



2017

Annual Activity Report

**European
Research Council
Executive Agency**

**Figures related to the financial statements are based on provisional accounts,
as final accounts are to be adopted by July 31st, 2018.**



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THE ERC AND ITS AGENCY IN BRIEF

The European Research Council¹, created under the previous Framework Programme (FP7)² and extended by the current Horizon 2020 (H2020) Framework Programme³, has widely gained recognition as a key actor in research and innovation. It is acknowledged worldwide as a label of excellence, a European success story. Researchers and the public at large increasingly value its brand recognising the tangible impact of the projects it funds.

The ERC frontier research funding benefits the scientific community in Europe by providing top researchers in Europe with the means to conduct their research independently and by offering them attractive perspectives for a career in science. Such EU-funded research responds to the needs of improving the attractiveness of Europe for the best researchers worldwide and strengthening the EU's capacity to generate new knowledge that feeds back into the economy and the society. By supporting the best research and making Europe a magnet for world-class talent, the ERC backs the EU's job creation, as well as long-term growth and investment, thereby also encouraging the establishment of new research teams in Europe and supporting young talent.

While implementing a bottom-up funding approach and focusing on excellence, the ERC contributes to the European Commission's political priorities in other fields, pushing knowledge forward in a variety of areas: transport, energy and climate, financial markets, international cooperation, migration, fundamental rights, digital agenda, etc. Both the "Ideas" and H2020 objectives are fully in line with the aims of the Europe 2020 strategy designed to deliver smart, sustainable and inclusive growth through the strengthening of every link in the innovation chain, from 'blue sky' research to commercialization.

The ERC's reputation within the scientific community across Europe and worldwide is echoed by its high media coverage⁴ and its highly visible presence at numerous international scientific conferences, such as the annual meeting of the American Association for the Advancement of Science in Boston, USA, and the South African Science Forum in Pretoria as well as both the Davos Summit (Switzerland) and the Summer Davos in Dalian, China, thus bringing science into the debate with political and business leaders from around the world.

In H2020 the ERC continues to pursue the by now world-wide recognised path of funding ambitious research proposals and pioneering ideas that lead to new and emerging fields of science and introduce unconventional and innovative approaches. Thereby it contributes to "Generating excellent science", one of the three priorities of this Framework Programme. Its mission remains to encourage the highest quality research in Europe through competitive funding and to support investigator-driven frontier research across all fields of research, on the basis of scientific excellence. A total budget of € 13.1 billion is available under Horizon 2020 for the implementation of the ERC funding schemes.

Furthermore, the ERC Scientific Council, representing collectively the European scientific community, benefits from a high degree of autonomy, setting the ERC scientific strategy and having full authority on the type of research to be funded. It is continuously committed to maintaining the high quality of the evaluation system, in particular by selecting independent experts to be appointed for the evaluation of frontier research

¹ The ERC under H2020, established by Commission Decision C(2013)8915 replaces and succeeds the ERC established under FP7 by Commission Decision 2007/134/EC.

² Respectively for the Ideas, Council Decision 2006/972/EC, of 19 December 2006, OJ L54, 22.2.2008, and for H2020 Council Decision 2013/743/EU of 3 December 2013, OJ L347, 20.12.2013.

³ The Research and Innovation 2014-2020 framework programme.

⁴ Covering the ERC website (with more than 587 000 unique visitors in 2017), social media channels (Twitter, Facebook and LinkedIn), printed publications. As a result of the overall press activities, the ERC was mentioned in more than 18 900 articles reaching a potential audience of 184 million people. Growing each year ERC Facebook page likes today add to more than 18 700 followers, almost 28% more than in 2016. ERC Twitter account followers increased even more in 2017 and their number is just below 40 000 (39.5% growth compared to 2016).

proposals and applies a set of specific rules for their submission and evaluation. Finally, the Scientific Council monitors the scientific management and quality performance of the programmes' implementation.

