

EU Research Trends - December 2015

The Luxembourgish presidency is ending and the Dutch presidency is getting ready to take over. At the last European Summit of the year, heads of states and governments discussed migration and security, two subjects that both drew numerous headlines in 2015. Migration, because Europe saw the largest influx of immigrants since the Second World War and security because terror attacks made 2015 the bloodiest year since the Madrid bombings in 2004. Migration is threatening to collapse the Schengen system with open borders and several Member States refuses to accept refugees.

The prime minister of UK, Mr. Cameron has started his reform negotiations with the EU. He promised a referendum by the end of 2017, but it is likely to take place already in June 2016. In a letter to Council president Tusk, Cameron expressed his four main concerns regarding *economic governance*, *competitiveness*, *sovereignty* and the role of national parliaments and last, but not least, *social benefits to migrant workers*. When the big enlargement took place in 2004, the UK did not use the possibility of a seven-year transition period before the free movement of workers entered into force. This might be one of the explanations to why the UK is having many low-salary jobs, where the low salary is topped-up with generous social benefits. Cameron is asking for a four-year waiting period before migrant workers can receive benefits. There are no easy solutions to any of these concerns. The debate will continue and possibly be concluded at the next summit in February leaving time for four months debate on Europe. The huge difference between the UK referendum and the Danish referendum in December is that the UK membership of the EU is at stake. By the end of 2015, the EU seems more divided than ever. May 2016 not be the year where the first Member States is leaving it.

Trends

Data protection

The regulation is agreed by trilogue negotiators and will be agreed upon today (18/12/2015) by Coreper. Early next year the Parliament will confirm the deal by a plenary vote. The new rules will enter into force by 2018.

Negotiations were followed with great concern because Parliament voted in favour of a requirement to have a specific consent every time an individual's data were used in research. The Luxembourgish presidency drafted a new article 83, which was accepted by negotiators.

Article 83 now stipulates:

Article 83

Safeguards and derogations for the processing of personal data for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes

1. Processing of personal data for archiving purposes in the public interest, or scientific and historical research purposes or statistical purposes, shall be subject to in accordance with this Regulation appropriate safeguards for the rights and freedoms of the data subject. These safeguards shall ensure that technical and organisational measures are in place in particular in order to ensure the respect of the principle of data minimisation. These measures may include pseudonymisation, as long as these purposes can be fulfilled in this manner. Whenever these purposes can be fulfilled by further processing of data which does not permit or not any longer permit the identification of data subjects these purposes shall be fulfilled in this manner.

2. Where personal data are processed for scientific and historical research purposes or statistical purposes, Union or Member State law may provide for derogations from the rights referred to in Articles 15, 16, 17a and 19 subject to the conditions and safeguards referred to in paragraph 1 in so far as such rights are likely to render impossible or seriously impair the achievement of the specific purposes, and such derogations are necessary for the fulfilment of these purposes.

3. Where personal data are processed for archiving purposes in the public interest, Union or Member State law may provide for derogations from the rights referred to in Articles 15, 16, 17a, 17b, 18 and 19 subject to the conditions and safeguards referred to in paragraph 1 in so far as such rights are likely to render impossible or seriously impair the achievement of the specific purposes, and such derogations are necessary for the fulfilment of these purposes.

4. Where processing referred to in paragraphs 2 and 3 serves at the same time another purpose, the derogations shall apply only to the processing for the purposes referred to in those paragraphs.

The consolidated text is found [here](#)

Link to the European Parliament's [press release](#)

Link to the Commission's [press release](#)

Link to Science Business' [article](#)

Priorities of the Dutch presidency

The upcoming Dutch presidency is not only faced with the existential challenges mentioned earlier, immigration crisis at the EU borders and Brexit, but also the rise in Euroscepticism and Grexit.

The three priorities of the Dutch Presidency of the Council of the EU in 2016 are: a Union that focuses on the essentials; creates growth and jobs through innovation; and actively involves citizens and civil society organisations in policymaking.

