

**Tonio Borg:**

At the EPHA conference, the EU Health Commissioner discussed his growing anxiety over citizens' wellbeing

**Dacian Cioloș:**

The outgoing Agriculture Commissioner reflects on his time in Brussels and the increasing contributions of Horizon 2020

**Androulla Vassiliou**

Following four years of service, the Commissioner for Education and Culture promotes closer European ties

HORIZON 2020 PROJECTS: PORTAL

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WILL SWITZERLAND SEE A RETURN TO FULL
ASSOCIATION STATUS IN HORIZON 2020?

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Ferdinando Nelli Feroci European Commissioner for Industry and Entrepreneurship

I am pleased to have the opportunity to address you in this foreword to the October 2014 edition of Horizon 2020 Projects: Portal in order to highlight the importance of innovation for industry in the EU. As European Commissioner for Industry and Entrepreneurship, I am committed to giving a fresh impulse to Europe's ability to lead a new industrial renaissance, through research and innovation. Horizon 2020 is therefore one of our main tools to achieve this objective.

The recent crisis has struck the European economy particularly hard. Europe lost four million jobs in industry and €350bn in investments. However, during these difficult times we have learned that countries with a strong industrial base suffered less. There is now a widespread consensus that such a foundation is vital for the EU's growth and for job creation. This was underlined in the European Commission's recent communication calling for an industrial renaissance. On this basis, the European Council acknowledged the central importance of industry and adopted strong conclusions on the way forward. At the request of the Council, I am determined to work during the next months on a detailed roadmap setting out specific actions and measures to be taken in the coming years. This roadmap should be based on four main pillars: access to markets, access to inputs, a business-friendly regulatory framework, and smart industry and innovation.

Despite the progress made so far, there is still a huge potential to strengthen the EU's internal market by removing the remaining barriers that hamper the competitiveness and growth of business. In parallel, internationalisation and support to European firms' access to non-EU markets must be made a priority. Particular attention should be given to facilitating access to finance, notably COSME and Horizon 2020. To ensure the competitiveness of our businesses, we also need to reduce administrative burdens and make the economic environment more conducive to business.

In the area of smart industry and innovation, Horizon 2020 has a particularly important role to play. To restore the European economy's competitiveness, our enterprises need to be able to innovate and rapidly adapt to changing conditions. My overall aim for Horizon 2020, especially through its industrial leadership policy, is to ensure that it prioritises activities targeted at industrial

and commercial success, both via the drafting of its work programmes and thanks to a strong focus on close-to-market projects.

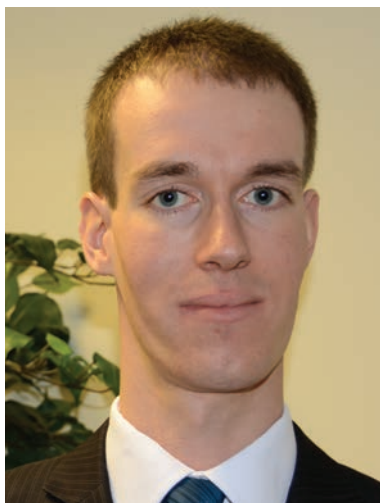
I am firmly committed to helping SMEs thrive: they are the backbone of the EU economy and are responsible for the creation of 85% of all new jobs in Europe. The EU's 20 million SMEs represent 99% of our businesses, and this is why Horizon 2020 provides reinforced support for them, with over 10% of its budget earmarked for SME participation. Horizon 2020 focuses on new forms of innovation and increasing such levels in SMEs. It contains the targeted SME Instrument with a budget of almost €3bn. This instrument aims at helping innovative small companies to obtain funding for market-driven and high-risk research and innovation projects with a clear European dimension. In parallel, stimulating investments in new technologies with a high growth potential, such as Key Enabling Technologies, will also be central to support the industrial renaissance through Horizon 2020.

Over many years, the Commission has developed an extensive network to support SME growth and innovation across the EU, namely the Enterprise Europe Network. Through Horizon 2020, we will be able to pursue activities of the EEN, those that enhance the capacity of SMEs to manage innovation, and those that support cluster activities that foster cross-sectorial and cross-regional links between enterprises.

During my mandate as European Commissioner, I intend to use these strategies to contribute to Horizon 2020's goals of speeding up the development of technologies and innovations that will underpin tomorrow's businesses, and help innovative European SMEs to grow into world-leading companies.

To conclude, I cannot but underline that we will never achieve these objectives alone, without your support of, and participation in, the new framework programme. This is why I invite all of you to seize as many opportunities as possible that will be offered by the EU thanks to Horizon 2020.

Opinions here are only those of the author and do not represent the views of the European Commission.



