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societal challenges pillars mooted – p5

Copernicus, Galileo and Iter face budget raid

Commission looks to large-scale projects to boost defence

THREE FLAGSHIP EU PROJECTS—Copernicus, Galileo and Iter—could lose €230 million from their budgets under an EU proposal to fund defence research.

The European Commission has suggested stripping money from Iter, the global nuclear fusion project, and Galileo and Copernicus, the European satellite navigation and Earth-observation programmes, to fund defence-related research and innovation in 2019 and 2020. Under the plans, proposed on 7 June, the Iter budget would be drained by €80m, Galileo by €135m and Copernicus by €15m.

The proposal seems likely to gain approval from the European Council and the European Parliament. Neither has responded yet, but on 13 June the Parliament backed the establishment of a dedicated defence research and innovation programme for 2021-27.

Copernicus, Galileo and Iter do not presently need the money targeted for transfer, according to the Commission. A spokeswoman said the reallocation “has been carefully designed in a way that none of the current projects will be delayed and the future delivery of the various programmes will not be affected”.

However, researchers worry that the money might not be returned. Tuomas Tala, head of the fusion research unit at the VTT Technical Research Centre of Finland, sits on the governing board of Fusion for Energy, which provides Europe’s contribution to Iter. He says the project “for sure will suffer a lot” if funding is taken away.

Iter is a 35-nation effort to prove the feasibility of harnessing nuclear fusion. Originally it was intended to reach ‘first plasma’ in 2016, with construction costs amounting to €2.7 billion for Europe. But in 2010 that time frame was revised to 2025, and the cost estimates were raised to €6.6bn.

Bernard Bigot, Iter’s director-general, told *Research Europe* the reallocation was “normal procedure, as long as there is political will to stay with the overall financial commitment”. He suggests the Commission demonstrated that will on 14 June, when it published a document recommending approval of Iter’s latest budget.

The Commission document said the viability of

by **Craig Nicholson**

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fusion as an energy source “depends on the successful construction and operation of Iter”. It called on the Council and Parliament to approve an estimated total cost of Europe’s Iter contributions of €10.4bn between 2021 and 2035.

Volker Naulin, a plasma physicist at the Technical University of Denmark who also sits on the Fusion for Energy governing board, says that delays to Iter’s schedule have resulted in funds that have not been used as planned. He says he believes it is these that will be reallocated by the Commission.

“The Commission often transfers unused funds between initiatives; for example, funds from agriculture have been transferred to the fusion programme,” he says. “I would certainly hope that the money is re-established at a later time,” he adds, but says there is “always a problem” synchronising long-term projects with the multi-annual nature of EU budgets.

The Commission also acknowledged that Brexit, and the UK leaving the European Atomic Energy Community, “could have an indirect impact on the available Euratom financing to Iter”.

Naulin says that Brexit could be a greater threat to Iter than the transfer of funds. “The UK contribution to Iter is in question, and that cost might then have to be carried by the remaining member states,” he says.

Europe is contributing 45 per cent of Iter’s construction costs, of which 80 per cent comes from the EU and 20 per cent from host country France. In the operation phase, Europe will pay 34 per cent of the costs.

Jose Moreno, a professor of Earth physics at the University of Valencia in Spain, who leads a Copernicus project, says he’s “not surprised” by the suggestion to move the funds, as some technologies have both civil and military applications. But he acknowledges concern among scientists. “We hope this is not a major reorientation in the Copernicus programme,” he says.

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Bring it on

The wrangling over Framework 9 has started

As Brexit talks begin, most academics are understandably edgy about the UK's future access to research funding, as well as future rights for European researchers to continue to travel freely in a post-Brexit Britain and EU. But there's another topic of concern gathering steam: in the shadow of Brexit, Framework 9, the successor to Horizon 2020, is being hammered into shape.

The careful observer will have seen position papers on Framework 9 published this month, as policymakers set out their stalls ahead of the coming debates and lobbyists get their voices in early. The arguments being presented show that past programmes have had an impact.

One of the biggest sources of controversy will of course be the fund's size. The European Parliament has consistently lobbied for a €100-billion budget for the Framework programme. In 2013 it demanded as much for Horizon 2020, and promptly got €80bn from budget-conscious ministers.

This time round, the Parliament has put its weight behind a €120bn sum. However, a large budget increase for Framework 9 will be tricky to achieve. If anything, with the UK leaving the EU, the union's budget is likely to take a significant hit, making any demands for a Framework programme pay rise unlikely to succeed.

Added to this will be pressure from industry not to cut back on its funding sources. As expected, European businesses have lauded public-private partnerships, including Joint Technology Initiatives, launched in Framework 7. With Europe's research and technology companies a forceful voice in Brussels, expect to see more of those.

Perhaps partly in anticipation of this, the influential League of European Research Universities has suggested that the Horizon 2020 pillars for societal challenges and industry should be merged into one megafund (see *News*, page 5).

That, however, would be a regressive step. A specific funding stream for pressing problems such as environmental change or infectious diseases challenges was a hard-fought victory in Horizon 2020. Although some researchers remain sceptical, the trend towards such 'mission-oriented' finance is gathering momentum, especially in the European Commission.

Other suggestions for Framework 9 include an agenda for widening participation and increasing funding for international researchers. A bold idea from Robert-Jan Smits, the Commission's director-general for research, to make the programme more open to association with countries around the world, may not pass member states' eagerness to do well by their own citizens. But demands across the board to channel some Framework 9 funds into international collaboration and global projects make a welcome contrast to growing nationalism in many EU countries.

Throughout its history, the Framework programme has demonstrated malleability in the face of a changing Europe. The programme has done much better than other budgets, for example agriculture, in adapting itself to the needs of its users and the society it serves. Framework 9, if the warm-up is anything to go by, will be no different. Researchers are well-advised to keep putting forward their ideas and ensure they have a say.

elsewhere

"The result may provide hope that a hard Brexit can't be pursued with such vigour as before."

Anne Glover, former chief scientific adviser to the European Commission president Jose Manuel Barroso, comments on the British election results. *Nature*, 9/6/17.

"It's more an empty shell than anything else."

Astrophysicist *Olivier Berné* says a French government push to entice international researchers to come to France to work is pure distraction from the lack of stable science funding provided by the government at home. *Science*, 10/6/17.

"With the current EU policies, Europe will never be able to catch up with the United States and Asia in the industries of the future."

Francis Narin, former president of consultancy The Patent Board, says a study of citations shows European researchers struggle to market their discoveries. *Times Higher Education*, 8/6/17.

"It is going to be an enormous discussion—and extremely difficult."

EU research director-general *Robert-Jan Smits* thinks defence funding and Brexit budgets will hamper financial planning for Horizon 2020's successor Framework programme 9. *Science Business*, 2/6/17.

"The prospect of a minority government yielding a softer Brexit is likely to appeal to science leaders."

Sarah Main, the director of the UK's Campaign for Science and Engineering, says the hung parliament and political confusion following the general election on 8 June could actually be good for science. *Horizon 2020 Projects*, 9/6/17.

"The link to Brexit seems clear."

An official from Germany's statistics office reveals that 2,865 Britons took German citizenship last year, an increase of 361 per cent compared with 2015. *The Guardian*, 13/6/17.

decade

"It would be a tragedy if it was anything other than an update."

ESFRI chairman *John Wood* hopes the roadmap for European research infrastructures will not be fundamentally rewritten, after a round of difficult talks to agree on priorities.

Research Europe, 13 June 2007

what's going on

Academics 'face decreasing job security'

Job security is "no longer the norm" for higher education staff in Europe, a report by the European Commission's Eurydice network has found. Academics' working time and duties "are regulated only to a limited extent", it said. The report discovered large gaps between countries in terms of employment status. In France, Malta and Turkey about 80 per cent of academics are employed on indefinite contracts, but in Austria, Estonia, Finland, Germany and Serbia less than 30 per cent have these more stable types of contract.

Unified patent progress delayed

The path to a pan-European patent has hit a legislative obstacle, with a German court asked to consider whether ratification would be constitutional. President Frank-Walter Steinmeier has delayed the ratification process in response to a request from Germany's constitutional court. This follows a complaint that, according to Steinmeier's office, is "not considered to be hopeless". The exact nature of the complaint has not been disclosed.

French president wins parliamentary majority

La République en Marche!, the centrist party headed by France's president Emmanuel Macron, has won a clear majority in the second round of votes in the parliamentary election. Macron's party and its ally Modem won 350 seats of a total of 577. However, turnout in the second round was historically low, at 43 per cent.

Rail programme doles out €60m

Shift2Rail, the public-private partnership to modernise European rail travel, has awarded a total of €60 million to 17 research projects. Member organisations won €40.6m for seven proposals. The remaining €19.5m went to 10 projects through open calls. Projects will be co-financed by their participating organisations, giving the work a total value of €111m, the partnership said.

Atlantic research team-up planned

The EU, Brazil and South Africa are set to increase joint research and innovation relating to the Atlantic Ocean. The collaboration, which is to be formally agreed on 13 and 14 July, aims to study marine ecosystems and the relationship between oceans and climate change. It will also seek to understand the connections between the Atlantic, the Arctic and the Antarctic, according to a draft approved by EU member states.

Belgium joins EU supercomputer drive

Belgium has become the eighth country to commit to a joint European effort to build the next generation of high-performance computing and data infrastructure. The Belgian government signed the EU's declaration on high-performance computing on 9 June. The aim is to develop two supercomputers to carry out at least a billion billion operations per second.

Commission defends glyphosate stance

The European Commission has defended its proposal to renew the EU authorisation of the herbicide glyphosate for a further 10 years, despite public concern about its safety. Vytenis Andriukaitis, the health and food safety commissioner, said that documents from the agrochemicals firm Monsanto, which cast doubt on the company's ability to show the safety of glyphosate, should not affect the reauthorisation.

europa

Spanish science poised on cliff edge

Scientists in Spain are growing restless over the impact of continuous cuts to funds and staffing at universities, following a report praising the country's science.

The report, published on 12 June, found that research productivity among professors at Spanish universities doubled between 2010 and 2015. But researchers have said that this success is likely to drop sharply as the impact of strenuous cuts takes hold.

"Spanish universities have relied on the funding they accumulated before 2008," said Elías Sanz, an information studies researcher at Carlos III University of Madrid and the report's lead author. "When the crisis started, there were a lot of projects already underway and their completion has buoyed up productivity."

The report was jointly compiled by four leading Spanish universities and used data from 79 public and private universities. It found that the average number of publications per Spanish professor per year nearly doubled, from 0.49 in 2006 to 0.83 in 2015. Participation in international collaborative projects rose from 36.8 per cent to 48.1 per cent during that period.

