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find open-access preference – p5

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Cooperation Science a tool for diplomacy,
Euro-Arab conference told – p4

Prospects for full costs in Horizon 2020 fade

Deadlock over funding model could delay programme's start

HORIZON 2020 SEEMS unlikely to include an option for participants to be reimbursed on the basis of full costs, as the Council of Ministers and European Commission stand firm on their plans for flat-rate payments.

But a lead negotiator for the European Parliament has said he will not agree to the proposal, threatening to prevent a final decision on the programme this month and delay its start next year.

Research organisations are divided on the issue. Representatives of the European University Association and the European Association of Research and Technology Organisations, Earto, continue to fight for reimbursement based on full costs, whereas the League of European Research Universities, Leru, has called on leaders to accept the flat-rate model, saying a delayed agreement would lead to EU research being “irreparably compromised”.

Representatives of the Council, the Parliament and the Commission are approaching the end of informal trilogue discussions to determine the details of Horizon 2020. Negotiators are aiming for an agreement before 1 July, when the Irish presidency of the Council ends. But disagreement over the funding model to be used, which will determine how much participants are reimbursed for their research expenses, has caused deadlock.

The Council says reimbursement must be made on a flat-rate basis—100 per cent of direct research costs plus an additional 25 per cent of this amount to cover indirect expenses—because this would be a major simplification. But the Parliament wants an option to be included for organisations with high overhead costs, such as universities and research organisations, to be paid on the basis of their full costs.

At a press conference on 28 May, German MEP Christian Ehler said the Parliament “cannot give up defending the interests of stakeholders”.

“We need a move from the Council...otherwise we will need to start all over again under the Lithuanian presidency,” said Ehler, one of the Parliament’s rapporteurs. Supported by representatives of Earto and the European University Association, Ehler urged the

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Council to consider a compromise under which not-for-profit organisations would be offered a full-cost option, to be paid at 70 per cent of the total amount spent.

The secretary-general of Earto, Chris Hull, said this option is essential because “the average research and technology organisation has indirect costs equivalent to about 100 per cent of direct costs”. The solution must be “flat rate for the many who want it, full cost for the few who need it”, he said.

But the press conference had little effect on national research ministers, meeting as the Competitiveness Council on 30 May. Seán Sherlock, Ireland’s research minister, said “a very strong majority” of countries backed the flat-rate model. Brussels sources said that only the UK and Germany remained undecided.

The Council’s stance was welcomed by the elite university group Leru, as well as by the UK Higher Education International Unit. Leru said plans for simplification were “an absolute priority” that “should not be endangered by unrealistic desires”.

Before the meeting, the Commission released a document on how it intends to differentiate between direct and indirect costs for large infrastructures under Horizon 2020. Under a flat-rate model, this “will become a key question for the beneficiaries—and in some cases even decisive for being able to keep similar funding intensities as in FP7,” said the Commission.

However, Hull said this statement was “irrelevant” because the document describes the system already in use under Framework 7, meaning the Commission is proposing “a false solution to a real problem”. In fact, the plans could increase complexity by requiring participants to deviate from usual accounting practices, said Hull.

Brussels sources say the Parliament is awaiting the Council’s official position before planning for the final trilogue on 17 June. Failure to reach a compromise then is likely to defer an agreement until the autumn.

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a **Research** publication

Better together

It is sometimes too easy to forget just how far Pan-EU research has come

At last week's inaugural Arab-Euro Conference on Higher Education in Barcelona, several speakers made the same point: it is hard for countries in the Middle East and north Africa to begin to collaborate in research programmes with Europe when they don't even collaborate with each other.

It is the same in other emerging, but fragmented, research areas all around the world. Visitors to Latin America and east Asia will frequently be struck by the lack of effective cross-border collaboration between near neighbours such as Brazil and Argentina, or Japan and South Korea.

The latter pair are old and mortal enemies, local observers will wearily explain. But there aren't many enmities older than that between France and Germany.

What the EU has proven—and what is far too readily forgotten, in these challenging times—is that even traditionally fractious neighbouring states can organise their affairs on a collaborative basis; one in which free movement of people and ideas is the norm, and war becomes unthinkable.

Research programmes have been, at least until recently, a small component of the EU's budget, but they make up a significant component of this new way of doing things. They have, among other things, built ties between different nations' universities, giving their academics common purpose.

Though universities may only contain a relatively small proportion of a given country's population, they still represent—at the very least—a significant chunk of its intellectual vitality, its way of thinking, and the manner in which the country perceives itself. That is perhaps even more the case in the developing world than it is in Europe.

Universities have played a prominent role in the undulating set of skirmishes and conflicts known, somewhat lazily, as the Arab Spring, and they will continue to play a major part in the development of freer and more democratic societies in that troubled region.

As speakers at the Barcelona conference pointed out, the nations of a stronger and more confident Arab world must place more emphasis on international research collaboration with each other. Sesame, the synchrotron light source due to come on stream in Jordan in 2015, is a good example of what can be achieved.

But much more small-scale collaboration between the region's universities is needed. This need not preclude the involvement of Arab research in European programmes such as Horizon 2020. But the most important role of EU programmes outside the EU itself is to show what can be done, and indeed has to be done, to set regional research collaboration in train.

To judge from the rhetoric of government officials and university managers around the world, it sometimes seems as though every academic should be attempting to collaborate with Harvard or MIT. But in many cases, the partner that is really most useful to work with is far closer at hand. Over three decades, EU research programmes have evolved from a small catalyst for such partnerships into a major engine driving European research. Today, they provide a valuable example of what regional research cooperation can achieve.

elsewhere

“Researchers have to cope with ever-growing bureaucracy. Many early-career scientists are suffering under this, and it makes them wonder whether they want to stay in science.”

Christiane Spiel, a former dean at the University of Vienna, warns that the administrative framework for academic research in Austria is not particularly attractive. *Der Standard*, 28/5/13.

“As we approach the spending review, let us hope that the government holds its nerve about the centrality of science in our economy, the importance of ensuring it is properly funded and the crucial role EU funding plays in the sector.”

ERC Scientific Council member *Athene Donald* urges the UK government to recognise the importance of EU funding for science in the country. *The Guardian*, 28/5/13.

“Our country could be the energy hub for Europe.”

The president of Cyprus, *Antonis Anastasiades*, thinks a planned collaboration on energy development with Greece and Israel would boost his country's energy production enough to allow exports. *Politix*, 23/5/13.

“What you're saying is that because one partner is putting a bit more into the marriage and paying for his partner's lunch, and his partner is telling him a little about what to do and when to come home, we might as well rip the whole thing apart and start again.”

Ed Hinds, whose Centre for Cold Matter at Imperial College London gets £400,000 a year from the EU, compares the UK's threat to leave the EU to a marriage. *BBC Radio 4's Material World*, 9/5/13.

“For me, the single most important element of it is its simplification.”

Research commissioner *Máire Geoghegan-Quinn* talks about her favourite bit of Horizon 2020, the next Pan-European research programme, which will start in 2014. *Pan-European Networks*, 28/5/13.

decade

“The Commission says that it wishes to stimulate innovation but this will stifle it.”

Uta Jensen-Korte, the director of chemical industry lobby group *Cefic*, says that a proposal to restrict chemical imports for R&D to one tonne per project is detrimental to research.

Research Europe, 22 May 2003

what's going on

Earto names Hull's successor

Muriel Attané will replace Christopher Hull as secretary-general of the European Association of Research and Technology Organisations from 1 July. Attané is EU manager of mobility at the Netherlands Organisation for Applied Scientific Research (TNO) and secretary-general of the European Automotive Research Partners Association. Hull has led Earto since it was formed 15 years ago, lobbying for the interests of research and technology organisations in Brussels.

Humanities network planned

A group of 19 European research funding organisations from 18 countries is working with the European Commission on plans for an €18.5-million project in humanities research. The Humanities in the European Research Area network will bring together researchers from around 150 institutions to work in consortia on projects under the theme of Cultural Encounters. Selected projects will be announced at a meeting in Dubrovnik, Croatia, on 30 September.

Sesame accelerator receives €5m from EU and Cern

The EU and the European organisation for nuclear research, Cern, are making a joint contribution of €5 million to supply magnets for an electron storage ring at the Sesame synchrotron, under construction in Jordan. Sesame, a collaboration between nations in the Middle East, will come on stream in 2015.

Scientific agency links fourth pesticide to bee decline

EU researchers have concluded that a fourth pesticide poses a high risk to the health of honeybees, following plans for a ban on three other pesticides in Europe. The European Food Safety Authority says the insecticide fipronil, manufactured by German chemical company BASF, is likely to harm bees when used as a seed treatment for maize.

European human resources accreditation system considered

The European Commission has launched a feasibility study to assess whether a Europe-wide accreditation system to highlight good human resources management in research should be implemented. The accreditation would follow on from the European HR Excellence in Research Awards initiative. As part of the Commission's consultation, UK-based research careers organisation Vitae has produced a report, *HR Strategies for Researchers*, which looks at the changes universities and research institutions are putting in place after receiving an HR award.

Commission funds projects to boost electronics industry

Five research projects aimed at increasing the competitiveness of electronics manufacturers are to receive up to €100 million from the European Commission. The projects link 128 different partners, so that manufacturers work directly with technology companies, chip designers, researchers and universities. They will receive around €700m in total, including contributions from member states and industry.

Research committee confirms funding plans for fusion

Members of the European Parliament's industry, research and energy committee have voted for the Iter fusion project to receive funding outside the Multiannual Financial Framework's competitiveness budget for 2014-18 to ensure its financial security and prevent it having to receive funding from other programmes. It should receive up to €2.6 billion, the committee said.

europe

Euro-Arab science in the spotlight

Inga Vesper reports on how Europe can work with its southern neighbours to boost research and higher education.

Political turmoil since the Arab Spring of 2011 has raised expectations for higher education and research that existing institutions in the region are ill equipped to meet, attendees at the First Arab-Euro Conference on Higher Education were told.

"Our young people are looking for better research opportunities, salaries and study locations," Sultan Abu Orabi, secretary-general of the Association of Arab Universities, told the 360 university officials from Europe, north Africa and the Middle East gathered at the conference in Barcelona. "Prospects for research are still limited in the Arab world, so we need to change that."

