU entrepreneurial learning

The Executive Agency for Small and Medium-sized Enterprises invites proposals for its call on entrepreneurship education. This will support a network and a virtual hub on entrepreneurial learning. Its members will act as promoters of entrepreneurship education at European level, helping to increase the exchange of information and good practice and to improve the coherency and synergies between the many initiatives taken nationally and regionally. The budget is €350,000.

Web id: 1180181

Email: easme-cosme-entedu-call-2014@ec.europa.eu

Deadline: 20 August 2014 [5]

EU animal transportation

The Directorate-General for Health and Consumers invites tenders for a pilot project on best practices in animal transport. The tenderer will conduct a pilot project that will focus on the management of transported animals with a certain focus on the main farm species and key stakeholders participating in the transport of these animals. The contract is worth up to €1 million.

Web id: 1180350

Email: sanco-procurement@ec.europa.eu

Deadline: 28 August 2014 [6]

Online Funding Search

For full details of every funding opportunity, visit
www.ResearchProfessional.com

Online subscribers can view full details of any funding opportunity by simply searching for the Web id number as free text in a funding search.

Funding search

Free text: 1234567 x

Search

NOT TO BE
PHOTOCOPIED

For subscriptions call +44 20 7216 6500

EU personal data

The Directorate-General for Justice invites tenders for a framework service contract concerning research services in relation to issues of the protection of personal data. The tenderer will conduct legal and technical research and analysis pertaining to the protection of personal data. The contract is worth €3 million.

Web id: 1180176

Email: just-a4-cft@ec.europa.eu

Deadline: 29 August 2014 [7]

EU road safety

The Directorate-General for Mobility and Transport invites tenders for a study on the risks of elderly people in road traffic. The tenderer will conduct a study on the risks of elderly people in road traffic. The contract is worth €200,000.

Web id: 1180185

Email: move-c4-secretariat@ec.europa.eu

Deadline: 29 August 2014 [8]

Chemical sciences

The European Chemical Industry Council invites proposals for research on the following topics:

- eye irritation testing in vitro in practice – database and testing strategy. The budget is approximately €500,000.

Web id: 1180368

- improving assessment of persistency through including adaptation; standardise methodology and assess ecological significance. The budget is approximately €600,000.

Web id: 1180363

- mining data to expand the domain of applicability of chemical activity. The budget is approximately €150,000.

Web id: 1180370

- the use of ecosystem services in targeting risk assessment of chemicals in the environment. The budget is approximately €300,000.

Web id: 1180366

Email: lri@cecific.be

Deadline: 31 August 2014 [9]

Anaesthesiology grants

The European Society of Anaesthesiology invites applications for the following grants:

- meta-analysis grant, worth up to €20,000.

Web id: 1171121

- project grants, worth up to €60,000 each.

Web id: 190234

- research support grants, worth up to €15,000 each.

Web id: 1174532

- young investigator start-up grant, worth up to €30,000.

Web id: 1174533

Email: research@esahq.org

Deadline: 4 September 2014 [13]

EU environmental economics

The Directorate-General for the Environment invites tenders for a study on biodiversity financing and tracking biodiversity-related expenditure in the EU budget. The tenderer will look at lessons learnt on biodiversity financing and tracking and make recommendations for improvement. The contract is worth up to €150,000.

Web id: 1180323

Email: env-tenders@ec.europa.eu

Deadline: 5 September 2014 [17]

EU anti-fraud legal training

The European Anti-Fraud Office invites applications for its legal training and studies grants under the Hercule III pro-

gramme. These are for research activities, conferences, seminars and workshops that raise awareness for the protection of EU's financial interests. The budget is €550,000.

Web id: 1180384

Email: olaf-fmb-hercule-legal@ec.europa.eu

Deadline: 8 September 2014 [18]

EU education innovation

The Directorate-General for Education and Culture invites tenders for measuring the contribution of higher education to innovation capacity in the EU. The tenderer will conduct a study that should develop a stronger evidence of the contribution of higher education systems to innovation capacity. The contract is worth €500,000.

Web id: 1180305

Email: eac-c2-tender-2014-10@ec.europa.eu

Deadline: 12 September 2014 [19]

EU biodiesel research

The Directorate-General for Energy invites tenders for improving the sustainability of fatty acid methyl esters. The tenderer will assess several ways to improve the green house gas balance of biodiesel based on fatty acid methyl ester.

Web id: 1180302

Email: remy.denos@ec.europa.eu

Deadline: 12 September 2014 [20]

EU anti-fraud conferences

The European Anti-Fraud Office invites applications for its anti-fraud training and conferences grants under the Hercule III programme. These support targeted and risk analysis workshops and conferences that aim to protect EU's financial interests. The budget is €900,000.

Web id: 1180383

Email: olaf-anti-fraud-training@ec.europa.eu

Deadline: 15 September 2014 [21]

EU internet network

The Directorate-General for Communications Networks, Content and Technology invites tenders for a study on identification and quantification of key socio-economic data for the strategic planning of 5G introduction in Europe. The tenderer will provide the fundamental quantitative socio-economic bases for the stakeholders to plan the critical phases for the introduction of 5G. The contract is worth €300,000.

Web id: 1180201

Email: cnect-e1@ec.europa.eu

Deadline: 30 September 2014 [22]

EU water innovation

EUREKA, through the ACQUEAU cluster, invites proposals for its open call. This supports near water-market projects, in order to facilitate the development of innovative projects, processes and systems in the water sector. The call delivers the EUREKA label and facilitates access to national funding.

Web id: 1170705

Email: information@acquaeau.eu

Deadline: 1 October 2014 [23]

EU environment grants 1

The Directorate-General for the Environment invites proposals for its traditional projects call under the LIFE programme action grants. This supports projects

under the following themes: nature and biodiversity; environment and resource efficiency; environmental governance and information; climate change mitigation; climate change adaptation; climate governance and information. The total budget is approximately €283 million.

Web id: 252916

Deadline: 16 October 2014 [24]

EU environment grants 2

The Directorate-General for the Environment invites proposals for its preparatory projects call under the LIFE sub-programme for Environment. This call aims to address specific needs for the development and implementation of Union environmental or climate policy and legislation. Grants are worth up to €700,000 each.

Web id: 1180293

Deadline: 29 October 2014 [25]

Surrealism prize

The King Baudouin Foundation invites applications for the Jacqueline Nonkels prize. This recognises individuals who have made a significant contribution to the knowledge, protection, restoration, preservation and dissemination of surrealist heritage in Belgium. The prize is worth €5,000.

Web id: 1180361

Email: carpenter.i@kbs-frb.be

Deadline: 5 November 2014 [26]

Retinal diseases research

The King Baudouin Foundation invites applications for its prize for medical scientific research on retinopathies. This recognises a significant contribution in the field of pathologies of the retina. The prize is worth €15,000.

Web id: 1180356

Email: tseyen.a@kbs-frb.be

Deadline: 20 November 2014 [27]

Health systems security

The Royal Academy of Medicine of Belgium invites applications for the international ASSIS prize for the security of healthy information systems in Europe. This recognises substantial progress in the development of secure health information systems in Europe. The prize is worth €5,000.