"The productivity rise is partly due to a headlong rush" by desperate researchers who work long, unpaid hours to complete their projects, said Elena Carretón,

by Eleni Courea

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who is on the board of FJI-Precario, the Spanish association of early-career researchers.

Between 2008 and 2014, research income at Spanish universities fell by 19 per cent. But the bigger problem, according to Sanz, is brain drain. "Recruitment almost completely stopped between 2010 and 2016," he said.

Spanish policymakers are mired in a debate about whether research positions should be restricted to local applicants. Spain's National Statistics Institute reported a drop of 11,000 in the number of people carrying out research activities between 2010 and 2013.

"A huge number of Spanish scientists abroad are willing to come back," said Santi Rello-Varona, a post-doctoral researcher in cell biology at Barcelona's Bellvitge Biomedical Research Institute. But efforts to draw them in have not been successful, he said.

The solution is "a long-term funding scheme to create jobs both for early-career researchers and expat scientists", said Rello-Varona. But it would be difficult to envision how this will happen in a climate of spending cuts, he added. "The scientific system in Spain has been depleted almost to the bone."

Battle over role of Joint Programming Initiatives

The future direction of the Joint Programming Initiatives is in doubt after a dispute broke out over their relationship with the Framework programme.

The coordination of JPIs with the Framework programme is too fragmented and the European Commission must provide stable funding for their long-term management, the European Research Area and Innovation Committee on Joint Programming said in an opinion paper on 7 June.

The 10 JPIs aim to pool national research efforts to tackle global challenges such as food security, urbanisation and an aging population. As it stands, they are separate from Horizon 2020's three pillars.

Heather McKhann, the European officer at the French National Institute for Agricultural Research who coordinates the Agriculture, Food Security and Climate Change JPI, says although it is important to receive "glue money" from the Commission for administrative activities, the initiatives must remain member-state-driven.

"We do not see a role for the Commission in deciding the priorities for us," said McKhann. "We have always worked with the Commission very closely, and that kind of dialogue should continue, but we're also doing some of the [Commission's] work, when we place calls and bring together different countries."

by Antoaneta Roussi

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The opinion paper recommended that JPIs should be used to further develop the European Research Area and be a "major partner" for the Commission in the next Framework programme. But critics have said that JPI topics are essentially the same as those under the Societal Challenges pillar, and instead of having an unnecessary number of initiatives, they should all be pooled under one programme.

Laura Keustermans, senior policy officer at the League of European Research Universities, said that there are dangers in giving member states a bigger say in how the Framework programme is run.

"More and more the JPIs are behaving like ERA-Net cofunds [which provide funding for establishing collaborations within Horizon 2020]," said Keustermans. "So why not bring them and all of the member state activities within the Framework programme?"

However, Jolien Wenink, general coordinator for the Healthy Diet for a Healthy Life JPI, said JPIs can provide stability for societal challenges research, which the Framework programme cannot. "One needs coordination and collaboration on a long-term research programme and that's a stability that the JPI can offer."

Call for pillar merger in FP9

The industry and society pillars in Horizon 2020 should be merged into a single programme in Framework 9, the League of European Research Universities has said.

Bringing the Industrial Leadership and Societal Challenges pillars together would “discourage the formation of research ‘silos’, and stimulate new ideas to better tackle challenges from different perspectives”, Leru said in its Framework 9 advice paper on 20 June.

This single programme should be interdisciplinary, fund the entire research and innovation process, and be designed around big themes such as the UN Sustainable Development Goals, Leru said. Its funding priority should be broad topics derived from open consultations.

Leru’s suggestion is controversial. On 13 June, the European Parliament called on the European Commission to “respect the current pillar structure” of Horizon 2020 and “retain this structure for the sake of continuity and predictability” in Framework 9.

Muriel Attané, secretary-general of the European Association of Research and Technology Organisations, told *Research Europe* that its members were “highly committed” to the industry pillar and favoured retaining separate industry and society pillars. “Both should be strengthened in Framework 9”, she said, as this is “the only way to leverage research and innovation investment by industry and guarantee sustainable application of EU research to better the lives of citizens”.

by Craig Nicholson

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There is, however, general agreement among research organisations that there should be more funding for collaborative research in Framework 9. This is in contrast to a recommendation made in March by the European Commission’s Research, Innovation and Science Policy Experts group that there should be a shift of funds towards individual researchers.

“We want more funding for collaborative projects in the Societal Challenges pillar, especially for bottom-up, researcher-driven projects,” said Stephan Kuster, acting director of Science Europe, an association of funders and research institutions.

But many have said that this policy should go hand-in-hand with increased funding for the European Research Council and the Marie-Sklódowska Curie Actions programme, which support individual researchers. The ERC, Marie Curie and collaborative research “should be the cornerstones of Framework 9”, Leru said.

Leru members believe that Marie Curie should be moved back under the control of the Commission’s research directorate, having been moved to the education directorate in 2009. Laura Keustermans, Leru’s senior policy officer, said: “It makes sense from a managerial and policy perspective that everything in the Framework programme be under one directorate.”

Hopes for soft Brexit diminish

Brexit negotiations finally started on 19 June, almost a year after the UK voted to leave the bloc. But hopes among pro-Europeans that the 8 June general election result might lead the UK government to seek closer future ties with the EU were dashed before talks got underway.

The election wiped out the governing Conservative party’s majority in the UK parliament, forcing it to seek an alliance with Northern Ireland’s Democratic Unionist Party. The political power of prime minister Theresa May was severely undermined, but senior party members have clung on to her pre-election Brexit plan.

In TV interviews on 18 June, chancellor Philip Hammond, who is in charge of the country’s finances but is not close to May, confirmed that the government would seek to leave the EU’s single market and customs union. His only softening of May’s Brexit stance was to acknowledge that not reaching a deal would be a “very, very bad outcome for Britain”.

Prominent EU and UK political figures, including the Conservative former prime minister David Cameron, who called the referendum, had urged the party to factor the

by Craig Nicholson

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election outcome into their position. He told journalists that May was “going to have to talk more widely, listen to other parties”.

“Will the British negotiating position represent the position of the [Conservatives] or will it be the position of the whole nation?” Guy Verhofstadt, the European Parliament’s Brexit lead, asked in a statement on 14 June.

The Labour Party, which came second in the election, has taken a slightly more conciliatory approach. It said that the UK should seek to continue to participate in EU programmes, including Horizon 2020, as well as the European Atomic Energy Community.

In contrast, the Conservatives have said only that the UK’s relationship with Euratom will be “a matter for the negotiations”, albeit a priority, and that the party “would welcome agreement to continue to collaborate with our European partners on major science, research and technology initiatives”.

interview anthony teasdale

Knowledge is power

Anthony Teasdale, head of the European Parliamentary Research Service, tells **Eleni Courea** how the service keeps MEPs well informed to boost fact-based policymaking.

Life as an MEP is busy. With constant travel, committee meetings, briefings and press appointments—plus a local constituency to look after—there is little time to get clued up on the latest issues. But in November 2013, an institution was created to satiate the hunger for fact-based, easily digested information: the European Parliamentary Research Service.

The EPRS provides parliamentarians and committees with information and analysis to bring new laws to fruition. “It’s been extremely exciting setting up something from scratch,” says Anthony Teasdale, its director. “The process of working out what products and services MEPs need has been fascinating. I’ve spent nearly all my life in the political sphere, and the process has drawn on all my skills, such as they are.”

Teasdale, formerly a speechwriter for the UK’s Conservative party and deputy chief of staff for the president of the European Parliament, has steered the EPRS since its creation. He spends his weekdays in the Brussels office and catches the Friday afternoon Eurostar home to London’s South Kensington. But this time he has taken a detour to the London School of Economics and Political Science, where he is a visiting senior fellow.

“There’s no shortage of information, not least about the EU. But it’s not easy to find competent, dispassionate analysis which is accessible and interesting as well as politically alert,” Teasdale says. “The EPRS is a means of generating that.”

The EPRS is a three-pronged organisation that employs 180 full-time researchers. One department is the members’ research service, which answers confidential requests from MEPs and writes policy briefings. A second department, the impact assessment unit, conducts specialist research for parliamentary committees, and a third, the library, deals with archives and citizen enquiries. To date, the service has responded to requests from 88 per cent of MEPs and issued 1,547 publications on EU policy.

Crucial to establishing the service was Klaus Welle, a top civil servant in the Parliament and an admirer of the United States Congressional system. Since taking up his post as the Parliament’s secretary-general in

2009, Welle, a German national, has been credited with shoring up the Parliament’s power to make it more like the US Congress. “Congress and the European Parliament are the two major parliamentary bodies that are not controlled by governments,” Teasdale says. “There is a strong emphasis on scrutiny and oversight in the American system, and we wanted to replicate that in the Parliament as its ability to shape legislation grew.”

But the EPRS’s core philosophy of holding power to account through expert groups and policy briefings is under threat. “People say that the growth of populist forces in Europe is a backlash against expertise,” Teasdale says. “We stand against that. We believe that political institutions and their members are empowered by gaining a better understanding of the issues they face.”

He pauses. “If Brexit makes that a more pressing need, so be it.”

But does the EPRS maintain a resolutely pro-EU stance that could challenge its relevance in a eurosceptic era? “Despite the growth of euroscepticism, a very substantial majority of MEPs think that the EU, and that the Parliament in particular, are good things,” he says. “Nevertheless, we don’t approach our research from the assumption that the EU is good. We work on the basis of facts and don’t often get criticised for having a pro-European bias.”

EPRS policy has been to not produce a great amount of material on Brexit, because up until Article 50 was triggered, “everything was speculative”, says Teasdale. But now that the process of the UK’s exit from the bloc has begun, “we are in a rather different world. There is a complex negotiation starting, which we need to track closely”. Over the past year, the EPRS has received many Brexit-related requests and found it difficult to respond adequately, he adds.

But Brexit is not the only force of change that the EPRS must grapple with. Teasdale cites adapting to the digital era: “In two years time we’ll have EU elections where the average age of MEPs is expected to go down by five years or more. We need to get ahead of that curve and upgrade our digital offer.”

To keep up momentum, the EPRS must continue to rotate staff and consider restructuring its three departments by the time it turns five, Teasdale adds. And all of this must be done during “an era where the EU institutions are going to be under increasing resource constraints. That is a central part of the upcoming challenge”.

More to say? Email comment@ResearchResearch.com

Anthony Teasdale

- * **2013-present** Director-general of the European Parliamentary Research Service
- * **2011-present** Senior visiting fellow at the European Institute, London School of Economics and Political Science
- * **2012-2013** Director for EU internal policies in the European Parliament
- * **2009-2012** Deputy chief of staff for Jerzy Buzek, president of the European Parliament
- * **1997-2007** Senior policy adviser to the European People’s Party group in the European Parliament

colin carlile **view from the top**

Europe needs a unified approach to neutron science

Much of what is known about a wide range of materials is due to the use of neutron beams. Neutrons complement other techniques for probing matter at a microscopic level, such as X-rays and synchrotron radiation, but unlike them they can only be accessed at central, specialised laboratories. This is a major weakness, since the number of such sources in Europe is falling and will continue to fall.

