

# EU Research Trends - March 2018

In March Research Trends brings news on the new role of Robert-Jan Smit, the first round of funding offered to SMEs under the European Innovation Council pilot, the final report from the High-Level Expert Group on fake news and the most recent developments in defence research at European level.

The general events calendar is attached to the email sending out Research Trends.

## Trends

### **Former DG RTD Director General Robert-Jan Smits to lead on Open Science**

Robert-Jan Smits who has headed DG RTD for the past 8 years and who has with the reshuffle at the top level of the Commission end of February passed on his baton as Director-General of DG RTD to Jean-Eric Parquet will now be tasked with making all publicly funded research in the EU freely available by 2020. A target set by the Dutch government and agreed upon by the other 27 Member States back in 2016. His official title will be senior advisor on open access within the European Political Strategy Centre, the Commission's in-house think tank. Robert-Jan Smit will be working alongside Member States and research funders to change the world of academic publishing. So far Robert-Jan Smit has not been particularly impressed with the development of open access and open science, progress is extremely slow and an inherent resistance seems to prevail most academic environments. Today, the compliance with the EU open access demand is 67% across all H2020 projects. His job will be to draw up an open access roadmap for action before the summer, outlining steps to demolish scholarly journals' paywalls. By the end of the year, he will set down policy recommendations.

### **RISE High-Level Group provides input on mission-oriented approach**

The Research, Innovation and Science Expert (RISE) high-level group advising Commissioner Moedas has been asked to provide policy insights on mission-oriented research and innovation policy at EU level. According to the RISE group's paper, Europe starts in a good place for implementing a mission-oriented policy approach with large-scale historical successes in areas such as space and aircraft production demonstrating what can be achieved with sufficient drive, leadership and broad-based commitment. The group concludes that missions have their origin in wider challenges but are distinguishable as a specific package of actions that makes defined progress against the challenge with verifiable objectives on a planned timescale. RISE recommends actively to involve citizens in the design of missions. The RISE policy brief is attached to the email sending out this newsletter.

### **High-Level Group on Industrial Technologies publishes preliminary KET report and comes with recommendation on missions**

In 2017, the Commission set up a high-level strategy group on Industrial Technologies. Its task was to review the European strategy on Key Enabling Technologies (KETs), and to make recommendations on how they can be placed in a mission-oriented FP9. The high-level group has now published its preliminary report. The final report is expected in April 2018. The preliminary report highlights the economic importance of KETs and suggests a new, broader definition of KETS, based on the criteria impact, relevance, key capacity and enabling power. In addition to the preliminary report, the high-level group suggest a list of 14 missions for future R&I investments. The suggestions are: (1) An inclusive democratic society, (2) Industry renewal, (3) Digitalisation as a European jobs engine, (4) Transforming thoughts into action - the new internet, (5) Circular economy-shift to de-production and re-production, (6) Clean and safe mobility - re-founding car industries, (7) Carbon re-use - from climate killer to industry asset, (8) Energy independence - affordable renewables, (9) European healthcare networks - breakthrough in disease prevention and treatment, (10) Bio manufacturing - bring life to manufacturing, (11) Re-inventing food production - sustainability and traceability, (12) Bio-diversity - saving bees and other pollinators, (13) Oceans of drinking water - starting with affordable desalination, (14) Bouncing back - making Europe's society more resilient. To access the report and recommendations, please follow this [link](#).

### **European Parliament study looks overcoming R&I gaps in Europe**

The European Parliament Research Service has undertaken a study to identify the reasons for the low participation and success rate of the EU13 countries in order to improve their future performance in H2020 and FP9. The study includes an extensive literature review, empirical tests and online surveys. The study finds the issue of low participation of the EU13 has no one-size-fits-all solution. The paper states that any strategy to stop the pattern of persistent, low participation in the FP requires action at three levels: (i) The local level of R&I organisations, (ii) the national level of R&I systems, and (iii) the EU level. Policy options will be most successful if they address the situation at multiple levels. The report is attached to the email, sending out this newsletter.

