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NOTE

From: ERAC Secretariat
To: Delegations
Subject: ERAC Opinion on the idea of a European Innovation Council

Delegations will find attached the ERAC Opinion on the idea of a European Innovation Council, as adopted by written procedure.

ERAC Opinion on the idea of a European Innovation Council

Executive summary

Innovation is essential in terms of European growth, employment and competitiveness, tackling societal challenges. Therefore, a constant focus on improving Europe's innovation capacity and its ability to scale up innovative businesses will support the aim of making Europe “the place” for world-class innovation. Against this backdrop, the Commission launched the idea of a European Innovation Council (EIC) in June 2015¹.

As part of its role as strategic policy advisor to the Council, the Commission and Member States, the European Research Area and Innovation Committee (ERAC) welcomes the discussion on the need for improvement of Europe’s innovation capacity via a possible EIC. In this Opinion, ERAC presents its preliminary input to the further discussions on an EIC and underlines the importance of innovation as an integral part of the ERAC agenda.

ERAC stresses that implementation of all ideas and measures related to an EIC should be made in full respect of the principle of EU added value and should complement national activities in line with the principle of subsidiarity. ERAC finds that further analyses of EU’s innovation capacity and the need for concerted EU action, as well as thorough evaluation of existing EU-instruments, should form the basis for further developing the concept of an EIC. Therefore, thorough analyses, in particular of the dynamism of market-creating innovation, conditions for scaling-up of businesses, the economic potential of innovation and of what constitutes EU added value in this context must be conducted.

¹ In April 2016, an open, public call for ideas resulted in more than 1000 responses from across Europe. A feedback statement on the outcome was published by the European Commission in July 2016.

In general, ERAC emphasises that the capacity for innovation is interlinked with not only an adequate set of instruments in support of research and innovation but also with a complex set of framework conditions across sectors and levels of governance. These should be closely monitored and optimised in order to make the EU innovation ecosystem more innovation-friendly. In the short term breakthrough, market-creating innovation, including both disruptive and incremental innovation, should be boosted through adjustment of existing instruments in Horizon 2020. In the longer term, it is of vital importance to better translate investments in research and innovation into productivity gains and ultimately future prosperity, employment and growth by designing an optimal framework programme, which address the European innovation challenge. One cross-cutting issue is achieving a better gender balance as well as attracting international talents make full use of the total talent pool. At the same time geographical balance should be duly taken into account.

ERAC notes that a successful boost of EU's innovation capacity is not about the creation of additional bodies or instruments in the already crowded and complex European innovation support landscape. An EIC should not be seen as a council, but rather as a compilation of aligned initiatives and measures to boost innovation in a broad sense with a focus on market-creating innovation and scaling-up of businesses. For that reason, a European Innovation "Council" may not be the most appropriate term, and the structure of an EIC should not be determined before the tasks and objectives are agreed upon.

ERAC is determined to contribute to the overall strategic discussions on the European innovation challenge, and looks forward to being further involved in the work ahead. ERAC calls upon all ERA-related groups to take note of these recommendations, and consider how they can underpin the implementation of the recommendations within their own remit.

Recommendations

In this context, ERAC would like to contribute to the process with the following recommendations:

In general,

In full respect of the principle of EU added value, European innovation performance should be boosted and the impact of EU research and innovation instruments should be maximised², including through simplification of and reinforcing synergies between existing instruments.

Framework conditions for innovation and entrepreneurial activity should be further strengthened in particular by full implementation of the Single and Digital Market, taking into account the possible implementation of the Innovation Principle and Innovation Deals.

Knowledge circulation and co-creation should be boosted and measures for supporting entrepreneurial thinking and behaviour should be developed more systematically. Innovators should be supported in their efforts to look beyond national markets, e.g. targeting the Single Market and thereby grow and scale up into world class businesses.

In terms of introducing new expert groups to provide strategic advice on the implementation of reforms of research and innovation instruments, this should be clearly differentiated from existing advisory mechanisms and overlaps should be avoided. ERAC's impending work on the streamlining of ERA-related groups and other expert groups should be duly noted in this regard.³

In the short term,

As part of the last work programmes of Horizon 2020 the ideas in relation to an EIC could be tested, e.g. with Open Innovation as a focus area. The SME instrument, possibly together with a continuation of the Fast Track to Innovation (FTI)⁴, could function as the core of a first phase by increasing the support for bottom-up, high risk and market-creating innovation.