Scientifically, the field is thriving. It attracts disciplines from geology to biophysics. Europe has the majority of the world's researchers; it has been the global leader for decades.

Measured by publications, Europe possesses the world's leading reactor source, the Institut Laue-Langevin (ILL) in Grenoble, France, and the world's leading accelerator source, Isis, near Oxford in the UK. The continent also boasts a range of smaller sources that act as nurseries for researchers and ideas. As the icing on the cake, the European Spallation Source (ESS) being constructed in Lund will provide a next-generation facility.

For researchers, who think in terms of projects lasting three to five years, nothing seems to be changing. They see little reason to raise their voices.

Instrument designers and source builders, in contrast, make plans ranging from 10 to 40 years. On this timescale, there are dark clouds on the horizon.

About two-thirds of Europe's neutron sources were built more than half a century ago and are destined to close in the near future. Instead of the 12 sources it now has, Europe could be left with two or three.

Facilities are owned nationally, and can be closed unilaterally according to national priorities and available resources. For example, two high-quality, well-instrumented medium-power sources near Paris and Berlin will close prematurely two years from now as a result of administrative decree.

The ILL celebrated its 50th anniversary in January. It goes from strength to strength, yet there is persistent talk of its closure from its joint owners France, the UK and Germany. Little is known about their long-term plans. Discussions about its closure must be objective and transparent and not limited to those three countries.

Research agencies point to new sources under con-

struction, particularly the ESS and the PIK reactor near St Petersburg. Neither, however, can replace the totality of what will be lost.

When the ILL closes it will do so instantaneously. Its resources—around 40 instruments, unique neutron techniques and a pool of specialists—will dissipate.

Meanwhile, the ESS will rise only gradually. After producing its first neutrons sometime around the turn of the decade it will take at least 10 years to reach full capacity. Even this schedule will depend on a reliable cash flow, which is uncertain. The ESS needs proper resources, and expectations have to be realistic. With fewer European sources it will be pressured to be all things to all people.

For its part, the PIK reactor has suffered from a stop-go construction regime since the mid-1980s. It will not, realistically, be able to duplicate the ILL in either quantity or quality.

Beyond these, no new sources—small, medium or large—are planned. There is no mechanism to remedy this apart from the same ad hoc initiative that produced the idea for the ESS three decades ago.

It takes 40 years nowadays to realise a big facility like a neutron source. If planning to replace ESS begins in 2020, a facility might be functional by 2060—only five years before the ESS is scheduled to close.

In times of plenty, competition can be positive, but lean times demand collaboration. Both the ESS and the ILL need to be protected. And neutron science should learn from high-energy physics and astrophysics, where forward planning is an essential feature of programmes.

At Cern, the Large Hadron Collider is not yet fully operational, yet the lab is planning the Future Circular Collider and the Compact Linear Collider. In astrophysics, the Very Large Telescope has only recently become fully functional, but the European Extremely Large Telescope is already being built and a technical design report for the Overwhelmingly Large Telescope lies ready on the shelf.

These disciplines have two big advantages—the resources to do design studies, and frameworks to take decisions at a European level. Neutron and synchrotron sources need a similar European framework, to allow decisions on building, upgrading and closing sources to be made in a coherent way and in a spirit of collective husbandry.

Something to add? Email comment@ResearchResearch.com

Colin Carlile is project leader in the department of physics and astronomy at Uppsala University, Sweden. He was director of the Institut Laue Langevin from 2001 to 2006 and director-general of the European Spallation Source from 2007 to 2013.

'Two-thirds of Europe's neutron sources are destined to close in the near future.'

view from the top vito turk

Slovenia has squandered a proud scientific legacy

On 19 April, about 500 people joined Slovenia's march for science in Ljubljana. As well as showing support for colleagues worldwide, they were protesting against the dire state of the country's research. Their demands included more, and more stable, funding, freedom from political interference and legislative reform, as well as jobs and policies to reverse the country's brain drain.

Historically, Slovenian science has been among the strongest in eastern Europe. In 1985, with the crisis leading to the breakup of Yugoslavia looming, several distinguished Slovenian researchers convinced the government to double investment in science, spend heavily on equipment, and launch a programme to recruit and train 2,000 young researchers. Slovenia maintained this record through the dissolution of Yugoslavia in 1991.

In the following two decades, however, public spending on science dropped to about 0.5 per cent of GDP. This prompted protests, with more than a thousand Slovenian researchers signing a petition in 1997 to call for increased funding.

It looked like things were going to change in 2009-11, when the then research minister Gregor Golobic increased public R&D spending to almost 0.9 per cent of GDP and launched eight centres of excellence jointly funded by the EU. But in 2011 Golobic resigned, just as ambitious reforms were set to be enacted.

Since then, the country's scientific legacy has been squandered. After funding from the European Regional Development Fund ran out in 2013, the centres of excellence have been essentially closed, continuing as skeleton operations to avoid having to return the EU money.

In 2015, public spending on R&D was 0.36 per cent of GDP, or €133 million—about the same as ten years ago. Salaries are stagnant and inadequate. Budgets for equipment are essentially zero. In effect, Slovenian scientists have worked for four years on three years' money.

Slovenia ranks third among EU nations in its number of applications to Horizon 2020 per capita—showing both researchers' activity and their desperation—but 27th in success rate as a percentage of eligible applications, above only Bulgaria. Its success rate is 10 per cent, compared with about 14 per cent for the EU as a whole.

The picture in business R&D is similar. In 2014, Slovenia had the highest rate of applications to Horizon 2020's SME Instrument, which funds research by small and medium-sized business-

es. Its success rate was about 4.5 per cent, against an EU average of 7.3 per cent.

In 2015, Eurostat reported that business-funded R&D in Slovenia accounted for nearly 70 per cent of R&D expenditure—placing Slovenia in first place for business R&D spending in Europe. But this owes more to creative accounting than genuine investment, with companies classifying regular purchasing as tax-deductible R&D.

The rot is not only financial. There is instability and delay in decision-making, as each new government changes priorities. Going by the recent *Slovenia 2050* government document, with its statements such as "Slovenians in 2050 are a happy people", policymakers have only platitudes to offer.

There are also administrative problems, such as the Slovenian research agency's system for evaluating grant proposals. The agency divides research into six areas: natural sciences, technical sciences, medicine, biotechnology, humanities and social sciences. For each call, four experts—two domestic and two international—oversee each area and choose three evaluators for each proposal.

However, evaluators see proposals in isolation, meaning that no one has an overview of the different projects competing for funding, opening the process to random decisions and manipulations. The system is inadequate for covering the full breadth of research disciplines, and there is little quality control of evaluators' expertise or assessments.

Not surprisingly, Slovenia has seen an exodus of its most talented undergraduates, graduates and postdocs.

ERC president Jean-Pierre Bourguignon and vice-president Eva Kondorosi visited Slovenia in June and December 2016. They warned government officials, including the prime minister and education minister, of the country's low international profile in research, the poor research environment and career prospects, and inadequate funding system. Such visits have had little effect.

In sum, Slovenian science is slipping backwards. It was once a leader among the 13 nations in eastern and southern Europe to join the EU in 2004; now it ranks near the bottom. Denial and blindness must end. The government must, as it did in the 1980s, recognise the benefit of science to societal and economic development.

More to say? Email comment@ResearchResearch.com

Vito Turk is a retired biochemist at the Jožef Stefan Institute in Ljubljana. He is a former director of the institute, and a former chairman of the scientific council of the Slovenian research agency.

'Historically, Slovenian science has been among the strongest in eastern Europe.'

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highlights

EU humanitarian aid

The Directorate-General for Humanitarian Aid and Civil Protection invites tenders for services related to evaluation and impact assessment of the European Commission's humanitarian aid and civil protection activities, worth €8 million [5].

EU European energy sector

The Innovation and Networks Executive Agency invites proposals for its Connecting Europe Facility energy call, with a budget worth €800 million [16].

Principles of life

The Volkswagen Foundation invites applications for its funding scheme Life – a fresh scientific approach to the basic principles of life, worth up to €1.5 million [29].

Amyotrophic lateral sclerosis

The Frick Foundation for ALS Research invites applications for its research grants, worth CHF 100,000 (€91,900) each [55].

Dementia clinical trials

Alzheimer's Research UK invites expressions of interest for its global clinical trials fund grants, worth up to £1 million (€1.1m) each [66].

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

June

30 FR Association pour la Recherche sur le Cancer Léopold Griffuel prize 254982

ES BBVA Foundation frontiers of knowledge awards 212505

UK British Association for Counselling and Psychotherapy counselling and psychotherapy PhD bursaries 1196063

FR Campus France prestige programme 1190782

EU Directorate-General for Energy technical assistance in realisation of the 2018 report on renewable energy 1196379

EU Directorate-General for Health and Food Safety EU health awards for NGOs 1185577

DE European Association of Social Psychology research knowledge transfer scheme 250965

DE European Consortium for Sociological Research workshop grants 197531

EU European Global Navigation Satellite System Supervisory Agency European satellite navigation competition 1159204

UK European Oncology Nursing Society fellowship programme for cancer nurses 1196131

FR European Society for Surgery of the Shoulder and the Elbow Didier Patte prize 259565

FR European Society for Surgery of the Shoulder and the Elbow research grant 259563

BE European Society of Contraception and Reproductive Health course grants 1170016

BE European Society of Contraception and Reproductive Health project grants 1170015

CH European Society of Regional Anaesthesia and Pain Therapy educational grant 1170467

EU European Space Agency Copernicus master competition 1189761

CH Foundation for the Development of Internal Medicine in Europe general internal medicine research grant 1196061

IT Gino Galletti Foundation neuroscience prize 250978

NL International Organisation for the Study of Inflammatory Bowel Disease operating grants 1171126

NL International Organisation for the Study of Inflammatory Bowel Disease travel grants 1171127

EU Interreg Europe joint call for European cooperation 1184608

CA Muscular Dystrophy Canada seed grants for neuromuscular disease research 1196574

CH Rolex awards for enterprise 1160134

UK Royal Photographic Society postgraduate bursaries 1174139

EU SEA-EU-NET Southeast Asia-Europe joint funding scheme for research and innovation 1195323

UK Society for Applied Microbiology hardship research grant 1165464

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EU South Baltic Programme fourth call for proposals 1193905

DE University of Vechta Höffmann academic award 1194912

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1 **AT** European Association of Neuro-Ocology workshop grants 1188577

DE European Foundation for the Study of Diabetes/Japanese Diabetes Society reciprocal travel research fellowships 1166990

DE European Foundation for the Study of Diabetes/JDRF/Lilly European programme in type 1 diabetes research grants 201616

UK Federation of European Biochemical Societies advanced lecture courses 1179476

NL Federation of European Microbiological Societies research and training grant 254904

UK International Council for Science Antarctic research fellowships 1162323

DE International Mathematical Union conference support grants 188176

BE North Atlantic Treaty Organisation advanced research workshops 208571

BE North Atlantic Treaty Organisation advanced study institutes 208565

BE North Atlantic Treaty Organisation advanced training courses 1159807

BE North Atlantic Treaty Organisation multi-year research and development projects 208576

europa

Austrian studies fellowships

The Austrian Exchange Service (OEA) invites applications for the Franz Werfel fellowship. This enables young university teachers of German language and Austrian literature to carry out specialist studies in libraries or research institutions. Grants are worth €1,150 per month plus accommodation and tuition fees.

