

2015 Discharge to the Commission

WRITTEN QUESTIONS TO COMMISSIONER

MOEDAS

on 24 January 2017

EU 2020 strategy, European Funds for Strategic Investments

1. How would you assess the contribution of the "research family" to the attainment of the main policy goals of the EU 2020 strategy?

Commission's answer:

The Europe 2020 strategy set out five headline targets for the European Union, to be achieved by 2020:

Employment - 75% of 20 to 64 year old men and women to be employed

The ex-post evaluation of the Seventh Framework Programme estimated that the programme created about 130 000 research jobs over 10 years and 160 000 additional jobs indirectly over 25 years.

It is too early to evaluate the results and impact of Horizon 2020, but it is fair to assume that it will have a similar effect.

Research and Innovation - 3% of the EU's GDP to be invested in R&D

The ex-post evaluation of the Seventh Framework Programme estimated that the programme generated around 11 euros in indirect and direct economic effects for every euro invested. The research family has also made many other efforts to improve the level and quality of investment in research and innovation in Member States, and to improve the framework conditions that will allow innovation to flourish in the European Union. Nevertheless, the level of GDP invested in research and innovation remains just over 2%. See question 21 for details of the challenges faced.

Climate change and energy sustainability - Reduce greenhouse gas emissions by 20% compared to 1990 levels, increase the share of renewables in final energy consumption to 20 % and a 20% increase in energy efficiency:

The research family is only a small part of the Commission's contribution to the achievement of these targets. Nevertheless, spending on climate change and sustainability increased in FP7, and the decision to spend 35% of all Horizon 2020 funds on climate-change related areas represented a clear commitment to contributing to achieving these targets. The research family is fully integrated in the Strategic Energy Technology Plan as advances cannot be made without a good research base.

Education – reducing the rates of early school leaving below 10%, and at least 40% of 30-34 year olds completing third level education.

The research family is only a small part of the Commission's contribution to the achievement of these targets. Nevertheless, as well as its research into education, FP7 supported the mobility of more than 50 000 researchers, thus supporting third level education systems across the Union.

Fighting poverty and exclusion – at least 20 million fewer people in or at risk of poverty and social exclusion.

The research family is only a small part of the Commission's contribution to the achievement of these targets. Nevertheless, it supports research in these fields. Research into migration and mobility has been an increasing feature of Horizon 2020.

2. Please provide information on the steps that have been taken to improve the visibility of the institution. ?

Commission's answer:

Research and Innovation policies are a highly visible success story for the EU which make a major contribution to the Priorities of the Juncker Commission, particularly in the areas of growth and jobs, energy union and climate change, digital single market and Europe as a global actor.

Research and Innovation policies are therefore prominent in the Commission's communication actions. . For example, Horizon 2020 is integrated in to corporate communication under the leitmotiv Invest EU – Growth Starts Here

For research in particular, external communication actions are oriented towards highlighting the impact and relevance of EU funded research and innovation and the added value of action in these area at the European level, consistent with the Budget Focused on Results initiative.

Beneficiaries of grant support under Horizon 2020 have an obligation to communicate the impact and relevance of their work to non-specialised audiences. In addition, communication channels for showcasing the successes and EU funded Research and Innovation include: the Research and Innovation and Horizon 2020 Europa websites; Horizon magazine; and our social media accounts. Commissioner Moedas is also active on social media

Collaboration with Euronews on the production of the Futuris broadcasts (TV and web) highlights attractive R&I stories aimed at a general public across Europe and beyond.

3. Please name 3 of the institution's main achievements and successes in 2015. How do they impact in the institution's challenges for the future? Please focus mainly on operations, activities and results achieved.

Commission's answer:

In terms of the area under the responsibility of Commissioner Moedas, the Annual Activity Report of DG RTD for 2015 sets out a range of activities and results achieved

for 2015, including successful projects, overall results from FP7 as well as policy activities (see especially pages 5-9)

http://ec.europa.eu/atwork/synthesis/aar/doc/rtd_aar_2015.pdf

Of course one main achievement has been bringing Horizon 2020 to cruising speed, with over 9 000 grant agreements signed for calls in 2014 and 2015, with a budget of over €15.9 in EU funding. Please see question 1 for the effect that this will have in the future. This is linked to the Growth and Jobs objective of the Commission. The following brochure provides a summary of the main achievements of Horizon 2020 so far:

http://ec.europa.eu/research/evaluations/pdf/h2020_2-years-on_brochure.pdf

Additionally, the Commission notes the substantial reduction of the time to grant, the increasing number of newcomers and SMEs participating in Horizon 2020.

4. As all energy efficiency investments under the EFSI Innovation and Infrastructure window (IIW) have been made in only 3 countries and all renewable investments in only 2 countries, how will the Commission ensure that more countries are taking part with projects in these areas under EFSI?

Commission's answer:

Taking the recent EFSI developments into account, the picture is more positive: about 70 of the EFSI infrastructure projects are dealing with energy and energy efficiency, a significant number of them is investing in renewable energy. These projects are distributed across Europe and supported also by funds with a pan-European scope. One of the EFSI's most important features is that there are no quotas – regional or sectorial – and that project support is demand driven. Despite this, the Commission agrees that EFSI's geographical and sectorial coverage can be further improved. There are several tools available to this end, including combining the use of the EFSI with other EU funds, notably the European Structural and Investment Funds (ESI Funds), setting up Investment Platforms (e.g. national, regional, cross-border) and more targeted outreach from the European Investment Advisory Hub.

The European Investment Advisory Hub is expected to take a more proactive approach to develop a more diversified pipeline of investible projects, encouraging promoters of energy efficiency and renewable energy projects across the EU to apply for EFSI support. Also, the European Investment Project Portal can increase the visibility of these projects. In addition, energy efficiency projects and energy interconnection priority projects will be increasingly targeted in the future, as highlighted in the Commission's [September 2016 proposal for the extension of EFSI](#)¹.

5. After the entry into force of the Paris Agreement, how does Commission plan to make the EFSI IIW portfolio climate proof, so as to ensure that a majority of projects financed are in the area of climate action in line with the Paris commitment?

¹ COM(2016) 597, 14.9.2016

Commission's answer:

See also question 4.

In the future, EFSI will focus even more on sustainable investments in all sectors to contribute to meeting COP21 targets and to help deliver on the transition to a resource-efficient, circular and zero-carbon economy. Under the Commission's September 2016 proposal for the extension of EFSI, at least 40% of EFSI financing under the IIW should support projects contributing to climate action in line with COP21 objectives². In addition, the Commission proposes that the European Investment Advisory Hub further supports the preparation of climate-friendly projects, in particular in the context of COP21.

6. The European Commission took 2,2 billion out of Horizon 2020 to set up the European Fund for Strategic Investment (EFSI). This has been justified by the claim that universities and research institutes would also profit from EFSI. Can the Commissioner provide a list of all Research and Innovation projects that have funded by EFSI that include public knowledge and research institutes?

Commission's answer:

Research, development and innovation (RDI) is one of the priority sectors targeted by EFSI. By November 2016, out of the EFSI transactions so far approved by the European Investment Bank (EIB), 25% are in the RDI sector, while two thirds of all projects have a strong RDI element³. As regards EFSI operations under the SME Window, the EIF equity investments and guarantees provided for RDI by SMEs and mid caps amount to EUR 5.5bn and represent 68% of the overall EIF financing under EFSI so far. These EIF operations should mobilise more than EUR 25bn of investments in the EU economy for the purposes of RDI.

In addition, when deciding which parts of Horizon 2020 would contribute to EFSI, priority was given to the protection of individual and bottom-up research schemes, such as the European Research Council, which deals with frontier research, and the Marie Skłodowska-Curie Actions, which address the training and mobility of researchers.

All projects carried out under the infrastructure window of EFSI are performed by private companies, mainly from the industrial sector. However, over time, the injection of funds into the economy via EFSI will upgrade the research capabilities of firms and universities, create incubators and technological centres, enable access to risk capital and loans, build cluster partnerships, activate innovation ecosystems, provide advanced services, and stimulate collaboration in European value chains in order to deepen the internal market and strengthen the industrial base.

² COM(2016) 597, 14.9.2016, Article 1 (5) (b)

³ RDI Sector Factsheet: http://ec.europa.eu/priorities/sites/beta-political/files/research-innovation-development-booklet-investment-plan-sectors_en.pdf

During 2017, Horizon 2020's InnovFin Advisory service, managed by EIB, will look into how to help universities and public research organisations, and their spin-offs, better access EFSI.

7. How will you clarify the links between Europe 2020, the new Commission priorities and Horizon 2020 now do not always facilitate a focus on performance and, therefore, need to be clarified?

Commission's answer:

The European Court of Auditors, in paragraph 3.27 of its Annual report for 2015, accepts that the performance framework for Horizon 2020 is a real advance over that of FP7.

The Commission's strategic planning process has been revised in 2016. It is now built around the 10 political priorities of the Commission, and these are fully compatible with the Europe 2020 strategy. The headline targets of the Europe 2020 strategy are linked to the political priorities. Commission services will report on their achievements against objectives set through their annual activity reports.

The Commission will also continue to report on progress towards the Europe 2020 targets as part of the European Semester process and on the contribution of the budget (including Horizon 2020) to Europe 2020 in the annual management and performance report.