The H2020 legal framework revised the governance of the Scientific Council by setting the number of its members to 21, including three Vice Presidents plus the President, all being eminent scientists, engineers and scholars. The current President, Professor Jean-Pierre Bourguignon⁵, ensures the leadership of the Scientific Council, represents the latter in the world of science and liaises with the ERCEA. In turn, the ERCEA executes the scientific strategy established by the ERC Scientific Council and ensures the implementation of ERC grants.

The ERC is organised along a two-tier structure, composed of an independent Scientific Council and a dedicated implementation structure, the European Research Council Executive Agency (ERCEA), which handles autonomously the operational management of both the "Ideas" and Horizon 2020 programmes⁶.

The European Research Council Executive Agency (ERCEA), contributes to help the Commission to achieve its general objective "*A new boost for Jobs, Growth and Investment*" as well as helps its parent DG, DG Research and Innovation (DG RTD), to achieve its specific objective related to the implementation of H2020⁷. By giving opportunities to non-EU researchers supported by foreign agencies to visit ERC research teams⁸, or by fostering broadening participation outside-ERA6, the ERCEA also contributes to the *open to the world* priority of DG RTD.

The ERCEA operates on the basis of the powers delegated to it by the European Commission, which has the ultimate political responsibility for the specific programme implementing the framework programme Horizon 2020. The Steering Committee of the ERCEA is the body that supervises the operations of the Agency. Among others, it adopts the annual Work Programme of the Agency, its Annual Activity Report as well as decisions related to the Staff Regulations, organisational structure, administrative budget and annual accounts. The Steering Committee meets four times a year and is composed of five members appointed by the European Commission for a (renewable) period of two years.

The organisational structure of the Agency follows its operational and horizontal objectives. It consists of two operational departments (the Scientific Management Department and the Grant Management Department) and one Resources and Support Department. The Accounting Officer, the Communication Unit and the Support to the Scientific Council Unit report directly to the Director. In 2017, no organisational change occurred.

Through the management of ERC funding instruments, all the way from launching the calls for proposals to final payments and closure of projects, the ERCEA finances investigator-driven research of the highest quality and favours innovative ideas and inter-disciplinary research along with its mission statement: "*The European Research Council Executive Agency is dedicated to selecting and funding the excellent ideas that have not happened yet and the scientists that are dreaming them up*" and its core values "Commitment, Continuous Improvement and Integrity".

⁵ Appointed on December 17th, 2013. The term of office of the ERC President has been extended for a period of 2 years, starting on January 1st, 2018 (C(2017)5876, 31/08/2017).

⁶ Commission Decision 2013/779/EU establishing the European Research Council and the European Research Council Executive Agency. The latter succeeds the Executive Agency established by Decision 2008/37/EU.

⁷ Namely specific objective 1.3 of DG RTD Strategic Plan 2016-2020: *To ensure an effective and efficient implementation of Horizon 2020 and other RTD programmes and maximise synergies.*

⁸ Cf. implementing arrangements with key funded bodies and science ministries of the United States, Korea, Argentina, Japan, China, South Africa and Mexico. More information on that under the "ERC teams open to the world section" : <https://erc.europa.eu/funding-and-grants/funding-schemes/other-erc-opportunities>.

EXECUTIVE SUMMARY

The Annual Activity Report is a management report of the ERCEA Director to the College of Commissioners. Annual Activity Reports are the main instrument of management accountability within the Commission and constitute the basis on which the College takes political responsibility for the decisions it takes as well as for the coordinating, executive and management functions it exercises, as laid down in the Treaties⁹.

a) Highlights of the Year

The 2017 grant competitions, supported by an operational commitment budget of around € 1.8 billion, the highest since the ERC's inception in 2007, enabled the Agency to fund some 890 new grants¹⁰, most of them to start in 2018. The 2017 ERCEA Work Programme targets for 2017 calls have been met with some variations due to the unpredictability of each individual grant size, allocating a significant share of the overall funding to young researchers. At the end of 2017, more than 70% of all grantees have been at an early-career stage.