² Taking due account of the outcome of the interim evaluation of Horizon 2020.

³ Summary conclusions of the 30th meeting of ERAC (ERAC 1208/16)

⁴ Depending on the outcome of forthcoming evaluation of FTI.

Based on thorough evaluation, the relevant EU innovation support instruments should be further coordinated, streamlined and simplified, e.g. by working towards a single portal/dedicated section of the Research and Innovation Participant Portal, designed and managed in a more flexible way. Fast, flexible and agile procedures should be adopted, including timely drawdown/cut off of funding, possibly through a “stop and go” mechanism.

The human capital behind a given proposal should be evaluated in terms of credibility, resources, capabilities, competences, management skills and support needs, e.g. via thorough personal interviews, pitches etc. of a selected number of applicants. The likelihood of commercial success and/or value creation as well as profitability and expert opinion by investment professionals should be an integral part of the evaluation process, where appropriate.

Top-class coaching, advice and mentoring, including exchange of experience and best practice and network development should to a further extent complement existing instruments.

In order to promote the best and most innovative ideas a wider and more targeted use of recognition and inducement prizes should be explored and evaluated in due time.

In the longer term,

The impact of the EU framework programmes should be maximised and the design of the next framework programme should effectively address the European innovation challenge. In that light, a merger of instruments should be envisioned with a view to possibly reducing the number of instruments and intermediaries while increasing agility and collective impact. Competition for supporting the best and most excellent proposals should be an integral part of the next framework programme. Market-creating innovation and scaling-up should be promoted primarily through dedicating part of the budget to genuine “bottom up”, open-ended calls.

Financial instruments and programmes under the framework programmes should be streamlined and close collaboration with other actors and complementarity with other programmes should be ensured. It should be explored how best to stimulate access to finance for scaling-up for businesses and further development of the crowd-funding market.

Overall reflections and considerations

Innovation is at the heart of the EU's efforts to remain competitive in the global economy and is a key driver for the creation of prosperity, growth, employment and tackling societal challenges. Europe's economy is fundamentally driven by the flow of ideas to create new and better products, services, processes and business models. Europe continues to be at the forefront when it comes to fostering groundbreaking scientific discoveries, but faces difficulties when it comes to transforming new ideas into scalable, viable, innovative businesses and markets, thereby not fully using the potential for creating societal value, prosperity, growth and employment in Europe. Indicators seem to point to Europe falling behind its global counterparts and competitors when it comes to its innovation capacity.⁵

Globalisation has changed the standard value chain towards a complex system with a multiplicity of actors and new business models. One of the crucial factors for global competitiveness is the ability to embrace continuous change. Success also depends on recognising and exploiting the potential of technological transformations for disruption at an early stage. Moreover, the accelerated speed of technological development provides a new dimension and underlines the urgent need to address breakthrough innovation and scaling up of innovation where Europe is increasingly losing pace. Innovation processes are complex by their very nature, and innovators often perform different types of innovation simultaneously. The innovation "ecosystem" consists of an array of different actors and resources – private and public – that contribute to developing innovation in the complex European knowledge-intensive economies. Combined, these factors make it challenging to identify more concretely the societal and economic impact of innovation, thus making it equally challenging to identify simple and tangible solutions to the European innovation challenge.

⁵ The report "Science, Research, and Innovation Performance of the EU" issued by the European Commission, <http://bookshop.europa.eu/en/science-research-and-innovation-performance-of-the-eu-pbKI0415512/>

A contemporary understanding of innovation requires accelerating the move from a linear to a systemic perception of innovation. The Open Innovation concept takes account of this new perspective. The translation of basic research investments is one, but not the only starting point for the unleashing of the innovative entrepreneurial spirit. When actors from different spheres (not least from the sphere of research) and different disciplinary angels, each with their own needs and tools, are successfully brought together, it may inspire creativity and innovative co-creation. Such innovation also comprises social and organisational innovation. As a consequence, knowledge circulation becomes increasingly important. A true grand challenge based approach can stimulate this and also pave the way for a rapid scale-up through potential global demand.