The meeting heard that universities in Arab countries are experiencing a rapid loss of talent—largely to Europe—while struggling to develop stronger collaboration with each other. Several speakers cited EU initiatives, such as Horizon 2020 and the Erasmus student exchange programme, as providing models that Arab countries might follow to beef up regional collaboration.

"Horizon 2020, with its focus on excellence generation and entrepreneurship, performs those tasks that we are still ignoring," Sumaya bint El Hassan, the princess of Jordan and president of the country's Royal Scientific Society, told the conference. "If we continue to do that, we commit ourselves to a bleak and stagnant future."

The Arab world has a rich history of science, yet R&D spending in the region is among the lowest in the world. The highest R&D expenditure in the region is the 1 per cent of GDP spent in Tunisia, according to the UN. But Egypt and many Middle Eastern countries spend less than 0.2 per cent of their GDP on R&D—a level lower than that of Nigeria. Recent political unrest has done nothing to change this, said Zein Karrar, the president of Sudan's Medical Council.

Both European and Arab speakers said that closer collaboration could help to make up for low spending, while also putting pressure on local governments to support research and education more wholeheartedly. European partners could help Arab institutions to set up initiatives that mirror the European Research Area and the Bologna Process, the conference heard.

"We want to work towards a regional strategy on research and higher education, and

Europe can help us raise awareness for that at the national level," Karrar said. "One way to do that is to create centres of excellence—and this is where Europe can help as a partner."

Arab speakers said that such initiatives and part-

nerships could also help their institutions gain direct support from Horizon 2020, the next European research-funding programme, which starts in 2014.

Their main fear is that the paucity of resources for research and higher education in the region is leading to a rapid and irreversible brain drain to the universities of Europe—the destination chosen by 40 per cent of Arab overseas students, according to the Association of Arab Universities.

Orabi said the association has estimated that 10,000 scientists leave the Middle East and north Africa every year. "This is more like Europeanisation of higher education, not internationalisation," warned Seddik Afifi, who heads the board of trustees at Egypt's Nahda University.

Michael Gaebel, the head of the higher education policy unit at the European University Association, said that addressing the brain drain is part of the EUA's strategy for internationalisation. He said that by increasing collaboration with the Arab world it would be easier to turn the drain into "brain circulation", with more Arab researchers returning to, and more Europeans visiting, the Middle East and north Africa.

THE CONFERENCE, WHICH RAN from 30 May to 1 June, was co-organised by the Association of Arab Universities and the European University Association.

In October last year the EUA pledged to support and undertake an Arab-Euro Initiative on Higher Education, which will set up working groups to study seven topics: joint degrees, employability, quality assurance, research-based learning, mobility, internationalisation, and adapting different partnership approaches for different types of institution. These issues were selected on the basis that they matter to both European and Arab universities, and are best addressed in collaboration, the EUA and the Association of Arab Universities said.

"Collaboration and internationalisation are the core deficiencies in our institutions," said Hani Helal, a former minister of higher education in Egypt, urging attendees to use their institutions as fresh avenues for diplomacy between the two regions—as had happened, he noted, with both the European particle physics laboratory Cern and the Sesame synchrotron in Jordan.

The Arab-Euro higher education conference will take place annually, with next year's set in an Arab location.

'Horizon 2020... performs those tasks that we are still ignoring.'

Global accord on open-access route 'impossible'

The heads of 70 of the world's research funding agencies have not prioritised the green or gold route for open access, despite agreeing a set of broad principles at a three-day meeting of the Global Research Council.

The GRC, which was launched last year as a consultative grouping of research agencies, met from 27 to 29 May to discuss research integrity and open access to publications, endorsing joint statements for each.

In its action plan, the GRC says organisations should promote open access and increase the support available for open-access publication, as well as develop ways to assess implementation of these actions.

However, there is no mention of green or gold open access in the plan. At a press conference on 29 May, Peter Strohschneider, president of the DFG, the German research foundation, said "it is impossible, with respect to the global situation, to prioritise one or the other way right now".

Curt Rice, vice-president for R&D at the University of Tromsø, says this is the right decision for such a large international body. However, he is critical of the "unjustifiably optimistic" idea that agencies could work with publishers to integrate funding for open

by Rebecca Hill

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access in cases where journals continue to make money from subscription fees while also charging for article publication.

Meanwhile, Mustafa Özbilgin, a professor of organisational behaviour at Brunel University, described the plan as well intentioned but lacking bite.

"The GRC misses a chance to critically engage with the evolution of science and dissemination of scientific knowledge," he says. "A blanket statement that open access is good makes poor science itself."

The debate is set to continue at the 2014 GRC meeting in Beijing. Helga Nowotny, president of the European Research Council, says the situation is more complex than some initially thought. "There are divided opinions on gold, green or hybrid open access in Europe and the United States, but this is even more complicated when you come to Africa and Latin America," she says.

The joint statement on principles for research integrity includes promoting transparent funding and decision-making processes, and adopting research integrity as a condition of funding.

Academies urge action on carbon capture

National science academies have told the European Commission that it must radically increase spending on carbon capture and storage if the technology is to be part of the EU's energy policy as planned.

Members of the European Academies Science Advisory Council met with Commission representatives on 22 May to urge significant R&D investment in the technology, to make it a viable option to tackle climate change.

The EU has said that by 2050 it wants up to one-third of power generation to include CCS, as part of plans to reduce greenhouse emissions. The technology, which captures carbon at source for later disposal, involves relocating emissions to underground storage sites. But according to a report published by Easac, development of the technology has stalled in recent years because there is no financial incentive to invest.

"Technologies, capacity and infrastructure need to be developed urgently," said Brian Heap, president of Easac. "CCS is not a tap that can simply be turned on, if and when."

"For companies that develop and sell technologies, it had been seen as a big new opportunity," says John

by Laura Greenhalgh

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Holmes, secretary for Easac's energy programme. But the collapse of carbon prices under the EU's Emissions Trading System has "really undermined the business case", he says.

The Commission must provide incentives to "tip the economies in favour of CCS" and share risks between governments and commercial developers, says Easac. This could include feed-in tariffs under the ETS, or public funding for demonstration projects.

Easac says that successful operation of the technology on a commercial scale will require at least 10 years of further R&D, to answer questions such as how to transport carbon dioxide, and to prove the safety of the storage sites. This research is vital, it says, because there are no feasible alternatives to reduce carbon dioxide emissions. "Somehow money needs to go in," says Holmes.

Easac's recommendations are the result of a two-year study into CCS by scientists from its member academies. The Commission has said it will consider them as part of an ongoing consultation on the technology.

Hopes of Italian physicists rest on funding for Cabibbo-Lab particle accelerator

A €250-million particle accelerator has been proposed by the Italian research group Cabibbo-Lab as a renewed take on the €1-billion project SuperB, cancelled by the government in December due to lack of funding.

The High Luminosity Tau-Charm Factory's particle accelerator is seen by physicists in Italy as an opportunity to restore the reputation of the country's science following the severe cuts made as a consequence of recession.

The collider would be complementary to the Large Hadron Collider at Cern, the European organisation for nuclear research. Cern has already backed the initiative, promising to second 15 researchers to work on it.

The Rome-based Cabibbo-Lab, which is expected to host the centre, held a conference from 26 to 30 May to create a detailed project plan. Representatives of the lab said they hope that having a plan in place will prompt additional government funding and support from international partners.

Further financing for the accelerator could come through partnerships with other EU countries, said Roberto Petronzio, general director at Cabibbo-Lab. This could include the European Commission's European Strategy Forum for Research Infrastructures.

by Lou del Bello

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"The project could play an important part in Europe's renewed interest in infrastructure, shared by countries such as France and Germany," Petronzio explained. "The latter has recently funded two major pieces of research infrastructure for €1bn each."

Petronzio added that Italy's prime minister, Enrico Letta, has promised more spending on infrastructure. However, it is not yet clear how this will affect Italy's next research plan, to be written by research minister Maria Chiara Carrozza this year.

Cabibbo-Lab is hosted by the Istituto Nazionale di Fisica Nucleare, one of 12 public research centres for which funding was cut by 10 per cent for 2013-14 by the previous government.

Marcello Giorgi, research director at Cabibbo-Lab, said that the economic benefits of having a particle accelerator would justify investment at a time when other research institutes are struggling. "The economic return of promoting research in physics is indubitable, with high-profile know-how being built in Italy making us competitive worldwide," Giorgi said.

Leaders want more cooperation in Antarctic

Policymakers and scientists have called on governments worldwide to step up joint research activities in the South Pole, in particular through cooperative use of research stations in Antarctica.

Prince Albert II of Monaco and Michel Rocard, France's ambassador for the poles and former prime minister, made a plea for better cooperation at the 36th Antarctic Treaty Consultative Meeting, held in Brussels from 20 to 29 May.

"Only two [Antarctic research stations] are international, with only two countries involved in each," the prince said. One station, the Concordia, is run jointly by France and Italy, and the UK allows Dutch researchers to use its Antarctic facilities.

Sharing infrastructure would lower research costs and minimise the operations' impact on the continent's fragile ecosystem, Rocard added. "This will have a double impact, both on the development of science and in favour of international harmony," he said.

"We have already been sharing results [between countries] since the 1960s," a source close to the negotiations told *Research Europe*, adding that member states often join forces for bilateral research projects or by sharing planes. Developing more systematic avenues for science cooperation will take time, the source added.

by Tania Rabesandratana

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The Antarctic Treaty was signed during the Cold War in 1959 to appease tensions and freeze territorial claims on the continent. It bans military activities, but guarantees scientific freedom. The 1991 Madrid Protocol on Environmental Protection, which expires in 2048, prohibits the exploitation of mineral resources, except for scientific purposes.

However, observers have expressed concern that some countries use scientific research as a step towards commercial activities. For instance, Belgium has expressed concern about plans to patent genetic resources from microorganisms adapted to extreme conditions that could yield lucrative industrial applications. "We know some have hidden agendas, but they remain exceptions," our source said.

One of the meeting's main achievements was the adoption of a five-year strategic plan that will make work more efficient in the future. The next meeting will pick up on issues highlighted in the plan, including dealing with the impact of climate change and controlling human activities on the continent. Delegates also agreed to regulate the search for biological materials that can be used to make products such as medicines.

michael galsworthy **view from the top**

Thinking big by thinking small

It's a paradox that while Europe's scientific output is very solid, the continent lags behind the United States and Japan when it comes to getting economic traction from that scientific engine. The US, for example, earns three times more than Europe in overseas revenues from licences and patents.