8. How could the synergy between EFSI and H2020 be further improved?

Commission's answer:

The Commission is continuously striving to improve synergies between EFSI and Horizon 2020. EFSI has recently earmarked EUR 270 million of support to the InnovFin Equity instruments of Horizon 2020. EFSI is also providing EUR 880 million to top up the H2020 InnovFin SME Guarantee debt instrument.

Possibilities to ensure a coordinated deployment of Horizon 2020, EFSI and potentially other budgetary resources and target low-carbon energy technologies and potentially other sectors are at the planning stage.

Management and Control Systems

9. Among the most common errors in the implementation of FP7 projects were those related to calculation of staff costs. What measures did DG Research and Innovation implement in order for researches not to be paid differently for the same work depending solely on their country of origin thus affecting predominantly scientists from Central and Eastern Europe? This payment policy, which above all stimulates the brain-drain in Europe, is applied with minor adjustments in the framework of the Horizon 2020 programme. Did you amend the Model Grant Agreement, and did you consult with the member states in relation to this?

Commission's answer:

Horizon 2020 funding is based on the reimbursement of actual costs incurred by the beneficiary organisations, there is no direct payment of salaries from the Commission to the researchers. The salaries received by researchers are the result of decisions taken by individual companies or public bodies. The setting of these salaries is not a competence of the European Union.

However, the Commission is aware of the difficulties faced by some researchers in the Union, particularly in Central and Eastern Europe. The salary gap of researchers from different Member States was one of the aspects of Horizon 2020 retaining major attention at the time of the negotiation of the Rules for Participation (RfP). Extensive discussions led to a final compromise reflected in Article 27 of the Horizon 2020 RfP, which defines the conditions and ceiling for acceptance of additional remuneration.

Over the first years of implementation of Horizon 2020 it has become evident that the application of the provisions on additional remuneration has created some unintended side-effects. Indeed, in some Member States the new provisions risk increasing, rather than narrowing, the salary gap for researchers participating in Horizon 2020 actions. This is chiefly the result of national remuneration practices in the public sector which strongly rely on project-based bonuses, to compensate for low basic salaries.

Since the start of Horizon 2020 the Commission has been discussing with Member States possible actions to remedy this situation. Recently, the Commission has initiated the procedure to amend the Horizon 2020 model grant agreements so as to modify the current implementation of the rules on additional remuneration. The Commission's proposal has been shared with Member States experts as well as the European Parliament.

The Commission is confident that the approach proposed will overcome to a large extent the unintended effects of the rules on additional remuneration. However, the margin of manoeuvre of the Commission in this regard is limited by article 27 of the Horizon 2020 RfP. If the forthcoming amendment of the model grant agreements is insufficient, Commissioner Moedas has indicated that he would be willing to propose changes to the Rules

10. Many researchers complain that it is too complicated and burdensome for them to apply for EU grants, and they simply do not resort to EU funding at all. This is of course not the intention of the Commission. Is the balance between trust and control of the beneficiaries appropriately stricken according to the Commission?

Commission's answer:

60 380 beneficiaries have applied for funding under 2014 and 2015 calls for proposals. This is a considerable increase over FP7, and shows the great interest in Horizon 2020 in the research community. 49% of these beneficiaries are new to EU research programmes. Over 60 000 beneficiaries have clearly not found the application process too complicated or burdensome.

The Commission made considerable efforts to simplify the application process for Horizon 2020. According to a stakeholder survey carried out by the Commission, of those respondents with experience in FP7 and Horizon 2020 who expressed an opinion, 75% considered that, overall, the H2020 processes were much simpler.

The Commission is however very sensitive to suggestions that the procedures of Horizon 2020 are too complicated and will therefore continue with its simplification efforts.

At the same time, in line with principles of sound financial management, the Commission will respect its obligations for the protection of the financial interests of the EU.

11. Responsibility for research and innovation spending is scattered across numerous implementing bodies: 8 Commission DGs, seven Joint Undertakings, four executive agencies, one decentralised agency and seven international organisations. With a view to efficient and harmonised programme implementation is this institutional set-up suitable for the consistent application of the funding rules? Isn't there a danger of inconsistent treatment of beneficiaries and legal uncertainty?

Commission's answer:

In FP7, inconsistent treatment was a major complaint of beneficiaries, and regularly highlighted as a problem by the European Parliament and European Court of Auditors. To address this problem the Commission created, for Horizon 2020, a Common Support Centre (CSC) which provides, for all the services involved in implementation of the programme:

- common legal support and interpretations
- a single audit service
- common business processes
- common guidance and documentation
- common IT systems
- a common data and information system

The CSC ensures harmonisation across the different services, and so a consistent treatment to beneficiaries. This new approach has been strongly welcomed by H2020 participants and beneficiaries.

12. There are no guarantees that research projects always lead to successful outcomes; they are risky by nature. Without taking risks researchers could not have made great scientific discoveries. However, from a budget controller's point of view we need to make sure that money is always spent for the right purposes. The accounting of personnel costs has always been a delicate exercise, difficult to calculate and measure, especially when several projects are running in parallel, and it is not easy to separate activities related to them. The reimbursement of such expenditures is not

immune to irregularities. How does the Commission combat overcharged personnel and indirect costs?

Commission's answer:

The Commission requires researchers to identify the actual time that they spend on EU projects, as this is the basis of a large part of the reimbursement made to beneficiaries. However, it has identified a number of problems in the correct calculation of personnel costs in payment claims. It has thus simplified the rules for Horizon 2020 to address these difficulties.

For indirect costs, the Commission and the Court regularly identified problems in FP7 in what is a complex area. The flat rate for indirect costs in Horizon 2020 avoids these problems at source.

As well as simplifying the rules, the Commission has an internal control system that will combat overcharged costs. This internal control system includes controls before payments (including audit certificates), audits of around 700 participations per year, and a recovery process.

13. Audit certificates certifying cost claims issued by external auditors often do not identify errors. Are the Commission's efforts to improve the reliability of these certificates slowly starting to bear fruit?

Commission's answer:

An analysis of the FP7 ex-post audit results revealed that the issuance of Certificate on Financial Statements (CFS) - required when the cumulated Community financial contribution requested exceeds € 375,000 - had a positive effect on the ex-ante controls performed by the EC Financial Officers. In order to increase the efficiency of this provision, the Common Audit Service contacts the CFS auditors when the detected error rate in a participation with a CFS audited ex-post is higher than 2%, pointing out to the divergence in audit findings.

There is some evidence of improvement in audit certificates, but this is not yet conclusive. As well as improving communication towards these auditors, the key step is the simplification of rules in Horizon 2020. Simpler rules assist auditors as well as beneficiaries.

14. There are two reservations in the Annual Activity Report of DG RTD: a general one on the reimbursement of cost claims under FP7 and a similar one for the Research Fund for Coal and Steel. Could you report on the state of progress concerning the implementation of the action plans addressing these reservations and on the corrective actions?

Commission's answer:

FP7

The following measures aim to reduce errors under FP7:

- on-going efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring; these have been undertaken, but the main improvements have come for Horizon 2020, where the participant portal already contains comprehensive guidance and clearer templates

- efforts to give guidance and specific trainings to the staff involved in ex-ante controls; in particular, following the 2014 report from the Court, actions have been taken to control and reduce the error rate by giving clearer instructions on ex-ante controls to the Directorates dealing with FP7 payments and enhancing training for staff. Training sessions continued in 2016.

- continuing with its control and audit work in order to further reduce the FP7 residual error rate: a third common representative audit sample has been launched in 2016.

Research Fund for Coal and Steel (RFCS)

For the Coal and Steel fund, the Commission has proposed an amendment of the legal base to update the grant agreement in order to harmonise as far as possible with the rules for Horizon 2020. The adoption of the new rules is expected in the first quarter of 2017.

In addition, the Commission has adopted a Multi-beneficiary Model Grant Agreement for the RFCS. The contractual provisions are now close to the H2020 rules. Aligning with H2020 provisions and practices should increase understanding of the rules by the large group of beneficiaries active in both programmes. The new Agreement has been in use since 2016.

Furthermore, Financial management systems have been reviewed and modified to bring them into line with the simplified H2020 IT systems

15. Please provide the committee with information regarding EU expenditure in research, science and innovation in 2015. Have there been an improvement with regard to the efficiency of the money spending in comparison with the previous years? Please back your answer with data.

Commission's answer:

EU operational expenditures in research, science and innovation in 2015 are as follows:

Budget 2015 (in EUR billion)						
Horizon 2020 + Euratom + Completion	Adopted budget	EFSD – amending budget	Other transfers	Final budget	Implemented budget	% of Implementation
Commitments	9.163	(-0.070)	+0.030	9.123	9.123	100%
Payments	8.627	-	+0.009	8.636	8.632	99.96%

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The services involved in implementing Research and Innovation expenditure have fully executed the budget allocated in 2015. In general payments are being made more quickly than ever, with 95% being made within the time limits set by the Financial Regulation (only a small improvement from 2014, but a big improvement from the 73% respect of (less stringent) targets in 2012), which provides a better support to researchers. 95% of contracts were signed within the target of 8 months, a major improvement in efficiency over FP7.

16. Are all your public procurement procedures public on Commission's site?

Commission's answer:

Yes, all public procurement procedures are published in line with publicity rules set in Article 103 of the Financial Regulation.

Contract notices for the procedures equal or greater than thresholds under Article 118 (1) of the Financial regulation (EUR 135,000.00), except negotiated procedures without prior publication of contract notice (Art. 134 of the Financial Regulation) are published in the Official Journal and on Commission's site.

