

Short-term contracts linked with low job satisfaction – p13

Brexit UK government to underwrite Horizon 2020 grants – p2, 5

Impact factors Gaming on the up – p4

Open data roll-out gets cautious welcome

New Horizon 2020 rules come with a cost

AN ANNOUNCEMENT BY the European Commission that mandatory open publication of research data is now the default for new calls in all but a handful of Horizon 2020 instruments has been welcomed by researchers and administrators—but with some caveats.

The extension of the Open Research Data Pilot to all thematic areas of Horizon 2020 was announced by research commissioner Carlos Moedas at the EuroScience Open Forum in Manchester on 25 July, with immediate effect. Certain instruments are excluded, and researchers can opt-out of open data publication to protect the privacy of research participants, if intellectual property would be jeopardised, or if the main aim of the research would be undermined.

The European Research Council, which has been allocated 17 per cent of the Horizon 2020 budget, has also said that applicants to its grants will be able to opt-out of open data publication without needing to give a reason. There has been speculation that this leniency is intended to retain applications from Europe's top researchers.

"The ERC Scientific Council felt that grantees should be able to opt out in as simple and non-bureaucratic a way as possible," an ERC spokeswoman said.

The announcement made concrete a plan for open data publication to become the default from 2017. Mark Wilkinson, a bioinformatician at the Centre for Plant Biotechnology and Genomics UPM-INIA and the Technical University of Madrid, in Spain, described the development as being "long overdue". Wilkinson is lead author on the FAIR Guiding Principles, which aim to make research data findable, accessible, interoperable and reusable.

"The process of generating data has always taken precedence for both researchers and funding agencies over the process of making that data findable, accessible, interoperable and reusable. I would argue that, as a result, we are seeing an unacceptable degree of waste, and a worrying degree of non-reproducibility," he said.

By default, Horizon 2020 researchers will now have to deposit their research data in a repository, and then take measures to enable third parties to access,

by **Craig Nicholson**

cnnews@ResearchResearch.com

use and disseminate it, for example by attaching an appropriate licence. Deposition can be done very simply, said Wilkinson, but effective deposition takes both time and expertise.

The Commission said it will fund the costs of compliance. But Klaus Tochtermann, an informatician at the University of Kiel and director of the German National Library of Economics in Leibniz, said it was "very difficult" for researchers to predict data management costs.

Tochtermann sits on a Commission advisory panel that has recommended that 5 per cent of a project's budget be allocated to data management as a starting point. But that is not yet accepted practice, and Torben Høock Hansen, EU liaison officer at the University of Copenhagen, said that he thinks some of the costs of open data publication will fall on universities—particularly the maintenance of data after the lifetime of a project.

The Commission says researchers can send their data to repositories that are institutional, disciplinary or centralised. Some large repositories have their own sources of funding, but Tochertermann said there was a lot of variation between disciplines.

"Communities that are well-organised, such as physics and climate change, have big data repositories, but there are other disciplines that are much less structured and organised, including the humanities. They might have several repositories simply because there is no organisation to take the lead," he said.

Nevertheless, Tochtermann said that he supported the pilot's expansion, as he thinks open data publication will aid validation and help to support work combining data from different sources.

Wilkinson said that, regardless of the caveats, researchers now need to step up: "We get so much benefit out of doing this that we really need to recognise it's our responsibility as researchers to do it properly."

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

Independent news, comment and analysis

*Research
Europe

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

Brexit means...

Optimists still see Britain near the heart of Europe

British prime minister Theresa May's "Brexit means Brexit" slogan has served to defer demands for clarification of what British exit from the EU will actually entail. But now that politicians are back in their planes and journalists back at their laptops, it has taken about two days for that meaningless pronouncement to break down.

May's trip to the G20 meeting in Hangzhou, China, has readily exposed its limitations. An unusually forthright 15-page statement from Japan has demanded, in effect, that the UK honour implicit promises to Japanese car companies and banks whose European operations are based in the UK, that they will continue to enjoy access to EU markets and their right to hire EU staff.

Japan's blistering message was underpinned, subtly but powerfully, by President Barack Obama's remark that UK-US trade relations could "unravel" if Britain fails to negotiate access to the single European market.

Worn down, perhaps, by this unwanted advice from two of her most important allies, May made her first categorical statement on what Brexit might look like, ruling out the introduction of a points-based immigration system that would place future immigrants from the EU on a level playing field with those from elsewhere.

It was probably easier for May to say that in Hangzhou than it would have been in London, where various prominent Brexiteers immediately accused her of betrayal. Thus begins a bitter, tortuous, possibly endless winter of charge and counter-charge, as the various factions of May's Conservative government try to work out what, precisely, Brexit means.

Where, in all of this, do universities stand? Six weeks ago in Manchester, attendees at the EuroScience Open Forum expressed near-universal horror at the result of the referendum.

Broadly speaking, the event triggered two alternative responses. One, expressed perhaps most forcefully by Anne Glover, the Scottish biologist and former chief scientific adviser to the president of the European Commission, was for academics to fight for Britain's place in all forms of European collaboration. Everything—not just participation in Horizon 2020, but free movement of labour, and Britain's general participation in the single market—remains up for grabs. Universities are large employers and their staff and students are both vocal and influential. It therefore falls on them, Glover and others argued, to fight to retain Britain's place in Europe.

The rival perspective, most fully articulated by Juergen Maier, chief executive of Siemens UK, was that we should take a more pragmatic view, and follow the money. Bluntly, that academics should fully accept the referendum outcome, and play nice, in return for assurances that the government will make up any research funding shortfall.

There are no prizes for guessing which approach—principled and brave, or pragmatic and craven—vice-chancellors will be pursuing.

Thankfully, however, UK universities are far greater and more imaginative institutions than the pronouncements of their senior managers would suggest. Countless opportunities will fall on thousands of staff and students to make the case for the UK in Europe. Let battle commence.

elsewhere

"This is not a penalty, this is unpaid taxes to be paid."

EU commissioner *Margrethe Vestager* announces the Commission's ruling that Apple owes €13 billion for 11 years of operations in Ireland under a sweetheart deal. *The Telegraph*, 30/8/16.

"We scientists have made a beautiful, detailed seismic hazard map, showing clearly the areas in greatest need of preventive measures. But public authorities don't take enough action."

Giulio Selvaggi, a research director at the National Institute of Geophysics and Volcanology in Rome—accused of manslaughter in the 2009 L'Aquila earthquake—says that authorities failed to take sufficient steps to improve old buildings before the August earthquake in Amatrice. *Nature*, 30/8/16.

"We risk losing the last antibiotic class for effective treatment."

Vanessa Allen, chief of medical microbiology at Public Health Ontario in Toronto, Canada, comments on the outlook for the treatment of gonorrhoea, as the World Health Organization updates its guidelines to reflect growing resistance. *Science*, 30/8/16.

"Studies on the safety of chemicals to which human beings and the environment are constantly exposed to must be publicly available, as required by EU law."

The industry association the Glyphosate Task Force has established a reading room in Brussels for confidential studies on the safety of glyphosate pesticide products, but Greenpeace director *Marco Contiero* says this is not transparent enough. *EurActiv*, 29/8/16.

"It's a Hail Mary play."

The Japanese government is spending 35 billion yen on an ice wall at the Fukushima Daiichi nuclear power station to stop leaching groundwater, but *Azby Brown*, a researcher for the radiation monitoring group Safecast, is doubtful. *The New York Times*, 30/8/16.

decade

"The joint undertaking will be a dynamic new organisation that will play a leading role in the construction of Iter."

Research commissioner *Janez Potocnik* announces the establishment of Fusion for Energy to manage Europe's contribution to the Iter fusion energy project.

Research Europe, 7 September 2006

what's going on

Fellowships target wider ERC participation

Six member states have launched programmes to enable researchers to undertake secondments with European Research Council grantees in a move intended to raise success rates by funding fellows to learn from previous winners. The six initiatives are in the Czech Republic, Estonia, Hungary, Poland and Slovenia as well as the Belgian region of Flanders.

Wider data-mining exception on the cards

Public research institutions could be allowed to mine information and data held online for commercial as well as non-commercial purposes, according to a draft impact assessment on EU copyright rules planned for the autumn. In the document, leaked by Statewatch, the Commission said that an across-the-board mandatory exception for public research organisations was the best way to proceed. Previously, it had indicated that such an exception would only apply to research for non-commercial purposes.

Brussels lobbying spend up sharply

The companies that most actively lobby the EU spent 40 per cent more on lobbying in 2016 than in 2012, according to the campaign groups Corporate Europe Observatory and LobbyControl. The lobbying budgets of the top 50 entries on the EU's voluntary register totalled €106 million in 2016, they said. Significant rises were reported by Google, to €3.5m, and Volkswagen, to €3.3m.

Commission admits mistake on emissions

Former EU industry commissioner Günter Verheugen has told MEPs that the European Commission underperformed when drafting regulations around diesel vehicle emissions. Speaking to a Parliamentary committee of inquiry set up to investigate the Volkswagen scandal on 30 August, Verheugen said that there was "a lack of clarity" in the regulations, and that the wording should have been tackled "in a completely different fashion".

Leru finds EU grants 'too applied'

An analysis by the League of European Research Universities has concluded that the majority of funding under the Horizon 2020 Societal Challenges pillar is given to close-to-market studies. Leru presented data on 29 August showing that the most popular technology readiness level—a marker of the maturity of R&D—requested by calls for 2016-17 is six out of a possible nine. It suggested that calls be adjusted to fund more collaborative groups working on basic research problems.

Public consultation on technology institute

Individuals and organisations have been asked to suggest potential improvements to the European Institute of Innovation and Technology by 14 November, to feed into its mid-term review. The consultation asks whether the EIT is delivering on its intended outcome, and how it differs from other innovation instruments run by the EU. The assessment follows an April report on the EIT by the European Court of Auditors that found operational and management problems.

Antibiotic resistance pushed as major EU priority

Senior EU officials have said that there is significant momentum to tackle antimicrobial resistance through R&D, and have called for this drive to be maintained. In a letter to *The Lancet*, officials and industry representatives said that the EU's commitment resulted in more than €1 billion for antimicrobial resistance research in the past 20 years.

europe

Impact factor manipulation on the rise

Journal editors may be engaging in underhand tactics to play the impact factor system in order to raise the worth of their own publications in research evaluation, an analysis has concluded.

A journal's impact factor is calculated annually from the average number of citations of articles published over the past two years. Research evaluators in some institutions and countries use it to measure academic worth, obliging academics to try to publish in journals with high impact factors.

But in a study published in the journal PLoS ONE on 25 August, investigators in the Netherlands found that journals were almost twice as likely to cite articles from their own publication from the past two years than they were to cite older articles. The paper attributed this to coercive citation practices, such as journals asking authors to reference recent work from the same journal, or asking conditionally accepted papers to add more references.