Making Europe more innovative will be the central theme of the Competitiveness Council's work on research during the Dutch Presidency. This emphasis ties in with the Commission's strategic agenda, which is focused on a Union of jobs, growth and competitiveness, and with the government's priority relating to the EU's role as innovator and engine of job creation in Europe. The informal meeting of ministers will focus on creating the right conditions for, and the importance of investment in, research and innovation. The results of the evaluation of the Seventh Framework Programme for Research and Technological Development will enable the Council to emphasise the positive impact of investment in the future. However, investment alone is not enough. The right conditions for research and innovation must also be in place in order to address social challenges and generate economic growth and jobs. For Europe to have the best research and business climate, legislation must be research- and innovation-friendly. This also ties in with the Commission's ambition, as expressed in its 2016 Work Programme, to improve Europe's investment and innovation climate and simplify access to European research funding from the Horizon 2020 programme. The impact of investment on science and society can be magnified by improving the dissemination of and access to scientific knowledge (i.e. by practising open science and promoting open access), making the results of publicly funded research publicly available.

[Link](#) to presidency document

New Vice President of the European Research Council

ERC Scientific Council has elected Professor Klaus Bock as new Vice President of the European Research Council (ERC), alongside the current two Vice Presidents, Professors Mart Saarma and Núria Sebastián Gallés. He will take over on 1 January 2016, when the term of office of current Vice-President Professor Sierd Cloetingh ends. As Vice President, Prof. Bock will be in charge of the domain Physical Sciences and Engineering. The three Vice-Presidents are also members of the ERC Board together with the ERC President and the Director of the ERC Executive Agency. Klaus Bock, who holds a PhD in Organic Chemistry from Technical University of Denmark, is a member of the ERC Scientific Council since February 2013. He was Chairman of the Danish National Research Foundation 2004 to 2012 and has previously been Executive Vice President for Research of Carlsberg A/S. He was the Champion of Euroscience Open Forum (ESOF) 2014 held in Copenhagen.

Commission proposes a research-friendly copyright for open science and innovation in Europe

European researchers and innovators should have the explicit right to process on a large scale the content to which they have legal access. That is why the European Commission proposed a mandatory exception for research in the EU copyright legislation.

This exception should overcome the current fragmented copyright regime across the EU, the lack of clarity around copyright and ownership of derived works, and the inadequacy of licensing solutions. These obstacles have so far hampered the use of technologies commonly known as Text and Data Mining (TDM) in the EU. As a result, researchers - especially those from public interest research organisations - have felt discouraged to use such techniques to analyse vast amounts of digital content.

Carlos Moedas, Commissioner for Research, Science and Innovation, said: "Scientific research is collaborative and knows no borders, so the currently fragmented copyright regime in Europe is simply unacceptable. We also need to ensure that Europe does not

fall behind other regions of the world, where text and data mining is already made easy. I have strongly supported a copyright exception for our researchers and innovators because they should be given the best conditions to do their jobs. The exception proposed today will be pivotal in spurring innovation and growth in Europe." The harmonisation of the copyright exception for scientific research purposes was identified earlier this year as a key for the functioning of the [Digital Single Market](#). The planned exception will help the scientific community and innovative companies that have established collaboration with them - in particular in the case of public-private partnerships - make the best use of digital content they have already lawfully acquired or obtained access to. It will help bring coherence among the EU's 28 Member States and remove key barriers to Open Science and Open Innovation. The legislative package, including the exception for research, is planned to be released in spring 2016.

Text and data mining (TDM) refers to technologies through which vast amounts of digital content are read and analysed by machines. TDM is used in science and research, notably to discover correlations between materials produced in different scientific fields and to generate new knowledge.

Today, the implementation of the exception on scientific research (Article 3(a) of Directive 2001/29/EC) differs across the EU and the lack of a clear EU provision on TDM for scientific research purposes creates uncertainties in the research community. Moreover, the current situation harms the EU's competitiveness and scientific leadership at a time when research and innovation activities increasingly take place through cross-border and cross-discipline collaboration and on a larger scale.

