

Key Messages Joint Statement on the European Innovation Council (EIC)

Leuven (BELGIUM), 27th April 2016

This statement contains the joint position of over **50 leading European universities of science and technology from 24 countries** and highlights our **shared views on the European Innovation Council (EIC)**.

- The EIC should strengthen the role of the universities in regard to disruptive innovation by adopting novel approaches to supporting innovation eco-systems and to funding bottom-up science-driven innovation projects complementary to the existing European innovation funding instruments. It should not be designed as a one-stop-shop covering the entire innovation chain.
- The EIC can learn from the European Research Council (ERC), particularly concerning lean and quick procedures and decision-making.
- An independent entity with a primarily executive function within the European Commission and governed by a high-level council is recommended.
- The EIC should bridge between the ERC (TRL 1 to 3) and venture capital and the European Investment Bank (EIB) (TRL 7 and higher).
- The EIC should offer a portfolio of instruments (TRL 4 to 6) consisting of support to innovation eco-systems, a Proof of Concept (PoC) scheme and funding to develop scalability options and high risk and high gain science-driven business ideas for product and services innovation.
- The EIC should set clear criteria for evaluating excellent innovation, as well as carefully monitor the outcome of the funded projects and highlight successes.
- The different roles of the various European innovation initiatives - such as EIC, EUREKA, the European Institute for Technology (EIT), the European Investment Fund (EIF), the European Fund for Strategic Investments (EFSI) and ERC PoC - need to be further clarified.
- The EIC should aim at becoming a `seal of excellence` leveraging more private and public funds for innovation and not be funded under Horizon 2020.

Full text

Joint Statement

on the European Innovation Council (EIC)

Leuven (BELGIUM), 27th April-2016

Contributing universities of science and technology

Representing over 50 leading European universities of science and technology from 24 countries, [CESAER](#), [EuroTech Universities Alliance](#), [IDEA League](#), [CLUSTER](#) and [Nordic Five Tech \(N5T\)](#) present our joint vision and contribution to the European Innovation Council (EIC). We herewith respond to the [call for ideas](#) on the EIC closing on 29th April 2016 and provide [input](#) for the Senior Innovation Adviser of the European Commission. As research-performing universities, schools and faculties of science and technology, we are committed to high-level research-based engineering education, cutting-edge competitive fundamental and applied research with significant societal impact and close co-operation with business, industry and the public sector towards innovation. We seek continuous improvement in and integration of education, research and innovation and contribute to boosting sustainable economic, societal and environmental development and to driving regional innovation.

Complexities of innovation support

Supporting innovation is different and more complex than supporting education and research, as the overarching purposes are different. While the purpose of publicly funded education and research is open and precompetitive, the purpose of innovation, on the contrary, often is to generate private wealth or other competitive advantages in the case of innovations within public services. Therefore, **using public funding for innovation both from the side of government and from the universities of science and technology can be difficult if not market-distorting**, since no private third party may be favoured nor taxpayers' money used to intervene in markets.

The innovation process is often depicted as a funnel with a broad search for novel technological and social business ideas, careful filtering and selection of a few for support, venture formation and finally a global growth phase for those who exit the coaching and incubation process successfully. The growth phase often requires serious capital and may last from five to ten years. Hence, there are clearly two parts of the overall funnel process: an input side dealing with the flow of persons and ideas, verification and coaching and an output side requiring commercial support for actual companies. Clearly, the input and output aspects of innovation need to interact, but they are of different character and should be funded by different instruments, accommodated within separate funding institutions. In our opinion, the **EIC should focus on the input and coaching aspects of innovation**. Consequently, and despite its importance for the commercial success of innovations, we believe that the EIC should neither address the increase of availability of risk capital nor the simplification and harmonisation of business regulations. In addition, it should not support innovation according to the design processes followed for supporting education and research. As many European innovation funding instruments already exist, the **EIC should fill in gaps, focus on the identification of persons and ideas and thus be complementary to the existing European innovation funding landscape**. Moreover, the roles of the various European innovation initiatives – such as EIT, EUREKA, the European Investment Fund (EIF), the European Fund for Strategic Investments (EFSI) and the ERC Proof of Concept (PoC) – need to be further clarified and aligned in a common overarching European innovation strategy.