The figures do not in themselves prove gaming by journal editors, authors Caspar Chorus from the Delft University of Technology and Ludo Waltman from the Centre for Science and Technology Studies at Leiden University said in a blog post, since recent work from the publication is more likely to be relevant than older studies.

But mapping the trend over time showed that the volume of recent self-citation had increased sharply since 2005, after being relatively stable over the previous two decades.

by Laura Greenhalgh

lgnews@ResearchResearch.com

"The trend follows, with a delay of a number of years, the increasing importance of the impact factor in research evaluations," the authors said. "Taken together, this suggests a trend of increasingly pervasive journal self-citation malpractices, with all due unwanted consequences."

A small subset of journals was found to have an even stronger trend, with 5 per cent of papers studied citing more than three times as many papers from the previous two years as the preceding five. The study found the practice to be particularly strong in the life sciences, where impact factors are most widely used to measure success.

The authors highlighted the potential damage that citation manipulation could do to the practice of science. "Including non-relevant citations in papers harms the integrity of the scientific literature. It introduces noise, which may confuse and mislead readers."

Such manipulation also has implications for the future of research assessment, the authors said. "Assessments of journals based on the impact factor will become less accurate and will be unfairly biased in favour of journals that engage in self-citation malpractices," Chorus and Waltman wrote in the blog. "Rather than being fixated on a single metric, research evaluations need to take into account a more diverse set of metrics, thereby reducing the incentive to manipulate the impact factor."

Call for policy action on risks of tattoos

The Joint Research Centre has pushed for additional research on the health risks posed by tattoos, in a report informing the development of EU regulation.

According to the JRC, the European Commission's in-house science service, there are significant gaps in knowledge on the safety of tattoos and permanent make-up products. More than 200 colourants and additives are used, but many contain impurities and are not authorised for use in cosmetics, the report said.

Concerns include links to skin irritation or cancer. Yet as it stands, there is no established structure for assessing the risks of tattoo inks, the JRC said. This means that chemicals banned in other products continue to be used in tattooing.

Only seven EU member states have specific legislation on the subject, even though 12 per cent of people in Europe are estimated to have tattoos. "Due to the wide variety of legislative frameworks across member states, some products can be sold in some countries but not in others," the report stated.

The JRC recommended that the EU establish an organised framework for assessing ingredients. "Harmonised analytical methods for tattoo and permanent make-up

by Laura Greenhalgh

lgnews@ResearchResearch.com

inks are missing and need to be developed," the report said. "A full risk assessment of the ingredients, in particular colourants, used in inks is needed, including their phototoxicity, absorption level, distribution, metabolism and excretion."

In the meantime, the report recommended that products containing chemical structures known to be carcinogenic, toxic to cell development or detrimental to reproduction should be removed from the market as a precaution. Better monitoring of the products in use, especially inks sold online, is also needed, the report said.

The report, released on 19 August, is the culmination of a series of analyses by the JRC that have been submitted to the European Chemicals Agency. The agency will consider the evidence as part of a possible regulatory proposal under REACH, the EU chemicals regulation framework, the JRC said.

Among the non-regulatory proposals made in the report, the JRC recommended information campaigns targeting young people, and improved training for tattooists.

UK guarantees pre-Brexit Horizon 2020 contracts

The UK government has said that following Brexit it will cover the costs of participation in any Horizon 2020 projects that were awarded funding while the UK was still a member of the EU.

The announcement is an attempt to reduce the reluctance of European research consortia to include UK researchers. It follows several reports that UK-based participants have been dropped from bids after the country voted to leave the EU in a referendum on 23 June.

On 13 August the UK government said in a statement: "Where UK organisations bid directly to the European Commission on a competitive basis for EU funding projects while we are still a member of the EU, for example universities participating in Horizon 2020, the Treasury will underwrite the payments of such awards, even when projects continue beyond the UK's departure from the EU."

University vice-chancellors' group Universities UK welcomed the announcement. Alistair Jarvis, the deputy chief executive, said it provided "much needed stability for British universities", and that it sent "an important signal to European researchers that they can continue to collaborate with their UK colleagues as they have before".

But the campaign group Scientists for EU said that

by Craig Nicholson

cnnews@ResearchResearch.com

the statement didn't provide long-term assurance for UK researchers. "The big opportunity missed here is for the government to confirm that, should we leave the EU science programme, the same amounts or more will be available directly from the Treasury," the group said.

Paul Crowther, interim head of physics and astronomy at the University of Sheffield, who has been vocal about a colleague being excluded by potential EU collaborators, said he was not aware that the announcement had prompted any reconciliation.

He added that the announcement "does nothing to dispel fears about the mobility of researchers between the UK and the rest of the EU", a concern that was shared by Kurt Deketelaere, secretary-general of the League of European Research Universities.

Scientists for EU said it had collected several examples of researchers turning down positions in the UK or leaving the country due to uncertainties about the long-term security of their residence and their ability to access EU funds. The researchers also expressed a general feeling of not being welcome following the referendum.

Think tank suggests model for UK-EU relations

A Brussels think tank has proposed a new type of relationship between the UK and the EU, allowing the UK to retain influence in some policy areas after it leaves the EU.

In a paper published on 29 August, the pro-business think tank Bruegel said that existing forms of partnership between the EU and non-EU countries were not suitable for the UK. Instead, it suggested forming a "Europe of two circles", with the supranational EU at its core and an outer circle of countries in an intergovernmental partnership.

Non-EU members would have full participation in the EU's goods, services and capital mobility markets, but without political integration. They could provide input on EU legislation on the single market, Bruegel said—which could incorporate non-contentious issues such as research policy—although the EU would retain the final say.

There would be no right to free movement of workers between core and partner countries. Instead, the relationship would be based on controlled labour mobility, meaning both sides could introduce their own limits.

The think tank acknowledged that the plan would constitute a significant concession by the EU on free movement—which European leaders have said is essen-

by Craig Nicholson

cnnews@ResearchResearch.com

tial for single-market access. However, the UK would also lose political influence compared with EU membership, Bruegel said, and partnership countries—which could later include nations such as Turkey or Norway—would also be required to contribute to the EU budget.

"The continental partnership would build a wider circle around the EU without sharing the EU's supranational character, except where common enforcement mechanisms were needed to protect the homogeneity of the single market," it said.

The proposal emerged as the UK broke its silence on how it plans to move forward following the 23 June referendum. Speaking in China on 4 September, UK prime minister Theresa May indicated she might consider preferential access for EU citizens under future immigration rules.

Bruegel said its proposed model could speed up talks towards an agreement. "Without a common vision of their shared future, the UK and the EU risk being dragged into unprincipled bargaining and weakening their positions in the wider world."

interview wim van saarloos

A quantum leap

A newly-appointed advisory group is working out a research agenda for the EU's quantum technology future, Wim van Saarloos tells **Alexander Hellemans**.

On 5 August, the European Commission named the 13 scientists who will sit on the high-level steering group to direct the set-up of the EU's Quantum Technology Flagship. The advisory group has a mandate of one year, and at its first meeting in late September it will begin preparing a strategic research agenda.

The EU's latest mega-project, announced in May, follows in the footsteps of two previous flagships: the Graphene Flagship and the Human Brain Project. Despite this, the quantum technology advisory group faces relatively uncharted waters because there was no application process for the funding, says Wim van Saarloos, a theoretical physicist at Leiden University in the Netherlands and one of the advisory group members.

"Unlike the earlier flagships, where there was a preliminary competition and the best projects were selected through a bottom-up process, this flagship will be done somewhat differently," he says. "We still have to work out its modus operandi."

Van Saarloos stresses that it will be important for the committee to study the progress of the two other flagships, and learn from them. "This is one of the things I would like to discuss at our meeting in Brussels. I think at a very early stage we should get a report from someone on what can be done better," he says.

The Human Brain Project has experienced serious troubles since its launch in 2013; after major concerns surfaced in 2014, the project underwent a full review and

in July announced a new governance structure that the Commission hopes will get the project back on track.

"I would also like to hear about the experience of the Graphene Flagship; I have heard there is a feeling that it is still too much a collection of small projects," says van Saarloos. "I would like to learn how coherency can be managed."

The May announcement of the Quantum Technology Flagship at a high-level conference in Amsterdam, came, for many, as a big surprise. But van Saarloos says those within the field were aware of its development. "I knew for about a year that the Netherlands had been preparing to push this during its presidency

of the EU," he says. The development of a Quantum Manifesto during early 2016, eventually backed by more than 3,400 researchers, sped things up, and will form the preliminary basis for the flagship's focus. "This is a good sign that Europe can move fast," he says.

Among the academics on the steering group, several have experience of managing large organisations. Van Saarloos was director of the Foundation for Fundamental Research on Matter, based in Utrecht, before moving to oversee widespread reforms at its parent organisation, the Netherlands Organisation for Scientific Research (NWO). And the chairman of the group, Jürgen Mlynek, is a former head of Germany's largest public research funder the DFG and the Helmholtz Association of German research centres—while the former Italian science minister Maria Chiara Carrozza has been nominated to link the group to an ongoing evaluation of the other flagships.

In August, the Commission announced that it was seeking 12 industry representatives to add to the steering committee; applications should be in by 5 September. And despite concerns following the May meeting that industry interest has been lukewarm, van Saarloos says he is optimistic. Big companies were well-represented at the Amsterdam meeting, he says, with attendance from the Dutch company ASML and the German manufacturer Bosch, as well as US firms such as Intel. "The research director of Bosch really pushed the idea that we can expect a lot of applications," says van Saarloos. "The feeling is that progress towards Industry 4.0 or the Internet of Things will need quantum sensors."

Interest from industry is a good sign that the science is on track, he says, referencing the recent launch of the first quantum satellite by China. "Had you asked me five years ago, I would have thought that quantum computing would be something in the distant future. But in the last three or four years, people have come to realise that it is within reach—and that 10 or 15 years from now, we can have some prototype models working."

For the decade-long flagship project, enthusiasm and determination from the steering committee must now be the driving force, van Saarloos says. "We should set an ambitious goal: stating that, 10 years from now, we will have a quantum computer of so many bits and performing at such a level," he says. "And we should make a concentrated effort to combine fundamental research with the drive to make this happen."

More to say? Email comment@ResearchResearch.com

Wim van Saarloos

- * **March 2016-present** Professor of theoretical physics, Leiden Institute of Physics
- * **June 2015-present** Director of organisational change at NWO
- * **2010-2015** Director, FOM Foundation at NWO
- * **1997-2009** Director, Lorentz Center at Leiden University
- * **1991-2009** Professor of theoretical physics, Leiden University
- * **1982-1990** Researcher at AT&T Bell Laboratories, United States
- * **1978-1982** PhD in theoretical physics, Leiden University

ralf schimmer **view from the top**

Open-access target offers publishers a survival plan

In May, after more than a year of careful, behind-the-scenes orchestration, the European Council adopted its *Conclusions on the Transition Towards an Open Science System*. This recognises the potential “to accelerate advancement of knowledge by making it more reliable, more efficient and accurate, better understandable by society and responsive to societal challenges”.