Public procurement procedures between EUR 15,000.01 and EUR 135,000.00, are published on Commission's site.

17. Are all your contracts with public tenders published on Commission's site?

Commission's answer:

Yes, all contracts with public tenders are published in line with publicity rules set in the Financial Regulation

Contract notices for the procedures equal or greater than thresholds under Article 118 (1) of the Financial regulation (EUR 135,000.00), except negotiated procedures without prior publication of contract notice (Art. 134 of the Financial Regulation) are published in the Official Journal and on Commission's site.

18. Please provide information regarding the level of carry-overs for committed appropriations. What amount from what was carried over from 2014 to 2015 was cancelled and why?

Commission's answer:

The amount carried over from 2014 to 2015 that was cancelled during 2015 represents in total EUR 57 million. This amount corresponds to all decommitments made by DG RTD during 2015 on its operational budget, both for global and individual commitments. The EUR 57 million is split between decommitments made on commitments authorised during 2014 (EUR 7 million) and decommitments made on

commitments authorised before 2014 (EUR 50 million from previous Framework Programmes.

19. How many seconded national experts, contract staff, interim staff, consultants, temporary agents and officials were working in your team in 2015?

Commission's answer:

The details For DG Research and Innovation are set out in the attached table. These figures show the evolution in the numbers during 2015

	1/1/2015	31/12/2015
Officials	1 063	996
Temporary Agents	5	5
Contract Staff	476	456
Local Agents in delegations	20	21
Seconded National Expert	48	45
Interim Staff	1	4
External Service Providers	151	162
Total	1 764	1 689

20. Have all meetings with lobbyists (in case you had such meetings) been registered and made public (where applicable)?

Commission's answer:

As part of the Commission's commitment to transparency, Commissioners and their members of Cabinet publish information on meetings held with organisations or self-employed individuals. Information on these meetings can be found via the link: http://ec.europa.eu/commission/2014-2019/moedas_en

21. As the percentage of investment in R&D settle at 2.03% (after the upward revision of GDP rates), what is the Commission's plan for Member States to attain the target of investing 3% of GDP (key performance indicator) in research and innovation? What are the interactions with other actions at EU and national level? The year-to-year change is in average 1,4% since 2010 and when plotting this number, the target of 3% could be reach no sooner than in 2040.

Commission's answer:

The 2020 objectives include the target that 3% of GDP should be invested in Research and Innovation. to ensure that the EU remains competitive compared to its main international competitors. It is therefore disappointing that the figure only increased

from 1.79% GDP in 2000 to 2.03% GDP in 2015. Based on recent trends the EU is not on track to reach its 3% target by 2020.

The majority of all Research and Innovation expenditure in the EU is, at the national and regional level in Member States and through the private sector. The Commission plays the role of a catalyst and facilitator, encouraging increased and smarter investment in research and innovation by Member States and the business sector through working with the Member States and the development of appropriate policies of open science and open innovation. Horizon 2020 is only a small part of the overall EU spending on research and innovation, but plays an important role in leveraging funding.

Through the European Semester process the Commission aims to ensure that all policy tools available at the national level (monetary, fiscal and structural) are used individually and collectively to strengthen job creation, growth, investment and financial stability. As emphasised by the 2017 Annual Growth Survey, in the current context marked by uncertainties, it is critical to mobilise all internal growth drivers through an appropriate policy mix. Stress has thus been put through the Semester on the importance of increasing investments in growth enhancing policies that drive upwards Europe's productivity and growth potential, such as research and innovation. In that context, the Commission monitors Member States' progress in reaching the EU and national R&D targets, and, where appropriate, proposes to the Council recommendations to Member States on the necessary reforms of their research and innovation systems and policies.

In 2016, 13 country-specific recommendations were issued in the domain of research and innovation. These recommendations focused not only on achieving an adequate level of investment in research and innovation but also on raising the quality of public investments in research and innovation, including measures to improve the broader framework conditions for companies to invest more in research and innovation.

In addition, the Commission set up in 2015 the [Horizon 2020 Policy Support Facility](#) ('PSF') to support Member States in the design, implementation and evaluation of national research and innovation policy reforms. The need for adequate investments in research and innovation and for operational reforms to improve the efficiency, quality and impact of those investments, are an integral component of the policy agenda of PSF country-based activities. The PSF complements the European Semester process as it offers best practice, independent high-level expertise and practical guidance for policy reform. Since the Facility was launched, 10 Member States have made use of its services in order to strengthen their R&I systems.

22. The percentage of Share of grants signed with a time-to-grant within 245 days decreased from 95% to 93%. What steps is the Commission planning to increase the number?

Commission's answer:

Currently (December 2016) the respect of the time-to-grant target is just over 95%. The figure can fluctuate slightly over time, but still represents a very strong

performance by the Commission services, and a significant improvement compared to FP7.

23. Beneficiaries' feedback indicates that funding application, evaluation, grant signature, grant management, audit and control are still burdensome. Beneficiaries need to focus energy on what they aim to achieve with the project, not on managing the project.

Commission's answer:

See the answer to question 10.

24. Could the Commission provide data for each Member State of absorption of the funds allocated to research? The Commission points out that investing 3% of GDP on research by 2020 is a goal of the European Union. Member States must set their own national targets for research and development: what are the percentages of GDP currently spent by each Member State in research and development?

Commission's answer:

The following table gives an overview of the EU financial contribution from Horizon 2020 to participants of each Member State, both in absolute figures and as a percentage of the total Horizon 2020 budget:

**H2020 Participation and Requested EU Financial Contribution in
Signed Grant Agreements by Country**
(all project participants)

	EU Financial Contribution for Participants from a Country	
	(millions of euro)	(%)
Austria	543,6	2,81%
Belgium	914,4	4,72%
Bulgaria	28,1	0,15%
Cyprus	61,1	0,32%
Czech Republic	122,6	0,63%
Germany	3.319,8	17,15%
Denmark	469,1	2,42%
Estonia	62,0	0,32%
Greece	415,8	2,15%
Spain	1.735,4	8,96%
Finland	397,4	2,05%
France	1.996,7	10,31%
Croatia	30,9	0,16%
Hungary	106,8	0,55%
Ireland	341,1	1,76%
Italy	1.582,1	8,17%
Lithuania	20,4	0,11%
Luxembourg	49,3	0,25%
Latvia	20,4	0,11%
Malta	15,0	0,08%
Netherlands	1.476,0	7,62%
Poland	177,5	0,92%
Portugal	325,4	1,68%
Romania	74,2	0,38%
Sweden	659,6	3,41%
Slovenia	105,3	0,54%
Slovakia	48,2	0,25%
United Kingdom	2.941,3	15,19%
Total for Member States	18.039,5	93,17%
Total	19.361,2	100,00%

Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research and Innovation Policies

Data: DG Research and Innovation (Corda database)

The following table provides the latest R&D intensities for each Member State (2015), compared to the individual targets set for 2020:

Situation of each Member State with regard to its R&D intensity target

	R&D intensity 2015 ⁽¹⁾	R&D intensity target 2020
Belgium	2,45	3,00
Bulgaria	0,96	1,50
Czech Rep	1,95	: ⁽⁵⁾
Denmark	3,03	3,00
Germany	2,87	3,00
Estonia	1,50	3,00
Ireland	1,51	2,00 ⁽⁶⁾
Greece	0,96	1,21
Spain	1,22	2,00
France	2,23	3,00
Croatia	0,85	1,40
Italy	1,33	1,53
Cyprus	0,46	0,50
Latvia	0,63	1,50
Lithuania	1,04	1,90
Luxembou	1,31	2.30 - 2.60 ⁽⁷⁾
Hungary	1,38	1,80
Malta	0,77	2,00
Netherlan	2,01	2,50
Austria	3,07	3,76
Poland	1,00	1,70
Portugal	1,28	2.70 - 3.30 ⁽⁸⁾
Romania	0,49	2,00
Slovenia	2,21	3,00
Slovakia	1,18	1,20
Finland	2,90	4,00
Sweden	3,26	4,00
United Kin	1,70	:
EU	2,03	3,00

Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research and Innovation Policies

Data: Eurostat, Member States

Notes: (1)IE:2014. (2)IE: 2000-2014; HR: 2002-2015; EL, LU, SE: 2003-2015; MT: 2004-2015. (3)EL, PT, SI: 2008-2015. (4)IE: 2014-2020. (5)CZ: A target (of 1%) is available only for the public sector. (6)IE: The national target of 2.5% of GNP has been estimated to equal 2.0% of GDP. (7)LU: A 2020 target of 2.45% was assumed. (8)PT: A 2020 target of 3.00%. (9)DK, EL, FR, LU, HU, NL, PT, RO, SI, SE, UK: Breaks in series occur between 2000 and 2000; when there is a break in series the growth calculation takes into account annual growth before the break in series and annual growth after the break in series. (10)Values in italics are estimated or provisional.

25. Has the Commission followed the Court's recommendation to concentrate the ex-ante checks on riskier beneficiaries, thereby introducing the beneficiary risk profile, based on results from the ex post controls and performance record? If so, could the

Commission provide a detailed list or table of the type of riskier beneficiaries profiles and the number of controls performed as well as the detailed methodology used for the ex-ante checks?

Commission's answer:

The Commission has followed the Court's recommendation.