Important role of fundamental research in delivering innovation

Both curiosity-driven as well as use-inspired fundamental research performed by universities of science and technology have led to many unexpected breakthrough technological and social innovations. Such disruptive innovation projects can only arise and be successful if there is an openness towards ideas and new knowledge and such innovation projects are supported in the earliest stages. Excellent research activities thus lay the foundation for ‘market-creating’ innovation and investment in such research is essential. What is missing at the European level is a **bottom-up instrument** to prevent the death of successful, unconventional projects that fall outside the remit of existing top-down instruments. In order to complement existing EU innovation funding schemes, the **EIC should adopt novel approaches to fund bottom-up science-driven innovation**. We are convinced that an EIC - if designed implemented and operated accordingly – can identify game changing technologies and boost disruptive ‘market-creating’ innovation originating in universities to overcome the ‘Valley of Death’ in Europe.

Learn from the European Research Council (ERC)

To an extent, the EIC can learn from the excellent approaches and work of the ERC. The exclusive bottom-up approach, selection purely on excellence, fierce competition, funding offered to the best principal investigators and linking excellence with the most competitive team and environment are of importance in this respect. Accordingly, the EIC should also **fund the best minds and concepts** without top-down prioritisation. In our view, **a bottom-up approach is crucial** to stimulate true competition among places and institutions in attracting **the best (young) inventors, innovators, business founders and entrepreneurs and in realising their ideas**. Another important aspect to learn from the ERC is that local anchoring and geographic focus of an individual project is essential for success and should therefore not be diluted with requirements for international collaboration. In case of mono-beneficiary grants, the **European dimension is sustained at the programme rather than at project level**.

Mission and legal entity

The EIC should be an independent entity within the EC with a **primarily executive function** (support of innovation eco-systems and funding of innovation projects) as its mission. It should be **governed by a high-level and autonomous council** with representatives from academia, business, industry, public sector and venture capital from Europe and beyond – comparable to the Scientific Council of the ERC. This council should provide strategic leadership, develop the concept and shape the instruments, monitor the implementation, improve the entire working of the EIC and advise on the integration and complementarity of the EIC within the broader European innovation strategy. Although we acknowledge the need for a slimmer and optimal regulatory framework for innovation, we caution against attributing a policy advisory role to the EIC, as there are already many such bodies and initiatives at European level.

Portfolio of instruments

Marketable innovations can be successfully developed with an appropriate balance between fundamental research, applied science and industrial application. Outstanding approaches to develop innovations (Technology Readiness Levels TRL 4-6) are not predictable and often are doomed to failure because of a delay in getting to market and insufficient financial means. Although industrial partners would be interested, the risks to invest own financial means are often felt too high. Therefore, the **EIC should bridge between the ERC (TRL 1 to 3) and venture capital and the EIB (TRL 7 and higher)**. The EIC’s **support and financial instruments should have a clear progression of size and type**, from moderate-sized to larger grants. The level of funding and the actions should be linked to the technological risk categories, i.e. grants funding 100% of project costs with high technological risk and eventually prizes providing less funding for projects with lower technological risk:

- An open Proof-of-Concept (PoC) scheme aimed at bridging fundamental research and demonstrations of PoC that stimulates up-take by industry and is attractive to potential investors.
- Support innovation eco-system players helping innovations to develop and scale up on the global market. In particular, incubators at different levels constitute an indispensable ingredient in supporting emerging entrepreneurship. In addition, SME

networks and various triple helix organisations play important roles. Grants supporting such players could strengthen the capability to coach start-ups and entrepreneurs, again increasing the number of scientific ideas and business concepts that actually reach the commercial stage. Structures targeting successful beneficiaries of the PoC scheme and tailored to the beneficiary in question to develop scalability options for their concept and market testing routes are of particular interest. Mentors are essential for the success of early concepts and inventions.