Recognising that open science entails open access to scientific publications, the European Commission has stated a goal to establish immediate open access as the default publishing option by 2020. An Open Science Policy Platform will be established to support this, and EU member states are enjoined to develop accompanying measures at the national level.

This target is as new as it is ambitious. Never before has the political backing for open access been articulated so forcefully. Now we must establish how realistic this goal is and what we need to do to prevent it being buried in bureaucracy.

Recent years have seen significant changes for open access. In 2012, for example, the Finch report led to the strengthening of policy support for open access in the UK, while 2014 saw the debut of innovative approaches to combining journal subscriptions with open-access rights, known as offsetting.

In March the Open Access 2020 initiative, led by the Max Planck Digital Library, was launched. The initiative shares a goal and emblematic target date with the Council. It is, however, more specific in its approach, and offers a potential route to implement EU policy.

Open Access 2020 is based on the understanding that the journal subscription system is becoming obsolete. To survive, journals will need to convert from subscription to open access, re-directing subscription spend into open-access funds to finance the essential services that publishers provide, such as the administration of peer review, editing, and dissemination. Open Access 2020 aims to accelerate this transition by transforming the transactional side of the publishing system and the ways in which its cash flow is organised.

Offsetting contracts are an essential transitional instrument. By allowing research institutions to treat article-processing charges paid to hybrid journals as a contribution towards subscriptions, these provide an entry point for the systematic redeployment of licensing costs—subscriptions—as publication costs. This weak-

ens the stranglehold of subscriptions, by demanding additional open-access services based on current sales.

In this model, the library remains a subscription customer, continues to receive access rights, and secures for its patrons the right to publish with open access. Ideally, all of this should be achieved within the range of current spending. Offsetting incorporates the spirit of open access into contracts and manages the underlying financial flows and accounting processes. The aim is nevertheless to preserve publishing services as such, and ensure their fair and appropriate remuneration.

Scholarly organisations are offering publishers the opportunity of an orderly transformation. This should be grasped, lest a breakdown of the current infrastructure results in the loss of core functions that are valued by all.

Academic publishing may have already had its ‘Napster’ moment, in the disruption of the current subscription-based model driven by Sci-Hub and other pirate providers of research papers. Sci-Hub’s interface is far simpler than the arcane structures imposed by the current subscription system, and many of the site’s users are in wealthy countries, suggesting that they are motivated by convenience as well as necessity. Disquiet about illegality sits against concerns that the entrenched subscriptions system imposes a drag on research. Perhaps Sci-Hub will help latecomers to open access realise that the subscription system is well past its expiry date.

The success of the transition to open access depends on how research organisations, along with their libraries, allocate funds. At the time of writing, 63 scholarly organisations on five continents have signed Open Access 2020’s Expression of Interest, pledging “to re-organise the underlying cash flows, to establish transparency with regard to costs and potential savings, and to adopt mechanisms to avoid undue publication barriers”. This signals a powerful commitment.

We need a coordinated and transparent strategy for the move into open-access publishing that addresses issues of standards, quality and stability. Without this, it will not be long before the next generation simply pulls the plug on the current system. From that perspective, Open Access 2020 and the EU’s plan for an open science system are not only bridges to the future, but also shields against disruption.

Something to Add? Email comment@ResearchResearch.com

‘The reality is that the subscription system is well past its expiry date.’

Ralf Schimmer is head of scientific information provision at the Max Planck Digital Library in Munich.

view from the top gunnar sivertsen

Don't let evaluation distort the social sciences and humanities

Across Europe, researchers in the social sciences and humanities are facing pressure to change the way they publish. The rise of evaluation, performance-based funding and a reliance on citation databases such as Scopus and Web of Science all encourage publishing in English. This trend threatens native-language publications, which these disciplines rely on to adequately organise their research, present their results and reach their audiences.

Different countries face different pressures. The Belgian region of Flanders introduced performance-related funding for its five universities in 2003, which was based on metrics and used data from Web of Science. The opposition from researchers in the social sciences and humanities was so strong that in 2008, the government created a supplementary database of books, chapters and a broader selection of journals.

Sweden introduced a similar model based on Web of Science in 2009, despite a letter of protest with an alternative proposal signed by deans of the social sciences and humanities. As Björn Hammarfelt and Sarah de Rijcke wrote in a 2014 study of Uppsala University, the policy has created "a clash between disciplinary traditions and incentives in evaluation models".

At the moment, Sweden is the only European country relying solely on Web of Science for performance-based university funding. Italy uses it for evaluating the natural sciences, but uses peer review for the social sciences and humanities. The Czech Republic, Estonia, Poland, Portugal and Slovenia use models based purely on metrics that include books and own-language journals in addition to international journals.

An important source of information for these countries is ERIH Plus, the European Reference Index for the Humanities and Social Sciences. This is an independent register of high-quality journals created by the European Science Foundation. Nevertheless, many of the journals in ERIH Plus are ranked below those in commercial databases.

Other increasingly important data sources for evaluating the social sciences and humanities are local or national Current Research Information Systems. These include comprehensive, quality-assured databases of yearly scholarly output at the department level, making it possible to acknowledge differences in publishing traditions.

The Nordic countries now collaborate on developing national Cris systems as a bibliometric data source, and all except

Sweden use them for performance-based funding. The Norwegian Cris system, which was established in 2005 and evaluated in 2013, has proved that it is possible to incentivise publishing in the social sciences and humanities without putting researchers' habits under pressure.

Even so, differences in co-authorship practices are often overlooked, either unintentionally or as a result of academic power games. Most countries count publications per author or affiliation, meaning that multi-authored publications are included several times. Because papers in the natural sciences typically have more authors, these measures make the sciences appear more than twice as productive as the social sciences and humanities. If used in funding decisions, this measure could deprive the latter of resources.

IRRESPECTIVE OF FUNDING models and evaluation regimes, a science-centric viewpoint of academic publishing means that the practices of the social sciences and humanities are still often misunderstood. This goes beyond the continuing importance of monographs as a way of organising and presenting research. In the sciences, collaboration is expressed in co-authorship. In the social sciences and humanities, it is expressed in other ways, for example in acknowledgements or in contributions to edited volumes.

This is not to say that publishing in the social sciences and humanities is standing still. The balance between book publishing and journal publishing remains the same, but international and own-language publishing has increased. There are also more specialist and interdisciplinary publications. Rather than creating homogeneity in how researchers publish, internationalisation is increasing diversity.

Like the sciences, the social sciences and humanities have always been international, but with different histories. Latin was the international language of scholarship for centuries, and research was done within an elite. Then came the enlightenment, the building of the nation state, and the democratisation of society and higher education. The social sciences and humanities are still international, but their development is taking place in dialogue with the cultures and societies that they study. *More to say? Email comment@ResearchResearch.com*

Gunnar Sivertsen is a research professor at the Nordic Institute for Studies in Innovation, Research and Education in Oslo. See also Scientometrics v107(2), p357-68, 2016.

'The practices of the social sciences are still misunderstood.'

every new opportunity every discipline

highlights

Economic assessment

The Directorate-General for Economic and Financial Affairs invites tenders for the provision of evaluation and evaluation-related services to economic and financial affairs including impact assessments. The contract is worth €4 million [10].

Bio-based products

The Directorate-General for Research and Innovation invites tenders in the area of bio-based products and services. The contract is worth €1.93 million [13].

Civil airspace

The Single European Sky ATM (SESAR) Joint Undertaking invites tenders for the provision of civil airspace users advice services to support SESAR 2020 activities. The contract is worth €6 million [21].

H2020 ERC starting grants

The European Commission Horizon 2020: European Research Council invites proposals for its ERC-2017-STG call for starting grants. Grants are worth up to €1.5 million each [24].

Water security

The Netherlands Enterprise Agency (RVO) invites tenders for its flood and water security urban deltas call. The total budget is €3 million [50].

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

September

16 **UK** British Ecological Society research grants 1168900

CH CERN corresponding associates programme 259704

CH CERN scientific associates programme 251966

EU Directorate-General for Employment, Social Affairs & Inclusion employment and social innovation operating grants 1190724

EU Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs approach for evaluation of persistent, bioaccumulating and toxic substances subject to authorisation and restriction procedures in context of socio-economic analysis 1190878

EU EUREKA Eurogia2020 call for projects 1161448

FR International Brain Research Organization InEurope short stay grants 1159590

19 **AT** Austrian Science Fund START programme 1190776

EU Cedefop real-time labour market information on skill requirements – setting the EU system for online vacancy analysis 1190882

EU EUMETSAT multi-view, multi-channel, multi-polarisation imaging mission cloud algorithm development support 1190754

EU EUMETSAT investigation of meteosat second generation spinning enhanced visible and infrared imager and EUMETSAT polar system infrared atmospheric sounding interferometer derived atmospheric instability in relation of other observations 1190631

UK Wellcome senior research fellowships in basic biomedical science 251190

UK Wellcome senior research fellowships in clinical science 254862

20 **UK** Agriculture and Horticulture Development Board bulbs and outdoor flowers crop sector panel funding 260806

UK Agriculture and Horticulture Development Board protected ornamentals crop sector panel funding 1159001

EU Directorate-General for the Environment LIFE – preparatory projects 1180293

EU H2020 Evellent Science – European Research Council platform driven e-infrastructure innovation 1187226

NL European Cultural Foundation idea camp 1190505

21 **CA** Government of Canada Banting postdoctoral fellowships 1160792

UK Medical Research Council career development award 252442

UK Medical Research Council senior non-clinical fellowship – transition to leadership 252375

23 **IT** Welcome Office Friuli Venezia Giulia talents3 fellowships 1190523

CA Québec Nature and Technology Fund doctoral research scholarships programme for international students 1175053

CA Québec Nature and Technology Fund merit scholarship programme for foreign students – doctoral research scholarships 1181464

CA Québec Nature and Technology Fund merit scholarship programme for foreign students – postdoctoral scholarships 1181469

CA Québec Nature and Technology Fund merit scholarship programme for foreign students – short-term research or professional development scholarships 1181470

25 **SE** Stockholm Water Foundation Stockholm water prize 203789

26 **EU** Directorate-General for the Environment LIFE – integrated projects 1180297

UK European Association of National Metrology Institutes support for impact projects 1179774

CH Swiss National Science Foundation NRP 73 – sustainable economy 1189450

27 **EU** Horizon 2020: Excellent Science H2020-FETHPC-2016 proactive – high performance computing 1186424

28 **UK** Action on Hearing Loss flexi grants 258666

EU ERA-Net CORNET collective research networking – transnational call 1158495

EU ERA-Net ERA-CAPS Europe-USA call – strengthening transnational research in the molecular plant sciences 1189535

EU ERA-NET IraSME transnational call for proposals 1189513

europa

Biochemistry fellowships

The Federation of European Biochemical Societies invites applications for its long-term fellowships. These support visits to laboratories in another FEBS country for scientific collaboration or advanced training. The fellowships cover travel and living costs for up to three years.