The European Council believes the answer lies in better engagement between research institutes and business, particularly small and medium-sized enterprises. With this in mind, the EU is planning to put some 20 to 25 per cent of Horizon 2020's €70-billion budget into a ring fence for business.

This faith in small businesses marks a game-changing shift away from the academic focus of the preceding Framework programmes, towards a bid to tackle challenges such as health, society and sustainability through science and innovation. EU research funding is moving from knowledge-building alone to knowledge-building plus money-saving and money-making.

The focus on small businesses has forced the European Commission to address something very important: bureaucracy. Academics have long complained about red tape—in particular, the ludicrous interval that can pass between a grant application and getting money in the bank—but it has taken declining industry participation in EU-funded science to prompt action.

This 'Eurocracy' has formed a barrier to small businesses and small research institutes, which lack the administrative capacity to deal with such a burden. Now, the EU is promising changes such as a cut of 15 to 20 per cent in administration costs, full compensation of direct costs and a simple system for reimbursing indirect costs, an end to pointless time sheets, and faster time-to-grant turnaround—although a promised 100-day reduction from the average of 331 days leaves room for improvement.

Getting small businesses involved in Horizon 2020 serves an additional purpose. It begins to network small businesses with innovative environments and improve their survival chances by allowing more to grow and mature on grant money rather than bank loans.

The wider context is that the EU wants to help small businesses, and in particular micro-enterprises, defined as those with fewer than 10 employees and a turnover of less than €2 million. Small businesses account for 99 per cent of all European businesses; micro-enterprises comprise 92 per cent of these. They provide over two-thirds of all jobs in the private sector, but individually they are often fragile entities, easily hobbled by bureaucracy and sensitive to cash-flow problems.

Michael Galsworthy is in the Department of Applied Health Research at University College London.

What's more, European small businesses grow more slowly than their US counterparts, probably thanks to bureaucratic shackling, a more fragmented market and reduced access to venture capital and loans. This is why the Commission is now claiming to "think small first".

Wider measures to help small businesses across Europe include the dropping of the apostille treaty (a form of international certification for documents) and certified translation. There have been efforts to find regulatory exemptions for micro-enterprises and to facilitate microloans—those of less than €25,000—by having the EU provide guarantees, credit and equity to intermediaries, who can then lend to small businesses.

This would all help tremendously, but it would still leave the question of how to let small companies know there is a pot of gold with their name scribbled on the side. Micro-businesses and start-ups tend not to look to the EU for funding, and are not usually part of the networks that transmit news of such opportunities.

In February 2008, the Commission launched the Enterprise Europe Network to help small businesses achieve their innovative potential. The EEN is the largest information and consultancy network in Europe, but it still needs better links to incubators and national small-business support programmes. So far, small businesses have had little success at banding together to shape EU policy.

To this end, a new initiative, called Vision2020: The Horizon Network, was launched in January. A collaboration between European universities (including my own, although I am not professionally involved), research institutes, leading companies and a growing number of small businesses, Vision2020 aims to build networks and drive policy at the interface between academia and business.

Vision2020 mirrors the structure of Horizon 2020, placing members in thematic clusters to target funding. Small businesses will be on board from the outset, giving them a voice in project design, rather than just being subcontracted to serve research institutions.

All in all, small businesses with an appetite for research will soon find themselves with less red tape, more money and a new attitude from research institutes, which will see them as enablers of projects. As to whether bringing more small businesses into research funding will drive a new era of European innovation and economic growth, we can only wait and see.

Something to add? Email comment@ResearchResearch.com

'Horizon 2020's faith in small businesses marks a game-changing shift.'

view from the top pep salas

Plugging in to Europe's innovation grid

In the summer of 2011, I was doing a PhD on the social and technological aspects of smart grid technology at the Polytechnic University of Catalonia in Barcelona. Smart grids are electricity networks that gather data on their dynamics through the chain from generation to consumer, with the aim of becoming more reliable, efficient and sustainable.

The technology and market for smart grids are most dynamic in the United States and among large-scale electricity users. In comparison, there is little aimed at the European residential market, which accounts for more than a quarter of the EU's electricity consumption.

This struck me as an opportunity. And so, working with Roger Segura, an engineer with entrepreneurial experience, I began developing the idea for a company that would help the residential electricity market to exploit this huge volume of data.

I had previous experience of running a start-up, in photovoltaics, which had won funding from Framework Programme 6. Thanks to this, I was aware of a more recent venture from the European Institute of Innovation and Technology: the Knowledge and Innovation Communities, which aim to bring together expertise in business, research and technology.

As we were shaping our business idea, I enrolled in a week-long course for students and entrepreneurs, called From Science to Business, run by KIC InnoEnergy in Barcelona. This showed me that KIC InnoEnergy's resources went far beyond funding, to provide a programme that connected entrepreneurs to contacts in business, finance and education, through whom we could reach potential customers, coaching and investment.

Before we could gain access to these riches, we had to pass two assessments, in the project's technical and business aspects, which took several months. We had to show that our business model could work at a European level, that our technology was potentially patentable, and that our team was competent to move the business forward. We also had to negotiate what KIC InnoEnergy would get in return for its support.

By May last year, we had a deal. KIC InnoEnergy took a 10 per cent stake in the company, now called Enerbyte Smart Energy Solutions. In return, we gained access to an innovation ecosystem aimed at pushing the company into the market.

For the past year, Enerbyte has been housed within KIC InnoEnergy's start-up accelerator in Barcelona. We are developing a suite of software

tools to help electricity retailers change their relationship with their residential customers.

This software uses data on energy consumption, prices, and social and personal circumstances—such as a residence's type and number of inhabitants—to profile energy consumers in different clusters according to sociological criteria. From these profiles, we provide targeted energy-saving suggestions through web, mobile apps and paper reports. Information on consumer decisions is fed back to retailers, to help them improve their relationship with customers, devise marketing strategies, and generate new products and services.

Enerbyte has raised €400,000 in equity and loans from KIC InnoEnergy's investment fund, a Spanish government scheme, a business angel, entrepreneurs and employees. Our team has grown to five people, including the former chief technology officer of a large electric utility. And we have two customers: an electric utility, with which we are developing a pilot project involving 1,000 customers, and the town of Rubí near Barcelona, where Enerbyte is managing the energy consumption of 200 households through a mobile app. We are negotiating with other utilities in Catalonia and Europe, and have applied for a grant from the European Commission's Intelligent Energy Europe programme to expand into other markets, including Sweden and Malta.

Without our partnership with KIC InnoEnergy, it is unlikely that all this would have happened. And despite the positive progress, we have faced difficulties, in particular the several factors that impose a drag on the time it takes for our technology to reach the market. Our clients, electricity retailers, want evidence of technical and commercial skills before making a commitment. Smart grids are a recent innovation, and the market has inertias that make it difficult for our potential customers to take any risk. Also, the market and regulatory variation created by the different rates at which European countries are rolling out smart meters poses us a problem that requires careful and time-consuming management.

From our experience, KIC InnoEnergy is a valuable, well-structured initiative with the right priorities. That's why I have no doubt that energy technologies developed there will transfer successfully to the European market in the next decade. Enerbyte is working hard to become one of those.

More to say? Email comment@ResearchResearch.com

Pep Salas is the co-founder and chief scientific officer of Enerbyte Smart Energy Solutions.

'The KIC's resources went far beyond funding.'

highlights

Issue no. 366

EU development policy

The Directorate General for Development and Cooperation invites proposals on mobilising European research for development policies initiative: fifth European report on development. Funding is worth €1.3 million [7].

EU cultural tourism

The Directorate-General for Enterprise and Industry invites proposals for support for transnational tourism based on European cultural and industrial heritage. The budget is €1 million [9].

EU education and training

The Education, Audiovisual and Culture Executive Agency invites proposals for support for European cooperation in education and training. The budget is €4 million [12].

EU smart grids research

Smartgrids ERA-Net invites proposals for its third call for applied research. The budget is €3.6 million [37].

Disaster risk management

The International Federation of Red Cross and Red Crescent Societies invite applications for research into capacity building for disaster risk management. Funding is worth up to CHF1.3 million (€1m) [46].

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

21 EU ESF-EMBO symposium on integrated insect immunology: from basic biology to environmental applications 1171495

UK Royal College of Surgeons of Edinburgh small grants 255235

FR Organisation for Economic Co-operation and Development Thomas J Alexander fellowship 1171030

EU European Food Safety Authority review of human biomonitoring for chemical substances and its application to human exposure assessment for food safety 1173371

24 EU European Food Safety Authority review of modelling frameworks and techniques for assessing the risk of pathogen introduction and establishment, and the risk of pathogen transmission and spread 1172848

EU Directorate-General for Employment, Social Affairs and Inclusion information, consultation and participation of representatives of undertakings 1159453

EU Directorate-General for Environment mid-term review of the EU biodiversity strategy 1173541

25 EU Directorate-General for Environment LIFE+ call for proposals 252916

EU ESF Gaia research for European training in astronomy exchange grants 1158727

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27 EU Education, Audiovisual and Culture Executive Agency information activities for young people and those active in youth work and youth organisations 1159548

EU ERA-Net ERA-MIN first joint call on sustainable and responsible supply of primary resources 1170291

UK Ministry of Defence Centre for Defence Enterprise countering insider threat attacks 1173543

28 DE Gerda Henkel Foundation special programme on central Asia 1160356

DE Gerda Henkel Foundation special programme on Islam, the modern nation state and transnational movements 1160353

NL European Hematology Association/American Society of Hematology translational research training in haematology 1159749

EU European Food Safety Authority summary reports from dossiers on food enzymes 1172900

30 ES Madrid Institute for Advanced Studies Marie Curie AMAROUT-II fellowships 1170247

IT Gino Galletti Foundation neuroscience prize 250978

UK Royal College of Physicians and Surgeons of Glasgow TC White Bequest awards 257504

EU ESF evaluating information access systems short visit and exchange grants 1163599

EU ESF quantitative models of cellular and developmental biology exchange grants 1164860

EU ESF tall tower and surface research network for verification of climate-relevant emissions of human origins in Europe short visits and exchange grants 1162096

UK Multiple Sclerosis International Federation Du Pré grants 251696

BE International Society of Orthopaedic Surgery and Traumatology paediatric surgery fellowship 1167686

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

DE German Academic Exchange Service (DAAD) innovative higher education strategies partnerships with institutions in developing countries 1173249

CH European Association for the Study of the Liver physician scientist fellowships 1173277

July

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

UK Royal Society of Chemistry JWT Jones travelling fellowship 256367

CH Union for International Cancer Control Yamagiwa-Yoshida memorial international cancer study grants 211248

BE European Society of Contraception and Reproductive Health project grants 1170015

BE European Society of Contraception and Reproductive Health grants for courses 1170016

EU ESF new frontiers of infinity workshops and summer schools grants 1162092

europa

Inflammatory bowel disease

The European Crohn's and Colitis Organisation invites applications for the following inflammatory bowel disease awards:

• fellowships, worth €40,000 each.
Web id: 194827

• grants, worth €20,000 each.