Across Member States, the innovation challenge is perceived and handled in various ways. Whereas some national policies are designed to reverse decreasing private investments in research and innovation or to address market failure, others focus on the availability of innovation support or on addressing societal challenges and bringing forward solutions. Furthermore, the responsibility for addressing framework conditions for innovation is often spread across sectors and levels of government. Whereas one measure may have positive impact in some parts of the ecosystem it can have negative spill-over effects in other parts. Combined, this makes a complex and ever-evolving innovation ecosystem where coherence does not come naturally, but rather must be shaped and re-shaped continuously. Thus, there is no one solution or quick fix to the innovation challenge, and indeed parts of the equation are even entirely out of the realm of public policy.

In order to respect the principle of subsidiarity, innovation support at European level should complement and add value to support at local, national and inter-governmental levels and thus contribute to a higher degree of coherence throughout the whole EU innovation ecosystem. Exchange of best practices in terms of national innovation policies is central, as national practices and framework conditions play a pivotal role in the context of Open Innovation. In addition, global innovation initiatives and practices can - to a higher degree than today - serve as inspiration.

General framework conditions

Numerous, interrelated factors related to the general framework conditions have a substantial effect on the innovation capacity, and should therefore be taken into account when assessing the need for a more innovation-friendly ecosystem. These factors include inter alia governance, the regulatory framework, and its implementation, including state aid regulations, digitalisation, access to finance, as well as cultural factors and mind-set. Consequently, at EU level, innovation is not merely concentrated in DG Research and Innovation but is a shared area of responsibility across the Commission DGs. The same applies for the institutional set up at national level.

Unnecessary legal barriers, non-supportive, unclear or unpredictable regulatory frameworks, shortcomings in implementation and regulatory gaps are among the bottlenecks hampering research and innovation. Well-designed regulations in line with the Better Regulation agenda are central in order to stimulate innovation. The Innovation Principle as well as the new concept of Innovation Deals⁶ may potentially contribute to removing or hindering innovation barriers arising from existing EU law or Member State implementation, and thereby improving the framework conditions in relation to Open Innovation.

The Single Market for products and services continues to be the primary engine for economic growth in the EU and should therefore be further strengthened, as it is pivotal for market-creating innovation and viable scaling-up⁷. A regulatory framework that is able to adapt to the pace of change of new technologies and new forms of innovation is an imperative for innovative products and services to enter the market and for innovators to benefit from the scale and scope of the Single Market.

⁶ The conclusions of the Council (Competitiveness), May 2016.

⁷ The updated Single Market Strategy, COM(2015) 550.

Also, innovation heavily depends on and contributes to digitalisation - and digital data is a catalyst for innovation and for building a data economy. Digital innovation requires high-speed, secure and trustworthy infrastructures and content services, supported by the right regulatory conditions for innovation⁸. The European Cloud Initiative and recent initiative on online platforms and the Digital Single Market are to be noted in this context⁹. The transition towards “Open Science” should also be taken into account¹⁰.

Stimulating knowledge circulation and promoting a culture of innovation

Innovation also hinges upon sufficient and dynamic knowledge circulation to and from the commercial environment as well as excellent research institutions and other actors. The recent shift towards Open Innovation relies on increased flows of knowledge and new types of cooperation and co-creation between education and research institutions, research organisations and businesses as well as users, citizens and financial actors who play an increasing important role in the open innovation eco system.

Europe should be able to attract the best innovation talents globally. Cultural variations between industry and academia should not be seen as opposites but rather as a potential for synergy and complementarity. Excellence, curiosity and the search for impact should be the dominant guiding principles in researchers’ and innovators’ career choices and opportunities. Mobility of researchers and innovators as well further stimulation of knowledge circulation across sectors and borders in and beyond a Europe are thus central elements in long term responses to the innovation challenge.

Respecting Member States’ differences and competence, incentives for further cooperation between academia and industry, including SMEs and the business community in general, should be reinforced. Addressing the underrepresentation of women to ensure the full utilization of Europe’s talent, should be in integral part of this. Boosting innovation capacity in underperforming regions is also important.

⁸ The Commission’s Communication concerning a Digital Single Market Strategy for Europe (COM(2015) 192).