The Commission is currently assessing this matter, including as regards the impact on the publishing market, and will consider legislative proposals in the area of exceptions to allow public interest research organisations to carry out text and data mining of content they have a lawful access to, with full legal certainty, for scientific research purposes.

More information:

[Press release](#), [Fact Sheet: Making EU copyright rules fit for the digital age](#) ,
[Communication - Towards a modern, more European copyright framework](#)
[Communication - Digital Single Market](#)

AU Herning receives grant to a Horizon 2020 project on waste-management in tourist cities

This week, AU Herning got the great news that their application for a grant under Horizon 2020 was approved. This will give the Centre for Energy Technologies almost 670.000 DKK to conduct research on different aspects of waste management. A consortium of 27 partners from all over Europe has applied for funding for a project called UrBAN-WASTE.

The overall objective of the project is to: *“develop waste prevention and management strategies in cities with high levels of tourism in order to reduce the urban waste production and improve municipal waste management. These strategies will facilitate the reintroduction of waste as a resource into the urban metabolism flows.”* (UrBAN-WASTE, concept note).

AU Herning will participate in five of the eight work packages in the project. The majority of the activities are for the “Operationalising urban metabolism (WP2)”, where research is being conducted to see how social, economic and environmental resources can be used to identify possible opportunities for waste management, reduction and reuse. Other activities include assessing the effect of selected strategies on the environment as well as social and economic aspects and the possibility for extension, promote the results and find synergies to other EU-projects.

The involvement of AU Herning is a result of a partner search found in Central Denmark EU Office’s weekly newsletter EU-fokus. If you would like to receive weekly updates on partner searches, events or the newest calls? You can sign up for EU-fokus [here](#) (in Danish).

Tunisia joins Horizon 2020

Researchers and innovators from Tunisia will now be able to participate in Horizon 2020 under the same conditions as their counterparts from EU Member States and the other 13 associated countries.

The Association Agreement allows for enhanced cooperation in research and innovation between the EU and Tunisia. It also represents another step towards reaching the EU goal of opening research and innovation to the world.

In FP7, Tunisia accounted for a total number of 103 successful participations in a total of 88 retained proposals, most of them in the Food Security and Sustainable Agriculture policy area. For Horizon 2020, Tunisia already participates with 1 signed agreement. In addition, there are 12 Tunisian participations in 10 main listed projects, which will in principle lead to grant agreements.

The agreement covers the years 2016-2020 and still need to be ratified by the Tunisian Parliament. However, Tunisian legal entities will now be able to participate in all Horizon 2020 on an equal footing with EU Member States and other associated countries already as of 1 January 2016.

For more information:

- [Associated countries](#) to Horizon 2020
- [EU-Tunisia research and innovation cooperation under FP7](#)

Forum: Better research for better health, a holistic approach to challenges and opportunities

21 January 2016, Brussels

At the end of its first year, the Scientific Panel for Health will be presenting its initial findings at a public conference to be held on 21. January 2016.

The European Commission's Scientific Panel for Health (SPH) is a unique group of experts from across Europe that advises the European Commission on long-term challenges and bottlenecks in the health research domain, and on the potential solutions to them.

This conference will be an opportunity for a wide range of stakeholders in health to participate and provide input into this process, and to meet with members of the Scientific Panel for Health.

[Registration](#) is open. Participation is free.

Please contact Martina Morosi (martina.morosi@icfi.com) or Christina Dziejanska-Stringer (Christina.Dziejanska-Stringer@icfi.com) if you have any enquiries about the event.

Further information: [Registration](#) , [More about the Scientific Panel for Health](#) , [Draft programme \(updated 9/12/2015\)](#)

Save the Date: 2nd International Conference on Science Advice to Government

29.-30. September 2016, Brussels

The International Network for Government Science Advice (INGSA) and the European Commission will hold the 2nd International Conference on Science Advice to Government in Brussels, Belgium on 29.-30. September 2016.