In 2017, the ERCEA's main challenges was, for the granting department, to continue managing in parallel two framework programmes with different set of rules, processes, procedures and IT applications and to efficiently manage an overall foreseen increase of 14% of payments related to FP7 legacy and H2020 while maintaining the same level of achievement of Key Performance Indicators.

Moreover, in 2017, ERCEA ensured the scientific and financial management of more than 5 800 funded projects, 40% being funded under FP7 and 60% under H2020. The ERCEA also assessed 1 449 scientific reports from Principal Investigators.

In addition, in accordance with its establishment plan the Agency's workforce continued to grow in 2017. Both specific programmes continued to be managed with an effective, efficient and cost-effective structure while keeping its administrative expenditures below 3% of the operational one.

Another 2017 challenge to highlight was the preparations for the re-launch of the Synergy Grant. After the 2012 and 2013 Synergy pilot calls, the ERC Scientific Council with help of the Agency thoroughly evaluated the synergistic elements of the funded projects. It came to the conclusion that ERC Synergy projects tackle scientific problems of such great complexity and difficulty that they must be addressed by multiple principal investigators who bring their own, complementary expertise and are willing to engage in a truly joint research agenda over a period up to six years. In several cases these Synergy projects funded under FP7 put Europe at the global forefront of science. It was thus decided to use this experience to launch a first ERC Synergy call under Horizon 2020 (under ERC WP 2018). All steps towards the reintroduction of this scheme (such as revision of legal documents, expert management, preparation of IT tools, staffing and logistics) have been successfully implemented enabling the Agency to launch the first ERC Synergy call under Horizon 2020 in July 2017. This call was closed in November 2017 with 299 submitted applications. With € 250 million allocated to this call the ERC will be able to fund proposals at a much higher success rate - up to 10% - compared to the earlier pilot calls.

Also, in 2017 the ERC celebrated its 10th anniversary. The Agency organized a celebration event on 21 March 2017 attended by more than 450 people. Speakers included Commissioner Carlos Moedas, Chair of the European Parliament's ITRE Committee Jerzy Buzek, Chair of the High Level Expert Group on maximising impact of EU R&I Programmes Pascal Lamy as well as ERC President Bourguignon and many members of

⁹ Article 17(1) of the Treaty on European Union.

¹⁰ Excluding the Advanced Grant 2017 call which is at the evaluation stage, at the time of writing the AAR.

the ERC Scientific Council. ERC grantees presented their research in scientific sessions and participated in policy debates.

In addition, over 160 events celebrating the 10 years of ERC achievements were organised all around the world in a bottom-up fashion. Research institutions, universities, national governments, science museums, EU Delegations and other actors took the initiative to organize these events that marked this important milestone.

ERC-funded research is often published in high-impact journals. By December 2017, ERC-funded projects under FP7 have produced more than 107 000 scientific publications. Seven percent of them are among the top one percent most highly cited publications worldwide.

An independent report published by Clarivate Analytics in 2017 highlighted that the gap between the research performance of the US and the EU had narrowed over the 10 years since the ERC was established and that the average citation impact of the research supported by the ERC was comparable to that of the world's top elite research universities¹¹.

On 6 October 2017, an Implementing Arrangement was signed between the ERC and the India Scientific Engineering Research Board (SERB). The arrangement allows Indian scientists to temporarily join a research team run by an ERC grantee. This is the 10th arrangement of this type after those concluded between the ERC and partner organisations in the USA, China, Japan, Korea, Brazil, Argentina, Mexico, South Africa, and Canada. Furthermore, the number of evaluated proposals from non-European Research Area (ERA) nationals has slightly increased from 616 (2016) to 621 (2017), mainly from the USA, Russia, and Australia.

Last year was marked by many break-through scientific discoveries to which the ERC funding significantly contributed. In this highlights section we allude to just two: the ERC grantee Stefan Mangard and his team at TU Graz played a central role in the discovery of two new security flaws in computer processors. Named Meltdown and Spectre, these bugs could allow unauthorised users to gain direct access to the heart of computer systems and steal personal data. PCs, server and cloud services, but also smart phones and IT devices in cars could be affected. While the design of processors tend to place all the focus on performance and speed, the team argues the need to have security as a major design criterion and have it in mind from the beginning of the design process.