In 2016 the Commission mainly dealt with payments for FP7 grants. In FP7 staff have received guidance on how to concentrate their checks on riskier beneficiaries or riskier types of expenditure but the data requested is not available centrally.

For Horizon 2020 the approach will be applied more systematically and more structured information will be available through the IT systems.

HORIZON 2020

26. The Commission has set out its intention in its H2020 ex-post audit strategy to audit maximum 7 percent of the beneficiaries in order to reduce the administrative burden. How did you arrive at this figure?

Commission's answer:

In FP7 the number of audited beneficiaries is 9.4%. This translates into a direct coverage of 9.1% of expenditure, and an indirect coverage of a further 53% of expenditure by the extension of audit findings.

The figure of 7% was set below the FP7 level to demonstrate a commitment to lowering the administrative burden on beneficiaries, whilst still ensuring a good coverage of expenditure. The Commission intends to stick to this target, although this will depend on the level of error identified during the programme.

27. The majority of the transactions tested by the Court in its annual report 2015 still included FP 7 projects. By when do you think the impacts of the simplified rules under Horizon 2020 will be felt?

Commission's answer:

The stakeholder consultation of beneficiaries carried out by the Commission shows that beneficiaries are already feeling the benefits of the simplified rules for Horizon 2020 – please see question 10.

In its testing for the 2016 Annual Report (published in October 2017) the Court has examined 13 Horizon 2020 transactions out of the total of 91 research transactions. This number will increase sharply in 2017. The Commission has launched a first set of 90 audits of Horizon 2020 at the end of 2016.

So, by the end of 2017 the Commission will be able to make a first preliminary assessment of the effect of the simplified rules on the error rate.

28. According to the Court under the simplified H2020 rules there is an increased risk of irregular payments in cases when researchers receive additional remuneration on the top of their usual remuneration, which result in a higher hourly rate for specific projects. The Court also mentions increased risks related to projects where participants make use of large research infrastructure. How did the Commission address the Court's observations?

Commission's answer:

The Court points out two areas which could lead to an increased risk of error: the personnel costs, where the legislative authority added supplementary rules to the Commission's proposal, with the provisions on additional remuneration and the cost calculation for large research infrastructure.

With respect to additional remuneration, the Commission is clarifying the applicable rules - see question 9 - and will address the risk during its audits. For large infrastructure costs the risk is limited by the ex-ante assessment that is necessary before these costs can be declared. Only participants having obtained a positive ex-ante assessment for their direct costing methodologies linked to their Large research Infrastructure are allowed to declare costs for the use of their LRI.

29. Could the Commission report on the functioning of the Common Support Centre for research and Innovation and the Common Audit Service?

Commission's answer:

Please see question 11.

The Common Support Centre is functioning well and is an integral and key part of the management system for Horizon 2020. The stakeholder consultation carried out by the Commission shows that the systems established by the Common Support Service are well appreciated: for example:

- Of those respondents with experience in FP7 and Horizon 2020, 75% confirmed that, overall, the processes in H2020 are much simpler than in FP7;
- 91% of experienced participants felt the benefit of the electronic-only signature of grant agreements;
- 89% of experienced participants felt the benefit of the Participant Portal as the one-stop shop for all interactions with the Commission in managing proposals and grants.

The Common Audit Service (CAS) will implement audits for all Horizon 2020 grants. This centralisation of audits for all research services in the CAS will reduce the audit burden for beneficiaries and ensures a homogeneous approach towards them.

30. What did you do in order to improve the performance indicators?

Commission's answer:

The legal act establishing Horizon 2020 has for the first time in Framework Programme history defined a clear set of performance indicators.

The Commission continuously monitors the performance of the Framework Programme, including the key performance indicators stipulated in the establishing act. The latest values for all available indicators can be found in the 2015 Annual Monitoring Report (Two Years On), which provides a comparison with the first year of implementation as well as the predecessor Programme, FP7. All monitoring reports are available at:

https://ec.europa.eu/research/evaluations/index_en.cfm?pg=monitoring

In line with principles of the Budget Focused on Results, the Commission will review the existing performance indicators when preparing the proposal for the new Framework Programme and will ensure that its proposal for the next Framework Programme will contain a clear set of performance indicators that will allow an effective monitoring of results and of progress made toward achieving an impact.

31. In Horizon 2020, the current low success rate of eligible full proposals of 14% causes frustration among the stakeholders for example in energy efficiency and renewable energy. How does Commission plan to address oversubscription?

Commission's answer:

See question 39.

32. Many of universities and academic research institutions suffer from the Horizon 2020 focus towards market-oriented research and innovation projects to the detriment of more frontier non-market research. How does Commission intend to correct in the remaining years of Horizon 2020 this unbalanced focus on close to market projects?

Commission's answer:

The Commission does not consider that there is an imbalance between funding on close to market projects and frontier non-market research.

Currently, based on 2014 and 2015 calls for proposals, the amount committed to the Higher Education Sector in signed grants is €6.3bn, 39.6% of total funding. This compares to €19.3bn (43%) in FP7. However, the overall size of Horizon 2020 is considerably bigger than in FP7 so, in financial terms, the Higher Education Sector is not losing out. Given that €15bn of Horizon 2020 funding has so far been committed in 2014 and 2015, a continuation at current levels would see the Higher Education Sector receiving grants exceeding €25bn under Horizon 2020.

33. In the build-up and in the legislation of Horizon 2020 there were a shift from research driven to solving societal challenges. Is this approach seen as a success by the commission and something we could expect to find as well in FP9?

Commission's answer:

An assessment of the societal challenges is currently ongoing as part of the interim evaluation of Horizon 2020. The evidence gathered, including from more than 3200 responses to a public stakeholder consultation, will be presented in a Commission Staff Working Document, expected to be published in May 2017; the evaluation will be concluded in a Commission Communication, expected in October 2017. In this context, the Commission decided in September 2016 to set up a High Level Group of experts, led by Pascal Lamy, to advise on how to maximise the impact of the EU's investment into research and innovation. The Commission proposal for the next Framework Programme will take into account the results of this interim evaluation, including on the approach to societal challenges and the findings of the High Level Group.

34. The main problem of Horizon 2020 is to evaluate the performance: the programme presents a lack of indicators. Could the Commission provide an overview on the performance indicators and on the expected and achieved results?

Commission's answer:

Please see the answer to question 30.

There are a range of indicators set in the legal base and the latest values for all available indicators can be found in the 2015 Annual Monitoring Report (Two Years On), which provides a comparison with the first year of implementation as well as the predecessor Programme, FP7. All monitoring reports are available at https://ec.europa.eu/research/evaluations/index_en.cfm?pg=monitoring

However data on some indicators will only be available at a later stage in the programme, and that some improvements in the overall performance framework are needed.

A full list of the indicators can be found on the commission website <https://ec.europa.eu/programmes/horizon2020/en/news/horizon-2020-indicators-assessing-results-and-impact-horizon>.

35. Horizon 2020 has a major focus on innovation. This could potentially discourage companies to invest in R&D on their own initiative. How does the Commissioner ensure that Horizon 2020 does not entirely replace private funding? So funding projects that R&D departments of large private companies would have done without EU funding as well?

Commission's answer:

The involvement of private for profit companies addresses a number of the weaknesses identified in European research and innovation: in particular it allows for linking of academia and business, getting closer to the market, providing expertise and more innovative approaches, availability of state of the art testing facilities, etc..

The total commitment to private for profit companies following 2014 and 2015 calls for proposals is €4.2bn, 26.7% of the total amount. This covers SMEs as well as larger firms. It is only a very small part of the total research effort of the private sector in the European Union.

36. The Commission has embarked on an ambitious expedition towards open science. It needs to be taken into account that such expeditions are costly. Can the Commissioner provide us with its view on the return on this investment? What are the opportunities and threats along the journey? Has the Commissioner in particular met with some of the large scientific publishers in this regard?

Commission's answer:

Open Science has the potential to increase the quality, impact and benefits of science, making it more reliable and efficient. The efficiency of science will be increased as researchers progressively move to open science by sharing resources and avoiding duplication of similar research efforts.

The potential benefits of opening up research information are clearly recognised in the European Commission's investment plan for Europe where it is stated that in order to "boost research and innovation, EU competitiveness would benefit from fewer barriers to knowledge transfer, open access to scientific research and greater mobility of researchers."⁴

Open access to publications can help to overcome the barriers that innovative companies, in particular SMEs, face in accessing the results of research funded by the public purse. It has been estimated that switching to open access results in significant savings.

A specific example of the economic impact of opening up *research* data are the Copernicus earth observation satellites. Their data will be freely available and are expected to generate significant possibilities for growth and jobs by 2050. The European Bioinformatics Institute of the European Molecular Biology Laboratory generates a benefit to users and their funders of around 1.3 billion euros per year by making scientific information freely available to the global life science community. This is equivalent to more than 20 times the direct operational cost of the institute. Finally, the Human Genome Project has made its data open access and has spawned the creation of a whole new industry.

Commissioner Moedas gave a key note speech on 18 October 2016 at the Conference of the International Association of STM publishers in Frankfurt am Main, Germany addressing the need for the transition to open access. He also met with a number of stakeholders: publishers, funding and University Organisations. The objective of the EU and Member States to have by 2020 all publications in open access mode by default was discussed.