Web id: 1175010

Email: contact@armb.be

Deadline: 12 January 2015 [28]

Cognitive deficits

The Jérôme Lejeune Foundation invites applications for its research grants. These support research projects that aim to identify treatments to improve the cognitive deficits of patients, especially those with trisomy 21, and other rare abnormalities. Grants are worth up to €20,000.

Web id: 213435

Email: conseilscientifique@fondationlejeune.org

Deadline: 19 August 2014 [29]

Cardiovascular networks

The Fondation Leducq invites applications for its transatlantic networks of excellence in cardiovascular and neurovascular research. Funding promotes collaborative research involving centres in North America and Europe in the areas of cardiovascular and neurovascular disease. Grants are worth up to US\$6 million

(€4.4m) each.

Web id: 203326

Email: contact@flcq.org

Deadline: 5 September 2014 [30]

Student space competition

The European Space Agency, in collaboration with the Swedish National Space Board and the German Space Agency, invites proposals for the Rexus and Bexus fly your experiment programme. This enables students to propose experiments to fly on sounding rockets and stratospheric balloons. Two rockets and two balloons will be launched.

Web id: 1160890

Email: rexus-bexus@esa.int

Deadline: 13 October 2014 [31]

EU smart systems

EUREKA invites applications for its EURIPIDES call. This supports cooperative industrial R&D from design to process and manufacturing in the crucial domain of smart electronic systems integration in aerospace, automotive, energy, health care, transport, and smart cities, mobility and security. The EURIPIDES label enables a proposer from a EURIPIDES country to receive funding from its national public authorities.

Web id: 1161501

Email: euripides@euripides-eureka.eu

Deadline: 20 November 2014 [32]

Young scientist award

The Alexander von Humboldt Foundation invites applications for the Sofja Kovalevskaja award. This enables promising researchers to establish their own junior research groups at research institutions in Germany. The award is worth €1.65 million.

Web id: 175743

Email: info@avh.de

Deadline: 1 September 2014 [33]

Conflict resolution

The Berghof Foundation invites applications for the Georg Zundel scholarship in nonviolent resistance. This provides up to two years of funding for PhD students for studies on nonviolent resistance at the Berghof Centre in Berlin. Grants are worth €1,250 per month.

Web id: 1171754

Email: grants@berghof-foundation.org

Deadline: 12 September 2014 [34]

EU science and technology

ERA.NET RUS Plus invites proposals for its joint call for science and technology projects. This supports projects designed to produce new knowledge through fundamental, experimental or theoretical scientific research. The budget is approximately €12.34 million.

Web id: 1179737

Email: andreas.kahle@dlr.de

Deadline: 25 September 2014 [35]

Diabetes research

The European Foundation for the Study of Diabetes, in collaboration with Janssen, invites applications for its programme for the study of the role of the kidney in diabetes. This stimulates and accelerates research on understanding the role of the kidney in diabetes, with special emphasis on renal glucose handling and metabolism, and in its physiology and pathophysiology role in type 2 diabetes.

Research Europe

ISSN 1366-9885

Published every two weeks with breaks at Christmas, Easter and in summer. The next issue will be published on 17 July.

Letters to

Research Europe
Unit 111, 134-146 Curtain Road,
London EC2A 3AR, England
news@researchresearch.com

Enquiries to

info@researchresearch.com
Tel +44 20 7216 6500
Fax +44 20 7216 6501

Editor Colin Macilwain

Comment and Analysis Editor
John Whitfield

News Editors

Miriam Frankel, *Research Fortnight*
John Bonner, acting,
Research Fortnight
Inga Vesper, *Research Europe*

Senior reporter Laura Greenhalgh

Reporters

Rebecca Hill, Helen Lock, Jenny
Maukola, Tania Rabesandratana,
Penny Sarchet, Adam Smith,
Rebecca Trager

Chief Sub Editor Kris Pedder

Sub Editor Martyn Jones

Funding Content Manager

Maya Berger

Deputy Funding Content Manager

Yael Moscou

Funding Editors

Anne-Dorte Johannessen,
Melinda Sulkama

Editorial Researchers

Laura Barclay, Rebecca Blease,
Astrid Boehm, Demeter Chanter,
Sophie Declerck, Abdo Hussein,
Mikael Järvelin, Hanna Krantz,
Jan Montwill, Tine Stausholm
Christiansen, Sanja Vlasisavljevic

Production Manager

Katherine Lester

Deputy Production Manager

Laura Kipp

Technical Director Steve Potter

Editor, *Research Fortnight*

Ehsan Masood

Chairman and Founder

William Cullerne Bown

Publisher Thérèse Claffey

Sales Director Nicky Cooper

Sales Managers Alexander Nehm,
Jon Thornton, Alison Warder

Subscriptions

info@researchresearch.com

Advertising London

advertise@researchresearch.com

Published by Research. Copyright
© Research Research Ltd, 2014.

ALL RIGHTS RESERVED

Reproducing *Research Europe*
by photocopying, electronic or
other means in any language
without the permission of the
publisher is illegal.



Please recycle after use

NOT TO BE PHOTOCOPIED
a Research publication

Grants are worth up to €100,000.

Web id: 1161387

Email: foundation@easd.org

Deadline: 1 October 2014 [36]

Celtic studies

The Dublin Institute for Advanced Studies' School of Celtic Studies invites applications for the O'Donovan scholarship. This supports postgraduate research in Celtic studies. The scholarship is worth up to €25,000 per year.

Web id: 205387

Email: eibhlin@celt.dias.ie

Deadline: 18 July 2014 [37]

EU small-scale farming

The European Food Safety Authority invites tenders to conduct preparatory work for the scientific opinion on welfare assessment of dairy cows in small-scale farming systems. The tenderer will provide data for the description of European small-scale farms based on size, farming system and husbandry practices and categorisation of SSF based on quantified welfare risks. The value of the contract is €206,000.

Web id: 1180198

Email: rasa.procurement@efsa.europa.eu

Deadline: 21 July 2014 [38]

EU food toxins

The European Food Safety Authority invites tenders for a review of literature on cyanobacteria toxins in food. The aim is to gather information and evaluate the evidence for the occurrence of cyanotoxins in food, their toxicological relevance, possible exposure scenarios from food consumption and data gaps. The contract is worth up to €150,000.

Web id: 1180324

Email: scistrat.procurement@efsa.europa.eu

Deadline: 15 September 2014 [39]

EU monitoring health risks

The European Food Safety Authority invites tenders for generating, collecting, collating, synthesising and analysing evidence supporting preparatory work for evidence-based scientific assessment in EFSA. Tenders may be submitted for the following lots: animal health and welfare; chemicals in the food chain; environmental risks; microbiological and zoonotic agents; human nutrition; plant health. The value of all lots is €8 million.

Web id: 1180319

Email: rasa.procurement@efsa.europa.eu

Deadline: 30 September 2014 [40]

EU university sponsorship

The European Investment Bank invites proposals for the EIB university research sponsorship programme. This supports university research centres working on research topic and themes of major interest to the bank. Awards are worth €100,000 per year for three years.