### **European Court of Auditors addresses simplification for FP9**

Upon request by the European Parliament and the Council, the European Court of Auditors (ECA) has addressed the simplification issue for FP9 by providing input for the preliminary legislative discussions. The analysis by ECA shows the complexity of simplification and identifies several proposals to bring focus to the discussion on FP9. In its first part the paper describes a number of competing priorities for which the Commission and the budgetary authority need to find the right balance: Stability ><change; accountability >< ownership; legal certainty >< discretion; beneficiaries interest >< EU interest; regional spread >< excellence. According to the ECA these dilemmas have affected the Commission's efforts to simplify the implementation of EU R&I programmes. The paper then moves on to bring proposals for consideration in FP9: (i) a reasonable timespan between adoption and implementation of legal acts, (ii) use of lump sums and prizes, (iii) use of guidelines as non-binding rules, (iv) the acceptance of beneficiaries' accounting practices, and (v) the recognition of good

project proposals under H2020 in other programmes via an one-stop-shop approach. A performance audit on 'simplification in H2020' will be published late 2018. The ECA paper is attached to the email sending out this newsletter.

### **EU Blockchain Observatory and Forum calls for contributors to 2 working groups**

The EU Blockchain Observatory and Forum has issued a call for contributors to two working groups: (i) Working Group on Blockchain Policy and Framework Conditions. This working group will look at cross-cutting issues in order to establish regulatory conditions that creates the predictability and legal certainty needed for larger-scale deployment of blockchain applications. The working group should also discuss issues concerning technological and ecosystem developments such as interoperability, scalability and sustainability. (ii) Working Group on Use Cases and Transition Scenarios. This group should focus on the most promising use cases, particularly with a public sector angle to identify their transformative power and transition scenarios. It should also touch upon Fintech and financial services, supply chain and creative industries or the non-for-profit sector. The call is open until 9<sup>th</sup> April 2018. For more information please follow this [link](#).

### **Commission launches Projects for Policy website**

With an aim at using research and innovation to shape policy, the Commission has launched the initiative Projects for Policy (P4P). The Commission has identified policy areas which deserve particular attention. Policy recommendations are collected in report series to contribute to a highly impactful policy making process. These results are used for economic and social activities, as a basis for further research or to develop new and better products and services. Currently the following reports are available: (i) Pathways to sustainable industries, (ii) The 4<sup>th</sup> Industrial Revolution, (iii) Batteries, (iv) Blue Economy, and (v) Rare Diseases. To access the Projects for Policy website, please follow this [link](#).

### **Boosting battery R&I in Europe**

By 2025 the European Market for batteries could be worth around 250 billion EUR per year. Hence, the European Battery Alliance (EBA) which consists of more than 50 of Europe's strongest corporate voices which the battery sector has worked hard to get the European Community to buy in on their main priority recommendations to create a competitive and sustainable battery cell manufacturing in Europe with a full EU based value chain. The European Commission has on the backdrop of this launched yet a new European Innovation Council (EIC) Horizon Prize on innovative batteries for eVehicles. This is the fifth of six prizes awarded under the pilot phase of the EIC. 10 million EUR will be awarded to the development of a prototype battery that can power an electric vehicle with similar performance in terms of range and charging time as conventional petro/diesel powered small family vehicles. The prize will also contribute to the objectives of the Commission's [Clean Mobility Package](#). Deadline to apply is 17<sup>th</sup> December 2020. For more information about the prize, please follow this [link](#).

### **Innovation deal on batteries for electric vehicles signed**

Another step has been made to help overcome perceived regulatory barriers to innovation. An Innovation Deal has been signed by eight partners from national and

regional authorities as well as innovators from France and the Netherlands, aiming to tackle whether regulation is conducive to environment-friendly and industrially-efficient recycling and re-use of electric vehicle batteries. The Innovation Deal will explore and analyse whether EU law and its transposition hamper the recycling and re-use of batteries for electric vehicles as well as possible ways of overcoming barriers. The concept of the Innovation Deals was launched by the Commission with the Circular Economy package and the first Innovation Deal on wastewater was signed in April 2017. For further information, please follow this [link](#).