Subsequently this was discussed at the second meeting of the Open Science Policy Platform on 9 December. The members of this platform are EU branch organisations and include all stakeholders, e.g.: publishers, research and university organisations, library organisations, citizen science organisations, research funders, open science intermediaries and academies of sciences. The platform will inform and advise the Commission on realising the European Open Science Agenda.

The most costly part in terms of investment in Open Science concerns the establishment of the European Open Science Cloud (EOSC) which will create a virtual environment for all European researchers to store, manage analysis and re-use data.

⁴ (Com 2014 903 final) p.16.

This will be possible through a federation of existing and emerging data infrastructures which will thus create added value in terms of scale, and foster data-driven science, inter-disciplinary work and innovation.

The Commission has allocated funds to the European Cloud Initiative through Horizon 2020. Over its entire lifetime, Horizon 2020 may contribute over EUR 2 billion to the European Cloud Initiative. This includes:

- (a) relevant actions under the Work Programmes of 2014-2015;
- (b) direct actions foreseen in 2016-2017, including the mainstreaming of the Open Data pilot across all areas of Horizon 2020; and
- (c) preparations for future actions under the Work Programme 2018-2020.

The Research Infrastructures Programme supports the integration of national research infrastructures at EU level, through the Integrating Activity grants. It also supports the development and interoperability (EU and global level) of pan-European infrastructures, in particular data infrastructures, supporting implementation of ESFRI⁵ projects and other world class research infrastructures.

In the context of the interim evaluation of Horizon 2020, the Commission services are reviewing the use of such measures in Research and Innovation activities, assessing what types of incentives actually work for mobilising the funds. Member States have a key role to play in ensuring that structural funds can be used alongside Horizon 2020 funding, to support the EOSC.

37. The pre-financing of Horizon 2020 projects has been lowered compared to the pre-financing of FP7 projects. How does the Commissioner ensure that this will not cause payment problems in the future?

Commission's answer:

The reduction in prefinancing will have some effect on the level of final payments when projects are completed in 2019-2020. However, the Commission considers that if its MFF review proposals are accepted then there should be no payment shortage.

38. We understand that the European Innovation Council is to fund disruptive innovation through bottom-up calls. How much funding will be made available for these calls? The pilot will run during the H2020 work programme 2018 – 2020. Will the Commissioner be able to specify when the pilot will run and could the Commissioner give some more detailed information about the set-up of the pilot? How will this pilot be evaluated?

Commission's answer:

As announced in the Commission Communication on Europe's next leaders: the start-up and scale-up Initiative, the European Commission will consider creating a European Innovation Council with the aim of fostering breakthrough innovations that can capture and create new markets. The Commission intends to launch a number of preparatory measures in the remaining period of Horizon 2020. These will include:

⁵ European Strategy Forum on Research Infrastructures – <http://www.esfri.eu>

- adopting a fully 'bottom-up' approach – so that innovative projects that cut across sectors/technologies become eligible for support;
- making it easier for start-ups to access financial and technical support;
- and targeting market-creating, breakthrough innovations with scale-up potential.

The total budget associated with the activities proposed to be included in the EIC preparatory phase amounts to about €2.5 billion. Building on this, and based on the results of the mid-term evaluation of Horizon 2020, the European Commission will consider creating a European Innovation Council for future programmes.

39. The European Parliament appreciates the Commission efforts to improve the performance of Horizon 2020. However, we observe decreasing success rate of applications- 13.2% in 2014 and 10.7% in 2015. A very large number of projects received top marks by the independent evaluators but did not get funding. This is a demotivation factor for successful researchers who have invested in developing the project proposal. How do you plan to close this exclusion gap?

Commission's answer:

Horizon 2020 has proved to be very attractive, especially as funding for Research and Innovation at national level is declining. By covering the whole innovation cycle, Horizon 2020 has a larger scope than FP7, while simplification measures make the calls more accessible than ever. Calls in the first work programme have attracted very large number of applicants, including many newcomers. But with finite budgets, this has also led to average success rates that are markedly lower than those we saw under FP7.

It is important to strike the right balance between funding excellent proposals and rewarding of good efforts in preparing such proposals by providing a reasonable chance of success. We continue to fine-tune work programmes, for example by tightening descriptions, to make clear what is covered, and by extending the use of two-stage calls where these can help reduce the burden on unsuccessful applicants. The introduction of a pilot Seal of Excellence scheme under the SME instrument aims to facilitate funding from other source of proposals that have been evaluated and found to be of high quality, but for which there were insufficient funds under Horizon 2020.

In the next work programme, covering the period 2018-2020, the Commission will seek to achieve a better match of supply and demand, by designing topics that are allocated sufficient budget to support portfolios of projects. The aim is to increase the proportion of high quality proposals that can be funded.

Europe is faced with many pressing challenges, but Research and Innovation is an investment for the future. The huge success and the notable oversubscription of Horizon 2020 points towards the need for a substantial budget for the successor programme.

40. Only 38% of successful candidates are new to the programme. How do you plan to encourage newcomers and to open-up to the generation of researchers, innovators and entrepreneurs we want to create in the EU?

Commission's answer:

According to Commission figures (H2020 monitoring report 2015), 49% of participants in grants signed following calls for proposals in Horizon 2020 from 2014 and 2015 were newcomers. The number of participations from newcomers in the EU-13 was considerably higher than those from EU-15. This is a considerable advance on FP7.

41. 6 EU member states get 70% of the H2020 funding. H2020 is a market-oriented funding instrument. However, if a number of countries underperforms, significant efforts should be invested for improving the outcomes. More success in Eastern Europe is needed to improve the image of EU investment there and to accelerate the economies. How do you intend to achieve this?

Commission's answer:

The Commission is aware of the challenge of addressing the issue of widening participation. This was highlighted at the recent conference 'Spreading Excellence and Crossing the Innovation Divide' organised under the Slovak Presidency with the participation of Commissioner Moedas. Horizon 2020 provides specific support for Member States with lower performance in research and innovation (R&I) through the activity 'Spreading Excellence and Widening Participation', to help them strengthen performance and increase participation in EU R&I funding programmes.

Its actions, with a budget of more than EUR 800 million, are: 'Teaming', supporting the development of centres of excellence via partnerships with institutions of R&I excellence; 'Twinning', to build on the potential of institutional networking; and 'ERA Chairs', to bring excellent researchers to institutions with high potential.

Recently, through the Teaming measure, support for 10 new Centres of Excellence has been announced, with up to EUR 15 million of Horizon 2020 support for each. Furthermore, support is provided to connect unexploited pockets of excellence throughout the EU, through the networking activities of the European Cooperation in Science and Technology programme (COST)

The Horizon 2020 Policy Support Facility gives EU Member State governments support to identify, implement and evaluate the reforms needed to enhance the quality of national R&I systems. The European Structural and Investment Funds (ESIF) provide support for capacity-building in innovation, in particular to the less developed EU regions (see reply to question 46).

It is expected that these actions will significantly address underperformance and improve success rates of these countries in Horizon 2020.

42. National contact points serve as the technical assistance network of Horizon 2020. However, in a number of Member States, when it comes to on-the-ground activity, NCPs fail to be proactive and underperform. Do you intend to introduce performance

assessment for the NCP network? Do you plan to upgrade the NCPs to technical assistance platforms?

Commission's answer:

The Commission has extensive training and help-desk facilities to support National Contact Points in their work. Simplification of procedures under Horizon 2020 should also bring benefits to the work of the NCPs.

43. There are several possibilities for synergy between Horizon 2020 and European Structural and Investment Funds (ESIF). However, further instructions on how to implement such synergies are needed in the Member States. Do you foresee any kind of training for NCs, National administration and others?

Commission's answer:

The framework for synergies is now in place in the regulatory documents of Horizon 2020 and ESIF: the respective regulations of both H2020 and ESIF already provide for the harmonisation of some rules and procedures. The challenge is to implement synergies on the ground in the Member States. For this purpose, the Commission (DG RTD jointly with DG REGIO) has taken a number of actions. For example, guidance on the development of synergies to the relevant authorities was adopted in 2014. In 2016, a publication showcased examples of synergies at strategic, programming and project implementation levels coming mostly from the previous programming period (2007-2013) and also highlighting initiatives with a high potential for synergies during the current programming period (2014-2020).

The Commission has communicated and provided information on the synergy policy at a high number of inter-institutional meetings as well as in other events, conferences and workshops. DG RTD has delivered training on synergies to various external audiences, such as Horizon 2020 National Contact Points, and to the staff of the Commission and Executive Agencies.

Additionally, the Commission provided via the European Parliament -sponsored Stairway to Excellence (S2E) initiative in 2015 and 2016 assistance to EU Member States and regions with the aim of closing the innovation gap, improve the innovation eco-systems and necessary reforms therein, and promoting R&I excellence across Europe.

This initiative provides for all EU-13 countries national events, analysis and discussions with peer-from other EU countries and EU initiatives (such as the "Seal of Excellence", EIT-KICs) to facilitate mutual learning also on how best to generate synergies between ESI Funds and H2020. The main issues addressed were :

- quality of R&I governance and the entrepreneurial discovery process for identifying and implementing smart specialisation priorities
- capacity building and accessing international networks
- how to get from research to commercialisation

DG RTD and DG REGIO have commissioned studies to provide evidence on the development of synergies between funds. These studies will be completed in 2017.

Based on the outcomes of these studies, the Commission will consider appropriate measures for policy action.

The importance of synergies will be addressed in a Commission Communication on smart specialisation strategies and synergies to be adopted in the first semester of 2017.