Web id: 192551

Email: ecco@ecco-ibd.eu

Deadline: 1 October 2013 [1]

EU climate change adaptation

The Directorate-General for Climate Action invites tenders for its call on the implementation of climate change adaptation on employment in the EU. Funding is worth up to €200,000.

Web id: 1173730

Email: clima-tenders@ec.europa.eu

Deadline: 5 July 2013 [3]

EU environmental calls

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

• restoration efforts required for achieving the objectives of the birds and habitats directives. The budget is €300,000. **Web id: 1173763**

• establishment of a European red list of habitats. The budget is €1.5 million. **Web id: 1173764**

• framework for the identification of invasive alien species of EU concern. The budget is €100,000. **Web id: 1173765**

Email: env-tenders@ec.europa.eu

Deadline: 8 July 2013 [4]

EU development policy

The Directorate General for Development and Cooperation, together with the governments of Finland, France, Germany and Luxembourg, invites proposals on mobilising European research for development policies initiative: fifth European report on development – financing and other means of implementation in the post-2015 context. Funding is worth €1.3 million.

Web id: 1173685

Email: europeaid-r5-call-for-tenders@ec.europa.eu

Deadline: 15 July 2013 [7]

EU data collection

The Directorate-General for Employment, Social Affairs and Inclusion invites proposals for data collection and validation support for the management of the European Social Fund 2014-2020. Funding is worth €500,000.

Web id: 1173758

Email: empl-vt-2013-018@ec.europa.eu

Deadline: 18 July 2013 [8]

EU cultural tourism

The Directorate-General for Enterprise and Industry invites proposals for cooperation projects to support transnational tourism based on European cultural and industrial heritage. Applications may be submitted by consortia of at least five partners, including two national or regional public authorities. The budget is €1 million and projects may request up to €200,000.

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Web id: 1168366

Email: entr-cfp-1369-cult-indu-tou@ec.europa.eu

Deadline: 31 July 2013 [9]

EU FP7 evaluation

The Directorate-General for Research and Innovation invites proposals for ex-post evaluation and impact assessment of funding in the thematic area nanosciences, nanotechnologies, materials and new production technologies – FP7-specific programme cooperation. The budget is €400,000.

Web id: 1173681

Contact: DG RTD, Directorate G, Unit G.1, 1049 Brussels, Belgium

Deadline: 2 August 2013 [10]

EU education and training

The Education, Audiovisual and Culture Executive Agency invites proposals for support for European cooperation in education and training. This aims to support countries' efforts to meet the objectives of Europe 2020 by supporting awareness-raising and institutional commitment; promoting skills for growth, competitiveness and youth employability; and supporting the development, testing and evaluation of innovative policy solutions to reduce early school leaving. Partnerships must involve at least five organisations from three or more eligible countries. The budget is €4 million.

Web id: 252227

Contact: EACEA, Avenue du Bourget 1, 1140 Brussels, Belgium

Deadline: 16 September 2013 [12]

Osteoporosis prize

The European Society on Clinical and Economic Aspects of Osteoporosis and Osteoarthritis, together with the International Osteoporosis Foundation and Servier, invites applications for the Pierre Delmas prize. This recognises an individual for outstanding contributions to the study of bone and mineral diseases. The prize is worth €40,000.

Web id: 255555

Email: esceoasbl@skynet.be

Deadline: 1 January 2014 [13]

EU policy awards

The Commission for Educational Exchange between the US, Belgium and Luxembourg invites applications for the Fulbright Schuman awards. These facilitate study, research or lecture at US institutions on a topic relevant to US-EU relations, EU policy or EU institutions. Funding is worth up to €29,000.

Web id: 1169080

Email: fulbright.advisor@kbr.be

Deadline: 1 February 2014 [14]

Mobility fellowships

The Network of European Institutes for Advanced Study invites applications for its fellowships. These enable scholars to undertake 10-month residencies in one of the participating EURIAS institutes. Fellowships are offered in the humanities and social sciences but may also be granted for life and exact sciences. A living allowance of up to €38,000 is available, as well as support towards accommodation costs, a research budget and travel expenses.

Web id: 1160080

Email: raquel.sanz-barrio@eurias-fp.eu

Deadline: 5 July 2013 [15]

Doctoral grants

The Institut Pasteur International Division invites applications for its doctoral grants. These allow students to perform their doctoral training in an institute of the Institut Pasteur international network, but not in metropolitan France. Fellowships may cover infectious diseases, including infectious physiopathology, immunology, microbiology, epidemiology, virology and parasitology, and health service activities, including surveillance and resistance.

Web id: 1173797

Email: eliane.coeffier@pasteur.fr

Deadline: 12 July 2013 [16]

EU solar research

Solar Facilities for the European Research Area invites applications for its call for access. This enables user groups to access SFERA's solar research facilities in Spain, France, Switzerland, Israel and Italy. Funding includes a contribution towards the accommodation costs of the user group.

Web id: 1172225

Email: access-sfera@sollab.eu

Deadline: 9 September 2013 [17]

EU wind tunnel testing

The European Aviation Safety Agency invites proposals for de-icing fluid wind tunnel testing. Funding is worth up to €150,000.

Web id: 1173761

Email: tenders@easa.europa.eu

Deadline: 2 July 2013 [18]

Neuroscience awards

The Federation of European Neuroscience Societies invites applications and nominations for the Boehringer Ingelheim FENS research award. This recognises innovative scientific efforts in neuroscience research. Funding is worth €25,000.

Web id: 182775

Tel: +49 30 9406 3336

Deadline: 31 July 2013 [19]

Diabetes research

The European Foundation for the Study of Diabetes, together with the Juvenile Diabetes Research Foundation and Novo Nordisk, invites applications for the following awards:

- research fellowships in type 1 diabetes research, worth €50,000 each.

Web id: 1167898

- European programme in type 1 diabetes research grants, worth up to €400,000.

Web id: 201616

Email: foundation@easod.org

Deadline: 1 October 2013 [20]

Synthetic organic chemistry

Thieme Chemistry and the International Union of Pure and Applied Chemistry invite nominations for their prize in synthetic organic chemistry. The prize, worth €5,000, will be awarded for independent research dealing with synthesis in the broadest context of organic chemistry, including organometallic chemistry, medicinal and biological chemistry, designed molecules and materials.

Web id: 256180

Email: marcus.white@thieme.de

Deadline: 13 December 2013 [22]

Molecular biology

The European Molecular Biology Organisation invites applications for its gold medal. This recognises contributions to

molecular biology research by scientists below the age of 40 working in EMBC member states. Winners receive a bursary of €10,000.

Web id: 206979

Email: laura.alvarez@embo.org

Deadline: 1 February 2014 [23]

EU education

Cedefop, the European Centre for the Development of Vocational Training, invites proposals on supporting continuing professional development of trainers in enterprises. The budget is €220,000.

Web id: 1173759

Email: c4t-services@cedefop.europa.eu

Deadline: 8 July 2013 [25]

EU quality of life survey

The European Foundation for the Improvement of Living and Working Conditions invites proposals for the third European quality of life survey. Tenders may be submitted for one or more of the following lots: trends in quality of life in Croatia, trends in quality of life in the Former Yugoslav Republic of Macedonia, trends in quality of life in Turkey, and literature review and data analysis to develop country groupings.

Web id: 1173644

Email: osutenders@eurofound.europa.eu

Deadline: 26 June 2013 [26]

Celtic studies

The Dublin Institute for Advanced Studies' School of Celtic Studies invites applications for the O'Donovan scholarships. These are awarded to up to six doctoral or postdoctoral students. Scholarships are tenable for three years and are worth up to €25,000.

Web id: 205387

Email: eibhlin@celt.dias.ie

Deadline: 30 June 2013 [27]

Marine sciences fellowships

The National Research Council of Italy invites proposals for its call for fellowships within the programme best action for national development of international expert researchers activities. Six fellowships are available for researchers to carry out projects at Italian research institutions in oceanography and marine sciences within the objectives of the Ritmare flagship project. Fellowships are worth up to €156,000.

Web id: 1173772

Email: cofundbandiera@cnr.it

Deadline: 24 June 2013 [28]

EU knowledge exchange

The Central European Initiative invites applications for its know-how exchange programme. This supports the transfer of best practice and transformation experience from CEI EU members to non-EU member states. Projects should address: European integration, capacity building and market economy; infrastructure planning and development; agriculture, energy and environment. The budget is €220,000 and grants are worth up to €40,000.

Web id: 1159295

Email: biadene@cei.int

Deadline: 17 July 2013 [29]

Genetic disease

The Telethon Foundation invites applications for its career award programme. Three entry-level awards are available

to individuals who wish to focus their research on diseases of proven genetic origin. Funding is worth up to €522,000.

Web id: 151356

Email: soffice@telethon.it

Deadline: 26 July 2013 [30]

EU plant protection products

The European Food Safety Authority invites proposals for a scenario selection and scenario parameterisation for permanent crops and row crops on ridges in support of predicting environmental concentrations of plant protection products and their transformation products in soil. The maximum budget is €150,000.

Web id: 1173787

Email: repro.grants.and.procurements@efsa.europa.eu

Deadline: 30 August 2013 [32]

EU health statistics

Eurostat invites proposals for studies on health expenditures by diseases and conditions. Funding is worth 650 working days.

Web id: 1173547

Email: estat-financial-cell-dirf@ec.europa.eu

Deadline: 28 June 2013 [33]

EU consumer protection

The Executive Agency for Health and Consumers invites proposals for joint actions between national authorities responsible for the enforcement of consumer protection laws. Actions should improve the effective application of consumer protection cooperation regulation EC 2006/2004, notably articles 16 and 17, through cooperation between competent authorities and single liaison offices. The budget is €250,000.