Web id: 1173955

Email: events.eibinstitute@eib.org

Deadline: 30 September 2014 [41]

EU defence materials

The Joint Research Centre invites tenders for a study on the composition of an inventory of critical raw materials used in the EU defence sector. The tenderer will compose an inventory of raw materials that are used by the EU sector. The value

of the contract is up to €100,000.

Web id: 1180234

Email: jrc-iet-procurement@ec.europa.eu

Deadline: 28 July 2014 [42]

Virology prize

The Royal Netherlands Academy of Arts and Sciences (KNAW) invites nominations for the MW Beijerinck virology prize. This recognises a contribution to international virology. The prize includes €35,000.

Web id: 179827

Email: dianne.van.avendonk@knaw.nl

Deadline: 15 September 2014 [43]

Philosophy of science

The Foundation for Science and Technology of the Portuguese Ministry for Education and Science and the Calouste Gulbenkian Foundation invite nominations for the Fernando Gil international prize. This acknowledges a work in the philosophy of science. The award includes €75,000.

Web id: 1171038

Email: premio-filosofia@fernando-gil.org.pt

Deadline: 15 January 2015 [44]

Eastern Europe courses

The International Visegrad Fund invites applications for its university studies grants. These enable universities to develop and launch university courses or degree programmes that deal with specific phenomena related to the Czech Republic, Hungary, Poland and Slovakia. Universities may request approximately €10,000 per course and €40,000 per degree programme.

Web id: 1169917

Email: fekiacova@visegradfund.org

Deadline: 10 November 2014 [45]

Social values prize

The Autonomous Government of Catalonia invites applications for the international Catalunya prize. This recognises a person whose work has made a significant contribution to the development of cultural, scientific or human values. The prize is worth €80,000.

Web id: 204483

Deadline: 31 December 2014 [46]

EU Legionnaires' disease

The European Centre for Disease Prevention and Control invites tenders for supporting the surveillance of Legionnaires' disease at a European level. The tenderer will deliver external quality assessment schemes in support of the surveillance of Legionnaires' disease at a European level. The contract is worth €400,000.

Web id: 1180347

Email: procurement@ecd.europa.eu

Deadline: 18 August 2014 [47]

Food additives prize

The Royal Swedish Academy of Agriculture and Forestry invites nominations for the Bertebos prize. This recognises an individual for research within the areas of food, agriculture, ecology or animal health. The prize includes SEK300,000 (€32,600).

Web id: 1168330

Email: keiko.blessersholt@ksla.se

Deadline: 25 August 2014 [48]

WHO polio grants

The World Health Organization invites proposals for research projects. These will contribute significantly to polio eradication. Funding is generally worth up to US\$300,000 (€220,600).

Web id: 1158074

Email: polioresearch@who.int

Deadline: 29 August 2014 [49]

Human movement prize

The Georg and Susanne Klein-Vogelbach Foundation invites applications for the Susanne Klein-Vogelbach prize for the research of human movement. This recognises work in neuroscience, orthopaedics and associated sciences, oriented to a better understanding of human movement and its rehabilitation. The prize is worth CHF10,000 (€8,200).

Web id: 151962

Deadline: 1 September 2014 [50]

Animal-free testing prize

Lush and the Ethical Consumer Research Organisation invite applications and nominations for the Lush prize. This recognises contributions to replacing animal use in product safety testing in the areas of lobbying, public awareness, science, training and young research. A Black Box prize of £250,000 (€312,800) may be awarded.

Web id: 1173005

Deadline: 25 July 2014 [51]

Chemotherapy research

The British Society for Antimicrobial Chemotherapy invites applications for the following awards:

- project grants, worth up to £15,000 (€18,800) each. Web id: 209801

- research grants, worth up to £50,000 each. Web id: 209805

Email: dfoster@bsac.org.uk

Deadline: 1 November 2014 [54]

Drug discovery

The Wellcome Trust invites applications for its seeding drug discovery scheme. This aims to develop drug-like, small molecules that will be the springboard for further R&D by the biotechnology and pharmaceutical industry.

Web id: 253953

Email: innovations@wellcome.ac.uk

Deadline: 5 November 2014 [56]

rest of world

Ageing society research

The Unvers Foundation invites proposals for its research grants. These enhance social welfare in an ageing society with falling birthrates and depopulating society. Grants are worth up to ¥1 million (€7,200) each.

Web id: 1180351

Email: info@univers.or.jp

Deadline: 31 July 2014 [56.1]

Foreign aid essay competition

The Global Development Network invites submissions for its next horizons essay contest. This recognises work on the future of development assistance. Each prize is worth US\$20,000 (€14,700).

Web id: 1180260

Email: nexthorizons@gdn.int

Deadline: 15 September 2014 [59]

tenders

Radiation resistance *ESA

The European Space Agency invites tenders for its Jupiter icy moons explorer: validation of radiation resistant materials call. The tenderer will assess and characterise radiation resistance of materials to the high radiation field of JUICE mission. A relevant participation of non-primaries, including small and medium enterprises, is required. Funding is worth up to €500,000. Ref: 14.164.11. Deadline: 4 August 2014

Atom imaging *ESA

The European Space Agency invites tenders for its energetic neutral atom imaging for space environment monitoring call. The tenderer will review the production of energetic neutral atoms from various sources in the solar system and study the feasibility of using ENA imagers for systematic monitoring of energetic particles dynamic once released during solar events. Funding is worth up to €200,000. Ref: 14.197.18. Deadline: 15 August 2014

Chemical materials *ESA

The European Space Agency invites tenders for its regulation on registration, evaluation, authorisation and restriction of chemicals obsolescence management for materials and processes call. The tenderer will provide a pre-cursor analysis of materials and processes in the frame of REACH obsolescence. Funding is worth up to €500,000. Ref: 14.197.04. Deadline: 29 August 2014

Multimedia reception *ESA

The European Space Agency invites tenders for its mobile ka-band multimedia receiver for vehicles call. The tenderer will study and derive a technical and economically feasible system concept for mobile multimedia reception to cars in ka-band. Funding is worth up to €500,000. Ref: 14.1TT.70. Deadline: 16 September 2014

Satellite networks *ESA

The European Space Agency invites tenders for its advanced mobility management protocols for future high-capacity multi-beam geo satellite networks call. The tenderer will, in an emulated satcom environment, optimise and demonstrate the operation of the new generation internet based protocols for supporting mobility scenarios. Funding is worth up to €500,000. Ref: 13.1TT.01. Deadline: 18 September 2014

Networks *ESA

The European Space Agency invites tenders for its quality of service, cross-layer and routing management for integrated services in hybrid networks call. The tenderer will develop a testbed which validates a network architecture based on end-to-end QoS and cross-layer interaction using advanced internet engineering task force protocols and algorithms capable to deliver services over integrated terrestrial and satellite networks. Funding is worth up to €500,000. Ref: 14.1TT.04. Deadline: 26 September 2014

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

usa

Fanconi Anemia Research Fund research grants

Web id: 187647

No deadline [69]