Web id: 1165490

Email: teresa.karamat@oead.at

Deadline: 15 September 2017 [1]

EU transport studies

The Directorate-General for Mobility and Transport invites tenders for its framework contract for impact assessment and evaluation support studies in the field of transport. The tenderer will provide support tasks, involving studies on all transport modes. The contract is worth €15 million over four years.

Web id: 1196600

Email: move-a3-fwc-br@ec.europa.eu

Deadline: 7 July 2017 [2]

EU emissions and genetics

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

- second phase of review of national air pollution emission inventory data, worth €350,000 over 12 months.

Web id: 1196734

- support services for implementing policy on access and benefit-sharing in the EU, worth €600,000 over 36 months.

Web id: 1196735

Email: env-tenders@ec.europa.eu

Deadline: 17 July 2017 [4]

EU humanitarian aid

The Directorate-General for Humanitarian Aid and Civil Protection invites tenders for a multiple framework contract for services related to evaluation and impact assessment of the European Commission's humanitarian aid and civil protection activities. The tenderer will evaluate ECHO's activities. The contract is worth €8 million over 48 months.

Web id: 1196896

Email: echo-eval-tenders@ec.europa.eu

Deadline: 9 August 2017 [5]

EU anti-fraud training

The European Anti-Fraud Office (OLAF) invites applications for the following opportunities:

- law training and studies grants under the Hercule III programme, worth at least €40,000 each. **Web id: 1180384**

- training and conferences grants under the Hercule III programme, worth at least €50,000 each. **Web id: 1188937**

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

Deadline: 9 August 2017 [7]

EU tracking research results

The Directorate-General for Research and Innovation invites tenders for tracking of research results. The tenderer will design methodologies for tracking research results that occur after the contractual period of EU-funded projects has ended. The contract

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is worth €4 million over 48 months.

Web id: 1196601

Deadline: 11 August 2017 [8]

EU coal and steel

The European Commission Research Fund for Coal and Steel invites proposals for its call under the research programme. This supports research, pilot and demonstration projects in the coal and steel sectors. The total budget is worth €27 million.

Web id: 1196258

Email: rtd-steel-coal@ec.europa.eu

Deadline: 15 September 2017 [9]

EU graphene and defence

The European Defence Agency invites tenders for its study on the impact of graphene on defence applications. The contract is worth €150,000 over 12 months.

Web id: 1195813

Email: procurement@eda.europa.eu

Deadline: 19 September 2017 [10]

EU defence research

The European Defence Agency, under the preparatory actions on defence research programme, invites proposals for the following opportunities:

- European defence research runway – part 1, worth up to €950,000.

Web id: 1196771

• technological demonstrator for force protection and advanced soldier systems beyond current programmes, worth €6.78 million. **Web id:** 1196763

Email: preparatoryaction@eda.europa.eu

Deadline: 21 September 2017 [12]

EU H2020 quantum technology

The European Commission Horizon 2020: Excellent Science, under the future and emerging technologies programme, invites proposals for its H2020-FETFLAG-02-2017-CSA for quantum technologies call. This supports proposals generating European scientific leadership in quantum technologies. The budget for this call is €500,000 for up to 18 months.

Web id: 1196901

Deadline: 26 September 2017 [13]

Cancer prize

The Baillet Latour Fund, in collaboration with the Fund for Scientific Research (FNRS), invites nominations for the Baillet Latour health prize. This recognises achievements in biomedical research on cancer. The prize is worth €250,000.

Web id: 253842

Email: prix@frs-fnrs.be

Deadline: 30 September 2017 [14]

EU situational awareness

The European Defence Agency, under the preparatory actions on defence research programme, invites proposals for a technological demonstrator for enhanced situational awareness in a naval environment. This aims to bring technologies together to enhance situational awareness in a naval environment through unmanned systems working alongside manned systems. The grant is worth up to €35.5 million.

Web id: 1196762

Email: preparatoryaction@eda.europa.eu

Deadline: 5 October 2017 [15]

EU European energy sector

The Innovation and Networks Executive Agency invites proposals for its Connecting Europe Facility energy call. This

supports projects prepared and implemented within the framework of the trans-European networks policy in the energy sector, namely in electricity and gas. The total budget is worth €800 million.

Web id: 1194410

Email: inea-cef-energy-calls@ec.europa.eu

Deadline: 12 October 2017 [16]

Baby box challenge

The Finnish Funding Agency for Technology and Innovation (Tekes), Johnson & Johnson Innovation and other funders invite submissions for their next-gen baby box quick-fire challenge. This aims to improve the baby box, promoting child health. Funding is worth up to USD 350,000 (€314,000).

Web id: 1196779

Email: jlabs@its.jnj.com

Deadline: 18 August 2017 [19]

Nordic green partnerships

The Nordic Development Fund invites project proposals for its seventh call through the Nordic Climate Facility. This supports low-income countries in mitigating climate change and stimulating business development, reducing poverty and increasing gender equality. Grants are worth up to €500,000 each.

Web id: 1165211

Email: nordicclimatefacility@ndf.fi

Deadline: 29 September 2017 [20]

Development economics

The World Institute for Development Economics Research of the United Nations University invites applications for its visiting scholars programme. This enables scholars to visit UNU-WIDER in Helsinki Finland to research development or global economic issues. The stipend is worth €2,650 per month for up to three months.

Web id: 255522

Email: scholars1@wider.unu.edu

Deadline: 30 September 2017 [21]

Geoscience grants

UNESCO with the International Union of Geological Sciences, invite applications for their young scientist projects under the international geoscience programme. This fosters cooperation between young geology researchers from developing and developed countries. Funding is worth up to USD 50,000 (€44,700) over five years.

Web id: 204178

Email: pj.mckeever@unesco.org

Deadline: 15 October 2017 [22]

Gastroenterology grant

The European Society of Gastrointestinal Endoscopy invites applications for its research grant. This supports research projects on gastrointestinal diagnostic or therapeutic endoscopy. Two grants, worth €10,000 each, are awarded.

Web id: 1165590

Email: secretariat@esge.com

Deadline: 15 August 2017 [23]

Conference grants

The Fritz Thyssen Foundation invites applications for its conference grants. These support conferences to encourage discussion of scholarly questions and foster cooperation. Grants include travel and accommodation for speakers.

Web id: 1168403

Email: fts@fritz-thyssen-stiftung.de

Deadline: 31 August 2017 [24]

EU industrial research

ERA-Net Cornet invites applications for its international collective research call. This supports industrial and applied R&D projects conducted by transnational consortia. Projects may last up to two years.

Web id: 1158495

Email: cornet@aif.de

Deadline: 27 September 2017 [25]

EU SME innovation

ERA-Net IraSME invites proposals for its transnational call. This supports international projects between research and technology organisations and SMEs. Projects may last 12 to 36 months.

Web id: 1189513

Email: info@ira-sme.net

Deadline: 27 September 2017 [26]

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 architecture graduates to continue their education in Germany. Scholarships are worth up to €18,000 over up to 24 months, plus travel and study allowance.

Web id: 1178343

Deadline: 30 September 2017 [27]

Interdisciplinary groups

Bielefeld University's Center for Interdisciplinary Research (ZiF) invites proposals for its research group grants. These support interdisciplinary research groups in the natural sciences, humanities or social sciences. Grants are worth up to €500,000 over up to 10 months.

Web id: 1174079

Email: zif-applications@uni-bielefeld.de

Deadline: 1 October 2017 [28]

Principles of life

The Volkswagen Foundation invites applications for its funding scheme Life – a fresh scientific approach to the basic principles of life. This supports projects that contribute to comprehending fundamental principles of life and link up research from the natural and life sciences. Up to 10 projects may be funded with up to €1.5 million over up to five years.

Web id: 1186584

Email: dutow@volkswagenstiftung.de

Deadline: 17 October 2017 [29]

Arts study in Germany

The German Academic Exchange Service (DAAD) invites applications for its study scholarships for graduates in music and performing arts. These enable non-German music and performing arts graduates to continue their education in Germany. Scholarships are worth up to €18,000 over up to 24 months, plus travel and study allowance and tuition fees.

Web id: 1181603

Deadline: 31 October 2017 [30]

Group visits to Germany

The German Academic Exchange Service (DAAD) invites applications for its group study visits to Germany. These support study visits to Germany and promote meetings with German students. The grant is worth at least €50 per student per day.

Web id: 1180184

Email: pinsdorf@daad.de

Deadline: 1 November 2017 [31]

Humanities innovation

The Volkswagen Foundation invites applications for its Original, isn't it? – new options for the humanities and cultural studies call. This supports groundbreaking projects in the humanities and cultural studies. Grants are worth up to €150,000 each for up to 18 months.

Web id: 1182471

Email: s.schneider@volkswagenstiftung.de

Deadline: 15 November 2017 [32]

Fine art and design

The German Academic Exchange Service (DAAD) invites applications for its study scholarships for graduates in fine art, design and visual communication and film. These enable non-German graduates in art, design, visual communication and film to continue their education in Germany. Scholarships are worth up to €18,000 for up to 24 months, plus travel and study allowances.

Web id: 1196610

Deadline: 30 November 2017 [33]

Bionic award

The Association of German Engineers invites applications for its international bionic award. This supports research and development oriented towards practical application and innovation by young scientists in the field of biomimetics. The award is worth €10,000.

Web id: 1163930

Email: tils@vdi.de

Deadline: 28 February 2018 [37]

EU education analysis

Cedefop – the European Centre for the Development of Vocational Training invites tenders for a validation of non-formal and informal learning and career guidance. The tenderer will investigate the necessary conditions and efficiency gains of linking validation and career guidance and counselling services. The contract is worth €200,000 over 20 months.