The conference will take place in the Charlemagne building, Rue de la Loi 170, 1040 Brussels

More information will follow.

Further information: [INGSA](#) , [European Commission](#)

FET Open and FET Proactive info day

25. January 2016, Brussels

The Research Executive Agency (REA), in cooperation with the EC's DG for Communications Networks, Content & Technology, is organising an **Information Day** on the calls for proposals to be launched in 2016 by the Future and Emerging Technologies Open (FET Open) and the topic 'Emerging themes and communities' of the FET Proactive schemes.

This event targets potential applicants for the calls for Research and Innovation Actions (RIA) and for Coordination and Support Actions (CSA) under FET Open and FET Proactive under the topic 'Emerging themes and communities'. The FET Open calls will close on 11. May 2016 and the FET Proactive call on 12. April 2016.

Registration is free. Please note that due to limited space, registrations will be accepted on a first-come-first-served basis. Registrations will close when the maximum number of participants is reached.

All sessions will be web-streamed (from 9 a.m. CET, 25 January 2016) and recorded, and presentations will be published after the event.

[More information, programme and free registration](#)

Promote the Arctic on the Horizon 2020 agenda

The Danish Ministry of Higher Education and Science held a policy seminar in the European Parliament followed by a day of workshops under the name of "Solving Key Arctic Challenges in Horizon 2020". The aim of the event was to gather high-level scientists, business developers, NGO's and politicians to discuss the future for Arctic research in regard to the Horizon 2020 work program for 2018-2020.

The policy seminar was hosted by MEP Jeppe Kofod (S) together with the Danish Minister of Higher Education and Science, Mr. Esben Lunde Larsen, to create a strategy for Arctic research and to highlight why it is important to Europe to know what is going

on in the Arctic and to address the changes and the new landscape stemming from them. A message from Jeppe Kofoed was that the EU has a great opportunity to develop peaceful research in the area, but to do so it needs to provide more funding.

Some of the main points of the seminar was:

- While the other Arctic nations like USA, Canada, Russia and Norway are developing - or already has - a grand strategy for infrastructure in the Arctic. The EU is lacking behind and is in the need of research to investigate how the EU can handle the opportunities rising in the area. There is a need for a common strategy and vision for the area as well as a need to find out, what other countries want in the Arctic.
- The EU can help the Arctic to become visible, not only to the other European countries, but to the world. However, the Arctic is thinly populated and with a lack of infrastructure. Research projects should be in collaboration with the people living there as they wish for prosperity like everybody else. Research should find out what the Arctic means for the global world and why it is relevant. The climate changes happening in the Arctic is not a product of the people living in the Arctic - it is a symptom of things happening elsewhere.
- It is not only challenges that lie in the Arctic region, so does opportunities. The messages from the business side was that if it is worth it, the businesses will get onboard. The EU consume 20-25 % of the minerals in the world but only produce 2-3 %. This is not sustainable and therefore the mining opportunities in the Arctic are important to the EU.

From the Commission side, Maria Da Graca Carvalho, Senior Advisor to the Commissioner Carlos Moedas, gave a European perspective. The Arctic is crucial to the EU for political reasons and for the opportunities if it is dealt with in a sustainable way. The resources within the Arctic area is of great value to the EU. This is not a job for one country only and this is why science diplomacy is a key instrument in dealing with the arctic.

Day 2: Workshops

On the second day of the event, workshops were simultaneously taking place under the four themes: “Climate change”, “Management of marine resources”, “Transport, communications, infrastructure” and “Clean energy and raw materials”. A joint policy brief of the outcome of workshops is expected in mid-December.