#### **High-level group on Fake news and disinformation publishes report**

The High-level group of experts (HLEG) established to advise on policy initiatives to counter fake news and disinformation spread online has published its final report. Anja Bechmann, Associated Professor at Aarhus University is a member of this HLEG. The HLEG advises the Commission against simplistic solutions. Any form of censorship either public or private should clearly be avoided. The recommendations aim instead to provide short-term responses to the most pressing problems, longer-term responses to increase societal resilience to disinformation and a framework for ensuring that the effectiveness of these responses is continuously evaluated. For more information and to download the report, please follow this [link](#). The report together with [the summary](#) of the public consultation on fake news and disinformation and the [results of the Eurobarometer](#) on the same topic will feed into the Commission Communication on fake news and online disinformation planned for spring 2018.

#### **The European Defence Agency launches European Funding Gateway for defence**

The European Defence Agency (EDA) has launched a comprehensive European Funding Gateway for defence. The gateway is a web service which addresses ministries, research and technology organisations and academia. It provides the defence sector with information on accessing European funding and is the result of collaboration between the EDA, several Commission Directorates and the European Investment Bank. To access the European Funding Gateway for Defence, please follow this [link](#).

#### **The European Defence Agency and the European Investment Bank strengthens their collaboration**

The European Defence Agency (EDA) and the European Investment Bank (EIB) have early March signed a Memorandum of Understanding (MoU) with a view to strengthening cooperation between the two institutions. This step is taken after the Commission in 2017 encouraged the EIB to examine further steps to support defence research and development activities. As a response, the EIB recently approved the European Security Initiative. Strengthening its support for research and development of dual-use technologies, cybersecurity and civilian security infrastructure. The MoU aims to support the EU policy objectives regarding the Common Security and Defence Policy. For more information, please follow this [link](#).

#### **EARTO launches Economic Footprint Study**

EARTO has launched its new 'Economic Footprint Study: Impact of 9 European RTOs in 2015-2016'. The study highlights the economic footprint of RTOs based on data collected from 9 RTOs, representing 1/3 of EARTO members in terms of employees

and turnover: AIT (Austria), CEA (France), DTI (Denmark), Fraunhofer (Germany), imec (Belgium) SINTEF (Norway), Tecalia (Spain), TNO (the Netherlands) and VTT (Finland). The study shows that aggregated effects of the core-activities as well as activities generated through collaborative contract research, the spin-offs, and the outflow of highly skilled staff of these 9 RTOs resulted in a ratio of 1 RTO job creating 4 additional jobs somewhere in the EU in 2016. EARTO calls on policy makers to clearly define policies aiming at further utilizing and enhancing RTOs capabilities and boosting joint investments in their key technological infrastructures. To access the study please follow this [link](#).

### **The European Reference Networks**

One year ago, the Commissioner for Health launched the European Reference Networks (ERNs). They are virtual networks bringing together healthcare providers across Europe to tackle complex and rare medical conditions. 24 ERNs are now up and running with more than 900 highly specialised healthcare units from 25 EU countries and Norway working together on a wide range of issues, such as bone disorders, paediatric cancer and much more. Marking the first anniversary of the networks, the Commissioner for Health, Andriuskaitis, said that the Commission is planning to launch a call for new ERN members to join at the end of 2018. For more information on this first anniversary and the ERNs, please follow this [link](#).

### **Commission launches publication on materials**

The Commission has published a report by the high-level group of EU Member States and associated countries on nanosciences, nanotechnologies and advanced materials. The report is called 'An ecosystem to accelerate the uptake of innovation in materials technology' and looks at barriers and obstacles that need to be addressed for uptake of nanotechnologies and advanced materials. It contains a list of potential actions to mitigate barriers and obstacles. To download the publication, please follow this [link](#).