Web id: 1196736

Email: c4t-services@cedefop.europa.eu

Deadline: 5 September 2017 [39]

Icelandic fellowships

The University of Iceland's Árni Magnússon Institute for Icelandic Studies invites applications for the Snorri Sturluson Icelandic fellowships. These enable scholars to visit Iceland to improve their knowledge of Icelandic language, culture and society. Fellowships cover travel and living expenses for at least three months.

Web id: 205500

Deadline: 31 October 2017 [40]

EU technology analysis

The European Foundation for the Improvement of Living and Working invites tenders for its study on game-changing technologies in European services. The tenderer will conduct five studies on technological innovations in European services. The contract is worth €130,000 over 16 months.

Web id: 1196827

Email: osutenders@eurofound.europa.eu

Deadline: 17 July 2017 [41]

EU statistics

Eurostat invites tenders for an analysis of user perception and communication of official statistics in the EU. The tenderer

will conduct a preliminary analysis of user perception of official EU statistics. The contract is worth €350,000 over seven months.

Web id: 1196842

Email: estat-call-for-tenders-directorate-b@ec.europa.eu

Deadline: 7 August 2017 [42]

EU language communication

The Directorate-General for Communications Networks, Content and Technology invites tenders for its study on service portfolio development and implementation of the service desk component of the Connecting Europe Facility automated translation platform. The tenderer will analyse the European language technologies market, and provide information on language technologies. The contract is worth €2.4 million over 40 months.

Web id: 1196831

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

Deadline: 16 August 2017 [43]

Phlebology and lymphology

The International Union of Phlebology (IUP) and Servier invite applications for their research fellowship. This supports original research projects in phlebology and lymphology. The fellowship is worth €25,000 over two years.

Web id: 1172560

Email: mdmaesen@gmail.com

Deadline: 30 September 2017 [44]

EU patent analysis

The European Patent Organisation invites tenders for its market research through multilingual user satisfaction surveys. The tenderer will conduct multilingual user satisfaction surveys and reports of results for patent search, examination and opposition services.

Web id: 1196583

Email: mntenderclarifications@epo.org

Deadline: 12 July 2017 [45]

EU heritage awards

Europa Nostra invites applications for the European Union prize for cultural heritage. This recognises conservation of cultural heritage, stimulating trans-frontier exchanges of knowledge and experience. Prizes are worth €10,000 each.

Web id: 1173676

Email: eb@europanostra.org

Deadline: 1 October 2017 [46]

EU software-intensive systems

EUREKA, through its cluster programme ITEA 3, invites proposals for its joint research projects call. This supports industry-driven, technically innovative and business oriented projects in software-intensive systems and services.

Web id: 210233

Email: info@itea3.org

Deadline: 2 November 2017 [47]

Nordic societal security

Nordforsk invites applications for research projects on the underpinnings of Nordic societal security. This call supports projects examining the relationships between Nordic models of society and arrangements for societal security. Grants are worth up to NOK 9.5 million (€1m) for up to three years.

Web id: 1195216

Email: lone.jessen@nordforsk.org

Deadline: 20 September 2017 [49]

PhD and postdoctoral stipends

The Laerdal Foundation invites applications for the Bjørn Lind research stipend. This enables a PhD-candidate or post-doctoral researcher to study educational research or patient safety in conjunction with the Stavanger Acute Medicine Foundation for Education and Research. The stipend is worth up to NOK 1 million (€106,000) for up to three years.

Web id: 1172021

Email: post@laerdalfoundation.org

Deadline: 1 April 2018 [50]

Mobility grant

Region Västra Götaland invites proposals for its mobility for regional excellence programme. This supports international collaboration between international researchers and those in the region. The grant is worth SEK 870 000 (€89,300) over one year.

Web id: 1178189

Email: jackie.brown@vgregion.se

Deadline: 1 September 2017 [51]

Tax research

The Nordic Tax Research Council invites applications for its tax research grants. These may cover expenses, scholarships or salary reductions during leave of absence for shorter periods.

Web id: 211360

Email: caroline.nordklint@juridicum.su.se

Deadline: 1 October 2017 [52]

Hepatology fellowships

The European Association for the Study of the Liver invites applications for the Andrew K Burroughs short-term training fellowships. These support mobility of investigators between European institutions to promote scientific exchange in hepatology. Fellowships are worth up to €6,000 for up to three months.

Web id: 254571

Email: easloffice@easloffice.eu

Deadline: 15 September 2017 [53]

Particle physics

CERN invites applications for its corresponding associates programme. This enables scientists and engineers in particle physics to use facilities at CERN. The subsistence allowance is worth CHF 24,768 (€22,800) for up to six months.

Web id: 259704

Email: cern.reception@cern.ch

Deadline: 17 September 2017 [54]

Amyotrophic lateral sclerosis

The Frick Foundation for ALS Research invites applications for its research grants. These support basic research on the cause of amyotrophic lateral sclerosis. Grants are worth CHF 100,000 (€91,900) each over two years.

Web id: 1160237

Email: ann.kato@unige.ch

Deadline: 30 September 2017 [55]

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 concerning human movement and its rehabilitation. The prize is worth CHF 10,000 (€9,200).

Web id: 151962

Email: bernhard.lewerich@t-online.de

Deadline: 10 October 2017 [56]

Theoretical physics

CERN invites applications for its fellowships for non-member state theoretical physicists. These enable young theoretical physicists from non-member states to work in a research group at CERN. Two fellowships are awarded for two years.

Web id: 259954

Email: cern.reception@cern.ch

Deadline: 15 October 2017 [57]

Physics PhD programme

CERN invites applications for its doctoral student programme. This enables post-graduate students to prepare a doctoral thesis in applied physics, engineering or computing at CERN. Funding includes a monthly living allowance of CHF 3,679 (€3,400) plus travel.

Web id: 259952

Email: cern.reception@cern.ch

Deadline: 16 October 2017 [58]

Research in Switzerland

The Swiss National Science Foundation invites applications for the following opportunities:

- the Ambizione programme, worth up to CHF 400,000 (€367,000) for up to four years. **Web id:** 1162600

- promoting women in academia (PRIMA) grants, worth CHF 750,000 per year for up to five years. **Web id:** 1194523

Email: prima@snf.ch

Deadline: 1 November 2017 [60]

Newton Turkish fellowships

The Scientific and Technological Research Council of Turkey (TUBITAK), in collaboration with the Academy of Medical Sciences, the British Academy and the Royal Society, under the Newton Fund, invites applications for its international researchers fellowship programme. This enables PhD students and young post-doctoral researchers to pursue research in Turkey in the sciences, social sciences and humanities. Fellowships are worth up to TRY 33,000 (€30,300) over up to 12 months.

Web id: 1171010

Email: bideb2216@tubitak.gov.tr

Deadline: 6 October 2017 [61]

Dentistry research

GlaxoSmithKline UK and the Oral and Dental Research Trust invite applications for their research awards. These support research into plaque-related oral disease and tooth wear. Awards are worth up to €6,500 (€7,400) each.

Web id: 1196652

Email: howsoncrew@aol.com

Deadline: 7 July 2017 [62]

Brain tumour grants

The Brain Tumour Charity invites applications for its quality of life awards. These support projects on quality of life issues for those with brain tumours. Awards are worth up to €300,000 each for up to three years.

Web id: 1186937

Email: research@thebraintumourcharity.org

Deadline: 1 September 2017 [63]

Biochemistry awards

The Federation of European Biochemical Societies invites applications for the following opportunities:

- women in science award, in collabora-

tion with the European Molecular Biology Organization, worth €10,000.

Web id: 258283

- long-term fellowships, including travel and living costs for up to four years.

Web id: 212973

Deadline: 1 October 2017 [65]

Dementia clinical trials

Alzheimer's Research UK invites expressions of interest for its global clinical trials fund. This supports clinical trials of benefit to dementia patients. Grants are worth up to £1 million (€1.1m) each.

Web id: 1184311

Email: research@

alzheimersresearchuk.org

Deadline: 15 November 2017 [66]

Aquatic expedition award

The Royal Geographical Society, with the Institute of British Geographers, invites applications for the Ralph Brown expedition award. This supports the leader of an expedition studying wetlands, rivers or shallow marine environments. The award is worth £12,500 (€14,200) for up to six weeks.

Web id: 211459

Email: grants@rgs.org

Deadline: 23 November 2017 [67]

PhD studentships

The Wellcome Trust invites applications for its humanities and social science doctoral studentships. These enable researchers to undertake a humanities or social science doctoral degree in health. Studentships cover fees, a stipend and travel and research costs for up to three years.

Web id: 200012

Deadline: 29 March 2018 [68]

rest of world

Library fellowships

The State Library of New South Wales invites applications for the following awards:

- the Australian religious history fellowship, worth AUD 20,000 (€13,600).

Web id: 1160517

- the CH Curry memorial fellowship, worth AUD 20,000. **Web id:** 193222

- the Coral Thomas fellowship, worth AUD 75,000. **Web id:** 1183174

- the David Scott Mitchell memorial fellowship, worth AUD 12,000.

Web id: 203303

- the Merewether scholarship, worth AUD 12,000 for one year. **Web id:** 203304

- the Nancy Keesing fellowship, worth AUD 20,000. **Web id:** 193228

Email: scholarship.library@sl.nsw.gov.au

Deadline: 17 July 2017 [74]

Cerebral palsy grants

The Cerebral Palsy Alliance's Research Foundation invites applications for its project grants. These support cerebral palsy research. Grants are worth up to AUD 250,000 (€170,000) each.

Web id: 252477

Email: cpresearchgrants@

cerebralpalsy.org.au

Deadline: 31 August 2017 [75]

Ciconiform biology

The Waterbird Society invites proposals for the Kushlan research grant in ciconiiform biology and conservation. This

supports studies on the biology, ecology, or conservation of wading birds and their taxonomic allies. Awards are worth up to USD 7,000 (€6,300) each.

Web id: 191392

Email: dave.moore@ec.gc.ca

Deadline: 15 July 2017 [76]

Design research fellowship

The M+ museum, in collaboration with the Design Trust, invites applications for its research fellowship. This supports a research project on design and architecture in the Greater Pearl River Delta region. The fellowship is worth up to HKD 240,000 (€27,600) for up to six months, plus up to HKD 10,000 for travel.

Web id: 1184798

Email: designfellow@mplus.org.hk

Deadline: 24 July 2017 [77]

Ageing society research

The Univers Foundation invites proposals for its research grants. These support research on social welfare in an ageing society with falling birthrates and depopulating society. Grants are worth up to JPY 1 million (€8,200) over one year.

Web id: 1180351

Email: info@univers.or.jp

Deadline: 31 July 2017 [78]

Development prize

The Kuwait Foundation for the Advancement of Science invites nominations for the Al-Sumait prize. This recognises achievements in economic and social development, human resources development and infrastructure in Africa. The prize is worth USD 1 million (€894,400).