Also, ERC researchers managed to record for the first time the brain activity of a premature new-born baby during resting and during an epileptic seizure. Functional Ultrasound (fUS), the non-invasive neuroimaging technology they developed is based on the use of ultrafast ultrasound scanners able to reach more than 10 000 frames per second (fps) compared to the usual 50 fps. High-resolution and high-speed, the fUS technique increases the precision of blood flow measurements in the brain. Portable and cheap, it opens new paths for fundamental research and clinical applications.

At 2017 year-end, the ERC committed 100% of its budget, as every year since its creation, recording more than 5 840 running projects worth € 4.35 billion, an average time to pay of 17 days and an error rate of 0.82%¹² related to the legality and regularity of payments. With an administrative overhead of 2.9% the ERCEA achieved a cost effective and efficient use of public money.

¹¹ Clarivate Analytics, *The European Research Council –The first 10 years*, 2017.

¹² Residual ERCEA MUS error rate.

b) ERCEA Key Performance Indicators (KPIs)

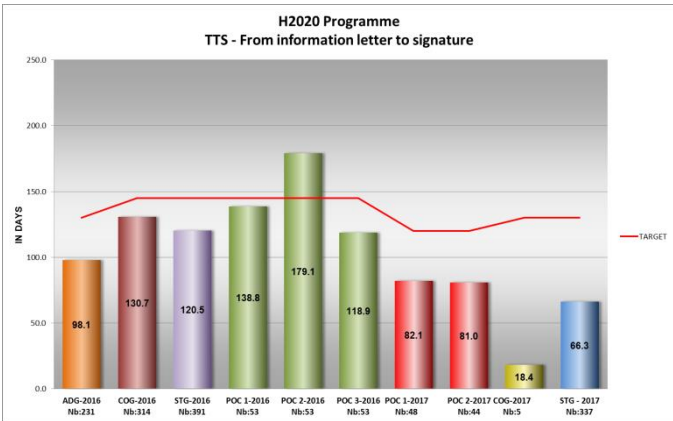
The below indicators reflect the 2017 Annual Work Programme (AWP) targets.

Result/Impact indicator (description)	Target	Result 31/12/2017
Time to Inform all / successful applicants (average number of days)	2016-AdG: 137/196 2017-StG/CoG/AdG: 180/280 2017-PoC: 100	<div style="text-align: center;"> </div> <p style="text-align: center;">Source of data: Compass</p>

In 2017, ERCEA's TTI Successful Applicants targets of five calls (out of seven) were slightly exceeded mostly due to problems with the use of the H2020 common IT systems in the evaluation process (e.g. Compass/Sygma) combined with some constraints stemming from the Agency's call calendar. Considering the limited TTI deviations from their respective call target (from 4 to 15 days), the external underlying causes and the corrective actions to be implemented in 2018¹³, the Agency assesses that these shortcomings do not impact the full effectiveness of the Internal Control Standard 8 (Procedures and Process)¹⁴.

¹³ For further details please refer to section 2.1.1.1.

¹⁴ Please refer to section 2.1.3.

