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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

**Annual Report on Research and Technological Development Activities of the European
Union and Monitoring of Horizon 2020 in 2018**

REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

EU research and technological development activities and monitoring of Horizon 2020 in 2018

1. BACKGROUND

This annual report on the EU's research and technological development activities and the dissemination of results has been prepared pursuant to Article 190 of the Treaty on the Functioning of the European Union and Article 7 of the Euratom Treaty. It provides a concise, non-exhaustive overview of key measures taken in 2018.

2. POLITICAL CONTEXT

The Communication on *A renewed European agenda for research and innovation – Europe's chance to shape its future*¹, which the Commission prepared for the informal European Council in Sofia on 16 May 2018, placed research and innovation (R&I) at the heart of agenda for jobs, growth, fairness and democratic change, and of preparations for the future of the EU. Against that backdrop, the Commission adopted legislative proposals for spending programmes under the 2021-2027 EU budget, which are now the subject of inter-institutional negotiations.

In 2018, the **EU economy** continued to expand for the fifth year in a row, but global uncertainties are looming. Macroeconomic indicators such as employment and investment returned to pre-financial crisis trends², but sluggish productivity improvements continue to hold back economic growth³. By November, the European Fund for Strategic Investments had supported projects in all Member States for a total investment value of €360 billion, of which two thirds are from private resources⁴. Horizon 2020 has contributed directly to these positive developments, creating around 592,000 new jobs between 2014 and 2018⁵.

The EU kept issues relating to the **digital single market** high on the agenda. Apart from ensuring the protection of personal data, the new General Data Protection Regulation (which entered into force on 25 May 2018⁶) will also support R&I. The Commission supported the mutualisation of national efforts in artificial intelligence⁷. Again, Horizon 2020 played a key role, in particular by supporting the creation of a new joint undertaking on high-performance computing that should ensure Europe's strategic autonomy in this field⁸.

¹ https://ec.europa.eu/info/sites/info/files/com-2018-306-a-renewed-european-agenda- for_research-and-innovation_may_2018_en_0.pdf

² https://ec.europa.eu/info/sites/info/files/file_import/2019-european-semester-annual-growth-survey_en_1.pdf

³ https://ec.europa.eu/info/sites/info/files/rec-17-015-srip-report2018_mep-web-20180228.pdf

⁴ https://ec.europa.eu/commission/sites/beta-political/files/communication_investment_plan_for_europe_nov2018.pdf

⁵ [https://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd\(2017\)220-in-depth-interim_evaluation-h2020.pdf](https://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd(2017)220-in-depth-interim_evaluation-h2020.pdf)

⁶ <https://eur-lex.europa.eu/content/news/general-data-protection-regulation-GDPR-applies-from-25-May-2018.html>

⁷ <https://ec.europa.eu/digital-single-market/en/news/eu-member-states-sign-cooperate-artificial-intelligence>

⁸ <https://ec.europa.eu/digital-single-market/en/eurohpc-joint-undertaking>

Energy and climate remained at the top of the global and European agenda. A special Intergovernmental Panel on Climate Change (IPCC) report to policy-makers highlighted dramatically the urgency of addressing climate change⁹. The Commission continued to implement the EU's energy and climate commitments in line with the 2015 Paris Agreement on Climate Change and the United Nations sustainable development goals (SDGs)¹⁰. Therefore, the Commission implemented the legislation necessary to reach the EU's nationally determined contribution to reduce greenhouse gas emissions by 40% by 2030 (compared to 1990). Furthermore, the European Commission presented in November 2018 its vision for achieving net-zero greenhouse gas emissions by 2050¹¹. The long-term strategy outlines the technological, economic and societal transformations required to achieve climate neutrality, and ensuring a socially fair transition. This level of commitment should underpin the EU's global leadership in this area, consistent with the influential role advocated by President Juncker in his 2018 'state of the Union' address.