The S2E initiative will in 2017 continue providing support to Member States and regions. In line with the new mandate from the European Parliament - the geographical scope will be extended also to the EU15. Finally, in line with the thematic orientation adopted in the context of the launching of the new Thematic Smart Specialization Platforms, the S2E will reinforce thematic support to enhance regional investments under S3 priorities and the opportunities offered by Horizon 2020 and other R&I funding programmes.

44. After the first 100 calls of Horizon 2020, the first stage attracted 81% of the applications, the second 16% and the third 3%. However, we don't know how much of the applicants benefited from more than one stage. Since the product development and commercialization would lead to net profits for the business, would it be possible a strong policy to be established for the potential beneficiaries to apply consequently for more than one stage?

Commission's answer:

The Commission does not recognise these figures and would be grateful for clarification of the information requested.

45. Have you already set up performance indicators for the European Innovation Council? What are the expected outcomes?

Commission's answer:

The preparatory phase for an EIC in the work programmes 2018-2020 of Horizon 2020 will involve a close monitoring of the progress and results. This will be based on the results reported by the projects themselves (e.g. number of spin-off companies, product launches) and gathered by tapping into other sources of information where available, such as on company growth data, private finance attracted, experts' assessments of the innovations by an Innovation Radar.

A possible EIC will be considered as part of the Commission proposal for the next Framework Programme which is due in 2018. Performance indicators will be part of that proposal.

46. EU trends show that most Member States have put R&D investments high on the policy agenda for combating the effects of the crisis. However, due to the economic crisis, Romania, Bulgaria, Croatia and Hungary have significantly reduced funding for public R&D. How has the Commission assisted Member States whose research spending show a downward trend in order to balance this decreasing in national programs for R&D?

Commission's answer:

Romania, Bulgaria, Croatia and Hungary have indeed reduced their level of public spending on R&D since 2009, when it was already significantly under the EU average. More positive trends in Research and Innovation in the private sector have however counter-balanced this effect over the period. It can also be noted that Portugal, Slovenia and the UK also reduced their public research expenditure, but from a significantly higher level.

EU programmes, both Horizon 2020 and the European Structural and Investment Funds (ESIF) are important sources of funding for research and innovation. It should be stressed, however, that these programmes are designed to maximise European added value and therefore to complement national funding for research and innovation and not compensate for a lack of national funding.

In addition, to support Member States in improving the design, implementation and evaluation of R & I policies, the Commission has set up the Horizon 2020 Policy Support Facility (PSF, see <https://rio.jrc.ec.europa.eu/en/policy-support-facility>). The PSF complements the European Semester process as it offers best practice, independent high-level expertise and guidance to improve R&I policies, at the request of Member States and Associated Countries.

Since the PSF was launched, Bulgaria, Hungary, Romania and Croatia have made use of its services to strengthen their R&I systems.

The Bulgarian authorities requested an evaluation of their R&I system using the Horizon 2020 Policy Support Facility (PSF). A PSF panel of high-level experts published in October 2015 a report with Policy Messages, supported by operational recommendations (<https://rio.jrc.ec.europa.eu/en/policy-support-facility/peer-review-bulgarian-research-and-innovation-system>). As a follow-up, a specific support activity on the topic of performance-based institutional funding was also launched in 2016. The Bulgarian authorities also participated in a Mutual Learning Exercise (MLE) on the Evaluation of complex public private partnerships.

A Peer Review of Hungary's R&I system, notably focusing on structural reforms to public funding, research careers and on public private knowledge transfer, was concluded in September 2016 (<https://rio.jrc.ec.europa.eu/en/policy-support-facility/peer-review-hungarian-ri-system>). The Hungarian authorities also participated in MLEs on the evaluation of complex public private partnerships and the evaluation of business R&D grant schemes.

For Romania, a specific support activity was launched in 2016 to assess the entrepreneurship ecosystem. The objective is to provide a set of concrete recommendations on how to implement a reform for stimulating innovative entrepreneurship and for creating an environment conducive for growth of technological start-ups. The Romanian authorities also participated in the MLE on the evaluation of business R&D grant schemes and on alignment and interoperability of research programmes.

Croatia participated in a MLE on the administration and monitoring of Research and Innovation tax incentives.

47. The report on first results on Horizon 2020 shows significant variance on the success rates of eligible applications per Member States. Has the Commission assessed the causes of these differences, in particular in the Member States with the lowest success rates?

Commission's answer:

See question 41.

48. According to the 2015 Activity Report of the European Research Council Executive Agency (ERCEA) 115631 Grant Agreements from the Horizon 2020 calls were signed throughout the year, totalling to € 1, 8 billion. Could you provide the number of signed agreements and the respective financing per Member State?

Commission's answer:

The ERCEA 2015 Annual Activity Report states that the agency signed 1156 frontier research grants in 2015. The country breakdown for number of grants and respective financing is displayed in the following table.

			STG	COG	POC	ADG	Total Grants	Financing amount in €
AT	Austria	2015	14	7	1	3	25	40,416,919
BE	Belgium		13	12	4	4	33	52,197,087
CH	Switzerland		6		8	22	36	61,819,788
CY	Cyprus			1	1		2	1,988,628
CZ	Czech Republic		1	3		1	5	10,288,102
DE	Germany		77	68	18	30	193	319,786,024
DK	Denmark		14	9	2	6	31	53,218,459
EE	Estonia			1			1	1,999,289
EL	Greece			1	2		3	2,294,588
ES	Spain		25	30	16	13	84	126,450,116
FI	Finland		8	4	2	2	16	25,587,793
FR	France		58	53	11	23	145	240,251,021
HR	Croatia			1			1	2,150,000
HU	Hungary		2	4			6	10,202,760
IE	Ireland		11	7	3	1	22	32,337,315
IL	Israel		35	12	17	4	68	87,127,669
IS	Iceland			1	1		2	2,149,188
IT	Italy		22	19	10	11	62	83,554,258
LU	Luxembourg			1			1	1,929,976
NL	Netherlands		52	32	16	17	117	183,506,385

NO	Norway		6	4	1	3	14	25,145,040
PL	Poland				1		1	150
PT	Portugal		6	9		2	17	31,343,553
RO	Romania		1	1			2	2,109,375
RS	Serbia		1				1	1,714,880
SE	Sweden		10	9	7	3	29	40,699,995
TR	Turkey		2		2		4	1,797,160
UK	United Kingdom		78	82	28	47	235	381,741,866
		2015	442	371	151	192	1156	1,823,957,232

49. In the public consultation on the evaluation of FP7, some stakeholders and funding beneficiaries stated that they were still experiencing problems relating to implementation under H2020, for example in relation to the time to grant rule and the lack of certainty over the audit strategy. What action has the Commission taken to resolve these issues for beneficiaries relating to the transition to H2020?

Commission's answer:

Please see the reply to Question 10.

95% of grants are signed within the limit of 245 days set in the Regulation, and this is a significant reduction from FP7.

There is a single audit service for all Horizon 2020 expenditure, which will ensure a consistency of approach to beneficiaries and avoid over-auditing. In addition the Commission has committed itself to limit audits to 7% of the number of participants, thus limiting the overall administrative burden on participants.

50. How would you explain the drop in the success rate of universities bidding for Horizon 2020 funding and what solutions did you propose?

Commission's answer:

Please see question 32.

51. How do you plan to close the gap between the older Member States – the so-called EU15, who regularly top the EU's innovation scoreboard – and the newer EU13 Member States?

Commission's answer:

Actions to address the challenge of closing the innovation gap are described in the reply to question 41.

52. What are the largest ongoing Horizon 2020 projects in terms of the funded amounts and which are the enterprises or stakeholders running the projects?

Commission's answer:

Please see the annex, which sets out the 20 biggest projects funded and their coordinator.

53. How the flat rate for staff costs does differ for EIT from the past FP7 transition to Horizon 2020, and what are the objectives that the enterprises beneficiaries have to fulfil?

Commission's answer:

Flat-rate for staff costs

Flat rate reimbursement of staff costs by the EIT under Horizon 2020 is in line with the standard Horizon 2020 model grant agreement, and affects only personnel costs for SME owners or other natural persons not receiving a salary. There is no change to these rules from FP7.

In practice, the EIT's beneficiaries, the Knowledge and Innovation Communities (KICs), very rarely use this simplified cost option. Less than 1% of the staff costs reported by KICs fall into this category, i.e. the vast majority of costs are reported and reimbursed on an actual basis.

Flat-rate for indirect costs

The European Court of Auditors qualified its opinion on the EIT's 2015 accounts on the basis that all the transactions underlying the annual accounts are legal and regular 'in all material respects', except for one specific issue relating to the use of indirect cost rates for universities, research organisations and SMEs in 2014. The ECA is of the opinion that EIT was not allowed to reimburse indirect costs of these organisations based on a 40% flat rate, as was the rule and practice from 2010 to 2013, but should have used a 25% flat rate starting from 2014, as established in the new rules for Horizon 2020 approved in December 2013.

The EIT disagrees with the Court's interpretation of the applicable legal basis and does not accept that the EIT made irregular payments to KICs. The EIT launched the 2014 grant allocation process in spring 2013, when the new rules were not yet known. The Horizon 2020 legal basis explicitly provides for transitional measures, which were, in the interpretation of the EIT and the European Commission, fully applicable to the EIT from 1 January 2014, since the EIT is an integral part of Horizon 2020. Consequently, in the opinion of the EIT, payments based on a 40% flat rate to reimburse the indirect costs of universities, research organisations and SMEs were legal and regular in 2014.. The European Commission supports the approach taken by the EIT and the Commission has recently re-confirmed the lawfulness of the approach.

