

European Science, Engineering and Technology Highlights¹ JULY 2013

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1 Europe Approves Open Data Regulations

The EU has formally approved rules on open data, which will allow the re-use of public sector information including research results. The official sign-off on the legislation came on 13 June, when the European Parliament passed the proposal during its plenary session in Strasbourg. This followed an earlier agreement by the Council of Ministers. Approval of the new directive means private companies and individuals will be able to access existing data generated by public bodies, including research results and information from libraries, weather data and



¹ Note: If you would like additional information or background, please feel free to contact either Carine Polliotti at cpolliot@nsf.gov or Ana Helman at ahelman@nsf.gov

maps. “We’re basically sitting on a goldmine,” said the commissioner for the digital agenda, Neelie Kroes, who believes the economic benefits from allowing data re-use could equate to “tens of billions of euros”. However, the commissioner was keen to emphasize the benefits will not be purely economic. “This is an amazing raw material for innovation,” said Kroes. Having more data openly available will help to address societal challenges, as well as improving the transparency of public institutions and enhance evidence-based policymaking, according to the Commission. Kroes proposed the open data directive in December 2011, with the aim of benefiting academics and entrepreneurs, amongst other data users.

The majority of data will be available for free, or for a minimal charge at most. This will be particularly useful to small and medium-sized enterprises which lack the resources to collect the data themselves, says the European Parliament. Member states will now be required to transpose the rules into national laws, within 24 months from the Directive’s date of entry into force.

Full article available at:

http://www.researchresearch.com/index.php?option=com_news&template=rr_2col&view=article&articleId=1336216

[↗](#)

2 Budget Negotiations Concluded over the Next EU Multi-Annual Program for Research and Innovation - Horizon2020

After months of discussions, an agreement was reached on the European Union’s next seven year funding program for science and research. The so-called Horizon 2020 program will have a budget of



€70.2bn (US\$ 91.5 billion) over the next seven years (2014-2020). This is a 23% increase over the previous Framework Program 7, which started in 2007 and ends this year. Throughout months of political wrangling, research funding has been relatively protected from cuts—but the R&D budget will drop next year, before rising again in 2015. The total amount is some 13% less than the European Commission had proposed and 30% less than European Parliament had wanted. But

with crisis-stricken E.U. countries tightening their belts, the Parliament accepted a smaller budget and pushed through other demands, including more flexible spending rules.

The new deal retains a simplified funding model that is favored by most Member States and the Commission. It foresees that all participants in Horizon 2020 will be paid the full direct research costs plus a 25% flat-rate to cover indirect expenses, including the use of large research facilities such as synchrotrons. However, Members of the European Parliament argued that the one-size-fits-all approach may disadvantage institutes that depend on such facilities, possibly making participation in EU-funded research projects unaffordable to some. Several research organizations, including the European University Association and the German Fraunhofer Society, lobbied for an exemption to this flat-rate model — giving the full costs instead to organizations with extremely high overheads, which sometimes even exceed their direct costs. The indicative budget proposed by the Commission is subject to final agreement on the Multi-Financial Framework (MFF).

Following “long and challenging” negotiations, EU officials have agreed the percentages of three key “pillars” within the Horizon 2020 program

- ‘Excellent Science’, which includes funding for the European Research Council (ERC), infrastructure and future and emerging technologies, receives 37%.
- ‘Industrial Leadership’, containing specific support for SMEs and for key enabling industrial technologies, receives 22.5%.
- ‘Societal challenges’, designed to point research towards growing problems associated with an ageing society and environmental blight - receives 38%.

A separate instrument within the Horizon program will recognize the role of SMEs and pledge that 20% of Horizon 2020 will be directed towards these smaller companies.

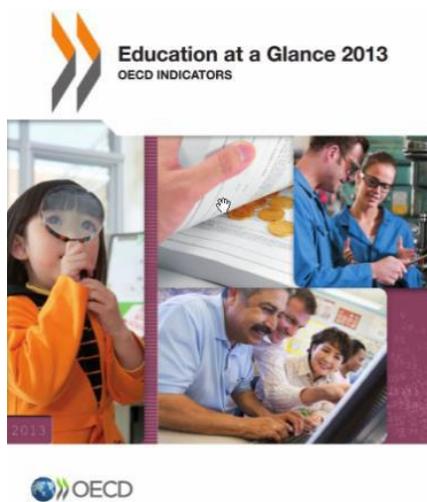
The EU program for education, training, youth and sport, named "Erasmus+", which is funded separately, has a proposed budget of 16 billion. Erasmus+ has three main components: Education and training, Youth, and Sport. Of the total financial envelope, 77.5% will be allocated to the "education and training" sector, and an additional 3.5% will go to a new Loan Guarantee Facility. The youth sector will receive 10%, the sport sector 1.8%. All three institutions agree that there should be a substantial increase in the program's budget, but the final figures depend on the outcome of the MFF negotiations.