3. POLICY FRAMEWORK

Horizon Europe

On 7 June, the Commission adopted its proposals for **Horizon Europe**, the R&I policy framework for 2021-2027 (the period of the next multiannual financial framework). The legislative package consists of proposals for:

- a Regulation establishing Horizon Europe and laying down the rules for participation;
- a Decision for a specific programme implementing Horizon Europe; and
- a Regulation establishing the research and training programme of the European Atomic Energy Community (Euratom) for 2021-2025.

The package seeks to simplify the rules further, while ensuring continuity, e.g. the key principles of EU R&I framework programmes (excellence, impact and openness) will continue to apply. It was drawn up on the basis of extensive consultations with stakeholders and public figures, and other important input, such as *LAB FAB APP – Investing in the European future we want*¹², the report from the independent high-level group on maximising the impact of EU R&I programmes (chaired by Pascal Lamy).

By the end of 2018, the Competitiveness Council had agreed a partial general approach on the main Regulation¹³ and the European Parliament¹⁴ had endorsed in plenary a report on the package from its Industry, Research and Energy (ITRE) Committee.

The Commission's proposals are structured around three pillars:

⁹ https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_High_Res.pdf

¹⁰ https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

¹¹ https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

¹² https://ec.europa.eu/research/evaluations/pdf/archive/other_reports_studies_and_documents/hlg_2017_report.pdf

¹³ <https://www.consilium.europa.eu/media/37219/st14406-en18.pdf>

¹⁴ <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P8-TA-2018-0509+0+DOC+XML+V0//EN&language=EN>

- open science;
- global challenges and industrial competitiveness; and
- open innovation.

There will be an additional part on strengthening the European Research Area (ERA).

Reflecting the importance of tackling climate change in line with the Union's commitments to implement the Paris Agreement and the SDGs, Horizon Europe has a climate mainstreaming target of at least 35% of the overall financial envelope.

As regards the openness of programming, a **strategic planning process** has been proposed, which will provide multiannual strategic orientations based on a co-design approach with Member States and stakeholders. This inclusive process will also favour synergy with other EU programmes and policies, and ongoing dialogue with civil society.

The second pillar ('global challenges and industrial competitiveness') will involve the launch of a limited number of '**missions**' co-designed with end-users and based on a cross-sectoral, cross-disciplinary pattern and clear objectives from inception. Inspired by the report *Missions: Mission-oriented research & innovation in the European Union*¹⁵, the mission approach will accentuate the directionality of R&I policy.

Under the third pillar ('open innovation'), two complementary instruments will be used to channel **European Innovation Council (EIC)** support for breakthrough and market-creating innovations along the continuum from R&I to market deployment and the scaling-up of companies:

- the pathfinder for advanced research will support research conducive to transformational change and potential market-creating innovations; and
- the accelerator will provide tailor-made blended finance in support of market-creating innovation and the scaling-up of innovative companies.

European Semester

As part of the European Semester economic policy cycle, the Commission issued reports on each Member State¹⁶. A total of thirteen Member States received country-specific recommendations highlighting challenges related to the quality and efficiency of national R&I systems, with a focus on:

- achieving higher scientific quality, a stronger science base and more impact through public R&I investments;
- improving science-business links; and
- removing bottlenecks that affect the business environment and innovation investments.

Open innovation

¹⁵ https://ec.europa.eu/info/sites/info/files/mazzucato_report_2018.pdf

¹⁶ https://ec.europa.eu/info/publications/2018-european-semester-country-reports_en

The first phase of an EIC pilot (see section 4.2) saw support given to a significant number of innovators, with 1,276 projects funded for a total of €731.15 million by the end of the year¹⁷.

The Commission took steps to ensure that European innovative businesses had better access to finance, which is a driver of productivity¹⁸. It launched VentureEU¹⁹, a pan-European venture capital fund of funds programme that aims to double the amount of venture capital available in Europe.

The 2018 edition of *Science research and innovation performance of the EU*²⁰ stressed that the EU's economic prosperity and social model depend on its ability to create and disseminate innovation. The EU needs to embrace emerging innovations and technologies to overcome a severe productivity problem and sustain economic growth.