Oxalosis and Hyperoxaluria Foundation short-term training grants

Web id: 1172643

No deadline [70]

Susan G Komen for the Cure career catalyst research grants for basic and translational research

Web id: 1175154

Deadline: 17 July 2014 [71]

Susan G Komen for the Cure career catalyst research grants for clinical research

Web id: 187531

Deadline: 17 July 2014 [72]

Department of Defense prostate cancer research programme: clinical exploration award

Web id: 1166957

Deadline: 23 July 2014 [73]

Department of Defense prostate cancer research programme: Dr Barbara Terry-Koroma health disparity research award

Web id: 161861

Deadline: 23 July 2014 [74]

Department of Defense prostate cancer research programme: laboratory-clinical transition award

Web id: 1158392

Deadline: 23 July 2014 [75]

Department of Defense prostate cancer research programme: population science impact award

Web id: 1174192

Deadline: 23 July 2014 [76]

Department of Defense lung cancer research programme: concept award

Web id: 255685

Deadline: 29 July 2014 [77]

International Myeloma Foundation Brian D Novis junior grant

Web id: 184287

Deadline: 1 August 2014 [78]

International Myeloma Foundation Brian D Novis senior grant

Web id: 184292

Deadline: 1 August 2014 [79]

American Association for the Advancement of Science scientific freedom and responsibility award

Web id: 207068

Deadline: 1 September 2014 [80]

John Templeton Foundation Templeton prize

Web id: 189240

Deadline: 1 September 2014 [81]

Educational Testing Service Jacqueline Ross Test of English as a Foreign Language dissertation award

Web id: 190335

Deadline: 16 September 2014 [82]

Protein Society Carl Brändén award

Web id: 193010

Deadline: 22 September 2014 [83]

Protein Society Christian B Anfinsen award

Web id: 175435

Deadline: 22 September 2014 [84]

Protein Society Dorothy Crowfoot Hodgkin award

Web id: 193014

Deadline: 22 September 2014 [85]

New York Public Library Cullman Center

fellowships

Web id: 203473

Deadline: 26 September 2014 [86]

ALS Association clinical research training fellowship in amyotrophic lateral sclerosis research

Web id: 1179308

Deadline: 1 October 2014 [87]

American Society of Mechanical Engineers Soichiro Honda medal

Web id: 208429

Deadline: 1 October 2014 [88]

Harvard University Radcliffe Institute humanities, social sciences and creative arts fellowships

Web id: 165418

Deadline: 1 October 2014 [89]

American Association for Cancer Research women in cancer research Charlotte Friend memorial lectureship

Web id: 257500

Deadline: 15 October 2014 [90]

IEEE Computer Society Harlan D Mills award

Web id: 194978

Deadline: 15 October 2014 [91]

National Humanities Center fellowships

Web id: 1160718

Deadline: 15 October 2014 [92]

University of Notre Dame graduate student fellowships

Web id: 259569

Deadline: 15 October 2014 [93]

University of Notre Dame residential fellowships

Web id: 259568

Deadline: 15 October 2014 [94]

Progeria Research Foundation research grants

Web id: 197779

Deadline: 27 October 2014 [95]

Michael J Fox Foundation for Parkinson's Research target validation programme

Web id: 209121

Deadline: 29 October 2014 [96]

Michael J Fox Foundation for Parkinson's Research therapeutic pipeline programme

Web id: 1168556

Deadline: 29 October 2014 [97]

American Chemical Society Glenn T Seaborg award for nuclear chemistry

Web id: 194383

Deadline: 1 November 2014 [98]

Harvard University Radcliffe Institute natural science and mathematics fellowships

Web id: 183304

Deadline: 1 November 2014 [99]

Katz Center for Advanced Judaic Studies fellowships in Judaic studies

Web id: 256445

Deadline: 9 November 2014 [100]

Commonwealth Fund Harkness fellowships for Germany, the Netherlands, Sweden, Norway, Switzerland, UK and Canada

Web id: 1171963

Deadline: 17 November 2014 [101]

American Society of Mechanical Engineers James N Landis medal

Web id: 199034

Deadline: 1 February 2015 [102]

American Society of Mechanical Engineers Kate Gleason award

Web id: 1166558

Deadline: 1 February 2015 [103]

policy diary

July

- 9 Leru Event: Online Learning at Research-Intensive Universities, Brussels, Belgium. <http://rsrch.co/1hRq3Wp>
- 15 Young Academy of Europe Annual Meeting, Barcelona, Spain. <http://rsrch.co/1rKSzNr>
- 16 Academia Europaea Annual Conference, Barcelona, Spain. To 18. <http://rsrch.co/1gDl06t>
- 22 International Conference on Knowledge, Innovation & Enterprise, Riga, Latvia. To 25. <http://rsrch.co/1J3z3p>

August

- 21 Alpbach Technology Forum, Alpbach, Austria. To 23. <http://rsrch.co/1mj5liz>

September

- 3 European Conference on Gender Equality in Higher Education, Vienna, Austria. To 5. <http://rsrch.co/1eViFH1>
 - 4 European Universities' Public Relations and Information Officers' Association Annual Conference, Innsbruck, Austria. To 7. <http://rsrch.co/1mkSf3b>
 - 9 Ambient Assisted Living Forum, Bucharest, Romania. To 12. <http://rsrch.co/1uFKWC3>
 - 10 International Conference on Engineering, Science and Technology Innovation, Bali, Indonesia. To 13. <http://rsrch.co/1nmks7Z>
 - 12 International Conference on Cultural Policy Research, Berlin, Germany. To 13. <http://rsrch.co/1kRj0aT>
 - 22 RDA Fourth Plenary Meeting, Amsterdam, The Netherlands. To 24. <http://rsrch.co/1pBEw6q>
 - 29 Leading Enabling Technologies for Societal Challenges, Bologna, Italy. To 1. <http://rsrch.co/1s1Lju9>
- Good Practice Event on Entrepreneurial Universities, Madrid, Spain. To 1. <http://rsrch.co/1rbuLhD>
- 30 IMI2 Open Day, Brussels, Belgium. <http://rsrch.co/1pimisQm>

October

- 3 International Conference on Antimicrobial Research, Madrid, Spain. To 5. <http://rsrch.co/1mRuBJA>
- 9 2nd EUA Funding Forum, Bergamo, Italy. To 10. <http://rsrch.co/OAW6MA>
- 15 Earto Autumn Policy Event and Innovation Prize, Brussels, Belgium. <http://rsrch.co/RwIL2j>
- 30 Standards – Your Innovation Bridge, Brussels, Belgium. <http://rsrch.co/1oKrJ6Z>

Sparc of life

Europe's industry and academics are taking steps to ensure that Europe isn't left behind in the fast-moving field of marketable robotics. **Cristina Gallardo** reports.

When academia and industry attempt to innovate together, it is always difficult to unite their different goals. Nowhere is this more evident than in Europe's budding robotics industry, where a struggle has emerged between scientists, who want to break technical boundaries, and businesses, which need marketable products quickly.