⁹ The Commission’s Communication on the European Cloud Initiative (COM(2016)178) and Online Platforms and the Digital Single Market Opportunities and Challenges for Europe (COM(2016)288).

¹⁰ ERAC Opinion on Open Research Data (Doc. ERAC 1202/16), the Commission Communication of 9 December 2015 on a modern European copyright framework and Council Conclusions (Competitiveness) of May 2016 on the transition towards and Open Science system.

The need for the right “entrepreneurial spirit” and for eradicating barriers in terms of a fear of failure and avoidance of risk-taking are also central elements. Higher education and research institutions have an important role to play in terms of promoting such a mind-set among students and researchers. Innovation talent should be stimulated and geographical imbalances should be taken into account in this regard. Given the increasing percentage of women in higher education in Europe, in light of research pointing to gender differences in terms of risk-taking and fear of failure, any activities should specifically address women and entrepreneurship.

In general, intersectoral collaboration, mobility and the circulation of research, knowledge and ideas should be further stimulated. Initiatives should build on the experience already made by the European Institute of Technology and Innovation (EIT). Further analysis and evaluation by the EIT would be useful and could enable a broader community to profit from their best practices.

Design and governance of support instruments

The proposal for an EIC is a welcome opportunity to ensure that all relevant EU research and innovation-related instruments are strengthened, integrated and/or refocused in order to improve Europe’s innovative capacity. With Horizon 2020 as the biggest multinational research and innovation programme in the world, as well as several other research and innovation support programmes, the EU should be able to unlock the potential of innovation. Overall, a balanced and coherent interaction of instruments along the entire value chain continues to be of central importance. The EIC should therefore not within Horizon 2020 be financed at the expense of basic research.

The EU innovation funding landscape under Horizon 2020 offers a wide variety of financial schemes and support measures along the entire value chain, cf. annex 1. These programmes are complemented by a range of activities and measures e.g. Knowledge and Innovation Communities (KICs) as well as EU financial instruments via EFSI, COSME and ESIF – in terms of loans, guarantees and venture capital channelled through the EIB and EIF. Some infrastructure measures also underpin innovation activities. The European innovation support system is complemented by national and intergovernmental funding instruments (e.g. instruments under EUREKA and COST), which - in line with the principle of subsidiarity - should also be taken into account.

In total, these instruments form a complex and somewhat crowded landscape, which is difficult for potential applicants to navigate. The system of existing innovation support measures within and beyond Horizon 2020, including EFSI, should therefore be subject to a thorough evaluation relative to their individual goals and their effectiveness in achieving these at a European level. The perspective of innovators should be reflected in the organisational design, governance and administration of the relevant instruments.

The outcome of the Commission’s public call for ideas on an EIC underlines a strong need for more coherence, simplification and streamlining. A better overview of the existing support opportunities to possible applicants is needed, and navigating the range of support instruments should be made easier and better tailored to the innovators’ needs. This requires instruments to be professionally designed and managed - as well as flexible. The interim evaluation of Horizon 2020 could start the process of critically reviewing existing instruments and outlining opportunities for synergies between and possibly merging of different funding measures with a view to reducing the number of funding instruments.

Innovation-related instruments under the framework programmes should be tuned to the fast-paced business cycles, including the ability to deliver speedy decisions on applications, and to enable timely drawdown/cut off of funding, possibly through a “stop and go” mechanism. Procedures should be fast, flexible and agile and time-to-grant and time-to-disburse should match time-to-market. Innovation “calls” should be constantly open with frequent cut-off dates and the principle “high-risk/high gain” should be integrated into the evaluation processes.

To better embed competitiveness and commerciality in the mind-set of applicants and increase the likelihood of commercial success or societal valorization, evaluation procedures should be aligned to market opportunities and societal relevance, and scaling-up should be an integral and credible part of the business plan. The commercial capacity of applicants should be evaluated in terms of credibility, resources, capabilities, competences and needs, which may necessitate a move away from paper based assessment alone, to include hearings, pitch sessions or personal interviews as is already the case in the context of European Research Council and EIT. The evaluations could be undertaken by joint panels with credible experts from academia, the business and the investor community with a good understanding of how to turn research and innovation into marketable solutions.