- We advise pilot funding of high-risk and high-gain science-driven business ideas for product and services innovation from publicly funded knowledge institutions, operating over the borders of scientific fields and economic sectors and at the intersection between tech and non-tech innovation, based on allocation of additional funding. Portability should be allowed.

We do **not recommend creating a one-stop-shop under the EIC covering the entire innovation chain**. Only those instruments that are in line with and support the above-mentioned mind-set and intent should be considered within the realms of the EIC. It is crucial that the EIC builds on Europe's strong basis in fundamental research, derived from universities. Furthermore, the EIC should leverage more private investments into high-risk innovation projects and thus link excellent inventions to venture capital and the EIB.

Activities

The EIC should build on the expertise of its council to undertake the following activities:

1. **set clear and transparent criteria for evaluating excellent innovation**, including the implementation and monitoring of the evaluation system and overall working of the EIC, with a view to ensuring its continuous development and improvement;
2. **evaluate both technical and business ideas and the quality and commitment of the person/group intended to execute the project** (see evaluation);
3. **fund the best projects through a portfolio of instruments**, including high technological risk (low TRL 100% EIC) and mid risk (mid TRL co-funded by EIC when private money is invested as well) thereby adopting a flexible approach to the definition

of beneficiary: from mono-beneficiary to multi-beneficiary grants also involving regional innovation incubators;

4. **monitor the funded projects** to establish a learning process of best practice for supporting the project to move towards implementation;
5. **identify and highlight best practices and showcase successes** fostering a culture of creativity, risk-taking and entrepreneurship.

Evaluation of applicants and projects

The EIC should focus on selecting scientific and business-related excellence as input for innovation by drawing on existing best practices at institutional, regional and national level. This would include strict scrutiny of the proposed innovation development plans for e.g. IPR protection, achieving technical milestones, business development, business canvas, design of product and linking them to venture capital.

We emphasise that the EIC must embrace the challenge in identifying suitable evaluators, spotting true entrepreneurship and refining good opportunities for disruptive innovation. We advise to seek experts from academia (alumni, professors and young entrepreneurs), business, industry, technology centres, incubators and public (innovation support) services from Europe and beyond. A two-stage peer review procedure is proposed involving evaluation by independent experts followed by a hearing.

Funding

The high oversubscription and generally very low application success-rates in Horizon 2020 and the cuts in the Horizon 2020 budget in the framework for the European Strategic Investment Fund (ESFI) are of great concern to our universities. Therefore, the EIC should not be funded from the existing Horizon 2020 budget. Importantly, evaluation by the EIC should become a 'seal of excellence' for projects proposed to the EIC and evaluated above the quality-line, but below the funding line of EIC, to be funded under alternative funding sources, including private and national funds and the European Structural and Investment Funds (ESIF). Moreover, the use of a co-funding mechanism leveraging more private and national investments into high-risk innovation projects could be explored.

Our commitment to cooperate and contribute

As key stakeholders in European higher education, research and innovation, we are committed towards working together with the European Commission, Member States and the European Parliament as well as with other stakeholders and institutions in further developing and setting up the EIC. We are prepared, committed and motivated to offer our expertise, to provide constructive input and to share best practice.

Contact and more information

For more information and enquiries, please contact the CESAER Office at Kasteelpark 1 in 3001 LEUVEN (BELGIUM), at info@cesaer.org or any of the other four associations of universities of science and technology.