Result/Impact indicator (description)	Target	Result 31/12/2017																									
Time to Sign from the date of informing successful applicants (average number of days)	2016-StG: 145 days 2016- CoG: 145 days 2016- AdG: 130 days 2016-PoC-1/2/3:145 days 2017-PoC-1/2:120 days	 <p>Source of data: Compass</p>																									
Budget execution (Commitments and payment credits)	100% for commitments and payments credits	<table border="1" data-bbox="683 840 1417 1019"> <thead> <tr> <th>Programme</th> <th>Budget Year</th> <th>Position</th> <th>Commitment credits execution</th> <th>Payment credits execution</th> </tr> </thead> <tbody> <tr> <td>FP7</td> <td>2017</td> <td>C1/E0</td> <td>n.a.</td> <td>100%</td> </tr> <tr> <td>FP7</td> <td>2017</td> <td>C8</td> <td>98.20%</td> <td>n.a.</td> </tr> <tr> <td>H2020</td> <td>2017</td> <td>C1/E0</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>H2020</td> <td>2017</td> <td>C8</td> <td>99.93%</td> <td>n.a.</td> </tr> </tbody> </table> <p>Source of data: ABAC Data Warehouse</p>	Programme	Budget Year	Position	Commitment credits execution	Payment credits execution	FP7	2017	C1/E0	n.a.	100%	FP7	2017	C8	98.20%	n.a.	H2020	2017	C1/E0	100%	100%	H2020	2017	C8	99.93%	n.a.
Programme	Budget Year	Position	Commitment credits execution	Payment credits execution																							
FP7	2017	C1/E0	n.a.	100%																							
FP7	2017	C8	98.20%	n.a.																							
H2020	2017	C1/E0	100%	100%																							
H2020	2017	C8	99.93%	n.a.																							

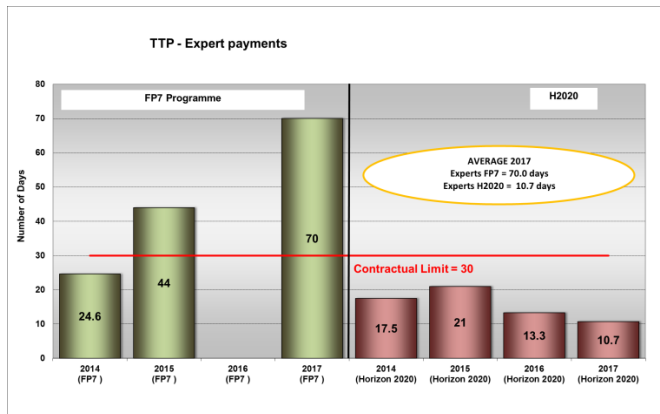
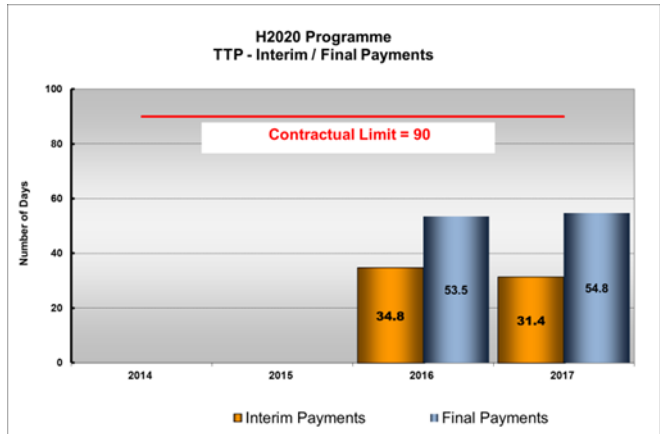
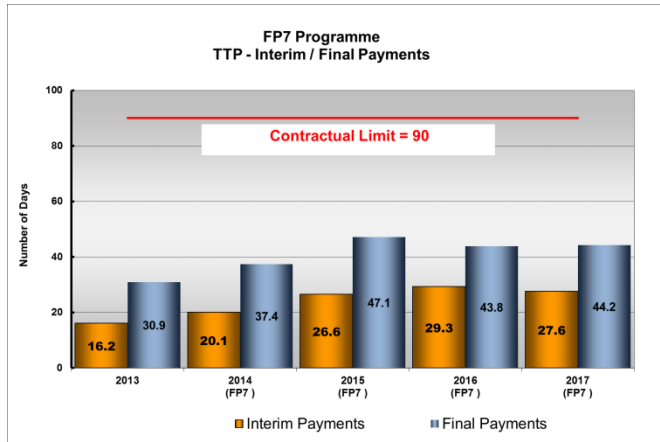
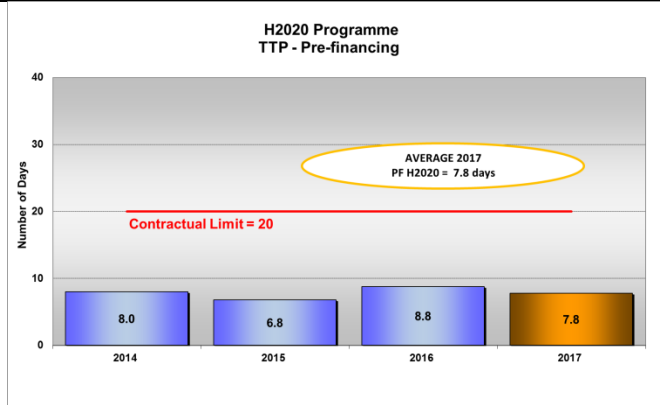
Time to Pay