Over time, this could allow the framework programmes to build a stronger brand and reputation as “the place to go” for innovators, ensuring a better profile for the whole European innovation landscape, as well as complementing national innovation support measures in the spirit of EU added value.

The EU should support the best innovators with the most ground-breaking ideas. Instruments supporting breakthrough, market-creating innovation and scale-up of businesses should be truly bottom-up to ensure a faster pace than the work programme cycle usually allows for. This bottom-up support should complement well-proven and successful innovation instruments.

While supporting the best potential innovation, it must be acknowledged that high failure rates among applicants can be a disincentive for participation, particularly among resource constrained SMEs and start-ups. The issue of success rates becomes even more pertinent with bottom-up programmes/instruments and possible solutions to this problem should be considered thoroughly.

The issue of market-creating innovation and scaling-up is not only about money but also about competence. Innovators should receive mentoring and coaching regarding access to finance, both private and public. In addition, top-class coaching, advice and mentoring, e.g. on how to build the best team, on access to customers, commercialisation and supply chains, on internationalisation or on how to scale-up, should be provided, including exchange of experiences and best practices.

To this end, it is important to draw on support already partly or fully funded by the European Commission such as the European Investment advisory hub, the Enterprise Europe Network (EEN), which provides face to face support to SME Instrument beneficiaries, or relevant NCP projects. Under the framework programmes, “matchmaking” activities could be strengthened by fostering mentor/mentee relationships, including activities targeting female innovators.

Targeted challenge prizes, or inducement prizes, that offer a financial reward for the development of solutions for pre-specified challenge could generate competition among innovators across Europe and promote an entrepreneurial spirit. Such awards can provide a strong incentive for the development of innovative solutions and are particularly interesting for areas where market failure is established.

Non-challenge driven awards, or recognition prizes, to excellent innovators – or to higher education and research institutions with excellent strategies for fostering an entrepreneurial spirit and innovation culture - could also incentivise entrepreneurial thinking.

A number of targeted prizes have already been introduced such as the European Union Prize for Women Innovators and annual awards by the EIT. Building on the current experience and pending impact evaluation, the EU should to a further extent stimulate upcoming innovation talents by targeted prizes.

Creating a well-functioning ecosystem for financing innovation

Financing innovation can be a challenge due to its high-risk nature and the fact that it is often capital intensive. Europe's pool of venture capital is to some extent more limited, less diverse and more risk averse, than outside of Europe. With increased risks, losses are unavoidable but it also provides fertile conditions for potential great gains. In addition, access to finance for scaling up in Europe is difficult and the crowd-funding sector is not yet well developed. Apart from attracting more risk willing capital for innovation, there is also a need for matching innovators with venture capitalists, also from outside of Europe. More risk willing capital could be attracted by helping projects become more bankable – for instance by significantly reducing risk in the early phases of innovation processes.

Streamlining and aligning of EU financial instruments and programmes as well as a close collaboration with the European Investment Bank, the European Investment Fund, the European Fund for Strategic Investments, national innovation agencies, and possibly the recently announced Fund of Funds will be key.

Also in this context, the general principle should be to support first-class innovation in a broader sense with a focus on marketability, company growth or societal valorization and with drawdowns/cut off of funding being linked to performance targets, etc. Selection of projects should to a large extent be made by investment professionals who have the knowledge and usually optimal incentives as their own money is potentially at stake. In time, by helping projects become bankable and by reducing perceived risk in the early phases of innovation processes, an EIC could contribute to attracting more risk willing venture capital to Europe.