Jason Edwards

Editor
Horizon 2020 Projects

Welcome to the fourth edition of Horizon 2020 Projects: Portal, the leading, comprehensive and informative journal on the EU's research and innovation framework programme. Since February, the status of Switzerland in Horizon 2020 has been under great uncertainty. In a national referendum, Swiss citizens voted in favour of reintroducing immigration quotas, in direct defiance of a cornerstone of EU fundamental rights, that of the free movement of people. Consequently, the vote had a negative and wide-ranging impact on the country's participation in the framework programme. This edition of Portal carries a special feature on the issue where we hear from leading academics on the decision by Brussels to downgrade Switzerland to a third country. We speak to Professor Dr Patrick Aebischer, president of École Polytechnique Fédérale de Lausanne, who raises concerns about isolationism from the rest of Europe; Professor Dr Roland Siegwart, vice-president at ETH Zürich, who says Switzerland "faces significant disadvantages"; and Dr Peter Erni, director of Euresearch, who outlines the backdrop to this difficult situation.

Following many months of negotiations, a breakthrough deal was eventually agreed between Brussels and Bern in September. Reacting to the agreement that Switzerland will now have associated status to Horizon 2020's Excellent Science pillar, Portal hears the thoughts of Dr Raymond Werlen, secretary general of the Rectors' Conference of the Swiss Universities, on what this outcome now means for Swiss research institutions.

Elsewhere, the coming month sees a new College of Commissioners take charge in Brussels, with Jean-Claude Juncker selected as the new president. With the second presidency of José Manuel Barroso drawing to a close, Portal took the opportunity to speak to a number of outgoing commissioners on their recollections of past progress and their thoughts on the future. Health Commissioner Tonio Borg, Education and Culture Commissioner Androulla Vassiliou, and Agriculture Commissioner Dacian Cioloş all provide wide-ranging reflection on the last College, whilst

Ferdinando Nelli Feroci, who took over from Antonio Tajani as Commissioner for Industry and Entrepreneurship, provides the Foreword to this edition.

At the same time as we consider Switzerland's difficulties in gaining access to Horizon 2020, five Balkan states and one eastern European country have become the latest associated countries to the EU framework programme. Thus, in a special regional focus, we hear from the science ministers of Serbia, Montenegro and Bosnia and Herzegovina on how they are looking to capitalise on their successes in FP7, and we carry comment from Ukraine as the Kiev administration continues to look westwards at a time of deep division for the country.

The third of this edition's special features concerns EU Sustainable Energy Week 2014. Travelling both to Brussels and Nottingham in the United Kingdom, Portal hears from Vincent Berrutto of the Executive Agency for Small and Medium-sized Enterprises in the European Commission on how the EU is meeting the 20-20-20 targets, as well as the Union's support to public bodies to help increase energy efficiency. In the heart of the UK's East Midlands region, Portal also investigates first-hand how Nottingham City Council is transitioning to a sustainable energy city, and the research and development of the high energy, high power supercapattery.

This summer also saw the launch of the first calls of the new JTI under the European Commission's €22bn Innovation Investment Package. We speak to Michel Goldman, executive director of IMI2, on the JTI's investment in Type 1 diabetes and retinal disease research; Patrick van Leeuwen of the Bio-based Industries Initiative on establishing a new public private partnership for the bioeconomy; and Massimo Garbini of the SESAR Joint Undertaking administrative board on the next phase of creating a European air traffic management system.

To open the fourth edition of a new publication is a great privilege, and I hope you find this issue as interesting and informative a read as I have found in its creation. As ever, I welcome any comments you may have.

Patrick van Leeuwen, public affairs & stakeholder relations co-ordinator at the Bio-based Industries Consortium, sets out the development of this new JTI, part-funded by Horizon 2020 and key industrial actors

Green waves

The year 2014 will be remembered as a European landmark. The EU, in partnership with industry, has rolled a €20bn investment package into sustainable growth and jobs achieved through research and innovation. Innovative approaches and bold ideas guided by a clear vision involving both public and private sectors are essential to address our collective societal challenges.

In July, the EU and industry jointly launched the first call for proposals of this new wave of public private partnerships (PPPs) forming the Innovation Investment Package aimed at tackling Europe's major challenges. The Bio-based Industries (BBI) Joint Technology Initiative (JTI), also referred to as the Bio-based Industries Initiative, is a 'new kid on the block', since four of the JTIs have already enjoyed seven years of existence and have been renewed for the period 2014-2020.

Origins

The idea of creating a new PPP on bio-based industries was born on the premise that Europe had it all in its backyard to deploy a competitive European bioeconomy. It was 'only' a matter of bringing several key sectors together, leveraging years of accumulated research, drafting a joint vision and an accompanying Strategic Innovation and Research Agenda (SIRA), and getting the EU to buy in to de-risk an otherwise too risky venture for individual sectors or companies to do alone. It was in this context that the Bio-based Industries Consortium (BIC) was created, an international association to represent the private sector in the new PPP. The BIC hosts a unique mix of sectors –including agriculture, agro-food, technology providers, the forest-based/pulp and paper sector,



Patrick van Leeuwen

chemicals and energy – and is set to enlarge its scope over time as more members and sectors join.