Pre-financing:
85% within 20 days (H2020) – average number of days;

Interim payment: 95% within 90 days (H2020 & FP7) – average number of days;

Final payment: 95% within 90 days (H2020 & FP7) – average number of days;

Experts payments: 100% within 30 days



Source of data: ABAC Data Warehouse

d) Provision of information to the Commissioner

In the context of the regular meetings during the year between the Director and the parent DG on management matters, also the main elements of this report and assurance declaration have been brought to the attention of the Agency's Steering Committee and to the parent DG Director General who has taken these into consideration in his reporting to Commissioner Moedas, responsible for Research, Science and Innovation.

1. IMPLEMENTATION OF ERCEA'S 2017 ANNUAL WORK PROGRAMME – HIGHLIGHTS OF THE YEAR

ERC's Specific Objectives and Result Indicators – FP7 and H2020

Reflecting the two tier-structure of the European Research Council, the ERC Scientific Council establishes annually its Work Programme, which is subsequently adopted by the Commission. It defines the specific objectives and result indicators disclosed below. These derive from the general targets of respectively the FP7 "Ideas" Specific Programme and H2020 Specific Programme as a whole and from Commission's policy objectives in the area of research which may be found in the related legal basis and in the 2016-2020 Strategic Plan of DG Research and Innovation. In addition, these objectives and indicators are reflected in the ERCEA Annual Work Programme in order to bridge the ERC Scientific Council's strategy and the corresponding ERCEA implementation objectives, the latter being reported in detail below. The fundamental activity of the ERC, both under FP7 and H2020, is to provide substantial five-year long¹⁵ funding to researchers - and their research teams - working in Europe to pursue ground-breaking frontier research, that would primarily contribute at the highest level to advancing the frontiers of knowledge. ERC-supported researchers are selected on the basis of their most ambitious ideas for future research and their previous outstanding achievements covering all areas of knowledge from the Physical Sciences and Engineering to Life Sciences, Social Sciences and Humanities. Awards are granted solely according to scientific quality with no predetermined priorities, targets or quotas. The level of competition guarantees distinction (success rate is slightly over 10%), thus being awarded an ERC grant is synonymous with scientific excellence for the worldwide scientific community.

This explains the high number of international prizes awarded to FP7 ERC grant holders - almost 1 000 in the period 2009-2017 which already exceeds significantly the target of 200 by year 2020. Likewise, based on the information provided by FP7 Principal Investigators' reports, they have published more than 107 000 papers. In addition, the share of publications from ERC-funded projects which are among "the top 1% most highly cited", namely 7% as of 2017 year-end, is a clear indication of the research performance supported by the ERC. Indeed, this result exceeds by far the H2020 target of 1.8%.¹⁶

ERC funding instruments and H2020 2016 & 2017 Calls for Proposals

The European Research Council Executive Agency contributed in 2017 to help achieving the Commission's general objective "A new boost for Jobs, Growth and Investment" as well as DG Research and Innovation's (DG RTD) specific objective related to the implementation of H2020¹⁷. By providing opportunities to non-EU researchers supported by foreign agencies to visit ERC research teams¹⁸, or by fostering broadening participation outside-ERA¹⁹, the ERCEA also contributed to the *open to the world* priority of DG RTD.

In 2017, the ERCEA managed the Horizon 2020 specific objective "Strengthening frontier

¹⁵ The Synergy call boosts six-year long funding and the Proof of Concept - 1.5-years.