This is a one-off issue, from 2015 the reimbursement rules for grants will be aligned with Horizon 2020 rules.

Objectives of KICs and KIC Partners

KICs are autonomous partnership of higher education institutions, research organisations, companies and other stakeholders in the form of strategic networks, set up to meet the EIT challenges and contribute to attaining the objectives established under Regulation (EU) No 1291/2013 of the European Parliament and of the Council (Horizon 2020 Regulation). The EIT' General Objectives, Specific Objectives and result indicators for the period from 2014 to 2020 are defined in Horizon 2020 Regulation and in the EIT's Strategic Innovation Agenda (Decision 1312/2013/EU of the European Parliament and of the Council).

The long-term strategic objectives of the KICs are set out in their Strategic Agendas that are annexed to the seven-year EIT-KIC Framework Partnership Agreements. KICs implement their long-term Strategic Agendas through annual business plans with the support of the EIT financial contribution. In line with the EIT Regulation, "KICs shall have substantial overall autonomy to define their ... precise agenda and working methods" and "KICs shall establish business plans with objectives and key performance indicators". Therefore, as regards annual grants awarded to the KICs, detailed operational objectives, deliverables, indicators and expected results to be achieved by the KICs are established by the KICs in their annual business plans. A summary of each KIC's objectives for 2017 can be found in the EIT Single Programming Document 2017-2019 (pages 103-107):

https://eit.europa.eu/sites/default/files/gb_decision_30_final_single_programming_document_2017-2019.pdf.

As far as individual KIC Partners, as final beneficiaries of the EIT-KIC grants, are concerned, their operational objectives depend on the activities in which they participate. KICs carry out several KIC added-value activities every year, contributing to the integration of the knowledge triangle of higher education, research and innovation, and contributing to the overall objectives of the EIT. Since not all KIC Partners participate in every activity, the operational objectives, deliverables and results expected from those entities are different.

54. Est-ce que vous pouvez nous fournir une liste avec toutes les entreprises cotées en bourse et qui ont des bénéfices dans leurs bilans de fin d'année et qui reçoivent des fonds de l'Horizon 2020, repris par nationalité ?

Commission's answer:

The Commission does not possess the information requested.

Potential conflict of interest, anti-fraud strategy and OLAF

55. Given the extensive number of grant agreements managed by the agency according to the report there are only 2 cases which are subject of in-depth monitoring controls for irregularities and fraud, 4 under OLAF investigation and a last one being assessed by OLAF. These are relatively small numbers in comparison to other EU programmes. Do you consider that the current system for prevention of irregularities and combating fraud is efficient enough?

Commission's answer:

The relatively small numbers of cases reported under "fraud and irregularities" can be explained by the following:

Lower risk profile of ERC beneficiaries - ERC grant schemes are special in relation to the profile of the beneficiaries (Host institution) who are predominantly mono-beneficiary, large and renowned public entities with expected lower fraud risk in comparison with multi-partner projects (e.g. SMEs) and few entities with no track record in previous Framework Programmes (e.g. newcomer applicants). A single HI/PI (host institution / Principal investigators) type of project also facilitates project monitoring and thereby decreases the risk of fraud.

Lower risk profile of the ERC grant scheme – Moreover, in comparison to many other EU research funding schemes, most of which having a co-financing requirement, the ERC grant schemes provide funding to researchers offering 100% reimbursement of direct eligible costs together with a flat rate for indirect costs (of the total all direct eligible costs, excluding subcontracting and resources made available by third parties not used on the premises of the beneficiaries, as well as financial support to third parties), the latter reducing the opportunity to commit errors and fraud.

ERC lower ex post control error rate - Inherently lower exposure to fraud risk for the ERC grant schemes is confirmed by the constant low ex post control error rate of ERC grants. In 2015 the cumulative detected error rate resulting from the 2009 to 2015 ex-post audit activity related to FP7 payments clearly indicates that the ERC error rate (1.50%) is below the materiality threshold of 2%.

The relatively small number of cases reported under "fraud and irregularities" does not mean that the system in place to prevent such "fraud and irregularities" is not effective. In addition to potential fraud cases, the agency also analyses numerous cases with the "ERC Procedure to deal with information on scientific misconduct" which involves the ERC Scientific Council Standing Committee on Conflict of Interest, Scientific Misconduct and Ethical Issues (CoIME).

56. In 2015, DG RTD referred 13 cases to OLAF and 20 cases were initiated by OLAF on the basis of information received from other sources. What is the state of play regarding these cases? How many investigations are closed and how many are still ongoing? Did DG RTD take any steps to follow them up?

Commission's answer:

In 2015, DG RTD transmitted 13 cases of suspicion of irregularities to OLAF concerning research beneficiaries. According to the information available in DG RTD, 8 cases were dismissed by OLAF; for 5 cases OLAF decided to open an investigation, which are still ongoing. In addition to these 13 cases, OLAF opened 20 cases relevant to DG RTD on the basis of information received from other sources. Out of these 20 cases, OLAF dismissed (or closed without follow-up) 11 cases. For 9 cases, OLAF decided to open an investigation, 6 investigations are still ongoing, OLAF recently completed 2 investigations with a recommendation for DG RTD to take the appropriate measures to ensure the recovery of the undue funds from the beneficiaries concerned. The

recovery procedures will be launched shortly. In 1 case, OLAF issued a financial recommendation to DG CNECT.

57. What is your policy regarding the whistle-blowers? Do you work with them?

Commission's answer:

There are no specific rules for the DG RTD. Therefore, the rules of the staff regulations – common to the whole Commission - and their Implementing Rules apply. Please see question 61.

58. Do you have practical guide on management and prevention of conflict of interest for your staff?

Commission's answer:

Rules and guidance on ethics and on the avoidance of conflict of interest are available on the Commission internet:

https://myintracomm.ec.europa.eu/hr_admin/en/ethics/obligations/Documents/Rapport_ethics_EN_web.pdf and

https://myintracomm.ec.europa.eu/hr_admin/en/ethics/obligations/conflicts_interest/Pages/conflicts_interest.aspx

https://myintracomm.ec.europa.eu/hr_admin/en/ethics/obligations/Pages/index.aspx

DG RTD provides links to the relevant pages of the Commission intranet from its own intranet. The RTD ethics correspondent is available to advise staff and management with regard to conflict of interest situations.

59. Did you undertake in 2015 any steps for the establishment of severe and clear rules against “revolving doors”?

Commission's answer:

The issue of staff leaving the EU public service to take up positions in the private sector, or staff joining the EU public service from the private sector, is often referred to as the 'revolving doors' phenomenon. The EU Staff Regulations (SRs) and Conditions of Employment of Other Servants of the EU (CEOS), oblige EU staff to carry out their duties and conduct themselves solely with the interests of the Union in mind.

When assessing the possible risks linked to the 'revolving doors' phenomenon, the Commission's approach, takes account of several key principles namely, transparency and accountability, the rule of law, the right to work, the right to protection of personal data and finally, the principle of proportionality.

Following the 2014 revision of the Staff Regulations, the Commission, started implementing new provisions which reinforced the possibility to monitor staff and

their relations with the private sector. At various stages in an official's career the Commission checks whether personal interests might impair his or her independence, specifically during the recruitment procedure and after an official's return from leave on personal grounds.

Additional restrictions have been introduced as regards former staff. They include prohibiting senior managers from engaging in lobbying or advocacy activities when this is associated with their former occupation. This prohibition is applicable for one year and the provision was systematically implemented in 2015. Also, 2015 was the first year covered by the annual public implementation of such prohibition. The Commission was the first institution to release its report.

60. Had you introduced internal whistleblowing rules? How many whistle-blower cases did the institution had in 2015?

Commission's answer:

The Commission's policy vis-à-vis whistleblowers is based on the rules set out in the Staff Regulations since 2004, and on the guidelines issued to staff members in 2012, together with a list of Frequently Asked Questions on the subject. The objective of the policy is to provide a clear system in which the staff can have confidence.

The Guidelines explain to staff when and how to blow the whistle, where to seek guidance in case of doubt, and they highlight the protection offered to whistleblowers who acted in good faith.

The protection includes measures to safeguard the confidentiality of the identity of the whistleblower and to protect the whistleblower against any form of retaliation, including a reversal of the burden of proof: it shall be up to the person taking any adverse measure against a whistleblower to establish that the measure was motivated by reasons other than the reporting.

At the end of 2015, pursuant to the Guidelines' review clause, the Commission conducted an assessment of their effectiveness. The assessment, finalised in 2016, concluded that while there is no need to change the content of the Guidelines, it is recommended to increase staff awareness of the whistleblowing rules and guidelines, in particular managers', who play a pivotal role in the reporting system. Raising awareness of relevant rules and guidelines amongst staff is a must, as every case involving serious irregularities that goes unreported and undetected is one too many.

According to OLAF statistics, there were five whistleblowing reports received from Commission staff in 2015, which corresponds to a slight increase compared to 2014. The reported number is consistent with the experience of other international organisations. It is worth noting that most cases of serious irregularities are discovered and reported in the normal line of work, without explicit reference to the whistleblowing rules. The guidelines are effective when they encourage staff to make use of the whistleblowing rules in appropriate cases, and also have the role of acting as a 'filter', by clearly explaining when the whistleblowing procedure should not be used.