Web id: 1166441

Email: eahc-cp-calls@ec.europa.eu

Deadline: 2 September 2013 [34]

Heritage awards

Europa Nostra, supported by the European Commission, invites applications for the European Union prize for cultural heritage and the Europa Nostra awards. Four awards are granted to identify and promote best practices in the conservation of tangible cultural heritage, to stimulate the trans-frontier exchanges of knowledge and experience throughout Europe, to enhance public awareness and appreciation of Europe's cultural heritage, and to encourage further initiatives through the power of example. Prizes are worth €10,000 each.

Web id: 1173676

Email: eb@europanostra.org

Deadline: 9 September 2013 [35]

Neuromuscular diseases

The European Neuromuscular Centre invites applications for its workshops. The outcomes of the workshops will be published in *Neuromuscular Disorders*.

Web id: 196189

Email: enmc@enmc.org

Deadline: 15 September 2013 [36]

EU smart grids research

Smartgrids ERA-Net invites proposals for its third call for applied research. The aim is to generate joint European applied research activities on smart grids with a focus on: energy efficient operation of active distribution networks; smart retail

Research Europe

ISSN 1366-9885

Published every two weeks with breaks at Christmas, Easter and in summer. The next issue will be published on 20 June.

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and consumer technologies and services including smart metering; ICT tools for smart grids; interface between the grid and the end users including aspects related to security, privacy, regulation and business cases; storage and balancing. Consortia of partners from at least three participating countries may apply. The budget is €3.6 million.

Web id: 1173774

Email: lj@nordicenergy.org

Deadline: 2 September 2013 [37]

Vision research award

The Champalimaud Foundation invites nominations for the Champalimaud vision award. This is awarded to active research groups involved in basic or clinical research that has led to a major breakthrough in the understanding or preservation of vision. The award is worth €1 million.

Web id: 206992

Email: award@fchampalimaud.org

Deadline: 31 December 2013 [38]

Eastern Europe courses

The International Visegrad Fund invites applications for its university studies grants. These enable universities to develop and launch outstanding university courses or degree programmes that deal with specific phenomena related to the Czech Republic, Hungary, Poland and Slovakia. The budget is €280,000 and universities may request approximately €10,000 per course and €40,000 per degree programme.

Web id: 1169917

Email: visegradfund@visegradfund.org

Deadline: 10 November 2013 [40]

Science/technology mobility

Aragon Research and Development invites applications for its Araid-EU programme. Six research positions in the following areas are available: biomedicine and health sciences, ICT, food science and technology, social and cultural development, environment and sustainability, nanosciences and nanotechnology, and technological development based on new materials and processing.

Web id: 1162939

Email: araid@araid.es

Deadline: 25 June 2013 [41]

EU environment management

The Joint Research Centre invites proposals for its technical support on best environmental management practice for the manufacture of electronic and electrical equipment and car manufacturing sectors. The budget is €250,000.

Web id: 1173788

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

Deadline: 26 August 2013 [42]

Leukaemia fellowship

The José Carreras International Leukaemia Foundation invites applications for the ED Thomas postdoctoral fellowship. This supports research in leukaemia or related haematological disorders. The fellowship is worth up to €150,000.

Web id: 254977

Email: fundacio@fccarreras.es

Deadline: 4 November 2013 [43]

Allergy prize

Thermo Fisher Scientific invites nominations for the PhARF award. This recognises contributions by young scientists to the

field of allergy through creative and independent research efforts. The prize is worth US\$50,000 (€38,300).

Web id: 260098

Email: marie.lantz@thermofisher.com

Deadline: 31 December 2013 [44]

Mapping of data collection

The World Health Organization invites expressions of interest to map existing efforts of data collection and tools used for collecting information on women's sexual reproductive health, and maternal, newborn and child health in different humanitarian emergencies.

Web id: 1173684

Email: mathaim@who.int

Deadline: 20 June 2013 [45]

Disaster risk management

The International Federation of Red Cross and Red Crescent Societies invite applications for strategic research into national and local capacity building for disaster risk management. The objective is to increase the effectiveness of international efforts to support the capacity building of national and local institutions that are the key to building resilience and to first-line humanitarian response. Funding is worth up to CHF1.3 million (€1m).

Web id: 1173273

Tel: +41 22 730 4222

Deadline: 1 July 2013 [46]

Neurology fellowship

The European Neurological Society invites applications for its fellowship. This is awarded to applicants wishing to participate in an exchange with a host institution in Europe in 2014. The applicant should be affiliated to an academic neurological department and be less than 40 years of age. The scholarship is worth up to €12,000.

Web id: 1164415

Email: info@ensinfo.org

Deadline: 17 October 2013 [47]

Rheumatology research

The European League Against Rheumatism invites applications for its health professionals research grant. Each project must involve at least three European countries. Each grants is worth up to €30,000.

Web id: 196008

Email: patrizia.jud@eular.org

Deadline: 14 November 2013 [48]

EU mosquito infrastructure

INFRAVEC invites proposals for its call for access. This enables users to access research infrastructure outside their own countries. Access to four facilities in Europe is available, providing mosquito genetic facility, mosquito mass-rearing facility, vectorbase and mosquito confined-release facility.

Web id: 1173441

Email: infravec@imperial.ac.uk

No deadline [50]

Biology grants

The Company of Biologists invites applications for its scientific meeting grants. These are for hosting meetings, workshops and conferences in biology. Grants are worth up to £6,000 (€7,000).

Web id: 1173309

Email: charity@biologists.com

Deadline: 9 August 2013 [53]

Chemistry prizes

The Royal Society of Chemistry invites nominations for its centenary prizes. These are awarded to outstanding chemists from overseas, who are also exceptional communicators, to give lectures in the British Isles. Prizes are worth £5,000 (€5,800) each.

Web id: 211181

Tel: +44 1223 420 066

Deadline: 15 January 2014 [55]

rest of world

Israel fellowships

The Lady Davis Fellowship Trust invites applications for its visiting professorships at the Technion Institute. These support visits of up to nine months during the academic year. Funding includes a monthly salary of up to US\$2,400 (€1,800), plus a monthly housing allowance of US\$100 and one return airline ticket to Israel.

Web id: 192790

Email: kayellet@tx.technion.ac.il

Deadline: 30 November 2013 [56]

Glycoscience grants

The Mizutani Foundation for Glycoscience invites applications for its research grants. These support basic and applied studies in glycoscience. The annual budget is ¥70 million (€531,300) and up to ¥7m is available per project.

Web id: 203995

Email: info@mizutanifdn.or.jp

Deadline: 1 September 2013 [57]

International understanding

The Sasakawa Peace Foundation offers support for projects addressing problems in international understanding, exchange and cooperation. Priority areas are: efforts to ensure peace and security in the international community, addressing positive and negative aspects of globalisation, and promotion of mutual understanding between priority regions and Japan. Awards are worth up to US\$100,000 (€76,600).

Web id: 207913

Contact: SPF, Nippon Foundation Bldg, 4th floor, 1-2-2 Akasaka, Minato-ku, Tokyo 107-8523, Japan

Deadline: 31 October 2013 [58]

Chinese publications

The Chian Ching-kuo Foundation for International Scholarly Exchange invites applications for its publication subsidies. These fund academic publications in Chinese studies. Publication budgets should not exceed €10,000.

Web id: 1164810

Email: cckf@ms1.hinet.net

Deadline: 15 September 2013 [60]

Energy prize

The Mubadala Development Company invites applications for the Zayed future energy prize. This celebrates achievements that reflect innovation, long-term vision and leadership in renewable energy and sustainability. The prize fund is US\$4 million (€3m).

Web id: 1160614

Email: info@zayedfutureenergyprize.com

Deadline: 5 August 2013 [61]

tenders

Air bladders technology ESA*

The European Space Agency has issued a call for proposals for air bladders bonding and sealing technologies in manned inflatable structures. The tenderer shall improve the current air bladder interfacing to flanges of bulkheads and window frames minimising the leakage. Funding is worth between €200,000 and €500,000. Ref. 12.133.10. Deadline: 10 July 2013.

Test-bed validation ESA*

The European Space Agency has issued a call for proposals for failure detection isolation and recovery test-bed. The tenderer shall build a configurable test-bed to validate failure detection isolation and recovery concepts and implementations for spacecraft avionics data systems. Funding is worth between €200,000 and €500,000. Ref. 11.1ED.04. Deadline: 15 July 2013.

High-efficiency SSPA ESA*

The European Space Agency has issued a call for proposals for flexible and high-efficiency SSPA (Artes 5.1 Ref.5C.170). The tenderer shall design, build and test an engineering model to demonstrate improved efficiency, power flexibility, high output power and good linearity in C band. Funding is worth up to €500,000. Ref. 12.1TT.19. Deadline: 23 July 2013.

Road maintenance study ESA*

The European Space Agency has issued a call for proposals for a feasibility study on space-based services for winter road maintenance. The tenderer shall determine the technical feasibility and economic viability of a space-based service supporting winter road maintenance, making use of satellite based precision navigation and earth observation data. User communities include national transport administrations, which are ultimately responsible for road maintenance, and may also include organisations active in snow ploughing and similar activities. Funding is worth between €200,000 and €500,000. Ref. 13.1AA.02. Deadline: 29 July 2013.

Silicon photodiode ESA*

The European Space Agency has issued a call for proposals for the manufacturing and preliminary space assessment of a new multi-channel silicon photodiode for optical encoders. The tenderer shall accomplish the manufacturing and the assembly of a batch and the completion of a preliminary space assessment program on a new reference of photodiode for optical encoder purposes. Funding is worth between €100,000 and €200,000. Ref. 13.1QM.03. Deadline: 31 July 2013.

Retrodirective antenna ESA*

The European Space Agency has issued a call for proposals for retro-directive antenna (Artes 5.1 Ref. 7C.014). The tenderer shall develop a retro-directive Ka-band terminal antenna using a hybrid low-power analogue or digital approach. Funding is worth between €200,000 and €500,000. Ref. 12.1TT.74. Deadline: 20 August 2013.