Open science

The Commission established governance arrangements for the **European Science Cloud** (EOSC), which seeks to tap the potential of EU R&I by linking 'people, data, services and training, publications [...] across borders and scientific disciplines'²¹. It convened the first meeting of the EOSC board, composed of Member State and associated countries' representatives.

In the light of technological and institutional developments, the Commission updated its **Recommendation on access to and the preservation of scientific information**²².

In order to speed up the transition to open access, it worked with national funding agencies to support the implementation of **Plan S**²³.

Open to the world

International cooperation in R&I has enhanced the EU's influence as a global actor, in a context in which growing attention is being paid to science diplomacy.

Horizon 2020 continued to support operational and scientific work by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (**IPBES**) and the Intergovernmental Panel on Climate Change (**IPCC**). Dedicated Horizon 2020 calls support the

¹⁷ https://ec.europa.eu/info/news/eic-pilot-eu1734-million-top-class-innovators-bring-their-innovations-faster-market-2018-dec-20_en

¹⁸ <https://publications.europa.eu/en/publication-detail/-/publication/0635b07f-07bb-11e7-8a35-01aa75ed71a1/language-en>

¹⁹ http://europa.eu/rapid/press-release_IP-18-2763_en.htm

²⁰ https://ec.europa.eu/info/sites/info/files/rec-17-015-srip-report2018_mep-web-20180228.pdf

²¹ <https://publications.europa.eu/en/web/eu-law-and-publications/publication-detail/-/publication/5253a1af-ee10-11e8-b690-01aa75ed71a1>

²² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018H0790&from=EN>

²³ https://ec.europa.eu/commission/commissioners/2014-2019/moedas/announcements/plan-s-and-coalition-s-accelerating-transition-full-and-immediate-open-access-scientific_en

creation of additional scientific knowledge²⁴ as well as the functioning of these bodies, thus promoting multilateralism.

Together with Germany and Finland, the Commission co-organised the **second Arctic science ministerial**²⁵, which culminated in the adoption of a joint statement by the EU, 23 countries and six indigenous people's organisations²⁶.

In line with the EU's longstanding commitment to **Atlantic Ocean** R&I cooperation, the Commission signed cooperation agreements with Argentina and Cape Verde to strengthen and enhance R&I cooperation on 'blue growth' and tackle the challenges linked to the Atlantic, including ocean observation, food security, polar research and climate variability.

Other policy measures

The Commission published two milestone Communications on global R&I-related challenges:

- *A sustainable bioeconomy for Europe: strengthening the connection between economy, society and the environment*²⁷ updated the EU's bioeconomy strategy. R&I will continue to play a key role across three sets of actions to be launched from 2019:
 - strengthening and scaling up the bio-based sectors;
 - deploying local bioeconomies across Europe; and
 - understanding the ecological boundaries of the bioeconomy; and
- *A clean planet for all: a European strategic long term vision for a prosperous, modern, competitive and climate neutral economy*²⁸ sets out how the EU has started to implement the transformation needed to achieve a climate-neutral economy and outlines seven concrete successful pathways. It also highlights the importance of harnessing finance and R&I deployment to support the wide range of activities needed to make the climate-neutral economy a reality.

Work continued to implement the 20 policy measures set out in the Communication on *Accelerating clean energy innovation*²⁹, which contribute through R&I to achieving the objectives of the Energy Union.

The high-level strategy group on industrial technologies published its policy approach to key enabling technologies (KETs)³⁰, validating the six KETs identified in 2009 and suggesting the inclusion of two new KETs:

- artificial intelligence; and
- digital security and connectivity.

²⁴ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-cla-01-2018>.

²⁵ <https://ec.europa.eu/research/index.cfm?pg=events&eventcode=187D5765-E38F-9AFC-958DA987ECDD0613>.