### **Commission publishes orientation paper on smart wearables**

Smart wearables which today for the largest part means smart watches holds a very significant market potential as smart wearables gradually develops from being accessory like to being fully integrated into intelligent textiles and prints which monitoring facets and battery life. Such wearables can be used across a number of sectors and for an increasing number of purposes and dual-purposes not least within healthcare. In an acknowledgement of this market potential which is still not taken up by the traditional smart giants like Google and Microsoft, the Commission has published an orientation paper on smart wearables. To unleash the potential the paper points to the need for R&D to reach high technological readiness levels, whilst working on open platforms for connected wearables to generate real ecosystems for this industry. To download the reflection paper, please follow this [link](#).

### **Call for experts to new High-level group on Artificial Intelligence**

The Commission has kicked off its work on Artificial Intelligence (AI) by agreeing to set up an expert group meant to secure expert input and rally a broad alliance of diverse stakeholders. The expert group will be tasked with: (i) advising the Commission on how to build a broad and diverse community of stakeholders in the

‘European AI Alliance’; (ii) Support the implementation of the upcoming European initiative on artificial intelligence (April 2018); (iii) Come forward by the end of the year with draft guidelines for the ethical development and use of artificial intelligence based on the EU’s fundamental rights. For more information and application guidelines please follow this [link](#). Deadline for applications to the expert group is 9<sup>th</sup> April this year.

### **Implementation Roadmap for the European Open Science Cloud (EOSC)**

The Commission has published its roadmap for the European Open Science Cloud (EOSC). A roadmap that will take the current situation of fragmentation of research data to a situation where data is easy to store, find, share and re-use. Six action lines for the implementation are identified: (i) architecture, (ii) data, (iii) services; (iv) accesses and interfaces; (v) rules, and (vi) governance. To access the implementation Roadmap for the EOSC please follow this [link](#)

### **Policy review on cultural heritage**

In the context of the high-level conference on Innovation and Cultural Heritage end of March, the Commission has published a policy review analyzing the outcome of 14 EU funded R&I projects on cultural heritage. The policy review makes suggestions to attain an appropriate European FP after 2020, fitting both the current concept of cultural heritage and the corresponding cultural, societal, economic and ecological challenges. During the recent conference Commissioner Moedas stated that his ambition is to make Europe the world leader in heritage-based innovation. He contextualized this statement by the fact that with 453 inscribed sites, Europe as a region accounts for almost half of the UNESCO’s World Heritage List. To download the publication, please follow this [link](#).

### **Science Europe publishes Open Letter on sustainability of Research Infrastructures**

In the context of a high-level conference on R&I hosted by the Bulgarian Presidency of the Council, Science Europe has published a statement on the long-term sustainability of research infrastructures. Science Europe is convinced that harmonized approaches for the evaluation, priority-setting and funding will help deliver a strong basis for the European Research Area. For those RIs that allow external access the timeshare should be allocated following the recommendations of the [European Charter for Access to RIs](#). The Science Europe Open Letter is attached to the email sending out this newsletter.

### **Commission publishes study on inter-sectorial mobility among researchers**

The Commission has published its report on Fostering Industrial Talents in Research at European Level. The report looks at whether there is scope for further EU-level initiatives to increase inter-sectorial mobility, focusing on the mobility of academic and industrial researchers, academics and senior people of industry. The study identifies examples of good practices but also looks at barriers for mobility. Moreover, recommendations are made for EU-level interventions. The report is attached to the email sending out this newsletter.

### **ERC Scheme: Top-up Proof of Concept is evaluated positively**

Since 2011, the ERC awards top-up Proof of Concept (PoC) grants in addition to the ERC grants. The scheme supports ERC-funded scientists in setting up new companies, filling patent applications or attracting capital in order to make their research marketable. Independent experts have carried out the first review of the ERC's innovation scheme which praises the PoC. A survey created for the assessment showed that 20% of PoC grantees created a company and 42% filed at least one patent application. Commentaries on the evaluation suggest that beyond the quantitative measurements of success PoC is in fact most important in terms of driving a change for culture among researchers. To read the ERC press release and access the report on PoC, please follow this [link](#).