Web id: 212973

Deadline: 1 October 2016 [1]

EU language tracking

The Directorate-General for Communications Networks, Content and Technology invites applications to develop an online tool enabling the tracking of language versions of films. This supports the design of a technical solution that increases the exposure of European films in video on demand services. The total budget is €500,000, for one to two proposals.

Web id: 1191125

Email: cnect-i3@ec.europa.eu

Deadline: 26 September 2016 [2]

EU soldier systems

The European Defence Agency invites tenders for the design of a standard architecture for soldier systems with focus on data management and infrastructure – STASS II. The design must be complementary with STASS I. The contract is worth €246,500 over 12 months.

Web id: 1191004

Email: procurement@eda.europa.eu

Deadline: 27 September 2016 [3]

EU construction policy

The Executive Agency for Small and Medium-sized Enterprises invites tenders for a review of the construction 2020 strategy. The tenderer will assess the implementation of the strategy, and provide recommendations. The contract is worth €200,000 over nine months.

Web id: 1191364

Email: easme-procurement@ec.europa.eu

Deadline: 27 September 2016 [4]

EU fintech sector study

The Directorate-General for Communications Networks, Content and Technology invites tenders for its study on overview of the fintech sector – challenges for the European players and possible policy measures at EU level. The tenderer will evaluate the impact on the banking sector and financial services industry. The contract is worth €300,000 over 16 months.

Web id: 1190978

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

Deadline: 29 September 2016 [5]

EU mid-cap financing

The Directorate-General for Financial Stability, Financial Services and Capital Markets Union invites tenders for a mid-cap financing survey. The tenderer will design and run a statistical and econometric analysis of a survey on sources of financing for mid-cap companies. The contract is worth €320,000 over 11 months.

Web id: 1191261

Email: ec-fisma-contracts@ec.europa.eu

Deadline: 29 September 2016 [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 product surveillance

The Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs invites proposals for joint enforcement actions under the multi-annual action plan for market surveillance of products in the EU. This call supports transnational activities that aim to enhance the efficiency of market surveillance by improving the coordination of the practical enforcement activities. The total budget is worth up to €540,000 to support one to three projects lasting up to 36 months. **Web id: 1185869**
Email: grow-cfp-16-1123@ec.europa.eu
Deadline: 29 September 2016 [7]

EU fisheries study

The Executive Agency for Small and Medium-sized Enterprises invites tenders for a study on ownership and exclusive rights of fisheries means of production. The tenderer will provide an analysis of the structure of the ownership of fishing vessels, licences as well as exclusive rights or quotas of the means of production in the EU catching sector. The contract is worth €200,000 over 12 months. **Web id: 1191575**
Email: easme-procurement@ec.europa.eu
Deadline: 29 September 2016 [8]

EU agricultural commodities

The Directorate-General for Agriculture and Rural Development invites tenders for a study on storage capacities and logistical infrastructure for EU agricultural commodities trade. The focus is on cereals, the oilseed complex and protein crops. The contract is worth €400,000 over 10 months. **Web id: 1191343**
Email: agri-evaluation@ec.europa.eu
Deadline: 30 September 2016 [9]

EU economic assesment

The Directorate-General for Economic and Financial Affairs invites tenders for the provision of evaluation and evaluation-related services to economic and financial affairs including impact assessments. The tenderer will evaluate Directorate-General for Economic and Financial Affairs policy areas. The contract is worth €4 million over four years. **Web id: 1191226**
Email: ecfm-evaluations@ec.europa.eu
Deadline: 30 September 2016 [10]

EU financial market law

The Directorate-General for Justice invites tenders for a study on the law applicable in respect of securities as well as claims traded on financial market. The tenderer will evaluate the practical problems and types of risks caused by the current state of harmonisation of the conflict-of-laws rules on third-party effects of transactions in securities and claims. The contract is worth €400,000 over nine months. **Web id: 1191268**
Email: just-a4-cft@ec.europa.eu
Deadline: 30 September 2016 [11]

EU government quality

The Directorate-General for Regional and Urban Policy invites tenders for measuring the quality of government at the subnational level and comparing results with previous studies. The contract is

worth €1.2 million over 16 months. **Web id: 1191540**
Email: regio-b1-head-of-unit@ec.europa.eu
Deadline: 30 September 2016 [12]

EU bio-based products

The Directorate-General for Research and Innovation invites tenders for support to research and innovation policy in the area of bio-based products and services. The tenderer will prove a range of new information and analyses that will enable informed decisions about innovative bio-based products. The contract is worth €1.93 million over 14 months. **Web id: 1191142**
Email: rtd-bio-based-tender@ec.europa.eu
Deadline: 30 September 2016 [13]

Nephrology programmes

The International Society of Nephrology invites applications for the following calls:

- sister renal centres programme, worth up to USD 57,000 (€51,200) over up to six years. **Web id: 1191301**
- sister transplant centres programme worth up to USD 57,000 over up to six years. **Web id: 1191302**

Deadline: 1 October 2016 [15]

EU E-government benchmarking

The Directorate-General for Communication Networks, Content and Technology invites tenders for the E-government benchmark report 2016-2018. The objective is to analyse the state of play of e-government provision across EU countries. The contract is worth up to €180,000. **Web id: 1191592**
Email: cnect-r2-eoi@ec.europa.eu
Deadline: 3 October 2016 [16]

EU defence capabilities

The European Defence Agency invites tenders for capability development plan software improvement and maintenance. The tenderer will improve the capability development plan tool. The contract is worth €330,000 over 12 months. **Web id: 1191389**
Email: procurement@eda.europa.eu
Deadline: 6 October 2016 [17]

EU shift2rail research

Shift2Rail invites tenders for the following contracts:

- cross-cutting activities – long-term needs and socio-economic research, worth between €400,000 and €450,000 over 48 months. **Web id: 1191487**
- cross-cutting activities – human capital, worth up to €200,000 over 15 months. **Web id: 1191553**

Deadline: 12 October 2016 [19]

EU civil airspace

The Single European Sky ATM (SESAR) Joint Undertaking invites tenders for the provision of civil airspace users advice services to support SESAR 2020 activities. The tenderer will provide expertise covering the broad range of operating models concerned with the execution of the European air traffic management master plan. The contract is worth €6 million over 48 months. **Web id: 1191126**
Email: procurement@sesarju.eu
Deadline: 13 October 2016 [21]

EU H2020 co-creation

The European Commission Horizon 2020: Societal Challenges invites proposals, under the Europe in a changing world – inclusive, innovative and reflective societies work programme, for its H2020-CO-CREATION-2016-2017 co-creation for growth and inclusion call. Proposals may address a range of activities. The budget for topic 2 is up to €4 million and up to €5m for topic 3. **Web id: 1184873**
Deadline: 15 October 2016 [22]

EU policy studies

The Committee of the Regions of the European Union invites tenders for a multiple framework contract for studies in the fields of agriculture, health and maritime policy. The tenderer will provide the Committee with a rapid response capability, allowing broader consultation of local and regional players. The contract is worth €400,000 over one year. **Web id: 1191531**
Email: cor-marches-publics@cor.europa.eu
Deadline: 17 October 2016 [23]

EU H2020 ERC starting grants

The European Commission Horizon 2020: European Research Council invites proposals for its ERC-2017-STG call for starting grants. These support principal investigators in starting their own independent research team or programme. The budget is €605 million. Grants are worth up to €1.5m each over five years. An additional €500,000 may be requested. **Web id: 1191089**
Deadline: 18 October 2016 [24]

EU ship safety

The Directorate-General for Mobility and Transport invites tenders for a study on the safety level of specific stability requirements for roll-on/roll-off passenger ships. The tenderer will support the review of directive 2003/25/EC and propose a formulation for the required subdivision index R for ro-ro passenger ships that will provide for an equivalent level of safety to that achieved across the entire fleet. The contract is worth €330,000 over 16 months. **Web id: 1191224**
Email: move-maritime-transport-and-safety@ec.europa.eu
Deadline: 21 October 2016 [25]

EU missiles and munitions

The European Defence Agency invites tenders for scalable effects for missiles and munitions. The tenderer will investigate a joint definition and understanding for scalable effects for missiles and munitions, as well as examine existing and future technologies. The contract is worth €200,000 over 16 months. **Web id: 1191258**
Email: procurement@eda.europa.eu
Deadline: 27 October 2016 [26]

Environment award

The Anders Wall Foundation and the Friends of the Countryside, invite applications for their Anders Wall environment award. This rewards creative entrepreneurs that have contributed to creating an ideal environment within the European countryside. The prize is worth €15,000.

Web id: 1191166
Email: forest@elo.org
Deadline: 30 November 2016 [27]

Biodiversity data biases

The Global Biodiversity Information Facility invites submissions for the Ebbe Nielsen challenge. The competition recognises innovative applications of open-access biodiversity data with a focus on data gaps and biases. The winning prize is worth €20,000 and the second prize €5,000. **Web id: 210122**
Email: enchallenge@gbif.org
Deadline: 30 September 2016 [28]

Technology postdocs

Villum Foundation, under Velux Foundations, together with the University of Southern Denmark, invite applications for their individual postdoc grants. These support researchers in conducting postdoctoral research in technology and science at Danish or international universities. Grants are worth up to DKK 75,000 (€10,000) per year for one to three years. **Web id: 1164569**
Email: villumfondene@sdu.dk
Deadline: 1 October 2016 [29]

Biomedical tech development

The Novo Nordisk Foundation invites applications for its exploratory pre-seed grants. These support Nordic application-oriented research and the testing of new ideas that may lead to the development of new medical treatments, disease prevention, devices and diagnostic methods. A total of DKK 5 million (€671,800) is available to fund up to 10 projects. **Web id: 1165027**
Email: cnmh@novo.dk
Deadline: 13 October 2016 [30]

Demyelinating diseases

The French Muscular Dystrophy Association, in collaboration with ARSEP Foundation, invites applications for its myelin – from lesion to reparation call for proposals. This supports research projects primarily focused on the understanding and treatment of demyelinating diseases using remyelination approaches. Funding is worth up to €300,000 for two to three projects lasting one year. **Web id: 1191496**
Email: scientific@arsep.org
Deadline: 27 September 2016 [31]

Researcher mobility

Campus France invites applications for its Prestige programme. This aims to foster the international mobility of postdoctoral researchers in any field. Funding is worth up to €47,520 per year. **Web id: 1190782**
Email: prestige@campusfrance.org
Deadline: 30 September 2016 [32]

Ocean data assimilation

Mercator Ocean invites tenders for the design and execution of research and development. The tenderer will develop the global high resolution model currently operated in the global monitoring and forecasting of the Copernicus marine environment monitoring service, on the data assimilation theme. Two lots of €200,000 over 24 months, are available. **Web id: 1191396**
Email: pierre.bahurel@mercator-ocean.fr
Deadline: 14 October 2016 [33]

Quaternary research

The International Union for Quaternary Research invites applications for the following grants:

- international focus groups grants, worth up to €8,000. **Web id: 1169707**
- project grants, worth up to €5,000. **Web id: 260069**

• skills enhancement grants, worth up to €5,000. **Web id: 1169710**
Deadline: 15 October 2016 [36]

Cognition prize

The Fyssen Foundation invites nominations for its international prize. This recognises research achievements in the areas of ethology, paleontology, archaeology, anthropology, psychology, epistemology, logic and sciences of the nervous system. The prize is worth €60,000.