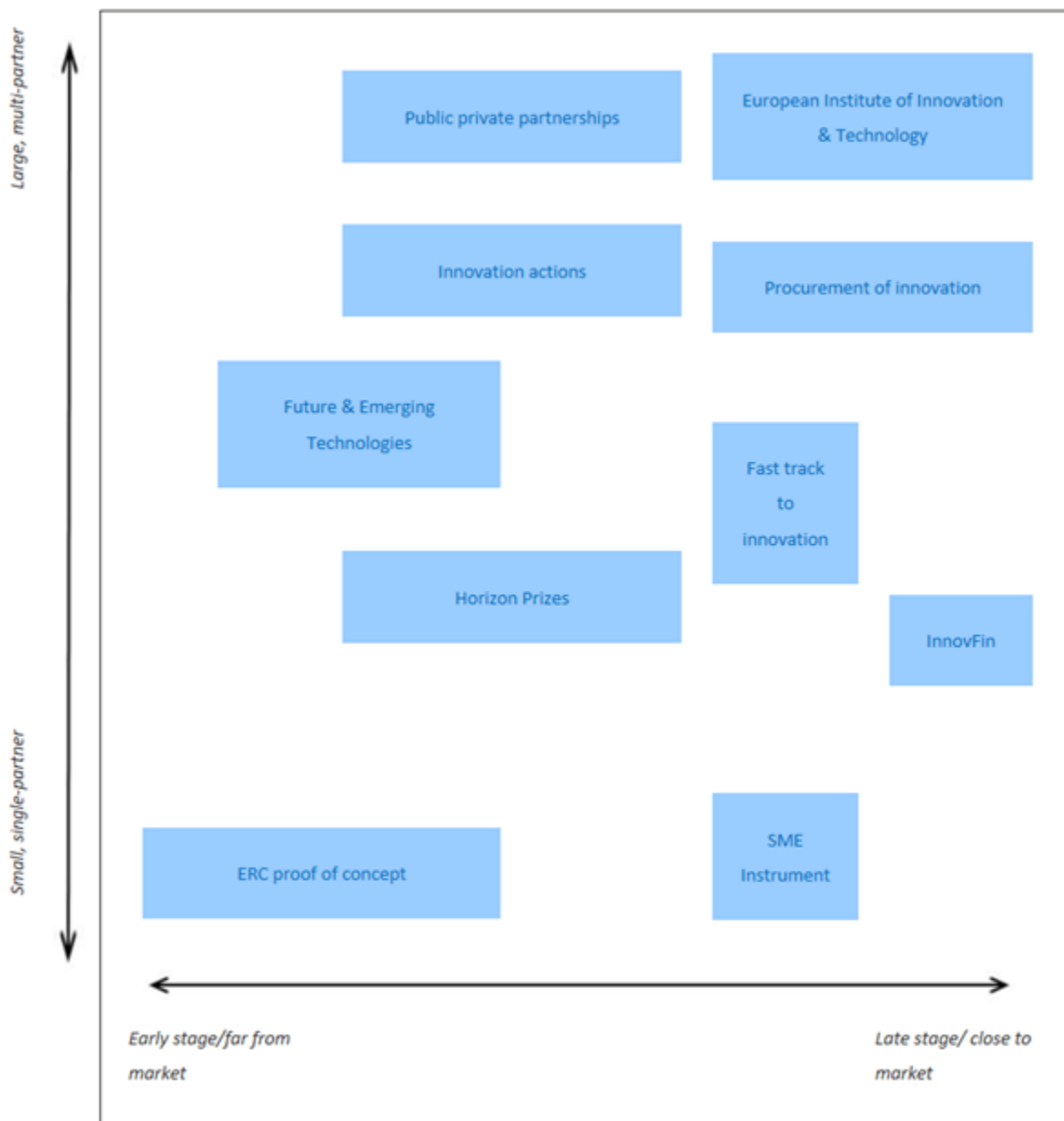
Within the framework of Horizon 2020 care should be taken to ensure that loan-based financing is not further expanded to the detriment of grant-based R&I funding. The use of financial instruments should be fostered in those stages of the research, development and innovation process where leverage effects may be encouraged, also by enabling the use of ESIF and national financial instruments in co-funded actions¹¹.

Advisory body

The Commission's idea of an EIC also refers to the need for a strategic advisory function to improve regulation, policy frameworks and practices – and to speak on behalf of innovators. There are already established a range of different advisory bodies and experts groups related to research and innovation, which all complement the significant competences of the Commission. Therefore, ERAC holds the view that strategic expert advice should only be introduced if there is no duplication with existing advisory mechanisms and the need could not be accommodated by adjustment of the existing advisory landscape. ERAC's impending work on the streamlining of ERA-related groups and other expert groups should be duly noted in this regard.

¹¹ Council conclusions on FP7 and the Future Outlook: Research and innovation investments for growth, jobs and solutions to societal challenges, 27 May 2016.

Overview of innovation support in Horizon 2020



<https://ec.europa.eu/research/eic/index.cfm?pg=background>