²⁶ https://www.arcticscienceministerial.org/files/ASM2_Joint_Statement.pdf

²⁷ https://ec.europa.eu/research/bioeconomy/pdf/ec_bioeconomy_strategy_2018.pdf

²⁸ https://ec.europa.eu/clima/sites/clima/files/docs/pages/com_2018_733_en.pdf

²⁹ https://ec.europa.eu/energy/sites/ener/files/documents/1_en_act_part1_v6_0.pdf

³⁰ <https://publications.europa.eu/en/publication-detail/-/publication/28e1c485-476a-11e8-be1d-01aa75ed71a1>

The Group of Chief Scientific Advisors (GCSA – the successor group to the Scientific Advice Mechanism High-Level Group (SAM HLG)³¹) delivered an important scientific opinion on *Novel carbon capture and utilisation technologies*³² and issued guidance on sensitive regulatory challenges, such as gene-editing³³. It also interacted directly with the general public.

Other high-level initiatives addressing important cross-cutting policy priorities included the European Battery³⁴ and the Communications *On the road to automated mobility: an EU strategy for mobility of the future*³⁵ and *Endocrine disruptors*³⁶. Research aspects are particularly relevant to the implementation of the proposed strategies.

4. IMPLEMENTATION OF HORIZON 2020

4.1 Response to calls

By the end of 2018³⁷, a total of 679 Horizon 2020 call deadlines had passed, with 191,731 eligible proposals submitted, requesting a total EU financial contribution of €290.3 billion. Of those proposals, 23,250 were selected for funding, bringing the overall success rate of eligible proposals in the first five years to 12.13%. A total of 21,599 grant agreements had been signed by the end of December, with a budget allocation of €38.97 billion in EU funding.

In 2014-2018, participants in EU Member States received 91.5% of the funding, with the rest going to those from associated countries (7.2%) and non-EU countries (1.3%). While the participation share of associated countries (7.2%) is in line with the funding received, that of non-EU countries is significantly higher (3.9%), indicating an interest in international openness, decoupled from funding.

Higher education organisations (HES) remain in first place in terms of funding received (39.8%), while 25.9% of EU funding under pillars 2 and 3 goes to SMEs.

4.2 Key features of Horizon 2020

EIC pilot first phase

The **High-Level Group of Innovators** (HLGI), which was appointed to help Commissioner Moedas set up the EIC, issued a report, *Funding-Awareness-Scale-Talent (FAST)*³⁸, which highlighted pathways to improve support for market-creating innovation in the EU. On the basis

³¹ https://ec.europa.eu/research/sam/pdf/c_2018_1919_ec_decision_consolidated.pdf

³² https://ec.europa.eu/research/sam/pdf/sam_ccu_report.pdf

³³ https://ec.europa.eu/info/sites/info/files/2018_11_gcsa_statement_gene_editing_1.pdf

³⁴ https://ec.europa.eu/growth/industry/policy/european-battery-alliance_en

³⁵ https://ec.europa.eu/transport/sites/transport/files/3rd-mobility-pack/com20180283_en.pdf

³⁶ https://ec.europa.eu/commission/news/endocrine-disruptors-strategy-and-european-citizens-initiative-2018-nov-07_en

³⁷ Situation as of 11 February 2019 (extraction from Horizon 2020 dashboard).

³⁸ https://ec.europa.eu/info/sites/info/files/eic_hlg_bz_web.pdf

of the report and earlier policy steps from the College of Commissioners³⁹, a pilot for the EIC was included in the 2018-2020 work programme.

In line with the HLGI's recommendations⁴⁰, the pilot incorporates all relevant Horizon 2020 innovation financing in a single scheme encompassing the SME instrument, the Fast Track to Innovation, FET Open and the Horizon prizes.

This part of the work programme should support up to 1,000 projects, with an overall budget of €2.7 billion. Its impact will be assessed against the following indicators:

- new markets developed;
- private investment attracted; and
- growth of the businesses supported.

The **European Council** of June 2018 asked the Commission to develop a second phase of the initiative⁴¹, which would be aimed at developing blended finance solutions and experimenting with new arrangements for programme management.