Industry players complain that academic research is not useful for commercialisation. Indeed, Europe's publicly funded robotics researchers, who focus mainly on artificial intelligence, say that it will be at least a decade before their field can start producing marketable products. For their part, they complain that businesses prefer not to make any strong commitment to funding research.

Last month, a highly anticipated public-private initiative on robotics was started to help bring the two sides together. The Sparc initiative—worth an estimated €2.8 billion over 7 years—aims to focus Europe's robotics activities on products that will boost economic growth, without the continent losing its edge in innovation.

The actual amount of cash funding for Sparc is closer to €700 million, which will be provided through Horizon 2020. Companies, grouped together as the EURobotics association, have committed to in-kind contributions worth €2.1bn, through access to research infrastructure and staff. This is a "voluntary commitment renewed every year", according to Uwe Haass, secretary-general of EURobotics.

It is hoped that the initiative, in strengthening Europe's ability to develop more marketable robots, will help the continent to catch up with its main competitor, the United States, where the robotics industry has adopted a profit-driven approach. Instead of striving for artificial intelligence and humanoid robots, still years away from large-scale deployment, the US has prioritised consumer robots that can be sold already. One example is the Roomba vacuum robot, more than 10m units of which have been sold since 2002.

Europe's robotics researchers responded to the success of the US approach by forming the European Robotics Technology Platform for industry and the academic network Euron. In 2012, all members of the E RTP and some participants in Euron teamed up to form the bulk of Sparc's membership. A total of 144 companies and

39 research groups from public institutions have so far signed contracts to participate in Sparc.

The Sparc initiative is intended to make companies less reluctant to invest in robotics research, explains Carme Torras, a researcher at the institute of industrial robotics in Barcelona, which is funded by the CSIC, Spain's national research council. As things stand, "companies still prefer to act as observers", she says.

The strong industry participation in Sparc, however, means that business partners will always have the biggest say in setting research priorities. Companies hold the majority of seats, and the initiative's statutes declare that the president must always come from industry. The first president is Bernd Liepert, chief technical officer of the German manufacturer Kuka. There are two vice-presidents: one from industry and one from academia.

Having industry call the shots means that public universities in the network will have limited access to the benefits of private investment. The companies' in-kind contributions will mostly pay for improvements in business infrastructure and laboratories, and the marketisation of innovation results.

For the time being, the Sparc initiative will focus on robots for agriculture, healthcare, energy, transport and security, staying away from space robotics, which is already much more advanced in the US. The idea is to manufacture products that can be picked up quickly by different industries: for instance, robots that do housework, assist the elderly or can perform tasks in deep mines.

"These are the new domains," says Tony Belpaeme, a researcher at the Centre for Robotics and Neural Systems at Plymouth University. "There are still very few commercial products, and no-one has taken the lead in these yet. Europe could take it."

If Sparc does help Europe take the lead, the economic impact could be significant. The European Commission expects the global robotics market to be worth about €60bn a year by 2020. Sparc aims to help increase the EU's international market share from 35 to 42 per cent by then, in line with Commission targets.

Sparc could also fulfil another important role: as a representative of robotics science and a facilitator of interaction between researchers in the field, funders and policy-makers. Ron Chrisley, director of the Centre for Cognitive Science at the University of Sussex in the UK, says that, being a public-private partnership, Sparc can raise the profile of the field as a whole. "This is the first time in history that robotics has had a lobbying institution in Europe," he says.

Something to add? Email comment@ResearchResearch.com

'The global robotics market is expected to be worth €60bn a year by 2020.'

uk & ireland

Labour revives call for long-term science plan

The UK is in danger of being left behind its competitors if it does not implement a long-term strategy to use science and innovation to stimulate economic growth, according to Labour's green paper on science.

The paper, published on 24 June, calls for the next government to plan for 2030. Shadow science minister Liam Byrne is lead author of the document, which is critical of what it describes as the coalition government's "short-term mind-set".

It argues that too many funding decisions have been taken on an ad hoc basis. "We should plan for coordinated revenue and capital spending on the longest possible period. This plan will respect the Haldane principle by giving British science stability well beyond the life of any single parliament."

However, many of the points set out in the green paper—which will be open for consultation ahead of Labour's party conference in September—chime with policies or statements of intent from the coalition, such as a consultation on capital spending. Labour acknowledges some of these common approaches, saying that the government's eight great technologies have shown "initial promise".

Luke Georghiou, vice-president for research and innovation at the University of Manchester, says that having few dramatic differences between parties could be a good thing as stability is important. But, he adds, a Labour science minister "will face the same challenge as [previous science ministers] have done: ensuring that

by **Rebecca Hill**

rhnews@ResearchResearch.com

research and innovation policy is sufficiently high in overall priorities to get traction on issues such as budget and immigration".

Paul Nightingale, professor of strategy in the Science Policy Research Unit at the University of Sussex, says the paper is a "good start" and is generally pleased that it seems to continue work by successive science ministers. However, he notes that "there is a danger this could be watered down in the consultation process".

Both Georghiou and Nightingale think specific areas show promise but need to be developed. One of these is Labour's call for a greater focus on regions outside London and the south-east. "Despite occasional rhetoric and some important investments, overall this government has overseen a trend that had already started of increasing concentration of research and innovation investment in London and the south-east," says Georghiou. "There is huge underused economic potential in the regions."

The document includes plans for universities to play a greater role in regional growth, and for an international strategy for science and innovation, including a "strong dialogue" with rapidly growing economies such as China, to be developed. Recruiting and retaining talent, both at home and from abroad, is crucial for a strong science base, the document says, adding that there needs to be a "sensible approach to immigration".

uk&i in brief

UK and China form £53m research fund

The UK and China signed a deal to set up a joint research fund of £53 million (€66m) during Chinese premier Li Keqiang's visit to the UK. The UK-China Research and Innovation Partnership Fund will support a £23m programme to develop protection against extreme weather and climate change in Asia, and joint projects on marine energy, regenerative medicine, air pollution and soil science.

Study group on dementia launched

The Medical Research Council has announced £16 million (€20m) in funding for collaborative dementia research by academic and industry groups. The UK Dementias Research Platform, led by Cardiff University, is billed as the world's largest study group on dementia. It will aim to identify who is at risk of dementia, possible trigger factors and potential prognostic indicators.

Impact and efficiency guide RCUK's action plan

Research Councils UK is to develop an innovation strategy, improve researcher training and career development

and review its support of interdisciplinary research, according to its 2015-16 delivery plan. The plan splits RCUK's aims into two themes: delivering excellence with impact and enhancing efficiency.

Scotland's CSA to head Glasgow engineering college

Muffy Calder, chief scientific adviser to the Scottish government, is to become vice-principal and head of the college of science and engineering at the University of Glasgow when her 2-year secondment to the government ends in December. Arrangements for the next CSA will be announced following an internal review of science advice in the Scottish government, which is being led by Calder and will report to ministers by the end of the year.

Growth in medical spending expected to stall

Medical research charities in the UK spent £100 million (€125m) more on research in 2013 than in the previous year, according to a report from the Association of Medical Research Charities. The association said its 125 members spent £1.3 billion on research, excluding capital funding, in 2013, but projected figures for 2014 suggest that a continuation of this growth is unlikely.