Web id: 192181
Deadline: 7 November 2016 [37]

EU imaging

The EUMETSAT invites tenders for the following opportunities:

- contract for a study on the creation of a high resolution test dataset, to be carried out in six months. **Web id: 1191046**
- a study on total precipitable water from METImage, for a period of 10 to 15 months. **Web id: 1191192**

Deadline: 26 September 2016 [39]

Architecture in Germany

The German Academic Exchange Service (DAAD) invites applications for its study scholarships in the field of architecture for graduates from selected countries. These enable non-German graduates to continue their education in Germany with a postgraduate or continuing course of study. Scholarships are worth up to €18,000 over 24 months.

Web id: 1178343
Deadline: 30 September 2016 [40]

Research in Germany

The VolkswagenStiftung invites applications for the Freigeist fellowships. These support researchers wishing to carry out risk-taking research projects at the intersections between established fields of research. Fellowships are available for five years and worth up to €1 million.

Web id: 1180470
Email: brumberg@volkswagenstiftung.de
Deadline: 13 October 2016 [41]

Art study in Germany

The German Academic Exchange Service (DAAD) invites applications for its study scholarships in fine art, design and visual communication, film, music and performing arts. These enable non-German graduates to continue their education in Germany with a postgraduate or continuing course of study. Scholarships are worth up to €18,000 over 24 months.

Web id: 1181603
Deadline: 31 October 2016 [42]

EU apprenticeships for adults

Cedefop invites tenders for a study on apprenticeships for adults. The study should aim to improve knowledge of apprenticeships for adults as a distinctive form of adult learning. The contract is worth €365,000 over 20 months.

Web id: 1191333
Email: c4t-services@cedefop.europa.eu
Deadline: 22 September 2016 [43]

EU food crisis preparedness

The European Food Safety Authority invites tenders for food and feed safety crisis preparedness training. The tenderer will understand general crisis handling concepts and specifically EFSA procedures. The contract is worth €400,000 over 48 months.

Web id: 1191060
Email: efsaprocedurement@efsa.europa.eu
Deadline: 30 September 2016 [44]

Capacity building grants

The Interacademy Partnership invites applications for its project grants. These aim to produce material and recommendations for the scientific and policy communities and the general public. Grants are worth up to USD 30,000 (€27,000) each.

Web id: 213879
Email: iap@twas.org
Deadline: 30 September 2016 [45]

EU risks to honeybee colonies

The European Food Safety Authority invites tenders for the development of a mechanistic model to assess risks to honeybee colonies from exposure to pesticides under different scenarios of combined stressors and factors. The tenderer will assess pesticides exposure and effects on a single honeybee colony, following the conceptual model elaborated by the multiple stressors in honeybees working group. The contract is worth €500,000 over 48 months.

Web id: 1191522
Email: efsaprocedurement@efsa.europa.eu
Deadline: 27 October 2016 [46]

Energy awards

Eni invites applications for the following opportunities:

- advanced environmental solutions prize, worth €200,000. **Web id: 1191336**
- energy frontiers prize, worth €200,000 and a specially struck gold medal. **Web id: 1191307**
- energy transition prize, worth €200,000. **Web id: 1191335**

Deadline: 25 November 2016 [49]

Water security

The Netherlands Enterprise Agency (RVO) invites tenders for its flood and water security urban deltas call. The tenderer will use Dutch innovative water-related solutions in foreign urban deltas and their supply systems to increase the control of water security and to add value to the international water sector. The total budget is €3 million.

Web id: 1189754
Email: administratiepww@rvo.nl
Deadline: 31 August 2016 [50]

Vidi research grants

The Netherlands Organisation for Scientific Research (NWO) invites applications for the Vidi grants under its innovative research incentives scheme. These grants allow researchers who have already spent years doing postdoctoral research to develop their own innovative lines of research, and to appoint researchers. Grants are worth up to €800,000 each.

Web id: 260544
Email: vi@nwo.nl
Deadline: 6 October 2016 [51]

Ageing research awards

The Network for Studies on Pensions, Aging and Retirement (Netspar) invites nominations for its thesis awards. These recognise theses at bachelor's, master's or research master's level, and a dissertation at PhD level, on a topic related to ageing and retirement financing. Four awards of €3,000 each are available.

Web id: 1170559
Email: m.vantrier@uvt.nl
Deadline: 16 October 2016 [52]

Border guard curricula

Frontex invites applications for its call for national integration of sectoral qualifications framework through curriculum development, review and accreditation at national level. This aims to facilitate European harmonisation in border guard training and education. Grants are worth up to €30,000 each for projects lasting up to nine months.

Web id: 1191233
Email: frontex@frontex.europa.eu
Deadline: 30 September 2016 [53]

EU carcinogen exposure

The European Agency for Safety and Health at Work invites tenders for a feasibility study on the development of a computer-assisted telephone survey to estimate workers' exposure to carcinogens in the EU. The tenderer will assess the feasibility of the survey. The contract is worth €100,000 over 10 months.

Web id: 1191181
Email: procurement-pru@osha.europa.eu
Deadline: 23 September 2016 [55]

Atherosclerosis prize

The European Atherosclerosis Society invites nominations for the Anitschkow prize. This recognises a research contribution in the field of atherosclerosis and linked metabolic disturbances. The prize is worth €10,000.

Web id: 188332
Email: office@eas-society.org
Deadline: 30 September 2016 [57]

Occupational therapy

The Swedish Association of Occupational Therapists invites applications for the Inga-Britt Lindström grant award. This supports the development of occupational therapy in the applicant's native country. The grant is worth SEK 10,000 (€1,050) per year.

Web id: 1164541
Email: kansli@arbetsterapeuterna.se
Deadline: 1 October 2016 [58]

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. The prize is worth CHF 10,000 (€9,100).

Web id: 151962
Email: bernhard.lewerich@t-online.de
Deadline: 30 September 2016 [60]

EU metrology research

The European Association of National Metrology Institutes (EURAMET) invites applications for its support for impact projects grants. These support the dissemination and exploitation of metrology research, with the aim of increasing

turnover in European companies, and promoting interaction between metrology and standardisation communities. The indicative budget is €500,000, with individual projects receiving up to €150,000 each over a period of up to 36 months.

Web id: 1179774
Email: paula.knee@npl.co.uk
Deadline: 26 September 2016 [61]

Hearing research grants

Action on Hearing Loss invites applications for its flexi grants. These support a range of small-scale activities that will strengthen hearing research to benefit people with hearing loss, tinnitus or other hearing-related conditions. Grants are worth up to £5,000 (€5,900) each.

Web id: 258666
Email: research@hearingloss.org.uk
Deadline: 28 September 2016 [62]

Paleontology dissemination

The Palaeontological Association invites applications for its engagement grants. These encourage educational outreach, public engagement and related initiatives in paleontological themes. Grants are usually worth up to £5,000 (€5,900) but a budget worth up to £15,000 may be considered in exceptional cases.

Web id: 1191506
Email: secretary@palass.org
Deadline: 1 October 2016 [63]

rest of world

Farm profitability

Dairy Australia invites applications for its pre-farmgate research, development and extension projects. These support individuals and organisations in undertaking projects aimed at improving farm profitability. The duration of projects should be between one and three years.

Web id: 209587
Email: research@dairyaustralia.com.au
Deadline: 30 September 2016 [67]

Orthopaedic fellowships

The International Society of Orthopaedic Surgery and Traumatology (SICOT), with the support of Hiranandani Orthopaedic Medical Education, invites applications for its fellowships. These provide clinical research training in adult hip and knee surgery in the Dr LH Hiranandani Hospital in Mumbai, India. Fellowships are made for six to 12 months.

Web id: 1191463
Email: vijaydshetty@gmail.com
Deadline: 31 October 2016 [68]

Cultural exchange and welfare

The Commemorative Organization for the Japan World Exhibition invites applications for its Japan world exposition commemorative fund. This supports projects that commemorate the success of the Japan world exposition 1970 by enabling international cultural exchange and goodwill, projects in the fields of academic study, education, social welfare, medical care, hygiene and public health, and projects designed for conservation of nature and human environment.

Web id: 1181579
Email: jec-fund@osaka21.or.jp
Deadline: 30 September 2016 [69]

tenders

Spacecraft performance *ESA

The European Space Agency invites tenders for redundancy concepts for minimum mass and acceptable failure protection. The tenderer will first assess the possibility to implement the spacecraft's platform functionalities in terms of performance, and then identify for each platform function the most suitable redundancy approach, avoiding unused equipment in fault free condition while providing acceptable performance degradation in case of failure. The contract is worth up to €500,000. Ref: 16.1QQ.03. **Deadline: 12 October 2016**

Mars landings *ESA

The European Space Agency invites tenders for integrated throttleable valve and engine development for Mars landings. The tenderer will examine the issues of coupling the valve to a flight engine. This activity is open to all, but the main contractors are requested to include an adequate participation of non-primaries, including SMEs. The contract is worth at least €500,000. Ref: 16.123.02. **Deadline: 14 October 2016**

Manufacturing centre *ESA

The European Space Agency invites tenders for a space additive manufacturing benchmarking centre. The tenderer will carry out an assessment of impact of aluminium and titanium alloy powder quality on geometrical accuracy, physical, and mechanical properties. This activity is restricted to non-prime contractors, including SMEs. The contract is worth at least €500,000. Ref: 16.1QM.06. **Deadline: 14 October 2016**

Food security *ESA

The European Space Agency invites tenders for a food security thematic exploitation platform. The tenderer will develop a thematic exploitation platform dedicated to food security in order to support sustainable agriculture, aquaculture and fisheries by providing access to data, processing tools and computing resources in a cloud environment. Ref: 16.155.03. **Deadline: 21 October 2016**

Output multiplexers *ESA

The European Space Agency invites tenders for next generation temperature compensated output multiplexer channel filters. The tenderer will develop and evaluate novel concepts for temperature compensated output multiplexer channel filters making use of advanced materials. The contract is worth at least €500,000. Ref: 16.1TT.80. **Deadline: 21 October 2016**

Communications satellite *ESA

The European Space Agency invites tenders for a study on a 100 kilowatts communications satellite. The tenderer will carry out a satellite system level study, aimed at performing the architectural design trade-offs and identifying sub-system requirements to optimise future geostationary satellite development. The contract is worth up to €500,000. Ref: 16.1TF.03. **Deadline: 26 October 2016**