CESAER, The Conference of European Schools for Advanced Engineering Education and Research, is a non-profit international association of fifty leading European universities of science and technology and engineering schools/faculties at comprehensive universities and university colleges from 24 countries. We stand for scientific excellence in engineering education and research, and the promotion of innovation through close cooperation with industry in order to ensure the application of cutting-edge knowledge in industry, public services and society. CESAER maintains and promotes the highest quality standards. CESAER's mission is to:

- serve as a close network and platform for mutual learning of universities of technology;
- contribute proactively to European developments by conducting a permanent dialogue with and influencing European institutions and stakeholders;
- inspire reflections and policy decisions of stakeholders at European and national level;
- foster public understanding of the role of engineering in societal and economic development considering the principles of sustainable development.

<http://www.cesaer.org/>
<http://www.cesaer.org/en/members/>

CESAER
conference of european schools
for advanced engineering education
and research

The **EuroTech Universities Alliance** is a strategic partnership of four leading European universities of science & technology. Technical University of Denmark (DTU), Ecole Polytechnique Fédérale de Lausanne (EPFL), Eindhoven University of Technology (TU/e) and Technical University of Munich (TUM). Together they are committed to finding technical solutions which address the major challenges of modern society. Their intensive collaboration across research, education and innovation support the EU's goals of smart, sustainable and inclusive growth.

See also:

- [EuroTech Universities Focus Area on Entrepreneurship & Innovation](#)
- [EuroTech Universities Alliance Policy Paper on Nurturing the Entrepreneurs of Tomorrow \(June 2015\)](#)

For more information, please contact: info@eurotech-universities.eu

<http://eurotech-universities.eu/>

**EuroTech Universities**
★ ★ ★ Excellence in Science and Technology

CLUSTER, The Consortium Linking Universities of Science and Technology for Education and Research, is a consortium of 12 elite European Universities in Science and Engineering (and architecture) with associate members from around the world. CLUSTER represents a Multi-location European University of Science and Technology with about 3,000 professors, 11,000 academic staff, 14,000 PhD students, with more than 140,000 students. In a world facing unprecedented challenges, engineering, science and technology play a central role. The wellbeing of our society depends on our answers to such challenges, that cannot be founded by a single nation or engineering discipline. Instead, they call for truly international, multi-disciplinary collaboration and a new mind-set. It is thus largely in our hands to breed a new generation of engineers with leadership and entrepreneurial skills. CLUSTER is an active platform in the promotion and creation of frameworks aiming to tackle these societal issues. CLUSTER evolved from being focused only on Engineering Education to be, nowadays, acting on the so-called knowledge triangle comprising education, research and innovation. For more information, please contact: info@cluster.org

<http://www.cluster.org/>



The **IDEA League** shares best practice at all levels; members learn from each other, benchmark and share intelligence. The areas of cooperation include education, research and innovation. Currently, the IDEA League has over twenty working groups ranging from strategic committees to ad hoc groups dealing with short-term issues. The IDEA league consists of Delft University of Technology (Netherlands), Swiss Federal Institute for Technology Zurich (Switzerland), RWTH Aachen University (Germany), Chalmers University of Technology (Sweden) and University Politecnico di Milano (Italy). For more information, please contact: W.M.Dicke@tudelft.nl

<http://idealeague.org/>

IDEA League

Nordic Five Tech (N5T) was established in 2006 and is an exclusive, strategic alliance of the five leading technical universities in the Nordic Countries including Aalto University in Finland, Chalmers University of Technology in Sweden, Technical University of Denmark, KTH Royal Institute of Technology in Sweden and Norwegian University of Science and Technology (NTNU). Based on Nordic values and tradition of collaboration, Nordic Five Tech aims to utilize complementary strengths within education, research and innovation. The ambition is supported by joint activities including joint master programmes, PhD course collaboration, peer evaluation of educational programmes, academic and administrative networks and task forces. The mobility of students and staff is promoted with a vision to making use of the combined infrastructure, competence and activities at the extended campus of the universities. For more information, please contact: prodekanus@kth.se

<http://www.nordicfivetech.org/>

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