Web id: 1196620

Email: alsumaitprize@kfas.org.kw

Deadline: 31 July 2017 [80]

Haematology conference

The Haematology Society of Australia and New Zealand invites applications for its travel assistance for non-members award. This supports attendance at the annual scientific meeting of the society, the Australian and New Zealand Society of Blood Transfusion and the Thrombosis and Haemostasis Society of Australia and New Zealand, to be held in Sydney in October 2017.

Web id: 1184750

Email: haa@tcc.co.nz

Deadline: 6 July 2017 [81]

Earth observation technology

The South African National Space Agency and Airbus Defence and Space invite novel applications for Earth observation data. This call promotes novel uses of Earth observation data gathering by satellite within South Africa. The challenge offers access to spatial data, an operations site visit in Toulouse, and entrepreneur support.

Web id: 1196335

Email: openix@theinnovationhub.com

Deadline: 17 July 2017 [83]

Renewable energy

The Mubadala Development Company invites applications for the Zayed future energy prizes. These recognise contributions to advancing renewable energy and sustainability. Prizes are worth up to USD 1.5 million (€1.34m) each.

Web id: 1160614

Email: info@zayedfutureenergyprize.com

Deadline: 6 July 2017 [84]

usa

US Agency for International Development empowerment and inclusion solicitation and management

Web id: 1196372

Deadline: 6 July 2017 [85]

US Department of Defense prostate cancer research programme – health disparity research award

Web id: 1189884

Deadline: 7 July 2017 [86]

US Department of Defense high performance superconducting qubit systems – broad agency announcement

Web id: 1196746

Deadline: 10 July 2017 [87]

BrightFocus Foundation macular degeneration research

Web id: 253575

Deadline: 11 July 2017 [88]

US Agency for International Development leveraging academic partnerships in operational humanitarian environments

Web id: 1196866

Deadline: 11 July 2017 [89]

US Department of Defense tuberous sclerosis complex research programme – clinical translational research award

Web id: 1196450

Deadline: 11 July 2017 [90]

Water Environment Research Foundation unsolicited research program

Web id: 184535

Deadline: 13 July 2017 [91]

American Physical Society early career award for soft matter research

Web id: 1196410

Deadline: 14 July 2017 [92]

Educational Testing Service research programme

Web id: 1196413

Deadline: 14 July 2017 [93]

US Department of Energy solid oxide fuel cell prototype system testing and core technology development

Web id: 1196740

Deadline: 14 July 2017 [94]

American Association for the Advancement of Science SciLifeLab and Science prize for young scientists

Web id: 1179170

Deadline: 15 July 2017 [95]

Association of Field Ornithologists Pamela and Alexander F Skutch research award

Web id: 197085

Deadline: 15 July 2017 [96]

Glaucoma Research Foundation Shaffer grants

Web id: 196823

Deadline: 15 July 2017 [97]

Hofstra University Guru Nanak interfaith prize

Web id: 1162785

Deadline: 15 July 2017 [98]

IEEE Foundation grants programme

Web id: 210847

Deadline: 15 July 2017 [99]

International Council for Industrial and Applied Mathematics prizes

Web id: 1194953

Deadline: 15 July 2017 [100]

Library of Congress Kluge fellowships

Web id: 213734

Deadline: 15 July 2017 [101]

Panthera Kaplan graduate awards

Web id: 1180419

Deadline: 15 July 2017 [102]

policy diary

June

27 Science Business FP9 Conference, Brussels, Belgium.
<http://rsrch.co/2rU7GGp>

28 Week of Innovative Regions in Europe, Košice, Slovakia. To 30.
<http://rsrch.co/2oGGwK8>

July

3 Research and Innovation – Shaping our Future, Brussels, Belgium.
<http://rsrch.co/2oMb8Lz>

5 Liber Annual Conference, Patras, Greece. To 7.
<http://rsrch.co/2dJuLcY>

• The Future of Transportation World Conference, Cologne, Germany. To 6.
<http://rsrch.co/2oIpqDC>

13 ECSEL JU Symposium 2017, St Julian's, Malta. To 14.
<http://rsrch.co/2q2tK8S>

24 Annual International Conference on SMEs, Entrepreneurship and Innovation, Athens, Greece. To 27.
<http://rsrch.co/2hsH9vN>

August

28 European Federation of Animal Science annual meeting, Tallinn, Estonia. To 1.
<http://rsrch.co/2s3dC3Z>

September

4 Academia Europaea-ALLEA Joint Annual Conference 2017, Budapest, Hungary. To 6.
<http://rsrch.co/2gvAc6b>

• Inspire Conference 2017, Kehl, Germany and Strasbourg, France. <http://rsrch.co/2rPulVd>

6 Open Science Fair 2017, Athens, Greece. To 8.
<http://rsrch.co/2qqnaoN>

26 Evidence for Policy in a Post-Fact World, Brussels, Belgium.
<http://rsrch.co/2qc2yRD>

27 CONCORDi 2017: Innovation and Industrial Dynamics, Seville, Spain. To 29.
<http://rsrch.co/2jUfK5D>

October

16 Innovait 2017, Budapest, Hungary. <http://rsrch.co/2o0AYLZ>

• Harnessing Research and Innovation for Food 2030, Brussels, Belgium.
<http://rsrch.co/2qVYt0f>

17 Innovation Procurement, Tallinn, Estonia. To 18.
<http://rsrch.co/2qV4rPE>

• EUA RIS3 workshop, Tartu, Estonia. <http://rsrch.co/2qW8ACn>

23 G-Stic 2017, Brussels, Belgium. To 25.
<http://rsrch.co/2qUEbHq>

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a *Research publication

Hope springs eternal

In the second of two articles on science and diplomacy, **Eleni Courea** considers whether help is best provided to refugees in neighbouring countries or in Europe.

“My name is Feras Ouyoun and I am from Syria.” The voice crackles on the long-distance telephone line. “I left Damascus in 2010 to study pharmacy in Beirut, just before the war broke out. Now I can’t go back.”

Across Europe and the Middle East, refugees like Ouyoun have fled catastrophic conditions to find themselves relying on the help of fellow academics. Ouyoun’s studies in Lebanon are supported by an EU-funded project called Higher and Further Education Opportunities and Perspectives for Syrians (Hopes). The programme covers Ouyoun’s costs for one year as he completes his masters degree in clinical pharmacy.

Headquartered in Amman, Jordan, Hopes funds higher education for Syrian refugees in Egypt, Iraq, Jordan, Lebanon and Turkey. “Hopes is often misunderstood as a simple scholarship programme,” says Carsten Walbiner, its director. “But we offer a lot more.” As well as scholarships for about 400 degrees, Hopes supports students pursuing vocational diplomas and offers counselling services and intensive English-language courses.

The breadth of activities reflects the challenges that refugees face when studying abroad. They must get to grips with English and tedious application procedures, Walbiner says, for which guidance and counselling services are essential. “We try to give information about all available opportunities beyond our own.”

To do this, Hopes navigates regulations across many countries. It has struck agreements with the Turkish government and with Kurdish authorities in northern Iraq, and with the Lebanese University in Beirut. In Jordan, Hopes is subject to a rule whereby international organisations must spend 33 per cent of their funds on helping locals. So, for every 10 scholarships awarded to Syrian refugees in Jordan, three or four go to Jordanian citizens.

Such policies are important to combat the perception that refugees are privileged compared with citizens. Turkey is home to nearly 3 million Syrian refugees, Jordan has 650,000 and Egypt has 120,000. Lebanon hosts the most of any country per capita, counting more than 1m in its population of 5.8m.

“Being in Lebanon is becoming more difficult because I’m not allowed to work,” says Ouyoun. The Lebanese government bars refugees from formal employment for fear that they will take jobs away from locals. Because of this, “we need to create spaces for refugees to do something useful and support their families,” says Walbiner, and higher education is one way to do that.

But Walbiner is sceptical of refugee scholarship programmes in Europe: “We have to manage expectations. European universities are very demanding and the risk of failure is enormous.” The problem is compounded by language and cultural barriers, as well as the costs—it’s much cheaper to fund scholarships in the Middle East.

Equally, Walbiner says, it is important to provide incentives for young people to stay in Syria once the country is ready for reconstruction. Before the crisis began in 2011, more than 660,000 Syrians were enrolled in higher education. Now, more than 3m pupils and students at all levels have stopped attending classes. Walbiner knows of students who were “forced to emigrate to Jordan primarily because of the availability of scholarships there, and not the political situation at home”.

Nevertheless, the European University Institute in Florence, Italy, has launched a pilot initiative. Since 2015, it has hosted six refugees from sub-Saharan Africa. Rather than enrolling them in degree programmes, it delivers Italian language courses, offers preparation for vocational traineeships and organises cultural tours of Tuscany.

“I don’t know of any other university in Europe that has literally opened its doors to refugees. They live with us and participate in all social activities,” says Caterina Guidi, the EUI refugee initiative’s coordinator. While cultural integration programmes and degree courses are “not mutually exclusive”, the EUI model can be more easily emulated by other EU universities, she says.

The bottom line, according to Hani Harb, who founded the German-Syrian Research Society, is that we must listen to the refugees. “Many Syrians who have sought asylum in Germany to continue their education are being pushed by the government towards vocational training,” he says. This may be suitable for those with no formal education, Harb argues, but Europe must give those who want to go to university a chance.

Ouyoun is unfazed by the daunting prospect of studying abroad. “I want to do a PhD in Europe, Australia or North America,” he says, because the teaching quality is low at the few Lebanese universities with doctoral programmes. “And when the war ends, I will return to Syria immediately. I want to go back home and teach pharmacy at Damascus University. That is my dream.”

Something to add? Email comment@ResearchResearch.com

‘European universities are very demanding and the risk of failure is enormous.’

uk & ireland

Funders accused of not paying their share

UK universities are being forced to contribute more towards the costs of research projects, as funding councils are paying less than the agreed 80 per cent of project costs.

Several heads of university research offices have told *Research Europe's* sister publication *Research Fortnight* that UK research councils are expecting them to contribute more towards project overheads.

The costs of research council grants and fellowships are calculated based on full economic costs—both direct and indirect. If a grant is awarded, councils fund 80 per cent of FEC. Universities must find the rest from other sources.

However, Mark Smith, a research manager at Keele University, told the annual meeting of the Association of Research Managers and Administrators in Liverpool on 7 June that he had encountered schemes that did not adhere to this system. Lorna Wilson, research funding support manager at Newcastle University, agreed that the problem is becoming worse.

Funders are looking for more matched funding and increased institutional commitments towards project funding, Wilson said. "We're having to run grants at a much larger deficit, especially ones that have more part-

by Anna McKie

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nership and networking activities within them, such as the Global Challenges Research Fund."

Administrative costs, for example, can be excluded from grant agreements as funders do not see them as value for money. This makes the burden on universities much greater, Wilson said.