French government urged to act on job cuts

Researchers in France are calling on the government to act on conclusions about research careers that were published last month by the National Committee for Scientific Research.

A petition created by the committee has so far garnered 9,000 signatures. It urges the research ministry to respond to the findings and create a strategy that deals with threats to France's scientific competitiveness.

"In contrast to France's ambitions and the government's claims, the policy pursued for years in higher education and research has diminished our capacity for research and innovation," the petition says. "This is leading young people to abandon research, and discourages the entire scientific community."

The committee's conclusions, which form part of an action plan to save research jobs and improve career prospects in France, were issued on 11 June.

The three action points that the committee wants the government to implement are: a simplification of research funding for universities, which would include the abandonment of ongoing funding restructures; a budget re-orientation to shift the focus from time-limited projects to more permanent positions at universities; and a reform of research tax credits so that they can

by Inga Vesper

ivnews@ResearchResearch.com

only be claimed by companies that hire researchers or PhD holders.

The committee, which is run by France's national research funder the CNRS, said these reforms would help to improve attrition rates in science courses at French universities. The government should present universities with a multiannual plan to implement the committee's recommendations, the petition says.

The number of research posts has declined in France, forcing many early-career scientists to leave the field. Last month, the FSU, France's union of scientists, warned that France only produces 12,000 doctorates a year, compared with 20,000 in the UK and 27,000 in Germany.

At a meeting of the FSU, Patrick Monfort, the union's general secretary, said that France's sluggish GDP growth was partly responsible for the decline in tenure track positions. "Today, the catastrophe in scientific employment could lead the strength of French research, training and economic performance into an irreversible decline," Monfort told the meeting. "For years, the funding dedicated to France's higher education and research has stagnated."

nations in brief

Researchers exasperated by government reforms

France's researchers have urged the government to stop imposing

reforms and revised legislation on universities, saying that institutions are struggling to keep up with government-organised cluster formations, mergers and internationalisation efforts. In a letter, the FSU, France's national union of researchers, said that the battle to keep up was "undermining the public service of higher education and research as a whole".

Feed extra cash back into education, rectors demand

Money freed up in state budgets by a revision to student subsidies must be reinvested in higher education, Germany's rectors have said in a statement. The HRK, Germany's association of rectors, urged local governments to spend any extra funding that becomes available on the basic financing of universities. The revision to the Bafög system, which supports students who need financial help, means that it will now be funded by the federal government rather than the states.

France to build supercomputer

The contract to build the latest supercomputer as part of the European computing infrastructure Prace has been awarded to Genci, a company in France. The computer is to be assembled at Cines, a national computing centre in

Montpellier. According to France's research ministry, it will achieve a computing speed of 2.1 petaflops.

Spain launches biomedicine institute

A centre called the Institute of Biomedicine and Biotechnology of Cantabria has been launched in Santander, Spain. The institute, inaugurated on 17 June, will be run jointly by the CSIC, Spain's national research council; the University of Cantabria; and the local government. Its 23 labs will focus on microbiology, genomics, and molecular and cell signalling.

Germany formalises Africa collaboration

The German government has launched a strategy to complement the country's increase in research funding for African projects, which in 2013 reached €51 million. Germany will focus research spending on areas considered important by both parties, including support for local research centres and training for early-career scientists, the German research ministry said.

Call for guidelines in science reporting

Science communicators in Germany should be given clear guidelines on how to present, explain and challenge research results to improve public understanding of science, according to the Leopoldina science academy. Scientists and journalists should agree on a set of common principles in such reporting, the academy said.

nordic

Finnish universities must prepare for more level playing field in Horizon 2020

Universities in Finland need to adapt to Horizon 2020's revised overhead rules if they are to repeat their successes in Framework 7, a government report has said.

The report, issued by the Government Institute for Economic Research, known as the VATT, says that Finland received €788 million from Framework 7 between 2007 and 2013, and that this was matched with €368m from industry and universities. Universities were awarded more than €300m in Framework funding, while only contributing about 17 per cent of project costs themselves, the report says.

Tuomo Suhonen, a researcher at the VATT and author of the report, says that universities were in a strong position during Framework 7 because they were able to participate in European Research Council programmes, for which the European Commission covered all the costs. This was not the case for companies, which had to match more of the funding themselves.

But the funding rules for Horizon 2020 are expected to put companies in a stronger position, according to Suhonen. During Framework 7, the Commission covered 50 per cent, 75 per cent or 100 per cent of the total costs, depending on the programme. In Horizon 2020,

by Jenny Maukola

jemnews@ResearchResearch.com

the Commission will provide 100 per cent of the direct costs for all programmes, as well as a flat rate of 25 per cent for overheads. "I think this will be quite harmful for universities, because in Horizon 2020 most of the indirect costs will not be covered," Suhonen says.

The report, published on 19 June, also looks at how much funding Finnish industry received from Framework 7. It shows that Finland's companies paid more money than universities to participate in Framework 7, but received less funding in return.

On average, large companies covered 66 per cent of the costs for the programmes they participated in themselves, and received €73m in Framework 7 funding, whereas small and medium-sized companies paid 31 per cent of project costs themselves, receiving €86m from the Commission.

According to the report, EU research funding is a "relatively important source of research financing for government research organisations and universities in Finland", whereas the amount of funding received by businesses is "very modest".

Research Professional

Keep up with the EU, US and global funding agenda. Improve efficiency. Win more grants!

Research Europe (and much more) is available to universities, research institutes, learned societies, national contact points, government funders and other multi-user organisations via our online platform, **Research Professional**. This highly intuitive website gives you and your entire organisation all the policy and funding knowledge you need to succeed in this increasingly competitive environment.

With a site licence subscription to **Research Professional** everyone at your organisation has access to

- Up-to-the-minute research policy news from Brussels, London, Washington, Cape Town, Sydney and across the globe
- In-depth analyses and commentary on the important issues affecting Framework 7; Horizon 2020; national, regional and global research policy; regulation, universities and innovation
- A comprehensive database of research funding opportunities—from national, European and global sponsors—updated daily
- Unlimited usernames and passwords for everyone at your organisation
- Personalised email alerts to ensure that every researcher can receive the funding opportunities and news that are directly relevant to them
- Online calendars of upcoming deadlines
- Knowledge-sharing capabilities
- *And much, much more...*

Research Professional is the preferred choice of hundreds of research-intensive organisations throughout Europe and across the globe. It's easy to use. It saves time and improves efficiency. And it helps you win more grants!

Contact us today for a free, no-obligation trial.

Email sales@ResearchResearch.com or call us on +44 20 7216 6531

For more information, please visit www.ResearchResearch.com/professional

Norway joins Mooc revolution

Online learning has been hailed as the future of education by some and deemed overhyped by others. Massive open online courses, free to anyone with an internet connection, became popular in the United States after universities including Stanford and Harvard started offering free online lectures. These gained hundreds of thousands of enrolments worldwide, prompting education providers in other countries to build their own 'Mooc platforms'.