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

usa

US Department of Defense ovarian cancer research programme: clinical translational leverage award

Web id: 1173634
Deadline: 21 June 2013 [71]

US Department of Defense spinal cord injury research programme: investigator-initiated research award

Web id: 255292
Deadline: 24 June 2013 [73]

US Department of Defense peer-reviewed medical research programme: investigator-initiated research award

Web id: 1158210
Deadline: 24 June 2013 [74]

US Department of Defense spinal cord injury research programme: qualitative research award

Web id: 1159911
Deadline: 24 June 2013 [77]

Food and Drug Administration advancing medical device post-market surveillance infrastructure and epidemiologic methodologies through multi-stakeholder partnership (U01)

Web id: 1173713
Deadline: 24 June 2013 [78]

Alliance for Lupus Research target identification in lupus grants

Web id: 200294
Deadline: 25 June 2013 [81]

US Department of Defense breast cancer research programme: innovator award

Web id: 180972
Deadline: 25 June 2013 [82]

US Department of Defense tuberous sclerosis complex research programme: idea development award

Web id: 161004
Deadline: 27 June 2013 [84]

US Department of Defense neurofibromatosis research programme: investigator-initiated focused research award

Web id: 1158325
Deadline: 27 June 2013 [86]

US Department of Defense neurofibromatosis research programme: exploration – hypothesis development award

Web id: 1158326
Deadline: 27 June 2013 [87]

Tuberous Sclerosis Alliance grants

Web id: 1173694
Deadline: 27 June 2013 [89]

US Department of Energy innovative and novel computational impact on theory and experiment awards

Web id: 149666
Deadline: 28 June 2013 [90]

Pfizer global ASPIRE young investigator research awards in endocrinology

Web id: 1173649
Deadline: 28 June 2013 [91]

Society for Industrial and Organizational Psychology Leslie W Joyce and Paul W Thayer graduate fellowship

Web id: 207825
Deadline: 30 June 2013 [92]

Society for Industrial and Organizational Psychology small grant programme

Web id: 207828
Deadline: 30 June 2013 [93]

Society for Industrial and Organizational Psychology Douglas W Bray and Ann Howard research grant

Web id: 1173700
Deadline: 30 June 2013 [94]

Institute of Electrical and Electronics Engineers/Royal Society of Edinburgh Wolfson James Clerk Maxwell award

Web id: 1163260
Deadline: 1 July 2013 [95]

Food and Drug Administration systematic evaluation of excipient effects on the efficacy of metered dose inhaler products (U01)

Web id: 1173455
Deadline: 1 July 2013 [96]

US Department of Defense autism research programme: idea development award

Web id: 183060
Deadline: 2 July 2013 [97]

Pfizer global research awards for nicotine dependence

Web id: 1173647
Deadline: 2 July 2013 [99]

US Department of Defense lung cancer research programme: clinical exploration award

Web id: 1173768
Deadline: 9 July 2013 [100]

Bill and Melinda Gates Foundation vaccine innovation award

Web id: 1167332
Deadline: 31 July 2013 [103]

Mesothelioma Applied Research Foundation research grants

Web id: 202957
Deadline: 2 August 2013 [104]

US Department of Defense Gulf War illness research programme: clinical trial development award

Web id: 1173639
Deadline: 28 August 2013 [105]

Stanley Medical Research Institute treatment trials for schizophrenia and bipolar disorder

Web id: 198010
Deadline: 1 October 2013 [106]

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

Web id: 165418
Deadline: 1 October 2013 [107]

John Templeton Foundation funding competition: gods in minds – the science of religious cognition

Web id: 1173630
Deadline: 1 October 2013 [108]

Library of Congress Kislak fellowships in American studies

Web id: 210719
Deadline: 15 October 2013 [109]

Library of Congress Henry Alfred Kissinger chair in foreign policy and international relations

Web id: 186475
Deadline: 1 November 2013 [110]

Harvard University Radcliffe Institute natural science and mathematics fellowships

Web id: 183304
Deadline: 1 November 2013 [111]

Institute for Advanced Study history visiting memberships

Web id: 1168192
Deadline: 1 November 2013 [112]

Institute for Advanced Study social science fellowships

Web id: 1168202
Deadline: 1 November 2013 [113]

Cancer Research Institute clinic and laboratory integration programme grants

Web id: 1169235
Deadline: 1 November 2013 [114]

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 - EuroNanoForum, Dublin, Ireland. To 20. <http://rsrch.co/XMUm5z>
- 20 ICEIRD 2013 – 6th International Conference for Entrepreneurship, Innovation and Regional Development, Istanbul, Turkey. To 21. <http://rsrch.co/U8FL6m>
- 26 International Partnering Event for Research and Innovation in Health and Agrofood, Basel, Switzerland. To 27. <http://rsrch.co/V5ISaC>

July

- 1 EARMA Annual Conference, Vienna, Austria. To 4. <http://rsrch.co/ZMSR7c>
 - Open Access Monographs in the Humanities and Social Sciences Conference, London, UK. To 2. <http://rsrch.co/XrJVms>

September

- 16 Academia Europaea Conference, Wroclaw, Poland. To 19. <http://rsrch.co/11Nzh2A>
- 19 5th International Workshop on Patents and its Relation with R&D and Innovation, Seville, Spain. To 20. <http://rsrch.co/17qjdyo>
- 23 Horizons for Social Sciences and Humanities, Vilnius, Lithuania. To 24. <http://rsrch.co/16gngPe>
- 26 4th European Conference on Corporate R&D and Innovation, Seville, Spain. To 27. <http://rsrch.co/ZaRiil>

October

- 3 Science for the Environment, Aarhus, Denmark. To 4. <http://rsrch.co/XNCp2r>
- 6 Manufacturing in Horizon, Vilnius, Lithuania. To 8. <http://rsrch.co/11SIZIn>

November

- 14 Evaluation of STI Policies, Instruments and Organisations: New Horizons and New Challenges, Vienna, Austria. To 15. <http://rsrch.co/10pChad>
 - Migration and Mobility in Science, Rome, Italy. To 16th. <http://rsrch.co/16PBMSm>
- 21 8th European Quality Assurance Forum, Gothenburg, Sweden. To 23. <http://rsrch.co/12FS9yX>

Biologists join forces

Life scientists increasingly rely on large pieces of research equipment to do their work. As **Laura Greenhalgh** reports, a group of institutions called Core4Life is working out a new approach to sharing the cost of all the kit.

More than any other discipline, biology has experienced a technological revolution over the past decade. Since the first draft of the human genome was produced in 2000, full genomic sequencing has become routine—as has the imaging of molecular structure and intense computational analysis of biological data.

All these techniques require expensive and complex laboratory equipment. “For an individual research lab today, it is impossible to master all the different technologies needed to answer a biological question,” says Geert Van Minnebruggen, integration manager at the VIB research institute in Flanders, Belgium. Thus, shared kit with highly skilled operators has become standard at biology research centres across Europe.

“Technologies are becoming very expensive and they turn over very rapidly,” says Doris Meder, head of core facilities at the Centre for Genomic Regulation in Barcelona, Spain. “For each institute to be able to renew its machines and to keep pace with new technologies is a real challenge.”

In 2012, Van Minnebruggen and Meder teamed up with counterparts at four other biology institutes to create the Core4Life group. In joining forces with the European Molecular Biology Laboratory in Heidelberg, Germany, the Functional Genomics Center in Zurich, Switzerland, the Max Planck Institute of Molecular Cell Biology and Genetics in Dresden, Germany, and the Vienna Biocenter Campus and Science Support Facilities in Austria, their intention was to build an alliance with the technological capacity to remain at the front line of biology.

“We decided we have to step up, and instead of only thinking at institute level, think at alliance level,” says Meder. Core4Life has set up working groups within different biological subdisciplines to scout for the best equipment, which can then be validated quickly using an enlarged pool of users. The alliance is also hoping to improve the training of its technicians, by sharing knowledge and organising joint courses for personnel both inside and outside the group.

But despite the obvious financial and scientific benefits, Meder and Van Minnebruggen acknowledge that there are “still some hurdles” to capacity sharing between their institutes. For it to work effectively, access to a core facility in another institute in another country must be as easy as it is at home—regardless of geographi-

cal location, operational procedure or accounting policy. “There is no legal model for this, so it’s something that needs to be developed,” says Meder.

Core4Life therefore wants to establish common standards across the six institutes. Ultimately, the alliance hopes to create a model for sharing that provides access for all researchers under its umbrella, as well as investigating how to jointly buy and operate equipment. As technology development may involve sharing confidential data, intellectual property issues must also be ironed out.

It is only within a trusted circle that such collaboration can be developed, says Van Minnebruggen. “It’s good to start small and then to aim big,” he says. “We decided to take real actions on the ground with a maximum of six...otherwise the dilution factor is too big.”

Later, the group would like to open up its alliance to a Europe-wide association for life science research facilities, to share best practice and improve training opportunities. “Joint investment and sharing capacity is not possible with 500 institutes,” says Meder. “The idea is for us to be the catalyst for a big community.”

Such an association would also provide research facilities with political weight, to lobby for policy change at both national and EU level—with infrastructure funding top of the list.

At present, getting money for major equipment from external sources commonly revolves around one specific research project. In a position paper outlining the aims of the alliance, Meder and Van Minnebruggen argue: “More funding schemes are needed that finance the infrastructures directly, as well as technology development and implementation, without the need to focus on a [specific] research question.”

Core4Life has in mind the example of the 25-year-old United States Association of Biomolecular Resource Facilities, which represents 140 public and private laboratories and operates committees for science policy, education and career development, as well as working groups in different subdisciplines. “In time, we can start thinking about expanding the alliance to turn the small nucleus into a broad platform,” says Van Minnebruggen.

Something to add? Email comment@ResearchResearch.com

‘It is only within a trusted circle that such collaboration can be developed.’

uk & ireland

Facilities funding tops agendas in run-up to UK's June spending review

As the UK government's spending review approaches, members of the science and research lobby are speaking out about the increasing politicisation of research funding, having kept their complaints behind closed doors until now.

In submissions to a consultation on spending, learned societies say capital funding is increasingly directed into ministers' pet areas and argue it should instead be put back inside the ring-fenced science budget.

The consultation responses are concerned with this issue, as well as the impact of research and the concentration of funding. According to the Campaign for Science and Engineering, science capital suffered cuts of almost £1.7 billion after it was left outside the science ring fence in the 2010 spending review. Chancellor George Osborne has since reduced this shortfall to £330 million, mostly by making one-off investments in specific priority areas such as graphene.