### **University associations discuss joint action on next Framework Programme (FP9)**

End of February 13 transnational European university associations discussed possible joint action in relation to the next Framework Programme (FP9). Participants met in Leuven upon invitation of LERU (the League of European Research Universities). The networks participating in the meeting were: CESAER, CLUSTER, Coïmbra Group, EARMA, EASSH, ECIU, EUA, The Guild, IDEA League, LERU, SEFI, UNICA and YERUN. For more information, please follow this [link](#).

### **Commission publishes draft Withdrawal Agreement between the EU and the UK**

Early March the Commission published the draft Withdrawal Agreement between the EU and the UK. The draft Agreement consists of six parts, including introductory provisions, citizens' rights, other separation issues such as goods placed on the market before the withdrawal date, the financial settlement, transitional agreements, and institutional provisions. It also includes a protocol on Ireland/Northern Ireland. The European Council is expected to adopt additional guidelines later this spring. The draft Withdrawal Agreement is a translation into [legal terms of the Joint Report from the negotiators of the EU and the UK published on 8<sup>th</sup> December 2017](#). The transition period is envisaged to end on 31<sup>st</sup> December 2020 coinciding with the end of the current Multiannual Financial Framework. The draft Withdrawal Agreement will now be sent to the Council and the European Parliament's Brexit Steering Committee for discussion, before being transmitted to the UK for negotiation. A final overall version of the Withdrawal Agreement should be agreed upon by the EU and the UK by October 2018. The UK is scheduled to leave the EU on 30<sup>st</sup> March 2019. To access the text of the draft Withdrawal Agreement please follow this [link](#). To access Q&A on the Withdrawal Agreement, please follow this [link](#).

### **UK House of Commons calls for research to be priority in Brexit negotiations**

The Science and Technology Select Committee of the House of Commons has addressed its concerns of the UK's commitment to FP9. According to the committee's recent report, a greater focus should be given to research and science during the Brexit negotiations. The committee wants research in under the EU-UK approach that so far goes by the thinking of 'until everything is agreed, nothing is agreed'. The report is attached to the email sending out this newsletter.

### **First group of innovators to receive funding under the EIC pilot**

A jury of innovators, entrepreneurs and venture capitalists has selected the first group of innovators to receive funding through the recently launched European Innovation Council (EIC) pilot. In total, 57 SMEs have been selected and are now to receive funding for scaling up their projects. Projects selected in this first round have high potential for creating future markets and cover fields such as health, ICT and engineering. For more information please follow this [link](#).

### **European universities associations publish joint statement on MFF**

13 European associations of universities, among them The Guild, Coimbra and LERU, have published a joint statement and call upon the EU institutions to follow president Juncker's statement about doubling the research budget in the next financial framework (MFF). The associations also demand the double amount for research, innovation and education under the next MFF. For more information, please follow this [link](#).

### **The Young European Research Universities Network presents FP9 position paper**

The Young European Research Universities Network has presented a position paper on FP9 called the 'Research & Innovation Agenda for a Global Europe: Priorities & Opportunities for the 9<sup>th</sup> Framework Programme'. The paper calls for sustainable R&I funding, engagement of society in R&I as well as promotion of full implementation of open science and a more comprehensive definition of impact. Furthermore, YERUN calls on more support for early career researchers as well as more efficiency and transparency in the submission and evaluation processes. YERUN's position paper is attached to the email sending out this newsletter.

### **Poland publishes FP9 position paper**

Poland has come forward with its position paper for FP9. This paper has been submitted to the consultation on EU funds in the area of investment, research & innovation. Poland recognizes the outstanding importance of the EU programmes as an example of genuine European cooperation, contributing to greater economic growth, innovation and solutions to societal challenges. Main recommendations include: (i) increased budget for the next FP. (ii) introduce the participation of partners from EU13 as an auxiliary evaluation criterion, (iii) maintain and further strengthen the 'widening participation instruments', (iv) increase the number of smaller collaborative projects. To access the position paper, please follow this [link](#).