International cooperation

Scientific cooperation continues to be a key pillar of the EU's international relations. The Commission updated **R&I roadmaps** with key partners, at both country and regional levels. These combine policy dialogue with cooperation at project level, mainstreamed in the Horizon 2020 work programme activities.

In particular, the Commission updated the science and technology roadmaps for cooperation with:

- at country (bilateral) level⁴² – Australia, Brazil, Canada, China, India, Japan, South Korea, Mexico, New Zealand, Russia, South Africa and the United States; and
- at regional level⁴³– the African Union, south-east Asia, the **Eastern Partnership**, the Community of Latin America and Caribbean States, the Mediterranean and Middle East, and the Western Balkans.

At project level, activities under the Marie Skłodowska-Curie Actions continue to account for more than half of all third-country participations in Horizon 2020.

Widening participation

The Commission published an extensive assessment of the participation patterns and R&I performance of eligible countries in *Spreading excellence & widening participation in*

³⁹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:733:FIN>

⁴⁰ http://ec.europa.eu/research/eic/pdf/eic_recommendations_set-1_2017.pdf

⁴¹ <https://www.consilium.europa.eu/en/press/press-releases/2018/06/29/20180628-euco-conclusions-final/>

⁴² <http://ec.europa.eu/research/iscp/index.cfm?pg=countries>

⁴³ <http://ec.europa.eu/research/iscp/index.cfm?pg=regions>

*Horizon 2020*⁴⁴. Overall, the widening of countries' participation is in line with their national R&I investment.

A total of 44 grants were signed to implement 'spreading excellence' projects, for an amount of €62.38 million. Of these, 13 will help to establish ERA chairs in Czechia, Cyprus, Estonia, Lithuania, Luxembourg, Portugal, Slovakia and Slovenia.

A new pilot action– Widening fellowships – was introduced in 2018, modelled on the MSCA Individual Fellowships. They will provide additional opportunities to around 120 researchers of any nationality to undertake a fellowship in a widening country. The **Policy Support Facility** also provided support for policy reforms in 'widening' countries, e.g. a peer review of Estonia's R&I system⁴⁵ in view of its planned R&I and entrepreneurship strategy for 2021-2027.

The Forward project was launched as part of the new EU strategy for the **outermost regions**. Teaming institutions and stakeholders from the Azores, the Canary Islands, Guadeloupe, French Guiana, La Réunion, Madeira, Martinique, Mayotte and Saint Martin, the project will involve an initial analysis of R&I ecosystems and develop a common strategy and thematic action plans.

Social science and the humanities (SSH)

A total of 136 topics across the 'industrial leadership' and 'societal challenges' pillars explicitly required SSH contributions.

The third monitoring report on the integration of SSH in Horizon 2020⁴⁶ found that 32% of the projects financed under SSH-flagged topics are coordinated by an SSH partner. While economics and sociology are well represented, there is still a need to improve the integration of other SSH disciplines such as law, history and anthropology.

Gender

Various forms of support contributed to positive trends in this area⁴⁷; for example:

- national contact points networks⁴⁸ organised specific training events on the gender dimension; and
- the Commission and the Helsinki Group released *Guidance to facilitate the implementation of targets to promote gender equality in research and innovation*⁴⁹, which covered the designing of frameworks conducive to introducing gender quotas for decision-makers.

⁴⁴ <https://ec.europa.eu/programmes/horizon2020/en/news/widening-participation-horizon-2020-report-analysis-fp-participation-patterns-and-ri>

⁴⁵ <https://rio.jrc.ec.europa.eu/en/library/peer-review-estonian-research-and-innovation-system-factsheet>

⁴⁶ <https://publications.europa.eu/en/publication-detail/-/publication/4365f75a-5efe-11e8-ab9c-01aa75ed71a1/language-en>

⁴⁷ https://ec.europa.eu/research/swafs/pdf/pub_gender_equality/interim_evaluation_gender_long_final.pdf

⁴⁸ http://www.ncpacademy.eu/wp-content/uploads/2018/09/20180222_Gender-Equality-in-H2020.pdf

⁴⁹ http://ec.europa.eu/research/swafs/pdf/pub_gender_equality/KI-07-17-199-EN-N.pdf

Climate action and sustainable development

The Horizon 2020 Regulation⁵⁰ set the expected budget share for climate action and sustainable development over the duration of the programme at 35% and 60% respectively. Up to and including 2018, expenditure had reached at least 30% for the former⁵¹ and 69% for the latter. Additional efforts are ongoing, in particular through the dedicated focus areas.