Norway's government has been exploring ways of using Moocs to promote Norwegian higher education. Even though the country is well known for advanced technological competence, a report published by a government advisory committee on 16 June says that universities are lacking in this area. The report, *Mooc til Norge*, calls on the government to spend up to 380 million Norwegian kroner (€46m) annually in the next 5 years on deploying digital technologies for teaching in Norway's higher education institutions.

To ensure that Moocs cater to student needs, the government should allocate kr15m to research into the use of technology in universities, the committee says. This would also help to ensure that technology improves teaching quality, and that Moocs contribute to the development of more innovative teaching.

**nordic
outlook**

by Jenny Maukola

jemnews@ResearchResearch.com

An additional kr40m should be spent on ensuring that universities develop Norwegian and Sami language courses to promote the universities' national profile, the committee says. Some Moocs can be in English, but Norway should primarily promote itself as offering Nordic Mooc "packages" across the region. It would make sense to focus on producing Moocs for the Nordic countries, as attempts to run courses with a more general audience could face tough competition from more high-profile providers in countries such as the US.

However, not all university teachers and researchers are certain that Moocs can improve teaching quality. Petter Aaslestad, head of the researchers' association Forskerforbundet, is cautious about the report, saying that it sounds "a little too optimistic" about the possible achievements of Moocs. "Moocs cannot compensate for direct contact between teachers and students," he says. "I think we need a broader discussion about quality assurance systems and Moocs."

Aaslestad also wants a wider discussion about copyright issues concerning open online courses. "It is important that the teachers who produce the courses also have the copyright to them," he says. "That will be a formal discussion later on."

nordic in brief

Denmark aims for 80% open access by 2017

The Danish research ministry has announced plans to make 80 per cent of all peer-reviewed articles published by Danish institutions in 2016 freely available through digital repositories by 2017. Following the 2017 target, Denmark's national strategy for open access says that 80 per cent must be increased to 100 per cent from 2022 onwards.

Norway tightens funding rules

Research institutes in Norway must now meet minimum requirements on size, research income and number of publications in order to receive basic funding from the government, it has been announced. Institutes will be required to meet eight criteria, including gaining at least 25 per cent of their income from national and international research projects, and employing at least 20 researchers.

Record number of PhD holders unemployed

Finland has more unemployed PhD holders than ever before, the Finnish Union of University Researchers and Teachers has warned. The union said that, according to

statistics from the ministry of employment and the economy, 819 people with PhDs were looking for a job in May. This was a 30 per cent increase from May 2013.

Danish researchers more inventive than ever

Researchers at publicly funded institutions commercialised 484 inventions in 2013, the largest number since Denmark began recording such data in 2000. The statistics, published by Denmark's research ministry, show that knowledge institutions signed 3,332 research agreements with companies in 2013. This number was up 3 per cent from 3,241 in 2012.

Researchers to benefit from proposed data changes

A proposal that would make it easier for researchers to build databases of personal information obtained from large registries has been presented to the Swedish government. The results of a government-commissioned inquiry on the topic, presented on 25 June, suggested a law change in the use of large registries, such as the birth registry and the personal identity code, for research purposes. As long as the use of such data is confined to public institutions and controlled, the inquiry concluded, the law change should pose no privacy risks.

usa

Bill aims to end male bias in research results

Legislation that would require separate analysis of male and female animals, tissues and cells in all basic research conducted or funded by the National Institutes of Health has been put before the House of Representatives, with the support of some research organisations.

Introducing the bill on 17 June, representatives Jim Cooper, a Democrat from Tennessee, and Cynthia Lummis, a Republican from Wyoming, explained that the present law does not require researchers to study female animals when conducting basic medical research.

"Men and women are not treated equally in health research," Cooper said. "Science should not discriminate against women."

The proposed Research for All Act would mandate the NIH to study female subjects and analyse sex differences in basic research. It would also direct the Food and Drug Administration to guarantee that clinical trials for expedited drug products were sufficient to determine safety and effectiveness for both men and women.

by **Rebecca Trager**

rtnews@ResearchResearch.com

Various academic and research organisations support the legislation, including the Association of American Medical Colleges, the American Heart Association, the National Center for Health Research, the National Women's Health Network, the Society for Women's Health Research and the American Lung Association.

"Without diversity in research, questions about how cardiovascular disease affects women and other populations differently will remain unanswered," said Mariell Jessup, president of the American Heart Association.

In May, the NIH said it would soon require all research grant proposals to include plans for balancing male and female cells and animals in preclinical studies, unless sex-specific inclusion was unwarranted, based on "rigorously defined" exceptions. These policies are expected to be rolled out in phases beginning in October, with parallel changes in review activities and requirements.

usa in brief

Secret science bill progresses

A measure that would compel agencies to publish results of any research used in reaching regulatory decisions was approved by the House of Representatives' science committee on 24 June. The proposed Secret Science Reform Act is opposed by the American Association for the Advancement of Science and other science groups as it would exclude some scientific information from consideration by the Environmental Protection Agency and other regulatory agencies.

Biologist arrested in fraud case

A researcher who was found by the federal Office of Research Integrity to have manipulated scientific data while working at Iowa State University, on a research grant supported by the National Institutes of Health, has been arrested. Dong Pyou Han is accused of using human antibodies to contaminate rabbit blood during his HIV vaccine research, to make the vaccine appear effective, and of making false statements.

Scripps in university merger talks

A plan for the University of Southern California to acquire or affiliate with the Scripps Research Institute, an independent biomedical organisation, has been made public. The USC and Scripps are discussing the possibility of a relationship to enhance the missions of both institutions, according to a joint statement issued on 17 June.

Humanities programmes cut by one-third

Support for federal agency programmes that focus specifically on the humanities decreased by more than 30 per

cent—from \$855 million (€626m) to \$594m—between 2008 and 2014 when adjusted for inflation, according to a report released by the American Academy of Arts and Sciences. The academy said that the Department of Education experienced the largest reductions.

CDC investigates safety lapses

About 75 employees at the Centers for Disease Control and Prevention in Atlanta, Georgia, may have been unintentionally exposed to live anthrax after "established safety practices were not followed", and are now being monitored or treated with antibiotics, the agency has said. "The CDC is taking aggressive steps to protect the health of all involved," said a CDC statement released on 19 June, adding that "the risk of infection was very low".

Drug agency 'obstructs' marijuana work

The Drug Enforcement Administration has systematically blocked research and reclassification of marijuana and synthetic psychedelic drugs, according to a report by the Multidisciplinary Association for Psychedelic Studies and the Drug Policy Alliance. The DEA's "obstruction" of the Food and Drug Administration's approval process for marijuana has unintentionally catalysed state-level medical marijuana reforms, according to Rick Doblin, executive director of the MAPS.

Kerry calls for 'global' oceans programme

Secretary of state John Kerry has called for a global ocean protection plan that includes research to help reduce the amount of debris and nutrient pollution that enters the oceans. Kerry said the strategy should also cover the acidification effect of carbon pollution on the oceans.