On the theme of “Climate change” it was discussed how to address the consequences of climate change in the Arctic - especially since these are not confined to the Arctic areas, but have a global impact on several issues. One example is the melting glaciers in e.g. Greenland causing a rise in global sea levels including possible changes in ocean acidity and currents. Other consequences include changes in global weather patterns causing heat waves, droughts and floods and a speed up of feedback processes in the global climate system e.g. changes in Earth albedo due to deposition of black carbon and melting ice; also greenhouse gas emissions may increase due to the release of methane from melting permafrost. Moreover, climate change affects conditions of the Arctic societies bringing about challenges and opportunities for governance, public health and business. Future Arctic research should provide knowledge and data on the climate change consequences to the cryosphere, oceans, the atmosphere, ecosystems and the terrestrial landscape, biochemical processes, and transport of pollutants, as well as research regarding the human responses to these changes e.g. in the form of regulatory mechanisms and institutional set-ups. Knowledge and data should feed into an open Arctic climate service facility, forming a shared scientific basis for future policies on areas affected by climate change e.g. exploitation of natural resources; fisheries; maritime traffic; tourism; competence building, business and employment opportunities, sustainable development, surveillance; search and rescue; security and more.

In the workshop for “Management of marine resources” it was discussed how global warming causes changes in e.g. sea ice cover duration and ice thickness affecting marine food chains. Biomagnification of industrial chemicals in the marine food chain already results in human health risks in the Arctic. These risks may increase because of climate change and increased releases of industrial chemicals in the region and because of increased reliance on fishing in Arctic waters in the future. The most

productive areas for fisheries are moving north, thus turning Arctic waters into a future European food larder. E.g. the Atlantic mackerel now constitutes an important part of the fisheries in the region since the first catches in Arctic waters around 2011. Moreover, previously ice covered Arctic waters are becoming available to shipping, tourism and possible exploration of microbes, oil and gas resources. A sustainable production poses challenges in terms of a lack of capacity, capital, education and skills. However, with Arctic waters increasingly exposed to human activity as well as shifting ocean currents, new species and the risk of pollution accumulating in food chains, knowledge and data are needed to safeguard human health and the fragile Arctic marine environment furthering a sustainable development of the Arctic economy. Future Arctic research should provide knowledge and data on the climate change consequences to European food security including knowledge about governance structures and engagement with Arctic communities.

The workshop for “Transport, communication, infrastructure” focused on how climate change alters the very core economic conditions of the Arctic and bringing the region closer to markets in Europe and North America. Shipping, tourism, exploration of natural resources are all becoming increasingly affordable businesses. However, to exploit these opportunities basic infrastructure needs to be in place including e.g. search and rescue, mapping of Arctic waters and lands, internet connectivity, construction of harbours, railways, roads and more. However, construction tends to be rather expensive not to mention technologically challenging in the harsh and changing Arctic climate. Moreover, increased human activity may change conditions for e.g. mammal or cause pollution to name a few environmental risks. To unlock economic potential in a sustainable way research is needed in areas of transport, space communications and construction in a cold and changing climate. Public and private sectors need to develop solutions regarding search and rescue, mapping, internet connectivity, construction, building of skills and competences of the local labour force.

For “Clean energy and raw materials” it was presented how access to Arctic raw materials may constitute a reliable source for new materials for the raw materials related production sectors globally. Exploration and extraction of raw materials in the

Arctic has a substantial potential for contributing to sustainable societal developments in the Arctic region as well as to industries and societies beyond the Arctic. However, challenges to development include extreme climate conditions, sensitive environments, small populations, lack of infrastructure as well as an uncertainty of climate change effects on accessibility and costs, which remain to be solved in order to provide a sustainable supply chain bringing Arctic raw materials to markets in Europe and beyond. Other potentials include e.g. exploitation of water and wind energy, however, requiring invention of new construction techniques as well as development of methods for energy storage. For future use of Arctic resources, there is a strong need for research, innovation and investments including new methods for mapping and evaluation of primary resources and developing new technologies to make mining construction, associated infrastructure and use of energy in mining projects sustainable. Geological, technological, political and economic factors all come into play in this interdisciplinary area of providing sustainable supplies of raw materials and developing clean energy solutions.

Comments or questions should be directed to [Rikke Edsjö](#)