### **UK publishes FP9 position paper**

As a top-five collaboration partner in Horizon 2020, the UK values its participation in the EU Framework Programmes. The UK believe that at the heart of a successful programme is a focus on excellence as well as a focus on providing EU added value and impact. The main points of the UK paper are as follows: (i) continued focus on excellence, (ii) facilitate and strengthen collaboration between countries on shared priorities for mutual benefit (iii) a mission-oriented approach could provide a useful framework for tackling large scale societal challenges, (iv) further reduce the administrative burden for participants so that they focus on producing excellent research and innovation, (v) seek to widen participation and support underrepresented groups and regions to strengthen European R&I as a whole, (vi) FP9

should complement national research and innovation programmes. The position paper is attached to the newsletter sending out this newsletter.

#### **Cyprus publishes FP9 position paper**

Cyprus has published its position paper on FP9. Cyprus calls for a structure similar to H2020 in FP9 and is in favor of increasing the budget for FP9. Furthermore, Cyprus welcomes the establishment of a European Innovation Council. The paper confirms Cyprus' support also for the existing challenge-driven approach and the development of this pillar under FP9 into missions. Cyprus calls for SSH to be concretely integrated in all parts of FP9. Cyprus favours more actions to strengthen the widening actions and wants to see defence research outside of FP9. Cyprus' position paper is attached to the email sending out this newsletter.

#### **The Guild publishes position paper on FP9**

The Guild of European Research Universities of which AU is a member has published its policy paper on widening participation 'Mind the Gap - Supporting Excellence across Europe in the 9<sup>th</sup> Framework Programme'. The motivation for this paper is to recommend effective measures to strengthen the excellence existing in lower-performing regions. The Guild recommends meaningful research collaborations, supporting mobility in all directions and creating new sustainable networks and research infrastructures. To achieve this, the Guild pleads, among others, for synergies between FP9 and ESIF, dedicating a higher proportion of ESIF to R&I, also the Guild urges that the effectiveness of actions in the existing 'Widening Participation and Spreading Excellence' instrument which should be renamed 'Enhancing Collaboration' and allocate 2,5% of the FP9 to its actions. To read more and access the position paper, please follow this [link](#).

#### **European Consortium of Innovative Universities presents FP9 position paper**

The European Consortium of Innovative Universities (ECIU) has published its paper on the next Framework Programme. The ECIU calls for a substantial budget increase to at least 160 billion EUR and for Open Innovation to be the underlying approach of FP9. In this light ECIU also welcomes the establishment of a European Innovation Council. ECIU is more cautious in its comments on a mission-driven approach but supports co-creation and regional engagement for mobilizing joint investments and citizen science. ECIU emphasises innovation, creativity and societal impact. For more information and to access the ECIU position paper, please follow this [link](#).

## **Highlighted events**

#### **Preparatory actions launched for the defence research programme after 2021**

The Commission has published [three preparatory actions](#) on the participants portal in relation to defence. The European Defence agency hosts an information and matchmaking event in Brussel on 12<sup>th</sup> April. Danish participation is possible as these actions do not fall under the exemptions that Denmark has in relation to European Defence collaboration. For more information and registration, please follow this [link](#)

**Symposium on internationalisation of universities and national language**

On 4<sup>th</sup> May at KU Leuven, Belgium a symposium on the topic of internationalisation of universities and national language takes place. With the ever-increasing internationalisation of universities and with it the dominance of the English language, the fear arises that national languages and cultures might be compromised. This symposium looks at this fear: Is it justified, how can it be dealt with, etc. Do you want to read more about the event or register, please follow this [link](#).

***Events attended in March. Summaries can be obtained by request***

*7<sup>th</sup> March - European Parliament event on Future and Emerging Technologies.*

*14<sup>th</sup> March - Personalised Medicines event organised by the region of Niedersachsen*

*22<sup>nd</sup> March - UniLion event on the impact of Brexit*

*26<sup>th</sup> March - The Guild event on Innovation eco-systems in FP9*

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