Ukraine counts the cost of Crimea separation

Institutions in Ukraine are having to restructure their research programmes in response to budget cuts and a loss of researchers and facilities, brought on by the political crisis in the region.

The 1,291 scientists who work in the 22 institutions in Crimea were lost from Ukraine after Russia annexed the peninsula in March. This reduction in the number of facilities and scientists has forced Ukraine's institutions to either restructure or drop some research programmes, says Anatoly Zagorodny, vice-president of Ukraine's National Academy of Sciences, which oversees the country's research institutions.

Astronomy research at the academy has been brought to an end following the loss of the Crimean Laser Observatory, which was established in 1999 and was the country's only institution for research into radio and other forms of astronomy. "The annexation of Crimea has had a negative impact on the direction of scientific research of the academy. It's caused the loss of rather important and expensive laboratory and technical equipment, buildings and telescopes," says Zagorodny.

The Crimean branch of the Institute of Oriental Studies has also been lost, but Zagorodny says the academy is discussing the creation of a similar department in Ukraine. A department of archaeology has already been established in Ukraine, but it will have to operate without "considerable parts of archives and cultural exhibits of worldwide significance" that now belong to Russia, Zagorodny adds. Ukraine will also have to buy data for "climatic and meteorological forecasts" from other countries, as Russia now owns six of its weather stations and a satellite data receiving centre.

Restructuring of major marine research programmes has already begun at the academy, after it lost the

by **Deborah-Fay Ndlovu**

news@ResearchResearch.com

Marine Hydrophysical Institute and the Kovalevsky Institute of Biology of the Southern Seas. Also gone is the seismology department at the SI Subbotin Institute of Geophysics, where research focuses on the evolution of ecosystems of the Black and Azov Seas.

The academy is no longer able to reach and research restricted areas of the seas, because it had to give up a research vessel named Professor Vodyanytsky. And it will need to create alternative test sites for algal blooming research, as previous sites are now regarded as Russian territory and no longer accessible.

The impact has been felt by institutions collaborating on marine research programmes, says Yuriy Kostyuchenko, an assistant professor at the National University of Kiev. The university was involved in the analysis of surface films of pollution and streams in offshore areas, but that work has, at least temporarily, stopped. "We are not sure about tomorrow," says Kostyuchenko.

The loss of research facilities is not the only problem that Ukraine's scientists have had to contend with. The government has also cut the national science budget, forcing scientists including Kostyuchenko to cut down on travelling to international conferences, and the National Academy of Sciences to freeze salaries.

Four research programmes, which had been created and prioritised for funding by the government in 2008, have had to be dropped as a result of the budget cut. "The suspension of programmes will negatively affect the range of research and possibilities for real influence of scientists on innovative processes and the economy," Zagorodny says. He adds that collaborative research is the only hope for Ukraine.

world in brief

Brazil considers easing 'biopiracy' rules for scientists

A bill that would relax the rules for researchers who want to

access Brazil's genetic resources is being debated in the country's congress. If the bill is passed, scientists will no longer need to register with the board that manages genetic resources before being able to access them for research.

Singapore and Korea eye global biomedical market

A*Star, Singapore's national agency for science and technology, has opened a biomedical research centre in conjunction with the Korea Health Industry Development Institute. The centre, which opened on 16 June, is expected to facilitate joint research between South Korea and Singapore, and to aid early commercialisation of research outcomes in the global market.

Latin America to focus on science collaboration

Several countries in Latin America and the Caribbean are to establish a joint funding pot for collaborative research. The specific research areas to be funded are yet to be decided, but it is hoped that the initiative will begin in early 2015. The countries also plan to provide grants to institutions to fund the training of PhD students and staff exchange programmes.

African universities launch food security project

An African inter-university project to foster research collaboration and the training of food and nutrition scientists has begun in Nairobi. The project is a collaboration between Stellenbosch University in South Africa, Makerere University in Uganda, and Jomo Kenyatta University of Agriculture and Technology in Kenya. It is intended to improve collaboration on nutrition issues throughout Africa.

MISSING THE POINT As we've noted before, the European Commission is prone to trying too hard to find original names for its numerous advisory groups and committees. In a plan to boost defence research, for example, it has proposed the creation of a committee called a "Group of Personalities" to encourage cooperation between member states. Does the Commission, even unconsciously, have any doubts about the size of those personalities that sit on the rest of its advisory groups?

WILDLIFE BONUS A spokesman for Fermilab, the Chicago particle physics laboratory, made a heartfelt appeal at the EuroScience Open Forum in Copenhagen for more global collaboration. He said that US researchers were coming to terms with the fact that they cannot go it alone anymore in particle physics, and have to open up to global cooperation and participate in non-US-based infrastructure. However, he also appealed to his fellow researchers to visit Fermilab: "We can also show you baby bison," he promised. Just in case the world's number two atom-smasher isn't alluring enough on its own.

CLASS WARS Several discussions at ESOF addressed the challenge of communicating research to the public. It was agreed that scientists have to step out of the ivory tower and connect to the daily lives of people, even if this means simplifying research for the "less-educated,

non-elite" public. But it seems scientists may be even less aware of everyday public concerns than they are prepared to acknowledge. "The public don't think about science, they only think about horse racing," one contributor loftily opined.

KITCHEN DRAMA Denmark seems to have tapped into a rich seam of populist research. World Cup fans may already have noted a Copenhagen University study that found that playing football only occasionally can be dangerous. Perhaps best to stay on the sofa, then. Aalborg University has heroically secured an €872,000 grant to find out why Danish TV dramas have become so popular abroad. And at Copenhagen Uni, Jonathan Leer's doctoral dissertation addresses that most pressing of modern issues—masculinity in the TV kitchen.

HAPPY HOLIDAYS Summer is in the air in the Nordic nations, where most people take their holidays months ahead of the rest of Europe. Research organisations have taken the opportunity to celebrate the season. Finland's National Institute for Health and Welfare has written a guide for fishing and suggested ways to prepare the catch. Statistics Finland has published a long list of "summer statistics", helpfully including patterns of summer cottage use, lake-water temperature norms and the number of tick bites to be expected around the country.



Subscribe now

Research Europe is the leading independent source of news, analysis and funding opportunities for researchers and policymakers in Europe. We offer a range of subscription options in print and online.

Multi-user subscriptions

Universities, Research Institutes, Learned Societies and other Membership Organisations, Government Departments and Funders can subscribe to *Research Europe* via our online platform **Research Professional**. See page 16 for details

Subscriptions for Individuals

Individual researchers or policymakers can subscribe to the paper edition of *Research Europe* only. Published fortnightly, 22 issues a year, €585.

Register me as a subscriber to *Research Europe* paper edition for one year. I understand that if I am not entirely satisfied, I can cancel my subscription during the first 60 days and get a 100% refund.

Name	Postcode	Country
Position	Telephone	
Organisation	Email	
Address	Signed	
	Date	

Fax this form back to +44 20 7216 6501 or order online at www.ResearchResearch.com/subscribe

Payment We will invoice you. Or call +44 20 7216 6500 for credit card payments **Enquiries** +44 20 7216 6528 or subs@ResearchResearch.com