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

usa

Alpha-1 Foundation scientific meeting sponsorship grant

Web id: 186312

No deadline [76]

Institute for Aegean Prehistory publication subventions

Web id: 189269

No deadline [77]

NIH innovative molecular and cellular analysis technologies for basic and clinical cancer research (R21)

Web id: 1182925

Deadline: 26 September 2016 [78]

Juvenile Diabetes Research Foundation International user centric next generation artificial pancreas systems

Web id: 1191440

Deadline: 29 September 2016 [79]

Electrochemical Society Heinz Gerischer award

Web id: 1165287

Deadline: 30 September 2016 [80]

Society of Biological Psychiatry AE Bennett research awards

Web id: 193204

Deadline: 30 September 2016 [81]

International Association for Dental Research regional development programme

Web id: 192328

Deadline: 1 October 2016 [82]

National Academy of Sciences Arctowski medal

Web id: 185067

Deadline: 3 October 2016 [83]

Harvard University Radcliffe Institute natural science and mathematics fellowships

Web id: 183304

Deadline: 6 October 2016 [84]

Open Society Foundations Soros justice advocacy fellowships

Web id: 1175223

Deadline: 12 October 2016 [85]

International Association for Dental Research EW Borrow memorial award

Web id: 182624

Deadline: 13 October 2016 [86]

Department of Defense joint programme committee 1 – medical simulation and information sciences research programme – translational simulation research award

Web id: 1191280

Deadline: 13 October 2016 [87]

WF Albright Institute of Archaeological Research Seymour Gitin distinguished professorship

Web id: 1164978

Deadline: 15 October 2016 [88]

National Socio-Environmental Synthesis Center sabbatical and research fellowships

Web id: 1172729

Deadline: 15 October 2016 [89]

Smithsonian Institution artist research fellowship

Web id: 1182783

Deadline: 17 October 2016 [90]

Michael J Fox Foundation for Parkinson's Research improved biomarkers and clinical outcome measures programmes

Web id: 1191223

Deadline: 19 October 2016 [91]

Melanoma research established investigator academic-industry partnership awards

Web id: 1191357

Deadline: 21 October 2016 [93]

policy diary

September

15 Data for Policy Conference, Cambridge, UK. To 16. <http://rsrch.co/1W2ulwD>

- Factories of the Future Conference 2016, Brussels, Belgium. To 16. <http://rsrch.co/2bl253p>

16 Global Trends to 2030 Society and Governance, Brussels, Belgium. To 17. <http://rsrch.co/2bYHUwL>

19 OECD Blue Sky Forum on Science Indicators, Ghent, Belgium. To 21. <http://rsrch.co/2biYC8p>

20 Mainstreaming Gender Equality into Academic and Research Organisations, Brussels, Belgium. <http://rsrch.co/2biLDke>

21 EuroTech Universities High-level Event, Brussels, Belgium. <http://rsrch.co/2913kVw>

- 9th International Technology Transfer Conference, Kranj, Slovenia. <http://rsrch.co/2bYg9j2>

23 Horizon 2020 Infoday: Smart Cities and Communities, Brussels, Belgium. <http://rsrch.co/2bRAZ6r>

26 Addressing Radical Ideologies and Violent Extremism: The Role of Research, Brussels, Belgium. <http://rsrch.co/2bN4LZt>

28 European Digital Infrastructures for Research Conference, Krakow, Poland. To 30. <http://rsrch.co/28IyqSi>

- Presidency Conference: Digital Assembly 2016, Bratislava, Slovenia. To 29. <http://rsrch.co/2biMfqd>

- Horizon 2020 Infoday: Societal Challenge 4 on transport, Brussels, Belgium. <http://rsrch.co/2bzd3G8>

29 2nd International Conference on Science Advice to Government, Brussels, Belgium. To 30. <http://rsrch.co/28Jhn6P>

- University governance: Impeding or Facilitating Creativity? Hanover, Germany. To 30. <http://rsrch.co/1S7wHTF>

October

4 Leri-Lund University Gender Conference 2016, Lund, Sweden. To 5. <http://rsrch.co/2bR801y>

6 3rd EUA Funding Forum, Porto, Portugal. To 7. <http://rsrch.co/1RLn4uT>

10 BMBF Conference on the European Research Area, Berlin, Germany. <http://rsrch.co/2bPV508>

- Discovering Collections, Discovering Communities 2016, Salford, UK. To 12. <http://rsrch.co/2cayS0z>

*Research Europe

ISSN 1366-9885

Published every two weeks with breaks at Christmas, Easter and in summer. The next issue will be published on 22 September.

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

Editor Colin Macilwain

Comment and Analysis Editor
John Whitfield

News Editor Laura Greenhalgh

Senior Reporter Craig Nicholson

Reporters

Cristina Gallardo, Lindsay
McKenzie, Anna McKie,
Amanda Stringfellow

Chief Sub Editor Kris Pedder

Sub Editor Jenny Maukoka

Data Analyst Gretchen Ransow

Funding Content Managers

Mikael Järvelin,
Sanja Vlaisavljevic

Deputy Funding Content**Managers**

Sofia Capel, Mirella Rosenström

Editorial Researchers

Claire Braun, Marion Galley,
Anna Hagberg, Lucas Haks,
Gladys Hellgren, Louise Jensen,
Eeva-Majja Jokiniemi, Lotte
Krause, Sam Marberg, Willemijn
van Mossevelde, Marcia Rato,
Dalia Saris, Kartikey Srivastava,
Simon Svendsen

Production Manager

Katherine Lester

Production Department

Grace Harrison, 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

Jon Thornton, Alison Warder

Subscriptions

info@researchresearch.com

Advertising London

Trishita Shah, +44 20 7216 6528
advertise@researchresearch.com

Published by *Research.
Copyright © Research Research
Limited, 2016.

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

Hand to mouth

There is mounting unease over the prevalence of temporary university contracts, as **Laura Greenhalgh** discovers.

For Netherlands-based sociologist Inge van der Weijden, 2014 marked the welcome end of a prolonged spell of temporary employment in academia. "I worked for 15 years in different universities or research institutes, on contracts of one or two years," she says. "When I got my permanent contract, we were able to buy a bigger house. I finally gained recognition that I was doing a good job: that was the most important thing."

In August, van der Weijden—now at the Centre for Science and Technology Studies at Leiden University—published the results of a survey on the impact of temporary contracts on recent PhD graduates, in the journal *Higher Education*. "Previously, there have been papers suggesting that for highly educated people, the impact of a temporary contract on job satisfaction was not hugely negative," she says. "But we certainly didn't see that."

Instead, the survey—which questioned 1,133 undergraduates who graduated from five Dutch universities between 2008 and 2012—found overwhelming evidence of the detrimental effect of a lack of security on young researchers. Its most noteworthy finding was that a lack of permanence actually reduced an individual's enjoyment of the content of their job, says van der Weijden. Lack of a full-time appointment also affects other aspects of people's lives, such as the ability to get a mortgage or start a family, the survey found.

The paper also quantified the extent of the problem. "In the Netherlands, almost 80 per cent of postdoctoral researchers work on temporary contracts," says van der Weijden. "And almost 25 per cent of graduates worked in jobs for which a PhD education was not required."

The role of part-time contracts in academic life is "a complex issue", says Lynn Kamerlin, a computational biologist at Uppsala University in Sweden, who has campaigned to get the question some public attention. "Whether a PhD student is ready for a permanent contract straight after graduation is very discipline dependent," she says. "From the perspective of an employer, it's scary to give a permanent contract to someone who hasn't proven themselves."

The prevalence of temporary contracts is on the rise across Europe, Kamerlin says. "Universities are really exploiting this way too far. There is an unspoken social contract that a temporary postdoc is part of training, and later leads to a position," she says. "But as we reach a point where even assistant professors' contracts can be fixed-term, the system is falling apart."

Kamerlin acknowledges that short-term contracts

aren't always a bad thing. "I did my first postdoc in Vienna and my second in Los Angeles, and went to places I would never otherwise have been," she says.

"For some people, it gives them some extra time at university,

and a chance to decide if they really want to become an academic researcher or not," says van der Weijden. Her paper makes reference to the concept of 'boundary-less' careers, in which workers capitalise on temporary jobs to shape different career paths. But for most people, this approach has limited value. Kamerlin describes the period of job hunting for a permanent position after her Los Angeles postdoc as "probably the most stressful time of my life".

"On the whole, when we are talking about people in their late 30s or 40s," says van der Weijden, "they need more stable career prospects."

THE NATURE OF THE PROBLEM makes it difficult to identify an easy fix or a single approach, applicable to all. "There's now a plurality of careers that don't fit within an old-school model of academia," says Kamerlin. "There also isn't synchronisation across Europe."

Van der Weijden suggests that wider skills training should be introduced as a component of PhD courses, to deal with the mismatch between the number of graduates and available academic jobs. She also highlights a need to be more open to students about their likely prospects. "Institutions have a responsibility to communicate this, so students know what awaits them."

But both van der Weijden and Kamerlin say that real change will only occur when more institutions accept the need to raise the number of permanent contracts. Kamerlin says she believes that there is already some movement in this direction, citing improvements in both Sweden and Germany in recent years. But she urges scientists from across the career spectrum to do more to make it happen. These changes didn't happen because the institutions woke up one day and decided to implement them, she says. "They happened because large numbers of people lobbied, they wrote articles or they contacted vice-chancellors. It takes a lot of effort to change the system."

Ultimately, institutions must take on board the benefits of job security in employee satisfaction, says Kamerlin. "Fear about the future impacts research productivity in a very negative way. If employers support bright young people and foster them from an early career stage, they are going to end up with a much stronger sense of loyalty. At the moment, institutions are hurting themselves."

Something to add? Email comment@ResearchResearch.com

'A lack of permanence actually reduced an individual's enjoyment of their job.'

uk & ireland

British Academy calls on government to give EU researchers right to stay

The British Academy has urged the UK government to reassure researchers from the rest of the EU that they have the right to remain in the country.

The call from the UK's national academy for humanities and social sciences was part of its response to an ongoing House of Commons inquiry into the implications of Brexit for research.

The academy said that the UK had built its international reputation by attracting the best research talent, which came from being embedded in the EU. The ability to maintain the presence of talented European scholars and students at UK universities is essential for continued future excellence, it said.

The government should therefore assure those researchers already in the UK, and those preparing to accept employment there, that they have a right to remain "indefinitely".

The society recommended that the government make "a bold public undertaking" to research and innovation "as soon as possible" to restore confidence that the UK is committed to world-leading research. This would ensure that the UK is a supportive destination for international researchers and students, particularly to those from states outside the UK, the EU and the European Free Trade Association, the academy said.

by Anna McKie

amnews@ResearchResearch.com

The situation offers "an opportunity for the UK to place scholarship, research and innovation at the heart of its international relationships, and its strategy for economic growth, as well as its cultural and social well-being", the academy said. The UK must work to develop additional global mechanisms and relationships.