In its 2016 report on the financial health of higher education institutions for 2014-15, the Higher Education Funding Council for England said that universities recovered just 71.8 per cent of the full economic costs of research projects—down from 73.6 per cent the previous year. This amounted to a gap of £522 million (£596m) that universities had to fill.

An internal evaluation from the University of Oxford found that the university was able to recover just 71.5 per cent of FEC from research councils in 2014-15.

Glenn Swafford, the university's director of research services, said that the issue should be raised with the incoming board of UK Research and Innovation—an umbrella research funding organisation to be launched in April 2018. "It is not in the national interest for publicly funded organisations to continue in this way," he said.

uk & i in brief

Jo Johnson returns as science and universities minister

UK prime minister Theresa May has reappointed Jo Johnson as universities and science minister in her post-election cabinet reshuffle. Johnson had been tipped to lose his universities brief, but the Conservatives' poor election result appears to have forced May to implement a less radical reshuffle. Business secretary Greg Clark and education secretary Justine Greening were also reappointed to their previous roles.

Boost for research funds in England and Wales

University College London and the universities of Oxford and Cambridge will receive the most government block-grant research income in England in 2017-18, and Cardiff University will get the most in Wales. The Higher Education Funding Council for England allocated £182 million (€208m) to UCL; £162m to Oxford, and £145m to Cambridge. HEFCE said the total grant it was distributing in 2017-18 was £3.5 billion. Cardiff University, meanwhile, will receive £41m from the Higher Education Funding Council for Wales.

UK space network launched to boost graduate skills

The UK's top space-science universities have joined forces to provide resources, training and events to improve the skills of their graduates. The Space Universities

Network was launched on 30 May and will be coordinated by the University of Bristol. So far, 23 institutions have joined up, including the universities of Leicester, Manchester, Southampton, Strathclyde, and Cranfield University. A further five institutions have expressed an interest in joining.

Drug firms tell academics to overcome prejudice

Malcolm Skingle, a senior scientist with the pharmaceutical company GSK, has urged academics to shed preconceived ideas of partnerships with drug companies and work together on projects. He said that perceptions that industrial scientists are less keen to publish their research are not correct. "The message I want to put out there is that the pharmaceutical industry is not as rigid as academics often think," he said.

Irish health funders seek early public involvement

The Health Research Board and the Irish Research Council have launched a €1.75-million initiative to encourage the early involvement of the public in the health research process. The Public and Patient Involvement Ignite funding scheme has named five projects in five universities so far: the National University of Ireland Galway, University College Dublin, University of Limerick, Trinity College Dublin and Dublin City University. Each will receive €350,000 to develop ways to bring patients and the public earlier into the process.

French scientists unimpressed with Macron's anti-Trump climate pitch

French president Emmanuel Macron's bid to attract international climate researchers to France has drawn criticism from researchers in the country.

On 1 June, Macron delivered a speech in which he said: "All scientists, engineers, entrepreneurs and responsible citizens who were disappointed by the decision of the president of the United States [to withdraw from the Paris climate agreement] will find in France a second homeland."

A week later, environment minister Nicolas Hulot launched a website called Make Our Planet Great Again, which encourages researchers to apply to work in France simply by uploading a one-page project outline with a CV.

After an opening webpage showing a video of Macron delivering a section of his speech in English, users can click on a tab marked "I want to make our planet great again". The site then asks users to enter their profession and nationality, and to fill in their dreams and motivations. They can then click a tab marked "I'm coming to France" to move to a section on potential opportunities.

French researchers were quick to criticise the initiative. "This is the executive's first announcement on

by James Brooks

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research," Olivier Berné, an astrophysicist and research campaigner, told the news service EducPros. "It doesn't measure up at all to the challenge it seeks to address—climate change—nor to the needs of the scientific community in France, which continues to work in precarious and impoverished conditions."

Céline Bon, a genetic anthropologist, responded to the announcement on Twitter. "It's easy to attract researchers; you just have to give them decent funding. Is that planned?" Similarly, Sophie Schiavone, a PhD candidate in physical geography, asked Hulot on Twitter whether the initiative would entail more money being allocated to research. US researchers "won't come for peanuts", she remarked.

Perhaps in response to the criticism, on 19 June the research minister Frédérique Vidal announced that the government would provide €30 million in match funding for 50 researchers over five years. Senior researchers are eligible for up to €1.5m over four years, and junior researchers up to €1m.

nations in brief

University finances unstable, court warns

Six universities in France have "very degraded" finances, the country's Court of Auditors has warned. The universities of Limoges, Orléans, Pau, Reims, Toulouse II and Brittany are all facing the risk of budgetary unsustainability in the short or medium-term, the court said this month. Nine additional universities are facing a less severe risk.

Germany told to boost energy-saving measures

Germany should spend €5 billion a year on tax breaks and subsidy programmes to meet its climate protection targets, the energy think tank Agora has recommended. The money should be spent on programmes covering electricity, heating and traffic, Agora said in a 10-point programme published on 12 June. A related research agenda could help provide the necessary innovations and investment, it said.

Oil exec heads research team

Philippe Baptiste, the chief technology officer for the French energy company Total, has been appointed chief of staff to France's research minister Frédérique Vidal. Before joining Total in 2016, Baptiste worked at the CNRS, France's largest public research organisation, and at the ministry for higher education and research. Anne-Sophie Barthez, president of the University of

Paris-Seine grouping, has been appointed Vidal's special adviser on training, the government announced.

Academy floats technology advisory council

The Russian government should set up an advisory council on developing technologies to help Russian companies compete globally, the Russian Academy of Sciences has said. Sergey Aldoshin, vice-president of the RAS, said that the council would facilitate collaboration between scientific and educational organisations, representatives of industry and Russian institutions.

Open-source seeds released

Researchers in Germany have released tomato and wheat varieties under an open-source licence that prevents the plants' descendants from being patented. The aim of the licence is to enable researchers to experiment with the seeds without legal restrictions. The licence is the first in the world to protect descendants of plant varieties against patenting, the journal *Science* reported on 12 June.

Germany and China strengthen cooperation

Germany's chancellor Angela Merkel has proposed the establishment of a research fund for strategic cooperation with China, with each country expected to contribute €4 million a year from 2020. The two countries will use the fund to intensify their R&D cooperation in areas including electrically powered vehicles.

nordic

Cuts could wreak economic havoc, says report

Budget cuts to Finnish universities risk damaging the country's economic performance and competitiveness, a report has warned.

A hypothetical 10 per cent cut in universities' core funding could result in a loss of almost 17,000 jobs and €1.8 billion in gross value added—which measures the value of goods and services produced by an area of an economy—a report conducted by the Scottish consultancy firm BiGGAR Economics has found.

The report, published on 13 June, said that Finland's 14 publicly owned universities made a "substantial" contribution to the country's economy. They had a core income of €2.7 billion in 2016 and employed 32,000 people. The report estimated that the multiplier effect of the universities' activities that year led to a total economic contribution of €14.2bn, and 136,000 jobs, for Finland.

This amounts to 6.6 per cent of the country's economic output and 5.5 per cent of total employment in Finland, the report said—meaning that for each euro that Finnish universities swallow up, they create almost €8 in total economic benefit. Furthermore, each person employed by a university supports more than four jobs elsewhere.

The study divided universities' economic contribution into two types: incidental benefits (42 per cent), which

by **Jenny Maukola**

news@ResearchResearch.com

include institutions' core operations, infrastructure spending, student spending and employment; and purposeful benefits (58 per cent), which include graduates' increased earnings over a lifetime and the long-term impact of, for example, medical research funding leading to better quality of life.

The report was jointly coordinated by Unifi, an association of Finnish universities; Akava, a union; EK, an industry association; Syl, the national students' organisation; and Sivistystyönantajat, which represents employers in education.

Finnish universities have been increasingly under pressure to demonstrate their economic impact, as their funding was severely reduced in 2016 under prime minister Juha Sipilä's government. The University of Helsinki, for example, has said it has to save €106 million a year until 2019-20, and as a result by the end of 2017 it will have axed nearly 1,000 positions.

A separate report published by the OECD on 9 June urged Finland to increase funding for research relevant to businesses and industry, and to set up more joint projects between universities, research institutes and companies.



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A tight spot for Norway's private colleges

Compared with high-profile, research-focused universities, private university colleges tend to stay out of the spotlight. But higher education reforms in Norway have raised questions about the relationship between funding for small, specialist institutions and the quality of their services. A report, published on 2 June, said that private institutions should have to be fully accredited to receive government funds.

Norway's eight private colleges cover a wide range of art and music education, as well as architecture, theology and farming. A five-year transitional period should be implemented to help these private institutions to adjust, the report suggested.

Harald Hjort, managing director of the Barratt Due Institute of Music, one of the private institutions, says that traditional accreditation has some downsides. For example, it requires teaching staff to have the institution as their main employer, which in music education could be a barrier to quality.

"Most art education institutions are dependent on employing professional musicians and artists," says Hjort. "We don't want musicians hired here to work only as teachers. We want them to be playing in orchestras and performing in shows, so most of our teachers will never have us as their main employer."

In Norway, higher education is offered by four types of institutions: universities, specialised universities, accredited university colleges, and private university colleges with accredited programmes. There are perks

**nordic
outlook**

by **Antoaneta Roussi**

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to being fully accredited. For example, only accredited institutions can apply for maintenance and equipment funding. Accredited institutions also don't have to get permission from Nokut, the Norwegian quality assurance agency, to change course programmes.

The government has not assured any of the eight institutions that they would be automatically accredited. Torbjørn Røe Isaksen, Norway's research minister, said that it was too early for the government to take a position on the report's recommendations. But why hadn't these institutions applied for accreditation before the report?

"It didn't really matter for us," says Dagny Ringheim, the rector of Rudolph Steiner University, which offers some accredited programmes in Waldorf teaching and education.

Both Hjort and Ringheim say that their colleges have a good chance of getting accredited. But if they don't, the dearth in funding could be the end of their institutions. "Students study for free in Norway, so we ask for a little fee to help with course materials, but we could not be fully financed by students," says Ringheim, whose institution is fully state-funded. "Without state funding we will not survive; that's a fact."

Hjort says that the idea of getting full accreditation from the government is not new. Barratt Due has put in "many years" of work to lobby for country-wide recognition of some of its courses. Accreditation—or at least recognition of its structure—would be the logical next step, he says.

nordic in brief

Norway needs quality boost, says OECD

The Norwegian government must push for a culture of competition in universities to increase research quality, the OECD has said in a review. Norway falls below top-performing countries and lacks world-class research groups, the review found. The country needs a strong research and innovation system to transform its oil-dependent economy to a knowledge-based one, the OECD said.