61. How did you co-operate with OLAF and ECA in the spheres of prevention, investigation or corrective measures?

Commission's answer:

DG RTD cooperates with OLAF in the spheres of prevention, investigation or corrective measures at different levels. As far as general anti-fraud matters are concerned, DG RTD actively participates in the meetings of the Fraud Prevention and Detection Network (FPDNet) chaired by OLAF which is the forum of the Commission and the Agencies to exchange information and best practices on various anti-fraud issues.

The relations between DG RTD and OLAF for external OLAF investigations are managed by the Common Audit Service. This unit closely monitors all the individual OLAF cases and ensures the coordination with OLAF and the different services of the Research family managing grants with the beneficiaries concerned. The collaboration is based on the provisions of the 'Administrative Arrangements on co-operation and timely exchange of Information between the Commission and OLAF', which was signed on 29 January 2015. In this context, the Common Audit Service holds regularly meetings with the OLAF investigators on individual cases and annual meetings with its counterparts from OLAF to examine the state of play of ongoing cases.

The European Court of Auditors passes any suspicion of fraud to OLAF. RTD services are regularly in touch with staff of the Court, either in the examination of individual cases or more generally on issues of risks in the control system.

Where OLAF receives initial information from the ECA arising from an audit or visit to an entity in connection with research projects, OLAF liaises with both ECA and the Research DG or Agency. OLAF does this to receive further information from the ECA and also from the Research DG or Agency concerning the project(s) under investigation, beneficiaries involved and EU money paid to the coordinator or entities under investigation. This procedure is followed in cases received from the ECA involving projects managed by both DG RTD and other DGs and Agencies within the Research family.

Appropriate preventative or corrective measures are taken, following conclusions of the OLAF investigation in accordance with OLAF's administrative and financial recommendations. These may include financial recovery or administrative measures, including on the basis of recommendations of the EDES panel.

62. Were there any cases reported, investigated and concluded in 2015?

Commission's answer:

For the potential irregularities and fraud cases relevant to DG RTD that were reported to OLAF and investigated in 2015, reference is made to the Commission's answer to question 56.

As far as the cases relevant to DG RTD are concerned that were concluded in 2015 (including some originating from previous years), the situation is as follows: According to the information available in DG RTD, OLAF dismissed (or closed without making any recommendation) 22 cases. In addition, OLAF closed 6 investigations with

recommendations for administrative, financial and/or judicial follow-up. In this context, DG RTD launched recovery procedures to 5 beneficiaries, which are still ongoing. In June 2016, one beneficiary was excluded from future grant award procedures for a duration of 3 years.

BREXIT

63. Does the Commission have at this stage of the Brexit process already made the necessary assessment of the possible impact of UK withdrawal in the area of H2020 at all levels (without prejudicing the commencement of negotiations under Article 50)?

Commission's answer:

It is too early to consider the future impact of Brexit on R&I policy and funding. This will be addressed in due course in the context of negotiations that can only start after a notification from the UK to leave the Union has been made.

Annex – see question 52

Top 20 signed projects in terms of the funded amount for H2020

- The list of projects and their requested EC contribution

Project Acronym	Project Title	Project Free Keywords	Topic Unique Programme Part Description	Total Requested EC Contribution	Coordinator Legal Name and Country
EUROfusion	Implementation of activities described in the Roadmap to Fusion during Horizon 2020 through a Joint programme of the members of the EUROfusion consortium	Nuclear Fusion	Euratom Research and Training Programme 2014-2018	424.800.000	MAX-PLANCK-GESELLSCHAFT ZUR FORDERUNG DER WISSENSCHAFTEN EV Germany
H2020	COST at a turning point: A unique framework for pan-European ST cooperation as clear demonstration of European values	networking, research and innovation, science and technology, knowledge sharing, interdisciplinary, openness, inclusiveness, bottom-up, pan-European cooperation, output-oriented	Supporting access to international networks for excellent researchers and innovators who lack sufficient involvement in European and international networks	89.619.171	COST ASSOCIATION Belgium
GrapheneCore1	Graphene-based disruptive technologies	Graphene, layered materials, innovation	Future and Emerging Technologies (FET)	89.000.000	CHALMERS TEKNISKA HOEGSKOLA AB Sweden
HBP SGA1	Human Brain Project Specific Grant Agreement 1	mouse brain, human brain, transcriptome, simulation, reconstruction, neuroinformatics, biological signatures of disease, high performance computing, neuromorphic computing, neurorobotics	Future and Emerging Technologies (FET)	89.000.000	ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE Switzerland
GN4-2	GN4-2 Research and Education Networking - GÉANT	Networks, research networking, multi-domain networking, communication networks, secure, trust, innovation, media, information society, computer sciences, e-infrastructure, communication commons	Research Infrastructures	59.000.000	GEANT LIMITED United Kingdom
HBM4EU	European Human Biomonitoring Initiative	Human biomonitoring, exposure biomarkers, effect biomarkers, Endocrine disruptors, cohorts, health surveys, chemical mixtures,	Health, demographic change and wellbeing	49.933.776	UMWELTBUNDESAMT Germany

		reference values, HBM values, emerging chemicals, policy translation			
PROMOTION	PROMOTioN - Progress on Meshed HVDC Offshore Transmission Networks	HVDC, offshore, wind power, North sea, transmission systems, circuit breakers, protection systems, diode rectifier converter, meshed HVDC grid, grid regulation, financing of infrastructure	Secure, clean and efficient energy	39.327.744	DNV GL NETHERLANDS B.V. Netherlands
H2ME 2	Hydrogen Mobility Europe 2	New fuel cell vehicle solutions, high utilization, grid balancing, energy storage	Smart, green and integrated transport	34.999.549	ELEMENT ENERGY LIMITED United Kingdom
PACE	Pathway to a Competitive European FC mCHP market	commercialisation, demonstration, fuel cell micro-CHP, fuel cell mCHP, large-scaledeployment, combined heat and power, supply chain, support networks	Secure, clean and efficient energy	33.932.753	THE EUROPEAN ASSOCIATION FOR THE PROMOTION OF COGENERATION VZW Belgium
SeNaTe	Seven Nanometer Technology	Semiconductor process, equipment and materials	Information and Communication Technologies	32.251.417	ASML NETHERLANDS B.V. Netherlands

Project Acronym	Project Title	Project Free Keywords	Topic Unique Programme Part Description	Total Requested EC Contribution	Coordinator Legal Name and Country
H2ME	Hydrogen Mobility Europe	HRS, FCEVs, H2 station network, commercialisation, hydrogen technologies roll-out, early adopters, consumer behaviour, TCO, LCA, Next generation	Smart, green and integrated transport	32.000.000	ELEMENT ENERGY LIMITED United Kingdom
IoF2020	Internet of Food and Farm 2020	Internet of Things, IoT, Agri-Food, smart farming, smart farming, precision farming, food security, business innovation, large scale pilot, food chain, IoT business integration, data-driven farming	Information and Communication Technologies	29.999.528	STICHTING WAGENINGEN RESEARCH Netherlands
TAKE5	Technology Advances and Key Enablers for 5 nm	Semiconductor process, equipment and materials	Information and Communication Technologies	28.364.031	ASML NETHERLANDS B.V. Netherlands
SmartEnCity	Towards Smart Zero CO2 Cities across Europe		Secure, clean and efficient energy	27.890.139	FUNDACION TECNALIA RESEARCH & INNOVATION Spain
EU-ToxRisk	An Integrated European 'Flagship' Program Driving	Systems toxicology, molecular mechanisms, AOPs, cheminformatics, biokinetics, computational modelling, repeated dose	Health, demographic change and wellbeing	27.798.299	UNIVERSITEIT LEIDEN Netherlands

	Mechanism-based Toxicity Testing and Risk Assessment for the 21st Century	toxicity, developmental and reproduction toxicity, risk assessment			
EXILVA	Flagship demonstration of an integrated plant towards large scale supply and market assessment of MFC		Food security, sustainable agriculture and forestry, marine and inland water research and the bioeconomy	27.433.611	BORREGAARD AS Norway
WAYTOGO FAST	Which Architecture Yields Two Other Generations Of Fully depleted Advanced Substrate and Technologies	Digital CMOS technology, 14nm node, FDSOI, advanced SOI substrate, strain SOI substrate	Information and Communication Technologies	25.796.579	STMICROELECTRONICS CROLLES 2 SAS France
Triangulum	Triangulum: The Three Point Project / Demonstrate. Disseminate. Replicate.	Triangulum, zero/low energy districts, transitions, smart city, Demonstrate, Disseminate, Replicate, Morgenstadt, citizen integration, co-creation, integrated infrastructures, SIP	Secure, clean and efficient energy	25.420.602	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V. Germany
ERA4CS	European Research Area for Climate Services	climate services; stakeholder involvement; co-development for user needs; institutional integration; co-alignment of national activities	Climate action, environment, resource efficiency and raw materials	25.000.000	AGENCE NATIONALE DE LA RECHERCHE France
GN4-1	GN4-1 Research and Education Networking - GÉANT	Networks, research networking, multi-domain networking, communication networks, secure, trust, innovation, media, information society, computer sciences, e-infrastructure, communication commons	Research Infrastructures	25.000.000	GEANT LIMITED United Kingdom