The long-term budget should be signed off by Member states and the European Parliament in the coming months and depends on the approval of the proposed overall €960 billion (US\$ 1 250 billion) EU budget for 2014-2020

Compiled from: http://www.eurekanetwork.org/about-/journal_content/56/101372107572?refererPlid=10195
<http://news.sciencemag.org/scienceinsider/2013/06/eu-leaders-agree-on-science-budg.html>
<http://www.nature.com/news/horizon-2020-deal-reached-in-brussels-1.13279>
<http://eu2013.ie/news/news-items/20130626erasmuspluspren/>


3 OECD Publishes the 2013 "Education at a Glance"

"Education at a Glance: OECD Indicators", is the authoritative source for accurate and relevant information on the state of education around the world. It provides data on the structure, finances, and



performance of education systems in more than 40 countries, including OECD members and G20 partners. Featuring more than 100 charts, 200 tables, and over 100 000 figures, Education at a Glance provides key information on the output of educational institutions; the impact of learning across countries; the financial and human resources invested in education; access, participation and progression in education; and the learning environment and organization of schools.

In the 2013 edition, new material includes:

- More recent data on the economic crisis, showing that education remains the best protection against unemployment;
- More detailed data on program orientation (general versus vocational) in secondary and tertiary education;
- An analysis of how work status (full-time, part-time, involuntary part-time) is related to individuals' level of

education;

- A review of the relationship between fields of education and tuition fees, unemployment rates and earnings premiums;
- An indicator showing how many of the students who enter a tertiary program ultimately graduate from it;
- An indicator on the relationship between educational attainment and two health-related concerns, obesity and smoking; and
- Trend data covering the years 1995 to 2010-11 for all the key indicators.

Publication available at: http://www.oecd-ilibrary.org/education/education-at-a-glance-2013_eag-2013-en


4 COST Simplifies Participation Rules

COST, the intergovernmental framework for European Cooperation in Science and Technology, has revised the rules for participation in COST activities to make them more inclusive, user-friendly and responsive to scientists' networking needs. The revised rules and procedures clarify and simplify the participation in and implementation of COST activities and allow for a wider range of activities to be funded. In particular, the key innovations introduced include: a harmonized set of documents and guidelines, a renewed focus on increasing Inclusiveness and excellence, measures to increase participation by Near Neighbor Countries, and increased online processing.



Source: http://www.cost.eu/about_cost/cost_stories/COST-Simplifies-Participation



5 DFG Position Paper on the Future of the German Research System

Document calls for better core support for universities, differentiation between research organizations and funding organizations, excellence funding in the DFG budget



The Deutsche Forschungsgemeinschaft (DFG, German Research Foundation), the central, self-governing research funding organization in Germany, presented a position paper on the future of the German research system at its annual press conference in Berlin on 4 July 2013. Drawn up by the DFG's Executive Committee and Executive Board, the document was the subject of intense discussion among representatives from all areas of science and the humanities and the federal and state government funding bodies at the DFG's Annual Meeting, which took place from 1 to 3 July in Berlin.

Full article available at:

http://www.dfg.de/en/service/press/press_releases/2013/press_release_no_26/index.html



6 German Visit to China Gives Significant Impetus to Partnerships in Research

The German Research Foundation (DFG) President Professor Dr. Peter Strohschneider and Secretary General Dorothee Dzwonnek held a series of talks on science policy with their counterparts in Chinese partner organizations and with high-ranking science policymakers. The visit took place during a period of particularly intense dialogue between Germany and China at various levels of political, economic and scientific life, which also saw the Chinese Prime Minister Li Keqiang pay a visit to Germany.

The visit to China was Professor Strohschneider's first major foreign trip since he took office in January and underlined the special importance that the DFG, Germany's central self-governing organization for research, attaches to collaboration with China. The DFG runs the Sino-German Center for Research Promotion (CDZ) in Beijing jointly with its partner organization, the National Natural Science Foundation of China (NSFC). Opened in 2000, the CDZ was the DFG's first representation abroad and since then has helped researchers from China and Germany to initiate joint research projects by providing in-depth advice and organizing bilateral symposia.