The Institute of Physics argues that these investments "appear to be related to political considerations rather than being science-driven". Such allocation can be a "hindrance" to investing capital where it is most needed, for example in upgrades to existing national

by Miriam Frankel

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facilities, it says. The politicisation also makes long-term planning difficult.

A joint response from the Royal Society, the Academy of Medical Sciences, the British Academy and the Royal Academy of Engineering says that the focus on "strategic priorities" means the "replacement of equipment required simply to keep the UK internationally competitive has been limited". The societies are calling for upfront allocation of stable and sustained capital funding, including refurbishment and replacement.

The Russell Group of large research-intensive universities told the Treasury that "increased targeting of funding" means money comes with "fewer freedoms" and "raises a number of challenges for universities".

The Wellcome Trust says the government should use Research Councils UK's Strategic Framework for Capital Investment as a basis for future allocations. It argues that it is crucial there is sufficient funding for running costs of national facilities, adding that it will not save money by running facilities at less than full capacity or reducing the number of days of use.

uk & i in brief

Obesity research centre to be set up in Cambridge

The Wellcome Trust and the Medical Research Council are the main funders behind the creation of an obesity research centre at the Cambridge Biomedical Campus. The research, to be led by the Institute of Metabolic Science, will focus on the causes and health consequences of obesity. It will receive £24 million from the MRC and the Wellcome Trust.

Extra cash for top research in Scotland

Seventeen of Scotland's universities are to share an extra £13.9 million in government funding, of which the University of Edinburgh will take more than a third. The cash will fund world-leading research and will be allocated to institutions based on their existing research ratings.

Businesses spend extra £100m at universities

UK universities contributed £3.4 billion to the economy through provision of services to business in 2011-12, an increase of £100 million from the previous year, an annual survey has shown. Small and medium-sized businesses invested 11 per cent more in knowledge exchange from UK universities in the academic year 2011-12, a total of £193m. Larger businesses spent

£663m and public partners, charities and social enterprises spent £1.3bn.

Commercial research gets €6.9m boost in Ireland

Science Foundation Ireland has announced research funding worth €6.9 million to support 62 projects under its Technology Innovation Development Award programme, run in collaboration with Enterprise Ireland. The funding is intended to help scientists bring their research findings closer to market.

Welsh ministers leave funding with council

Higher education funding in Wales will not change to be controlled directly by ministers, as proposed in a white paper setting out plans for a Further and Higher Education (Wales) Bill. The government response to a consultation on the white paper says that most replies opposed the proposal, for reasons such as lack of transparency and the effect on university autonomy.

Links between Imperial and Zhejiang enhanced

Imperial College London and Zhejiang University, China, are "exploring the possibility" of co-investing in R&D facilities at Imperial's new campus in White City, London. The universities have signed a memorandum of understanding agreeing to enhance their academic links, according to a statement on Imperial's website.

Fuller integration of climate knowledge discussed at Potsdam conference

Climate researchers and policymakers from around the world met in Potsdam, Germany, last week to develop a research agenda that will fill gaps in existing knowledge about climate systems, the environment and the impact of carbon emissions.

The conference, called Impacts World 2013, was attended by officials such as European climate commissioner Connie Hedegaard and Rachel Kyte of the World Bank, as well as representatives of the UN Environment Programme. It was hosted by the Potsdam Institute for Climate Impact Research.

Hans Schellnhuber, the director of the institute, said that climate science needs more interconnection to be able to present a unified and all-encompassing view of climate change and possible adaptation and mitigation pathways.

"Impressive case studies and pioneering computer simulation are the basis that we need to use to start the tiresome process of integrating research results across all disciplines," he said. "It's about joining up the dots to see the whole picture."

The conference organisers, including the Potsdam institute, will now draft a research agenda for the com-

by Inga Vesper

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ing years, to outline some subject areas and connection points between research fields that need further work. This will help iron out uncertainties and support quicker and better policy-making, said Schellnhuber.

"Decision-makers are confronted with significant uncertainties when it comes to judging the extent of climate problems and their location in time and space," he said. "Science can support them and show them how to achieve a good perspective for risk management."

The Potsdam institute runs a project to investigate how well different climate models match each other. Schellnhuber said that the findings of the project will feed into the conference outcomes, as modelling is still seen as one of the most important ways of predicting the scale and impact of future climate change. Nonetheless, existing models still need much improvement to make predictions more reliable, he added.

The conference also discussed some of the material that will be included in the *Fifth Assessment Report* by the Intergovernmental Panel on Climate Change, expected to be issued next year.

nations in brief

French parliament adopts higher education bill

France's higher education and research bill has passed through the lower house of parliament after 30 hours of debate. There were 289 votes for and 248 votes against the bill, which sets out reforms for universities and includes changes for research organisations. More than 600 amendments had been proposed but very few were adopted. The bill will be examined in the senate on 18 June.

Scholarship programme exceeds expectations

Germany's government funded 14,000 students through its nationwide scholarship programme, the Deutschlandstipendium, last year—3,000 more than anticipated. The government announced on 24 May that the programme, which awards a combination of government and private funding to the most gifted students, has been much more successful than expected.

Business schools break ties with elite institutions

A group of four business schools in France has broken away from the grandes écoles, having decided to adopt a different approach to teaching. The schools in Picardie, Brest, Clermont Ferrand and Paris have got together to create the France Business School group. In

a statement, the Conférence des Grandes Écoles, which represents the country's elite, selective institutions, said the four business schools will no longer be eligible to provide certain accredited courses but that students already studying with them will be allowed to complete their degrees.

France selects nuclear safety projects for funding

A total of 23 projects have secured funding from a €50-million pot that supports research into nuclear safety in France. The programme was launched in 2011 to support collaborative projects, particularly between publicly funded organisations and industry. The topics of the winning projects include how tsunamis might hit France's coastlines, the safe combustion of hydrogen, and technologies to treat contaminated soil.

Germany celebrates cooperation with South Korea

Research cooperation between Germany and South Korea turned 130 years old last week—an occasion celebrated with a get-together by the German Academic Exchange Service (DAAD). Attendees heard that Germany is the most popular European destination for South Korean students and researchers looking to spend time abroad. However, only between 100 and 200 German students and researchers go to South Korea every year for higher education programmes, the DAAD said.

nordic

Sweden 'not taking advantage' of Arctic Council role, say auditors

Sweden is failing to take advantage of its membership of the Arctic Council, the regional collaboration body that it chaired for the past two years, says a report published in May by the country's National Audit Office.

The NAO's assessment finds that Sweden's government lacks a clear strategy to exploit research results and other work produced under the auspices of the council, other members of which include Russia, Canada and the United States.

The report says that no-one in the government is directly responsible for ensuring recommendations made by the council are assessed, prioritised or implemented. "This means that there is no process ensuring that Sweden utilises the research carried out by the council in the Arctic," says NAO project leader Anne Wisten.

Sweden has made a "major investment" in developing the council, Claes Norgren of the NAO says. Since the country joined the council in 1996, and during its recent chairmanship in particular, Sweden put a lot of effort into enhancing the council's climate change research programmes. "But the government has not made the same effort in responding to the recommendations produced by the council," Norgren says.

by Tiia Mustonen

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The report also says that it isn't clear how Sweden goes about getting its own priorities incorporated into the council's work. "The government has stated that reducing greenhouse gases is one of its main objectives. However, it has not raised the issue on the Arctic Council agenda," says Wisten.

The NAO claims that the Swedish parliament hasn't been properly informed about what the government achieved during its chairmanship of the council.

Wisten says government officials have informed her that the duties of the two-year chairmanship took up most of their time. Now that it is over, they told her, they will start to develop a strategy that will respond to the NAO's criticisms and improve the ways in which Sweden benefits from the council's work. Sweden handed over the chairmanship to Canada on 15 May.

The report looked primarily at the activities of the ministries of environment and foreign affairs, and the Swedish Environmental Protection Agency.

The audit office says it is expecting a formal government response to its report by the autumn.

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Energy funding hike too fast, too furious

When Denmark's government announced in 2011 that it would aim for an economy free of fossil fuels by 2050, researchers applauded—not just because of the laudable goal, but also because of the funding bonanza that accompanied the announcement.

In the past two years, energy research spending in Denmark has risen rapidly to stand at 1 billion Danish kroner (€134 million) a year. According to the European Commission, Denmark is now Europe's second-largest investor in fuel cell technology, after Germany, and is the largest investor in renewables per person.

However, a review of Denmark's energy research funding system, issued last month, raises some interesting questions about the manner in which all this money is being spent. The review, by the Danish Public Accounts Committee, describes Denmark's energy funding landscape as "inefficient and ineffective".

One look at the structure of energy funding in Denmark is enough to understand why the PAC arrived at such a harsh conclusion. Funding for energy is administered by Denmark's Ministry of Climate, Energy and Building, and partly awarded by the Ministry of Science, Innovation and Higher Education. Together these two ministries run four major and three minor energy funding programmes, the larger programmes being responsible for around 85 per cent of all energy funding.

**nordic
outlook**

by Inga Vesper

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The PAC report says that this funding structure, created long before energy became such a big issue for Denmark, is too complicated and cumbersome for funding to be administered swiftly and efficiently.

Furthermore, the report says, the administration of funding is fragmented and hasn't grown fast enough to cope with the rise in funding. Thus the time, nerves and goodwill of many researchers, all of which might be better invested in actual energy research, are lost during the application process, the report says.

It proposes some specific approaches to tackle the problem. First of all, the administration of energy funding should be brought up to speed with the rapid rise in spending, it says. Energy funding in Denmark needs one overarching administrative system to create a unified application process and more transparency for applicants.

Additionally, the ministries need a joint strategy to handle energy research funding. At present each funding programme and each government institution involved does its own thing—a situation that is no longer tenable, the PAC report says.

Denmark's government has only tentatively embraced the idea of changing its approach to energy research funding. "The next thing is for the minister to make a statement," said a spokeswoman for the government. "From this we will learn if there is a plan to introduce an overall strategy."

nordic in brief

Horizon 2020 membership a possibility for Norway

Norway wants to become a full member of the next EU research and innovation programme, Horizon 2020. The programme will have a larger budget than its predecessor, Framework 7, meaning that Norway, which is not an EU country, would have to pay a higher participation fee. However, the government's latest white paper says that the potential rewards outweigh the increased cost of participation.