Synergies with other programmes

A report was published on the **mutual learning exercise on widening participation and ensuring synergies** between the EU's R&I programmes and cohesion policy⁵², in which 12 Member States and one associated country had participated. It found that, while there may be regulatory bottlenecks at project level, effective synergies will depend on the capacity to promote policy dialogue at programme level.

European Court of Auditors special report 28/2018⁵³ made the case for promoting further communication on the **seal of excellence** (SoE). To date, 35 different SoE schemes have been designed by European Structural and Investment Fund managing authorities in 15 Member States.

5. EURATOM

Council Regulation (Euratom) 2018/1563⁵⁴ established the framework of the Euratom research and training programme for 2019-2020.

Indirect actions

By the end of 2018, three calls had been concluded, with 136 eligible proposals submitted, requesting a total Euratom financial contribution of €500.8 million. Of these, 47 were selected for funding, with a Euratom contribution of €196.9 million, bringing the overall success rate of eligible full proposals since 2014 to 34.56%.

Direct actions implemented by the Joint Research Centre (JRC)

The direct actions of the programme, implemented by the JRC covered research and training on the following areas:

- nuclear safety, including safety of reactor, fuel and fuel cycle, nuclear waste management, environmental monitoring and emergency preparedness and response;

⁵⁰ See in particular recital 10;

http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/fp/h2020-eu-establact_en.pdf

⁵¹ This does not include expenditure outside of the specific objectives, such as administrative expenditure.

⁵² <https://rio.jrc.ec.europa.eu/en/policy-support-facility/mle-national-practices-widening-participation-and-strengthening-synergies>

⁵³ <https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=47542>

⁵⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1558436373644&uri=CELEX:32018R1563>

- nuclear safeguards non-proliferation and security, including combatting illicit trafficking and nuclear forensics.
- basic science knowledge and standards and reference materials essential for nuclear safety, security and safeguards, including research on non-energy applications of nuclear science as medical and space applications.

The research conducted and experience gained, in particular in nuclear safety and non-proliferation foster the necessary capacities for knowledge management and to provide education and advanced training in nuclear fields. This allows the JRC to meet the demand for scientific and technical support on EU-related policies.

Research and training programme

Support from the research and training programme led to the publication of more than 800 articles in peer-reviewed, high-impact journals and over 800 PhDs in fusion physics and technology. Over 900 researchers were provided with access to research infrastructures.

6. JRC NON-NUCLEAR DIRECT ACTIONS

Last year was a breakthrough year for the JRC's knowledge management activities, with the launch of four **knowledge centres**, bringing their number to 6:

- in response to consumer concerns, the Knowledge Centre on Food Fraud and Quality⁵⁵ provides access to up-to-date scientific knowledge on food fraud and food quality issues;
- by making the latest innovative solutions and research insights available, the Knowledge Centre on Global Food and Nutrition Security⁵⁶ aims to improve action to reduce food insecurity and malnutrition in food-insecure countries;
- the Competence Centre on Technology Transfer⁵⁷ is a primary platform for policy support and capacity-building in technology transfer at the EU, national, regional and local levels; and
- the Competence Centre on Foresight⁵⁸ provides direct strategic and future-oriented input into EU policy-making.

Other key achievements concerned:

- **vehicle emissions** – the JRC prepared to take on the role of checking (on behalf of the Commission) vehicles' compliance with the 'real drive emissions' requirements; and
- **SDGs** – the JRC contributed to the Commission's reflection paper *A sustainable Europe by 2030*⁵⁹, in particular through a qualitative foresight analysis.