The agenda for this visit included the first meeting with the NSFC President, Professor Yang Wei, who also took up his post this year. The President also met the new Vice President of the NSFC and the Chairman of the Joint Committee of the CDZ, Professor Liu Congqiang. More talks were held with the

directors of the Chinese Academy of Sciences (CAS) and the Chinese Academy of Social Sciences (CASS).

During Professor Strohschneider's visit to the Chinese Ministry of Education (MoE), Vice President Hao Ping announced plans to establish a special fund with which to finance German-Chinese Research Training Groups. The DFG currently funds three bilateral Research Training Groups jointly with the MoE. This special fund will provide a reliable framework for setting up further German-Chinese Research Training Groups, the DFG's most important instrument for funding German and Chinese early career researchers. The relationship between the DFG and the Chinese Ministry of Education is based on an over 30-year-old agreement, which will be replaced with a new extended version to be signed at the next summit meeting.

Full press-release available at:

http://www.dfg.de/en/service/press/press_releases/2013/press_release_no_19/index.html



7 UK Students Head to US in Record Numbers for a Better Value of Degree

The majority of top US universities are reporting a rise in the number of places awarded to students from the other side of the Atlantic over the last 12 months, it was revealed. Data obtained by the Telegraph shows that entry rates were up at many institutions this year – including members of the elite Ivy League – such as Yale, Princeton, Columbia and Pennsylvania. Princeton alone admitted 131 British students in 2012/13 – up by a fifth in 12 months and double the number in the mid-2000s. It comes as data from the Independent Schools Council shows four-in-10 private schools had reported a rise in students going to universities abroad this year, while just nine per cent reported a decline. The US was by far the most popular destination. Experts warned that many of Britain's brightest sixth-formers were being attracted to the US by the breadth of the liberal arts curriculum, in which students take a range of subjects before specializing in the third year. It was also claimed that a near tripling of tuition fees in England last autumn to £9,000-a-year (14 000 USD) combined with the lure of more generous scholarships in the US had made overseas study a more realistic option for many students.

Lauren Welch, director of marketing at the US-UK Fulbright Commission, said it had witnessed a doubling of the number of people attending its flagship US college fair in London in recent years “The flexibility offered by the liberal arts curriculum, the quality and reputation of US institutions and the opportunity to experience campus life remain the top reasons why UK students pursue US study,” she said.

The Telegraph obtained 2012/13 admissions figures from 11 of the top universities in the US, with the number of British students rising at seven. It emerged that Yale admitted 114 undergraduates and postgraduates, up from 106 a year earlier and 102 two years' ago. Princeton gave places to 131, compared with 110 in the two previous years and just 64 in 2005. Columbia took 198 British students compared with 192 a year earlier and 180 in 2010. At Pennsylvania, 86 places went to UK-based students, up from 73 a year earlier, while Chicago said numbers increased from 83 to 95 in the last year. The University of California, Berkeley, gave places to 53 undergraduates compared with 40 a year earlier, while numbers were up from five to 13 at the University of Michigan. Harvard admitted more British students than any other institution – 211. It was its third-highest annual intake on record but was actually down on the 242 a year earlier.

The Fulbright Commission said a record 9,186 British students took university courses in the US in 2011/12 – the latest available figures – but it anticipated that numbers would be up in 2012/13.

Full article available at: <http://www.telegraph.co.uk/education/universityeducation/10092413/Students-head-to-US-in-record-numbers-for-a-better-value-of-degree.html>



8 UK and US Launch Global Partnership Initiative

In a new global initiative, America and Britain have joined forces to forge university partnerships with emerging economies. The aim is to achieve 40 trilateral partnerships involving 120 universities worldwide



in the first year, and up to 600 over five years. The UK-US Global Innovation Initiative, which will last for up to five years, was announced by UK Foreign Secretary William Hague and US Secretary of State John Kerry in Washington DC, after the signing of a memorandum of understanding on 10 June. At a joint press conference on 12 June, Kerry said the initiative would support multilateral research emphasizing science, technology and engineering, and would focus on issues such as climate change and sustainable development. The project would, he added, “bolster collaborations between universities in

the United States and the United Kingdom” and further higher education cooperation between the countries – a priority for both President Barack Obama and Prime Minister David Cameron. The initiative was billed as “the first multilateral higher education program working directly with the US and UK governments”. It will be funded by the US State Department and Britain’s Department for Business, Innovation and Skills, or BIS.