The academy also said that a post-Brexit arrangement with the characteristics of the European Economic Area, combined with opportunities to influence the development of research, would be its preferred outcome.

It welcomed the Treasury's commitment to underwrite EU research funds but said that clarification was needed on how this guarantee would work in practice, as well as the formal financial and legal basis on which it stands.

Expertise in the humanities and social sciences can be helpful in supporting and advising on the negotiations ahead and the UK research base should be at or close to the negotiating table, the academy said.

The society urged the government to increase publicly funded gross domestic expenditure (GERD) on R&D from 0.52 per cent to 0.77 per cent, the OECD average. This is still well below France and Germany's spending, but "it would be a start", the academy said.

uk & i in brief

Brexit driven by 'left-behind' towns, analysis finds

The Inclusive Growth Commission has found that the vast majority of former industrial areas in the UK were more likely to vote to leave the EU than the rest of England and Wales, feeling they had 'nothing to lose'. However, the analysis also found a so-called 'core city' effect: voters in large urban centres such as Manchester and Liverpool were more likely to vote 'in' than neighbours in smaller towns.

Curbing international students 'a mistake'

Vice-chancellors' group Universities UK has stressed the importance of international students to the UK economy in an open letter in *The Times* newspaper published on 29 August. Julia Goodfellow, president of UUK, was responding to suggestions that prime minister Theresa May was looking to reduce such students as a way to help to control overall immigration.

Government invests £3.2m in sustainable farming

Three UK research councils have reached agreement with industry on a £3.2-million programme of interdisciplinary research into sustainable agriculture. Ten projects have been granted funding in the second round of the

Sustainable Agriculture Research and Innovation Club, formed following a consultation that identified the need to bring researchers together with industry to translate research into sustainable practice.

Universities earn £4bn in the wider world

UK universities' income from commercial activities continued to rise in 2014-15, albeit by a lower percentage than in the previous academic year. In 2014-15 UK universities earned a total of nearly £4.2 billion through knowledge exchange with the public, private and third sectors, up from £3.9bn in the previous 12 months. Income from intellectual property was also up: from £131 million in 2013-14 to £155m in 2014-15, an increase of 18.5 per cent.

Wellcome appoints next head of science

Developmental biologist Jim Smith has been appointed to lead the science division of the Wellcome Trust. He will replace Kevin Moses, who is leaving after five years to return to the United States. Smith is stepping down as director of research at the Francis Crick Institute after just a year, but will continue to run his lab there. He will also resign as deputy chief executive and chief of strategy at the Medical Research Council.

Sarkozy proposes 'explosive' university reforms in presidential bid

French universities should be allowed to set their own tuition fees, former president of France Nicolas Sarkozy has said in an outline of reforms he would make if elected president again in 2017.

Sarkozy announced on 22 August that he wanted to become the presidential candidate of the centre-right Republican Party, two days before the publication of a book outlining his programme. In the book, Sarkozy presented a model for higher education that has more in common with the UK system than the existing French one, where universities are considered public institutions and granted only limited autonomy.

State control is holding back higher education in France, Sarkozy said. He suggested two areas ripe for liberalisation. First, universities should be allowed to be selective in choosing candidates for undergraduate and masters courses, he said. At present, anyone who holds a relevant Baccalauréat can join a university course of their choice, although his rule does not apply to the elite *Grandes Écoles*. They often have their own rigorous entry requirements.

Second, universities should be able to set tuition

by James Brooks

jbnews@ResearchResearch.com

fees without any limit being imposed by government. In France, annual tuition fees are €184 for a first degree, €256 for a masters degree, €610 for an engineering degree and €391 for a PhD. French students can also apply for grants to help with living expenses.

Both proposals were controversial to the point of being "explosive", Sarkozy admitted in the book. But all universities "cannot move forward at the same speed", and those that can innovate and progress rapidly should not be held back, he said.

To that end, Sarkozy also said that government funding of universities should be linked more closely to their performance. He said he wanted to see a "truly contractual relationship between government and universities so that they are judged on their results, which would lighten the burden of constant government supervision".

Sarkozy said those in French higher education should not be afraid of the reforms, as other countries had taken more radical steps than he would. "They succeeded. We must follow the same path. Success awaits."

nations in brief

Call for funding reform

Mathias Brodtkorb, science minister of the German state Mecklenburg-Vorpommern,

has criticised the lack of coordination between states that meant that in 2013 one spent €307 per resident on universities while another spent just €166. In an article in the *Frankfurter Allgemeine Zeitung*, he called on the German federal government to create a nationwide incentive system to increase university funding.

Turkey axes EU scholarships

Jean Monnet scholarships for Turkish students to study EU affairs in a member state have been cancelled for 2016-17 following a crackdown on academics by prime minister Recep Tayyip Erdogan. The scholarships were awarded to 226 people in Turkey in 2015-16. Since the attempted coup on 15 July, more than 60,000 staff in the civil service, law enforcement and universities have been dismissed.

Genetic animal testing triples

Almost a million animals were used in genetic tests in Germany in 2013, a threefold increase since 2004, according to a study by Germany's Green Party. The Greens said the level of animal use was "unacceptable", but Johannes Beckers, head of gene regulation at the Institute of Experimental Genetics of the Helmholtz Centre in Munich, said that genetic testing on animals

was "still indispensable for research" and that other methods were used when possible.

Putin aide welcomed as science minister

The leaders of the Russian Academy of Sciences have endorsed the appointment of Olga Vasilyeva, a former aide to president Vladimir Putin and a specialist in the history of the Russian Orthodox Church, as minister for science. Vladimir Fortov, president of the RAS, told the press on 20 August that Vasilyeva's experience would help to build constructive dialogue with the government.

France questions Shanghai rankings

Following a slip from fifth to sixth place in the 2016 Academic Ranking of World Universities, France's government has commissioned an inquiry into how its higher education institutions might do better. Thierry Mandon, secretary of state for higher education and research, said that the so-called Shanghai rankings did not do justice to the strength of research in France.

CDU proposes ban on face veils

Germany's Christian Democrats have proposed banning the burqa and other full-face veils in schools and universities. On 19 August interior minister Thomas de Maizière said that showing one's face was "essential for communication, coexistence and social cohesion". The ban would need support from the Social Democrats to be implemented.

nordic

Innovation benefits from Danish budget plan

The Danish government has suggested a small top-up for Innovation Fund Denmark (IFD) in its 2017 budget.

The government published its budget proposal on 30 August, allocating 21.5 billion Danish kroner (€2.9bn), or 1.3 per cent of expected GDP, to research. Of this sum, the government proposed to set aside kr555m for its research reserve fund, the spending of which must be agreed in negotiations between the government and the parliament in the autumn.

The government said it wanted to add kr226m of the reserve money to IFD's budget, taking the total to nearly kr1.3bn. The fund invests in high-risk research and innovation projects. The money would be used for projects across seven topics, such as sustainable food production, healthcare and clinical research and education and welfare.

The top-up for the IFD follows a 22 per cent reduction in the fund's budget between 2015-16, from kr1.6bn to kr1.25bn, the fund said in a statement on 30 August. The cuts were implemented as part of a government-wide effort to reduce Denmark's budget deficit by reducing spending by 2 per cent a year between 2016 and 2019.

In addition to the IFD, the government suggested spending kr182m of the reserve money on so-called development and demonstration programmes, which

by **Jenny Maukola**

news@ResearchResearch.com

support innovation in specific fields. Additionally, it proposed spending kr93m on the Danish Council for Independent Research—which supports basic research through competitive grants—and kr3m each on the topics of terrorism research and cybersecurity.

In a separate report published on 30 August, the government outlined plans to reduce student support for those in higher education, through the SU-system. The money saved by reducing grants to students could be used to improve education quality and job creation, the government said.

Reacting to the announcements, the Akademikerne association of academic trade unions said on 30 August that it was glad that the government was emphasising innovation and entrepreneurship—commending a proposal to grant three-years of tax relief to entrepreneurs. However, it described the planned cuts to the SU-system as “a bitter pill” to swallow.

Anders Bjarklev, rector of the Technical University of Denmark and a spokesman for Universities Denmark, said that the cuts to the SU-system would encourage more students to get a job while doing their course, which could risk them putting a lower priority on their studies.



Unity

Where universities work together

*Unity is the new way to work with anyone in universities and research.

It's a simple place to form groups, share files and work on them together.

Built by universities, for universities, with some help from us at *Research

Try *Unity now at www.unity.ac

Finland manages Nokia's decline and fall

In July, following Microsoft's announcement of the closure of the majority of its business in Finland, the European Commission proposed allocating €5.3 million from its European Globalisation Adjustment Fund (EGF) to help redundant employees. If approved, the money will take the total allocated to workers at Nokia and Microsoft—which took over Nokia's mobile phone business in 2014—to more than €30m. "It's big money," says Tapani Kojonsaari, an economics ministry official who oversees the EGF.

Four applications have been made to the EGF for the mobile-phone industry in Finland since 2007. The fund supports reorientation of former employees whose jobs have been lost because of changes in world trade patterns. In Finland, Nokia employees reached a peak of 24,000 in 2000; by 2015, an estimated 6,900 remained.

Regional authorities are using the funding to implement training initiatives as diverse as programming, accounting or CV presentation, in combination with retraining run by Nokia and Microsoft, Kojonsaari says. Employees come from, and move to, very diverse jobs. "Many might have been working in Nokia for 10 to 20 years," he says. "They need a lot of support."

Mika Grundström, now dean of information sciences at the University of Tampere, ended a 15-year stint in R&D at Nokia in 2012. "The company was restructuring operations—some moved to Espoo, some to California," he says. "I decided to consider other options."

After taking courses in software development and accounting, Grundström entered academic life—and began the necessary adjustments. "The university is a

**nordic
outlook**

by Laura Greenhalgh

lgnews@ResearchResearch.com

wider space in many ways, while the corporate environment is based on targets," he says. "That can make it easier to find purpose and meaning—but also harder to accomplish certain tasks."

Grundström says he has continued to see the impact of Nokia's decline. Students have become less interested in careers in IT, for example, he says. There's also been a negative impact on research funding. "There is less R&D money available—first, we lost direct funding from Nokia; later from other companies," he says. "That is affecting current research possibilities in Finland."

Jyrki Ali-Yrkkö, an economist at the Research Institute of the Finnish Economy, a think tank in Helsinki, has studied the impact of Nokia on the Finnish economy. In 2000, the company accounted for about one-third of the entire R&D expenditure of Finland, Ali-Yrkkö says. He now estimates the figure to be 15 per cent at best. "Nokia's role was so big, it has been a huge shock."

Ali-Yrkkö says that the government could have done more to boost public research spending but he's impressed by the steps it has taken to retrain people. And, he says, a new generation of companies is beginning to fill at least part of the R&D gap left by Nokia: "There are some positive signs in the Finnish economy. I hope that this could be a turning point."