Sweden's employers may pay less for researchers

A proposal to reduce employers' pension contributions for research staff, to encourage institutions to increase R&D investments and employ more researchers, is under consideration at the Swedish council for legislation. The government suggests reducing the contribution paid by small businesses by 10 per cent, but the proposed maximum amount that businesses can deduct is capped at 37,500 Swedish kroner (€4,365) a month.

Businesses benefit from access to academia

Access to Swedish academic research programmes provides "major positive economic impact" for companies, according to a report by research firm Technopolis. The report says that participating in academic competence centres resulted in companies saving up to 11.8 million Swedish kroner (€1.38m) a year between 1995 and 2007.

EU programme is big earner for Finland

Finland benefits greatly from taking part in the EU Framework programmes, says the Finnish innovation agency Tekes. The agency says that Finland receives more money from the programmes than it invests, gaining nearly €700 million from Framework 7.

Norway boosts business research

The Research Council of Norway has awarded 400 million Norwegian kroner (€52m) to 45 innovative projects. The money is allocated through the Programme for User-Driven Research-Based Innovation, the council's funding programme for industry. Projects will run over four years.

usa

MIT physicist confirmed as energy secretary

Ernest Moniz, a physicist at the Massachusetts Institute of Technology, was sworn in as President Obama's energy secretary on 21 May, following the Senate's unanimous approval of his nomination five days earlier.

Moniz, who ran the scientific programmes at the Department of Energy under the Clinton administration, will replace fellow physicist Steven Chu, who returned to academic life at Stanford University in April.

At the swearing-in ceremony, Moniz said he wanted to push the Obama administration's clean energy and climate agenda. He said this was the "real driver" for him to return to the department. "There is no ambiguity in terms of the scientific basis calling for a prudent response to climate change; I am not interested in debating what is not debatable," he said.

Moniz also identified energy efficiency and nuclear security as priorities, and emphasised the importance of maintaining a robust scientific research infrastructure at the DOE. He described the department as "a backbone" for the United States' physical science enterprise.

Although his nomination was applauded by environmental and industry groups, Moniz faced some resistance from groups such as the Center for Biological Diversity. The organisation's senior counsel had expressed concern that he "may take a politically expedient view" of fracking and divert resources from solar, geothermal and other renewable energy sources.

Upon Moniz's confirmation, the president of the Natural Resources Defense Council, Frances Beinecke,

by **Rebecca Trager**

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praised his strong background in energy policy and science, and his "proven ability" to work with the diverse constituencies served by the DOE. "As secretary of energy, he now has the position, the power and the perfect opportunity to make solid progress on President Obama's climate change goals by continuing to move our country forward on clean energy and efficiency," Beinecke said.

In a statement on 16 May, the director of the Sierra Club's Beyond Natural Gas campaign, Deb Nardone, urged Moniz to "go all in on smart energy and climate solutions, like solar, wind, and energy efficiency, and to protect our children's health and future, while creating jobs for American workers".

At the same time, the president and CEO of the American Petroleum Institute, Jack Gerard, urged Moniz to quickly approve liquefied natural gas export projects that will create American jobs and help lower the US national debt.

Meanwhile, Senate action was temporarily stalled on the nomination of Gina McCarthy as the Environmental Protection Agency's administrator. On 9 May, Republicans on the Senate Committee on Environment and Public Works expressed concern that McCarthy has been unresponsive to their requests for access to the scientific data and reasoning behind new EPA rules and regulations that they claim are expensive and hurt job creation.

usa in brief

Success rates hit record low for NIH grant funding

The National Institutes of Health's grant-funding success rates are at a historic low of 16 percent because of automatic across-the-board cuts that came into effect on 1 March, according to the agency's May issue of *Peer Review Notes*. The newsletter quotes the director of the NIH's Center for Scientific Review, Richard Nakamura, as saying: "Applicants, reviewers and NIH staff are unsettled because everyone knows researchers are facing the devastating closure of labs with promising lines of research."

Science laureate position proposed

Legislation introduced in both chambers of Congress this month proposes the creation of an official US science laureate. The laureate would be appointed by the president from nominees recommended by the National Academy of Sciences, to serve for a term of up to two years.

Lobbying rules clarified by NIH

The National Institutes of Health has published a clarification for its grantees about the prohibition on using its

funding for lobbying activities. The notice follows accusations made in March by congressional Republicans that the NIH might be funding research that constitutes illegal lobbying activity.

NSF still sparring with Republicans

The National Science Foundation has rejected a request by Texas Republican Representative Lamar Smith for peer-review comments on several of its specific social science research grants. Smith says an agreement can still be reached for the agency to provide him with the information while maintaining the anonymity of peer reviewers.

Democrat urges researchers to be more proactive

The senior Democrat on the House of Representatives' appropriations subcommittee that funds the National Science Foundation has encouraged scientists to be more proactive and to speak up all the time, not just when they oppose a policy. "You have to play in this business every day," Chaka Fattah told the American Association for the Advancement of Science's policy forum in Washington last month.

Chile's president considers 'super-ministry' for science and education

Chile needs a combined ministry for science, technology, innovation and higher education, according to a committee of experts convened by President Sebastián Piñera.

The committee's report, *Institutional Framework for Science, Technology and Innovation*, published on 15 May, proposes that a government ministry be created to address all four areas. Such a ministry has been a long-standing request of some of Chile's scientists. The report says that a change in the government's structure is needed to maintain coordination between the areas.

At present, the country's national commission on scientific and technological research, Conicyt, which focuses on basic science, falls under the ministry of education. Innovation activities such as Innova Chile, which promotes innovation and knowledge transfer, are managed within the ministry of economy.

"The fact that [basic science and innovation] are based in different ministries creates a lack of coordination, and conflicts that prevent the knowledge generation acting as a source of social, creative and economic development," the report says.

The structure outlined in the report involves the proposed ministry bringing Chile's scientific and inno-

by **Catie Lichten**

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vation activities together. Science, technology and innovation would be combined in one of two secretariats within the ministry. The other would focus on higher education.

The committee behind the report was convened by Piñera in January. It was asked to develop a proposal to improve coordination between the science, technology and innovation institutions, with the aim to promote knowledge transfer and positive impacts of science on society, and foster scientific development in Chile.

Chile's science advocacy group More Science for Chile called the report "a positive step" and said it appreciates that concerns it raised have been taken on board. However, the proposal failed to address the need for a national science policy, or the "precariousness of the scientific research profession", it said.

More Science for Chile, which is modelled on the UK's Campaign for Science and Engineering (formerly Save British Science), has been campaigning for increased financial and government support for science since 2010. The group has close to 4,000 members.

world in brief

Agricultural innovation programme begins in Brazil

Brazil has launched a programme to boost innovation in agriculture, the first call for which will be worth 1 billion real (€372 million). The Inova Agro initiative aims to support the innovation activities of businesses and technology firms by helping them to bring research results to market and consolidate production chains. Brazil's government said the programme will cover technologies as varied as machinery, equipment, storage of harvests, logistics and environmental protection.

WHO calls for urgent investigation of coronavirus

The novel coronavirus MERS-COV, a similar coronavirus to the one that causes SARS, has been recognised as an emerging global health threat during the latest meeting of the World Health Organization. The virus's fast spread across the world, and the lack of scientific understanding of its progress and properties, led the WHO to urge attendants at its conference to push for more research with the hope of stopping its progress.

Reshuffle for social science funding in India

India is planning to merge multiple government agencies that deal with social science into a single body to improve the quality of the country's research in the discipline.

The body will incorporate the Indian Council of Historical Research, the Indian Council of Social Science Research and the Indian Council of Philosophical Research.

Unesco is first UN agency to adopt open access

The UN's science and education agency Unesco has adopted an open-access policy for its digital publications, becoming the first UN organisation to do so. As a result, hundreds of Unesco publications will be made available for download from an open-access repository from July.

Pakistan announces centres of excellence for health

The government of Pakistan is to bring together its health research efforts into two centres of excellence, named Comsats and Comstech. The move is intended to prevent overlap and improve coordination between health research institutions in the country, the government said.

China promises autonomy for science academy

Efforts are under way to increase the independence of the Chinese Academy of Sciences to help its institutes operate more efficiently. China's government said it wants to reduce barriers to innovation and economic growth, and to promote innovation in management. The reforms could reduce state intervention in the academy's 104 institutes and more than 100 national laboratories and engineering research centres.

inside out

OLD HANDS The First Arab-Euro Conference on Higher Education in Barcelona last week was overshadowed by student protests against funding cuts. While rectors debated collaboration, students were trying to break down doors, hollering slogans and getting into scuffles with police. The Europeans in the room were uneasy, but the Arabs took it in their collective stride. "Now I feel at home," said one Egyptian delegate, while a representative from Tunisia enquired whether the students would need some advice on how to overthrow their government.

HOLD IT Due to the aforementioned student protests, part of the University of Barcelona had to be cordoned off to allow the conference to progress safely. Unfortunately the toilets were in the inaccessible part of the building, meaning that by mid-morning there were many desperate glances towards the other side of the police cordon and a steep drop in demand for coffee. Shortly before lunchtime there was a scramble for the doors. "They've liberated the loo," one conference organiser announced.

ELEPHANT IN THE ROOM Arab-Euro higher education collaboration seemed a match made in heaven after it emerged during the Barcelona conference that the Arabian countries have lots of young people and plenty of entrepreneurial spirit, while Europe has money, good universities and a shortage of certain skills. During the

coffee break one UK delegate in his early 20s enthused about this to some representatives from Iraq. "I can't believe we didn't think of this sooner, like 10 years ago," he said; and seemed surprised when his listeners responded with polite silence.

FUELLING THE FIRE Alongside the riots in Barcelona this week, demonstrations have also erupted in Turkey, where students have taken to the streets in Istanbul, Ankara and elsewhere to protest against the ruling government of Recep Tayyip Erdogan. Branding the protestors "looters", the prime minister has introduced a ban on alcohol on the basis that anyone who "drinks alcohol is an alcoholic". But the one thing more politically dangerous than a drunk student, as Erdogan may be about to find out, is a sober one.

EURO-LOSERS Everyone at *Research Europe* very much enjoyed following this year's Eurovision song contest grand finale, which was held in Stockholm on 18 May. And it seems we weren't the only ones. During the meeting of the General Affairs Council on 21 May, Ireland's deputy prime minister Eamon Gilmore couldn't resist getting in a dig: he noted "little support for the presidency on Saturday night", when Ireland finished last. The next holders of the presidency, Lithuania, did little better, coming in at 22nd out of 26.

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