Full article available at: <http://www.universityworldnews.com/article.php?story=20130614081202630>



9 New UK-India research partnerships unveiled

The growing strength of joint UK-India research was highlighted by the announcement of 12 new collaborations in the areas of Advanced Manufacturing and Smart Energy Grids and Energy Storage. The new projects will be supported by £8.3 million (US\$ 13 million) from the Engineering and Physical Sciences Research Council (EPSRC) through the Manufacturing and Research Councils UK Energy Program themes, with matched resources from India’s Department of Science and Technology (DST). There will be seven projects in Advanced Manufacturing and five in Smart Energy Grids and Energy Storage.

The new research grants involve over 30 industry partners from the UK and India, contributing over £1 million (US\$ 1.56 million) to the research projects. Partners include: Rolls-Royce, Bharat Heavy Electricals, E.ON, National Grid and Mott Macdonald. The work of RCUK is supported in India by RCUK India, which is based at the British High Commission, New Delhi. It plays a key role in the facilitation of UK-India research opportunities.

Full article available at: <http://www.epsrc.ac.uk/newsevents/news/2013/Pages/perfectmatch.aspx>



10 Report published on the leverage of science and research from public funding

A report has been published which presents evidence of how public investment in science and research levers additional funding from industry, charities and overseas sources.



[Leverage from public funding of science and research](#), published 15 July on the Research Councils UK (RCUK) website, examines the financial contributions made by each sector to the research base and their interdependencies. It illustrates examples of successful leveraging with case studies, provided by stakeholders, of the consequences of withdrawal of public funding from areas of research.

The report was written by Dr Sarah Main, now the Director of the Campaign for Science and Engineering, who last year was on detail from the Medical Research Council to the Department for Business, Innovation and Skills (BIS) to gather evidence on the impact of public investment in science and research,

looking specifically at leverage. The team also looked at issues including efficiencies in higher education, the dual funding model, and the impact of science and research on local economies.

Further information about this work is available in [Dr Main's blog](#), published on the RCUK blog site. A summary of the report is also available.

15 July 2013

Full article available at:

<http://www.rcuk.ac.uk/media/news/2013news/Pages/130715.aspx>



11 UK Clamps Down, France Eases Visas to Attract Students from India

Just a week after reports that the United Kingdom is considering imposing cash bonds on Indian students entering the country, France has announced a slew of measures, including easing certain visa rules, to attract Indian students to its higher education institutions. Special attention will now be given to students living far from any French consulate or office of Campus France – the governmental agency promoting French higher education – in an attempt to simplify and expedite visa procedures. France's announcement is in direct contrast to the UK's new visa rules, which aim to curb immigration from countries in Africa and Asia including India and Pakistan, but which will also affect foreign students wanting to enter the UK for studies.



Under new UK rules announced in June, some individuals will have to furnish a 'bond' or deposit of £3,000 (US\$4,500), which they would have to forfeit if they overstayed in Britain. Students are included in the measure although the 'bond' is not aimed specifically at them. Other proposals made in recent weeks include charging international students a fee to use Britain's National Health Service, which has been free to international students until now. In Britain, changes to the post-study work visa that came into effect from April last year removed the option for most foreign students of staying on and working for two years after their studies. Under new rules, students can stay for three years post-study only if they find "graduate-level jobs" on salaries of £20,000 (USD 30 000) or higher. Britain's stringent norms on student visas have resulted in a sharp decline in the number of Indian students in higher education there. Students going to the UK from India fell by 23.5% overall, including a 28% drop at postgraduate level in the past year.

France is making efforts to raise the number of Indian students in France by 50% in the coming five years. Almost 2,600 Indian students opted for higher education in France in 2012, a jump of 50% over the past five years. The vast majority of these students attend the more than 700 courses taught in English in France, the number of which is increasing every year. In order to facilitate travel to France for all Indian citizens who have studied there, as of 14 July, all Indian citizens who have graduated from a French higher education institution subsequently applying for a tourist or business visa for a trip to France will be given a visa with a long period of validity – up to five years if the studies in France were at the masters or PhD levels.

Full article available at: <http://www.universityworldnews.com/article.php?story=20130705200907773>