¹⁶ Related tables are shown in annex 12.

¹⁷ Namely specific objective 1.3 of DG RTD Strategic Plan 2016-2020: *To ensure an effective and efficient implementation of Horizon 2020 and other RTD programmes and maximise synergies.*

¹⁸ Cf. implementing arrangements with key funded bodies and science ministries of the United States, Korea, Argentina, Japan, China, South Africa, Brazil, Canada and Mexico. More information on that under the "ERC teams open to the world section" : <https://erc.europa.eu/funding-and-grants/funding-schemes/other-erc-opportunities>.

¹⁹ By the means of communication actions organized by the ERCEA or by joining parent DG's campaigns.

research through the activities of European Research Council" of part I "Excellent Science" of the Horizon 2020 Specific Programme²⁰, as shown below:

Call identifier	Opening date	Closing date	Indicative n° of outputs	Result 2017
ERC-2017-StG – Starting Grant	26/07/2016	18/10/2016	415	406 + 6 in reserve
ERC-2017-CoG – Consolidator Grant	20/10/2016	09/02/2017	320	298 + 37 in reserve
ERC-2017-AdG – Advanced Grant	16/05/2017	31/08/2017	245	On-going
ERC-2017-PoC – Proof of Concept	02/08/2016	1) 19/01/2017 2) 25/04/2017 3) 05/09/2017	130	1) 51 2) 51 3) 52

Source of data: Compass

Relevant general objective: A new boost for Jobs, Growth and Investment		Parent DG: DG RTD	
RTD Specific objective: : To ensure an effective and efficient implementation of Horizon 2020 and other RTD programmes and maximise synergies			
Specific objective: Excellent Science – European Research Council (ERC) – Strengthening frontier research		Related to spending programme: H2020	
Main outputs in 2017:			
Outputs	Indicators	2017 Targets	Result 2017
Launch of calls for proposals	% of calls for proposals successfully launched according to agreed deadlines	100%	100%
Evaluation of calls	% of 2017 calls evaluated in 2017 % of 2016 calls evaluated in 2017	100% of 3 2017-calls (StG, CoG and PoC) 100% of 1 2016 call (AdG)	100% for the 3 2017 calls 100% for AdG 2016
Grants signed in 2017	Proposals selected under 2016 calls granted in 2017	100% ²¹	100%

The number of retained proposals for funding (main list and reserve list proposals) of the 2017 calls fully met and even exceeded the ERC and ERCEA Work Programmes' targets. The evaluation of the AdG 2017 call was still ongoing at the time of writing, and results will be available later in 2018.

The original planning of launching the calls for proposals and the evaluation of the submitted proposals was strictly respected. All proposals selected for granting under the 2016 calls were signed in the course of 2017 (if not signed in 2016 already).

Thus, as evidenced above, the "IDEAS" part of the FP7 spending programme and the "Excellent science" part of H2020 managed by the ERCEA are on course to meet their respective multiannual objectives and have achieved the annual performance indicators or outputs and milestones.

²⁰ Cf. Council Decision 2013/743/EU of 3/12/2013 establishing the specific programme implementing Horizon 2020 – The Framework Programme for Research and Innovation (2014-2020) (OJ L347, 20/12/2013).

²¹ For all projects that can be successfully concluded e.g. excluding terminations, withdrawals etc.

1.1 H2020 “Excellent Science” and the FP7 “Ideas” programmes implementation

ERCEA's main challenge was to manage efficiently the 2017 grant competitions, which were supported by an operational commitment budget of around € 1.8 billion, the highest since the ERC's inception in 2007, enabling the Agency to award some 890 new proposals, most of them to start in 2018. Also, further to the assessment of the 2012 and 2013 Synergy pilot calls, the ERC Scientific Council decided to launch a first ERC Synergy call under Horizon 2020 (under ERC WP 2018), with an allocated budget of € 250 million. All steps towards the reintroduction of this scheme (such as revision of legal documents, expert management, preparation of IT tools, staffing and logistics), although challenging, have been successfully implemented enabling the Agency to launch the call in July 2017. The latter was closed in November 2017 with 299 submitted applications.