⁵⁵ https://ec.europa.eu/knowledge4policy/food-fraud_en

⁵⁶ https://ec.europa.eu/knowledge4policy/global-food-nutrition-security_en

⁵⁷ <https://ec.europa.eu/jrc/en/event/conference/technology-transfer-competence-centre>

⁵⁸ <https://ec.europa.eu/jrc/communities/en/community/jrc-alumni-network/article/ec-competence-centre-foresight>

⁵⁹ https://ec.europa.eu/commission/publications/reflection-paper-towards-sustainable-europe-2030_en

7. EUROPEAN INSTITUTE OF INNOVATION AND TECHNOLOGY (EIT)

In the course of 2018, the EIT continued to provide financial support to the six existing KICs⁶⁰. In addition, the EIT funded activities aiming at fostering the collaboration among KICs (cross-KIC activities) on key aspects of KICs' operations in order to increase their impacts on e.g. human capital and skills development, communication and outreach. The total EIT financial contribution for the implementation of KICs' Business Plans 2018 amounted to € 400M million..

At the beginning of the year, Forbes Magazine announced its 30 under 30 list for 2018, which included nine EIT Community-supported entrepreneurs⁶¹.

In 2018, the EIT launched two calls for the creation of two new Knowledge and Innovation Communities (KICs) forresulting in a total of eight Innovation Communities:

- urban mobility – with a consortium of 48 members, EIT Urban Mobility is dedicated to accelerating solutions that improve the collective use of urban spaces, while ensuring sustainable and accessible multimodal mobility; and
- manufacturing – with a consortium of 50 partners, EIT Manufacturing's mission is to bring European manufacturing actors together in innovation ecosystems to support sustainable and competitive manufacturing.

8. DISSEMINATION, EXPLOITATION AND COMMUNICATION

The Commission opened a new **corporate funding and tender opportunities portal**⁶². This is now the single entry point for finding and managing EU grants and procurement contracts; it will cover all centrally managed programmes by the start of the next multiannual period in 2021.

The **Horizon 2020 dashboard**⁶³ operated successfully, offering powerful new analytical functions that will inform programme reporting, impact analysis and feedback for policy-making.

The **CORDIS website**⁶⁴ was redesigned to improve user experience and strengthen its mission as the European Commission's primary public service to disseminate information on the results of all EU-funded research projects, through its transparent and open data repository of EU projects from FP1 to Horizon 2020 and multilingual articles and publications that help to foster exploitation and innovation.

Building on the success of open access and open data schemes, the Commission contributed to **Turning FAIR into reality**⁶⁵, the final report from its expert group on findable, accessible, interoperable and reusable (FAIR) data, which also sets out an action plan to exploit the potential of data-driven R&I.

⁶⁰ EIT InnoEnergy, EIT Climate-KIC, EIT Digital, EIT RawMaterials, EIT Health, EIT Food.

⁶¹ <https://www.forbes.com/consent/?toURL=https://www.forbes.com/30-under-30/2018/>

⁶² <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

⁶³ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-dashboard>

⁶⁴ <https://cordis.europa.eu>

⁶⁵ https://ec.europa.eu/info/sites/info/files/turning_fair_into_reality_1.pdf

As of January 2019, the open access clause of the Horizon 2020 **model grant agreement** ensures the full availability of the 54,635 scientific publications generated through the currently ongoing Horizon 2020 projects.

9. OUTLOOK

In 2019, the inter-institutional negotiations on **Horizon Europe** will continue. If political agreement can be reached with the European Parliament and the Council on substantial elements of the legislative package, it will be possible to start co-designing the programme activities and implement them on time. This will ensure the continuity of EU support and effective directionality, based on ongoing dialogue with all stakeholders.

Substantial effort will go into formulating an **overall EU policy** to promote more and better R&I in Europe that supports sustainable development and delivers on the EU's strategic objectives, in particular by designing an overarching strategy and framework for investing the EU's resources, driving reforms and improving regulatory framework conditions.