The political case for this new initiative is simple: it lays down the foundations of the post-petroleum society, contributing to meeting EU climate change targets; it creates a new economy with a strong emphasis on regional development, hence boosting sustainable growth and jobs; and it sources and produces bio-based products such as food, feed, chemicals, materials and fuels locally, reducing the EU's dependency on imports. The initiative also attracts private investment within Europe, enabling the Union to compete in the global bioeconomy race, especially with the United States, Brazil and China. One could argue that the Bio-based Industries Initiative ticks virtually all the boxes in terms of addressing society's major challenges, all of which require urgent action.

In 2012, the European Commission proposed a strategy on 'Innovating for Sustainable Growth: A Bioeconomy for Europe,' calling for EU action in this promising and emerging sector. It recommended a European PPP as one of the most appropriate instruments to execute the strategy.

Establishing a new PPP

In July 2013, the Commission proposed a regulation to establish the Bio-Based Industries Joint Undertaking (JU), the official legal entity that will be responsible for the management of the PPP. Besides the operational details, it formalised the public and private commitments of realising the bioeconomy potential in Europe into an official partnership worth €3.7bn between 2014 and 2020. The European Commission will contribute €975m through Horizon 2020, whilst the BIC, comprising industry, will provide just over €2.7bn.

The BBI JU formally came into existence in June, when it was published in the *Official*



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Journal of the European Union, and the first calls for proposals were launched in July.

The BBI PPP is a new initiative, and like any new venture, the main challenge is to mobilise key actors, agree on objectives, speak the same language and make it happen. In less than two years, we have made significant progress, from being nowhere, to launching the first call for proposals in just a few months. The BIC comprised 30 founding industrial members in 2013, growing to 70 members in 2014. Similarly, the BIC's associate members (RTOs, universities, associations and technology platforms) have grown from ten members in 2013 to more than 100 in 2014. These are certainly encouraging developments in line with the BIC's main purpose, namely to identify and attract industrial and research expertise across Europe so as to develop annual work programmes that reflect market realities.

Throughout the legislative process, the Commission, EU member states and the European Parliament have been very supportive, acknowledging the potential of this initiative in tackling Europe's societal challenges and thus deeming it a worthwhile investment of EU public money. EU citizens will get close to €3 back for every single euro invested thanks to industry's €2.7bn commitment, the highest leverage achieved among the package of PPPs.

The success of the BBI relies not only on the number and quality of projects that will be selected and implemented over the next ten years but also on the synergies that can now be created between various sources of

Growing the bioeconomy in 2014

At an event in Brussels in July, the first calls for proposals were launched for the new Bio-based Industries Joint Technology Initiative. The calls will receive around €50m from the European Commission, along with €150m from industry. The package contains a total of 16 topics, including five demonstration actions and one flagship action; initial calls include developing new sustainable pulping technologies, nutrient recovery from bio-based waste streams and residues, and large-scale, cost efficient manure valorisation.

The BBI has also detailed three key priorities for the PPP in 2014. Firstly, the BBI aims to foster high potential initiatives that aim to double the share of bio-based chemicals produced in Europe in the short and medium term, thus helping to increase the market share of bio-based polymers and composites and increase the value of agro-food residues. The BBI also aspires to ensure sustainable bio-refinery approaches in the medium and long term. This action requires R&I activities to increase biomass mobilisation by 10%, and to reduce imports of protein for feed by 15% and fertiliser components used for feedstock production by 10%.

Finally, the BBI aims to address complex, long term issues, and therefore R&I activities focus on achieving sustainable processing of lignocellulosic biomass and intend to increase waste along with byproduct utilisation by 15% by 2020.

Adding his thoughts at the launch of the calls, Peder Holk Nielsen, chief executive of BBI industry partner Novozymes, said: "The BBI 2014 Call for Proposals is the first step in a long term strategy that will deliver tangible social, economic and environmental results. It is the outcome of a year-long effort involving the Commission and the industry, following an extensive consultation of experts and stakeholders. It is a visionary call that lays the foundation for an increasingly ambitious and successful initiative."

funding such as the European Structural and Investment Funds. Such synergies are crucial in order to financially top-up selected projects under the BBI so as to create a favourable regional (bioeconomy) ecosystem. Regions' so-called 'Smart Specialisation Strategies' will be instrumental in giving a sense of purpose to otherwise isolated projects that would be implemented in their backyard.

It's only the beginning and much still needs to be done, but it's a very promising future that we are about to unleash.

HORIZON 2020

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