Denmark nominated for UN space committee

A UN committee for the peaceful use of space has suggested Denmark as its latest member. The Committee on the Peaceful Uses of Space nominated Denmark after the country adopted its first space legislation in 2016. The committee, which has 84 member countries, aims to govern the exploration and use of space for the benefit of humanity. Membership could give Denmark a greater

influence if new international regulation is introduced, the government said.

Universities slam national burka ban

The Norwegian Association of Higher Education Institutions (UHR) has rejected a proposal to prohibit the wearing of burkas in universities. On 12 June, the government presented a bill that would ban face-covering garments in all kindergartens, schools, colleges and universities. But the UHR said that the government shouldn't implement a blanket ban without knowing what the consequences might be.

Academy to fund 12 excellence centres

The Academy of Finland will pay for 12 centres of excellence—covering ageing, quantum technology and genetics. Twelve universities and research centres are part of the initiatives. The centres will explore themes including the use of space, game culture and European law.

usa

Trump keeps Collins as NIH director

The White House has announced that Francis Collins is to remain as director of the National Institutes of Health.

Collins is a rare holdover from former President Barack Obama's administration. He was picked to lead the NIH in 2009. Like other Obama officials, Collins submitted a formal letter of resignation before President Donald Trump's administration started, but unlike most, he was asked to stay on.

Almost five months into Trump's first term, the White House announced this month that Collins's extension will be permanent.

Collins is generally well-liked in Washington, particularly in Congress. Shortly after the November 2016 election, several top Republican lawmakers urged Trump to keep Collins on.

Those same congressmen applauded the decision. "There's nobody better qualified than Francis Collins to help accelerate the medical miracles that have the potential to help virtually every American family," said Senator Lamar Alexander, Republican of Tennessee, who is chairman of the Senate committee that oversees the NIH.

Lawmakers have rewarded the NIH with big budget gains in the last few years, including rejecting Trump's

by Sam Lemonick

news@ResearchResearch.com

proposal to slash the NIH's budget by \$6 billion (€5.4bn) in fiscal year 2018. Instead, the NIH is getting an extra \$2bn by October.

There had been some pushback against Collins. In May, a group of 41 Republican members of Congress wrote Trump a letter asking him to fire Collins because of his support for research using embryos. The lawmakers said that this violated the president's stated commitment to anti-abortion policies.

Collins said on Twitter that he was honoured to stay in the job, and that it was a privilege to lead the NIH.

An NIH spokeswoman told the news website STAT that Collins's term extension had no fixed endpoint, and that he would continue to serve at Trump's pleasure. Since former President Bill Clinton's administrations in the 1990s, NIH directors have stayed for most of a president's two terms, although none have stayed on significantly into the next administration.

However, Collins still has a way to go before becoming the longest-serving NIH director. That distinction belongs to George McCoy, whose 22-year tenure ended in 1937.

usa in brief

NIH scraps plans for cap on grant numbers

The National Institutes of Health has dropped a plan that would have increased support for early-career researchers by capping the number of grants that any one researcher can hold. The plan gathered criticism from researchers and NIH advisers, who worried that it would discourage collaboration, complex trials and training. Instead, the funder launched the Next Generation Researchers Initiative, which will provide an extra \$210 million (€188m) this year to support early-career researchers.

Coal research receives DoE backing

The United States Department of Energy is pouring almost \$30 million (€27m) into research on coal energy systems, and the use of coal to produce rare earth elements. The department is offering two funding opportunities to support the development of advanced combustion systems and coal gasification as part of the Office of Fossil Energy's Advanced Energy Systems programme. These initiatives make good on the election campaign promises made by President Donald Trump to support the shrinking US coal industry.

House seeks simpler rules for space commerce

The House Committee on Science, Space and Technology passed a bill on 8 June to simplify rules surrounding com-

mercial space activities. The American Space Commerce Free Enterprise Act reforms the regulatory process around remote-sensing satellites. The bill will now move on to the full House of Representatives for consideration.

AAAS calls for more reliable forensic science

Many of the practices used in forensic investigations are not based on sound science, the American Association for the Advancement of Science has told the United States Department of Justice. In response to a DoJ request for comments on how to advance forensic science, the AAAS and several other scientific associations called for a robust and independent review of the science behind common forensic techniques. They said this was needed to ensure that "rigorous science is used in convicting the guilty and exonerating the innocent".

Pence resurrects space council

United States vice-president Mike Pence announced on 7 June that he was relaunching the National Space Council, a long-defunct group intended to align space policy and research with White House priorities. Pence made the announcement in a speech to NASA astronaut candidates at the Johnson Space Center in Houston, Texas. The move comes amid Republican concerns that the Obama administration was encouraging contacts and collaboration between US and Chinese space researchers. The council has been inactive for 24 years.

Brazilian innovation stifled by lack of industry researchers and funding

Few Brazilian researchers work in industry, which is hindering innovation, an official in Brazil's health ministry has said—but scientists have called on the government to remedy the problem by reversing budget cuts.

Brazil suffers from “academic isolation” as most scientists work exclusively in academia, Augusto Barbosa, who works in the science and technology department within the health ministry, told a public hearing in the lower house of Brazil's National Congress on 13 June.

Barbosa said that in more innovative countries, researchers work mostly in industry. A majority of masters degree-holders in Brazil completed their graduate studies in academic rather than vocational subjects, he said. Government policy is at fault, he added, since only 2,436 of 50,273 government scholarships were for professional masters programmes.

Luciene Ferreira, another health ministry official who works in the innovation department, told the hearing that more legislation was needed to encourage collaboration between companies, universities and science institutes. “We still need a change of culture within universities. Perhaps much more than in companies, because

by Eleni Courea

ecnews@ResearchResearch.com

some [companies] have been open to partnerships and even proactively sought them out,” Ferreira said.

But Brazilian researchers have complained that there is no hope of innovation flourishing in a country that faces savage cuts to its science budget.

In March, the government announced a 44 per cent reduction in the science ministry's spending, leaving it with a budget of 2.8 billion reais (€760 million), its lowest for at least 12 years.

Gilberto Kassab, the science minister, told a meeting of senior scientists this month that he would form a taskforce to legislate against cuts to two major parts of the budget—the National Scientific and Technological Development Fund, and the Fund for the Universalization of Telecommunications Services.

Luiz Davidovich, president of the Brazilian Academy of Sciences, welcomed the minister's announcement but called for more meetings between the government, scientists and industry. Laboratories are closing and brain drain has accelerated as a result of the cuts, he said.

world in brief

Tedros seeks to persuade US not to pull back from WHO

Tedros Adhanom Ghebreyesus, the director-general-elect of the

World Health Organization, is touring the United States to share his outlook with funders and policymakers. Between 12 and 17 June he met Bill Gates, Microsoft founder and philanthropist; Jim Yong Kim, the World Bank group's president; and Anthony Lake, director of Unicef. Tedros also addressed the Rotary Convention in Atlanta to welcome its \$1.2-billion (€1.1bn) pledge for the Global Polio Eradication Initiative. He is set to become WHO director-general on 1 July.

First Chinese X-ray space telescope launched

China has launched its first space-based X-ray telescope to study black holes, pulsars and gamma-ray bursts. A rocket carrying the 2.5-tonne telescope was launched into orbit on 15 June from the Jiuquan Satellite Launch Center in the Gobi Desert, in north-western China. The telescope, named Insight, will be used to help scientists understand the evolution of black holes, study the interiors of pulsars and observe their strong magnetic fields.

Future Earth director named

The sustainability research platform Future Earth has selected Amy Luers, a data scientist, to succeed Paul Shrivastava as its executive director. Future Earth is a

10-year initiative launched in 2015 to advance global sustainability by building an international research platform. Luers is the director of climate change at the Skoll Global Threats Fund. She will start her new job in September.

Focus AI to help world's poor, summit told

Applications of artificial intelligence should be refocused towards meeting the Sustainable Development Goals, a UN summit in Geneva has heard. The AI for Good Global summit, which took place between 7 and 9 June, aimed to encourage developers to come up with ways that AI can help to eliminate global poverty and hunger, and protect the environment. As it stands, much of the hype around AI has focused on self-driving cars and voice-controlled robots.

Health research neglecting humanitarian crises

There are lingering quality issues and knowledge gaps in health research despite long-standing calls to strengthen it, an article in *The Lancet* has found. The article, published on 8 June, found “notable gaps” in research into respiratory infections, neglected tropical diseases, sexual and reproductive health, and sanitation and hygiene—all of which cause many deaths in humanitarian crises. The authors found only 345 journal articles that dealt with health research in humanitarian crises over a 25-year period ending in 2014.

LOSING MOMENTUM Commission president Jean-Claude Juncker was in Prague this month, receiving a Golden Commemorative Medal from the city's Charles University. The reasons for the award were not entirely clear; neither were parts of Juncker's speech. Looking to the future, he said: "Much of the talk has been about the so-called 'multi-speed Europe'. I prefer calling it the Europe of different speeds, which is not the same. Because whatever the speed, the direction is one." Perhaps one of the university's physicists could explain what he meant?

"SURPRISE!" The start of the Brexit negotiations on 19 June was a happy occasion for British eurosceptics who campaigned for the UK to leave the EU. It was doubly happy for one, UK foreign secretary Boris Johnson, who celebrated his birthday that same day. Hopes among pro-Europeans that Brexit might be an elaborate fabrication to prank Johnson, similar to the fabrications that peppered his campaigning in the run-up to the vote almost exactly a year ago, appear to have been unfounded.

BEAT THE HEAT Summer came to Europe this month, with temperatures soaring above 30 degrees. The head of human resources at the European Committee of the Regions swung into action, as reported by Politico, exhorting staff to "wear light clothing" and "drink water regularly" to avoid dehydration. Brussels is pretty grey

and drizzly most of the year, but surely those trusted with coordinating the work of Europe's regional representatives don't need their hands holding quite this much?

WHAT A DRAG Scientists at France's Université Paris Diderot have been busy tackling a pesky problem that plagues researchers, journalists and other conference-goers of all stripes: what causes a pulled suitcase to rock irritatingly from side to side. "The suitcase oscillation is a mechanical instability due to the genuine coupling between the translation and the rotation motions," Sylvain Courrech du Pont reported in the journal *Proceedings of the Royal Society A*. To solve the problem, "one should rather accelerate than decelerate". Preferably while not tripping anyone up...

PLANET B Elon Musk, the entrepreneur behind the space services company Space X, recently published a paper in the journal *New Space* in which he set out his vision for colonising Mars as a backup in case catastrophe should strike Earth. He suggested using methane-powered ships capable of carrying about 30 times the payload of Europe's Ariane 5 rockets, which would need to make 10,000 flights to ferry a million people to the red planet. Whether the greenhouse gas emissions from such an armada might cook Earth's atmosphere, making the enterprise essential, did not merit a mention.



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