Grundström is also optimistic that Finland's hi-tech industries will slowly recover. "We are seeing investment in smart cities, smart traffic, intelligent machinery, and the gaming industry. People are not just sitting back and waiting for something to happen."

nordic in brief

Finnish universities hit again

Finland's education ministry is to cut university funding by €21 million in 2017. The €7-billion budget

for the ministry of education and culture, presented on 12 August, allocates a total of €3.4bn to higher education and research. The Academy of Finland will see a rise, receiving €348m in 2017 compared with €308m in 2016.

ESS data centre goes online

A data management and software centre for the European Spallation Source opened in Denmark on 26 August. The centre at the University of Copenhagen will support researchers working at the €1.8 billion neutron-based particle accelerator under construction in Lund, Sweden, which is expected to produce between three and five petabytes of data a year from 2025.

Infectious disease programme grows

Funder Nordforsk has allocated an additional 3 million Norwegian kroner (€320,000) to the Swedish-led Clinf project to study the effects of climate change on human and animal infectious diseases, and the impact on communities in the north. The joint project between Umeå University, Sweden's National Veterinary Institute and the Swedish University of Agricultural Sciences has a total budget of about kr53m until 2021.

Research institutes report negative balance sheets

Norway's independent research institutes operated at a loss of 35 million Norwegian kroner (€3.8m) in 2015, the Research Council of Norway has said. The institutes' income was reported at kr9.5 billion in 2015—an increase of 8 per cent compared with 2014. The loss was attributed to the rising cost of employee pensions.

usa

Federal government sues publisher over fees

The United States Federal Trade Commission has filed its first lawsuit against an academic publisher over allegedly deceptive fees.

According to an FTC statement on 26 August, the Nevada-based OMICS Group hid publishing fees from authors until after their articles were accepted. The commission also claims that the publisher would not let researchers withdraw articles that had been submitted, preventing them from publishing in other journals and essentially holding the work hostage.

OMICS says on its website that it publishes more than 700 peer-reviewed, open-access journals, with 15 million readers and 50,000 editors. But according to the FTC, the company fits the typical model of a predatory publisher: most articles are published with cursory peer review, if any, and many editors listed on its website are not in fact affiliated to the company.

"It is vital that we stop scammers who seek to take advantage of the changing landscape of academic publishing," said Jessica Rich, director of the FTC's bureau of consumer protection. OMICS did not respond to a request for comment.

The FTC filed suit against OMICS in Nevada on 25 August. Two related companies and OMICS president Srinubabu Gedela were also named. The publishing fees OMICS charge can run into thousands of dollars, the FTC

by Sam Lemonick

news@ResearchResearch.com

said. The suit said that the agency may seek a monetary penalty against the publisher, but did not specify an amount.

Some editors listed on OMICS' website said they were not involved with the publisher's journals. Sundip Das of Butler University said he was contacted via email about being the editor-in-chief of the *Journal of Pharmaceutics and Drug Delivery Research*. He asked for information about the journal's NIH indexing and told the person who emailed him that he wanted updates about the publication. Das said that, despite calling and emailing, he never heard back. His name and picture still appeared on the journal's website when this article went to press.

Susheng Gan, a plant scientist at Cornell University, told a similar story. He is listed as the editor-in-chief of *Advances in Crop Science and Technology* but says OMICS did not reply when he asked what his responsibilities were. "Not what I want to be involved in," he said.

The rise of open-access journals has provided an opening for predators, according to Jeffrey Beall, a professor of library science at the University of Colorado, Denver. He said the open-access model, which typically charges authors for publication costs, contains an inherent conflict of interest: publishing more papers means more profit.

usa in brief

Graduate students get green light to organise

The federal government has ruled that graduate students at private universities should be considered employees, giving them the right to collectively bargain for wages, benefits and working conditions. The ruling from the National Labor Relations Board overturns a landmark 2004 decision that, despite their teaching and research responsibilities, graduate students were not employees, and didn't have the right to join unions.

Industrial R&D up

Companies spent \$341 billion on R&D in the United States in 2014, a rise of 5.6 per cent compared with the year before. The National Science Foundation released its annual report on industry R&D spending in the US, compiled by the National Center for Science and Engineering Statistics (NCSES), on 25 August.

NIH steps toward chimera research

The National Institutes of Health has taken the first step towards allowing researchers to add human stem cells to animal embryos. The NIH put a moratorium on such research in September 2015, saying that it needed to consider scientific and ethical questions, but has now

invited public comment on a revised policy that would allow human cells to be incorporated into animal models in some circumstances.

Trouble reported at fraud office

The director of the Department of Health and Human Services' research integrity office is at war with her staff, according to a report in *Science*. The journal said that Kathryn Partin's staff are in revolt over her leadership, and several have written to Partin's bosses at the department to complain.

Child health institute names next director

Geneticist Diana Bianchi has been appointed as the next director of the National Institute of Child Health and Human Development at the National Institutes of Health. Bianchi is a professor of paediatrics, obstetrics and gynaecology at Tufts University in Boston.

Clinton backs cancer initiative

Democratic presidential candidate Hillary Clinton has said she would continue president Barack Obama's so-called 'cancer moonshot' if she were elected. Clinton also called on Congress to approve the White House's \$680-million request to support the initiative at the National Cancer Institute in its 2017 budget proposal.

Universities linked to economic growth

The expansion of higher education has a large, positive impact on economic development, researchers analysing data on 15,000 institutions across the world have said.

According to the findings, released last month, a doubling of the number of universities per capita is linked to a 4 per cent higher GDP—leading the authors to conclude that investing in university expansion is worth the associated national cost.

Universities raise the skill level of the workforce, and also contribute both directly and indirectly to an increase in innovation, the analysis found. In the longer term, a bigger university presence was also associated with the development of stronger political systems and institutions, raising democratic awareness and discussion.

The authors, economists Anna Valero and John Van Reenen from the Centre for Economic Performance at the London School of Economics and Political Science in the UK, say this is the first time such an impact has been quantified on a global scale. The dataset used—created from the World Higher Education Database published by the International Association of Universities and Unesco—covered 15,000 institutions across 78 countries, between 1950 and the present day.

“The strength of our paper is the comprehensiveness of the dataset in terms of the coverage of sub-national regions and time periods,” the authors said. “To date, few papers have explicitly considered the direct link between

by Laura Greenhalgh

lgnews@ResearchResearch.com

university presence and economic performance.”

The 4 per cent higher GDP figure stands after controlling for numerous other factors that could affect economic progress, the analysis reported. “The benefit of universities is not confined to the region where they are built but ‘spills over’ to neighbouring regions, having the strongest effects on those that are geographically closest.”

The authors said that this could be due in part to universities’ role in raising the overall skills of the population, making workers more productive.

Analysing the regions where significant patent data was available also showed that innovation was “part of the story of why universities have an economic impact”. This effect, however, was not as strong as might be expected “which may be because the effect of newer universities on patents takes a while to accumulate” the authors said.

They also pointed to the link between higher education and strong democratic institutions at the national level. “This analysis suggests that institutions could be part of the story, albeit on a longer-term basis.”

One further hypothesis, that institutions’ effect on GDP could in part be due to their role as consumers of goods and services, was tested and found not to hold true.

world in brief

Australia branches out

The Australian government’s first overseas centre for mentoring startups opened in San

Francisco on 29 August, eight months after plans for the global network were announced by prime minister Malcolm Turnbull. Four other centres are planned in Berlin, Singapore, Shanghai and Tel Aviv.

Swedish aid coffers replenished

The Swedish government’s autumn budget proposals allocate 6.4 billion kronor (€670m) to development aid, including 1.5bn kronor for the Swedish International Development and Cooperation Agency—a major funder of research support programmes in Africa. If approved, the move would counter a cut to aid made in the spring.

Windfall for Brazilian labs

Brazil is to spend 190 million real (€52m) over five years on improving its research laboratories, buying equipment and hiring staff. The money will be divided between 21 research institutes funded by the country’s science ministry. The largest amount—16.5m real—will go to the National Institute for Amazonian Research, one of the Brazilian government’s spending priorities.

Chile plans centres for education research

Conicyt, the National Commission for Scientific and Technological Research, has launched a research programme to improve Chile’s education system. It plans to set up several centres to look at the learning environment and the challenges Chilean children face. Funding was also announced for regional science, technology, engineering and maths centres that will combine research and STEM-subject teacher training.

Genomics on African agenda

The Human Health and Heredity in Africa programme has more than \$63 million (€2.7m) funding on offer for genomics and health research in Africa, offered primarily by the US National Institutes of Health Common Fund. A programme manager is to be established at the Nairobi-based Alliance for Accelerating Excellence in Science in Africa later this year.

Citizen science for Canadian moose conservation

The British Columbia Moose Tracker app will let members of the public contribute to moose conservation research in the province. The number, sex and location of moose seen in the wild can be entered into an online database, used by conservation staff to spot emerging problems.

FALSE ALARM In August, stargazers in the UK were disappointed that an automated alert from Lancaster University, which said that conditions would be great for seeing the aurora borealis—aka the Northern lights—was a mistake. “Unfortunately, the readings were spurious and not related to geomagnetic activity,” a post on the university’s AuroraWatch UK blog said. The authors hypothesized that another instrument might have interfered, and a later update solved the mystery: “We believe the interference was caused by university staff mowing the grass.”

SHALL I COMPARE... A statement announcing that researchers are moving into the UK’s new Francis Crick Institute in London generated much press coverage, helped by the provision of entertaining “Crick facts”, including that the institute had 1,553 rooms, “twice as many as Buckingham Palace”. Those sceptical that the institute represents value for money might have retorted that its £650-million price tag could have been better spent on, say, several hundred research grants, several thousand PhD students...

HALF-BAKED Eurostat, the EU’s statistical office, has adopted an unusual measure to make itself understood. On a poster titled “No data without harmonised metadata”, the office used a baking allegory to explain the importance of proper data management. A picture

showed measurements of eggs, butter, flour and sugar in various units being converted by a “metadata handler” into grams, to facilitate the baking of a golden loaf of bread. Hailing from the land of ounces and pints, we wonder if the illustration is also an allegory for the harmonising tendencies of the EU in general.

AND...REST In late July, the Iter nuclear fusion project’s press office announced that staff were on a summer break until September. You might wonder why they bothered: the delays that have dogged Iter have seen its media team go much longer than a month without releasing even a cough or sigh to let journalists know that the now-€18-billion project is still inching forward. How they must long for fresh complications and budget overruns, just for something to do.

IDLE HANDS Another group of physicists with time to kill are those wacky guys at the particle physics lab Cern, who decided that the August lull was a perfect chance to film a fake ritual human sacrifice. In the video, hooded figures emerged near a statue of the Hindu god Shiva—a gift from the Indian government—before one of them appeared to plunge a knife into a prone woman. “Cern welcomes thousands of scientific users every year and sometimes some of them let their humour go too far,” a Cern spokeswoman said.



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**.

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