As regards the granting activities the challenge was to manage first two framework programmes with different set of rules, processes, procedures and IT applications and to efficiently face an overall increase of 14% of payments related to FP7 legacy and H2020. Finally, the Agency ensured the scientific and financial management of more than 5 800 funded projects, 40% being funded under FP7 and 60% under H2020, assessing 1 449 scientific reports from Principal Investigators.

1.1.1 Implementation of H2020 calls for proposals financed under the 2017 budget commitment appropriations

Overall, in response to the 2017 calls a total of 8 319 proposals were submitted (StG+CoG+AdG+PoC) – an increase of three percent in submissions compared to 2016.

The StG 2017 evaluation of 3 082 submitted proposals (an increase of five percent from the previous year) resulted in 926 passing to step 2 for interviews and in 406 proposals being selected for funding and 6 reserve list proposals. Twenty nine redress cases were received and none was considered for re-evaluation.

Out of the 2 539 submitted proposals to the CoG 2017 call (an increase of 10.2% from the previous year) 771 passed to step 2 for interviews, resulting in 298 proposals being selected for funding and 37 reserve list proposals. 27 redress cases were received, and none was considered for re-evaluation.

The AdG 2017 Step 1 evaluation of 2 166 proposals (a decrease of 9.9% from the previous year²²) was carried out as planned and resulted in 632 proposals being passed to step 2. The ERC Work Programme 2017 indicative date to inform applicants of step 1 results was the end of January 2018.

The PoC 2017 evaluation was carried out as planned with three deadlines (19 January, 25 April and 5 September). The PoC 2017 call attracted in total 532 proposals (an increase of 22% compared to PoC 2016) and resulted in 154 proposals selected for funding. At the end of the year, the Scientific Council decided to add €1 million to the budget allocated to the PoC 2017 call and as a result, six more proposals were invited for granting.

As regards the AdG 2016 evaluation which took place in 2017, the step 2 evaluation of 619 proposals (which passed step 1 in late 2016) resulted in 229 proposals being selected for funding and eight reserve list proposals. 39 redress cases were received and one qualified for re-evaluation.

The 2017 commitment credits (C1/E0) for a total amount of € 1 803.76 million were booked on basis of the ERC Financing Decision, since the evaluation process of one of the

²² The decrease is within the standard fluctuations observed in this type of call over the years (there was an increase of 23% for AdG 2016 after a drop of 14.6% for AdG 2015).

2017 call was not yet concluded.

Altogether, 434 grants of the 2017 calls were signed for a total amount of € 524.61 million. The granting activity, for StG 2017, CoG 2017 and PoC 2017 calls having started in late 2017 reached the following completion rates: for StG – 82.6% ; for CoG – 1.52% and for PoC – 59.74% .

Furthermore, 799 grants and their budgetary commitments originating in the 2016 ERC calls for proposals were signed during 2017, in particular: 161 for StG , 292 for CoG, 231 for AdG as well as 115 for PoC.

The following table shows the results of the evaluation of the H2020 2016-2017 calls, including signed grants and pre-financings paid:

Implementation of calls in 2017

Calls implemented in 2017	Call deadlines		Indicative budget (€ Mio)	Number of proposals				Grants signed		Preparation failed	Of which pre-financing paid € Mio
	Opening dates	Closing dates		Submitted proposals	Ineligible (% of submitted proposals)	Main list – invited (not reserve)	Success rate	Number	€ Mio		
ERC-2016-StG – Starting Grant	29/07/2015	17/11/2015	€ 485	2 935	1.1%	325	11.1%	161	242.04	2	76.61
ERC-2016-CoG – Consolidator Grant	15/10/2015	02/02/2016	€ 605	2 304	0.9%	314	13.6%	292	562.76	-	175.48
ERC-2016-PoC – Proof of Concept	22/10/2015	1) 16/02/2016 2) 26/05/2016 3) 04/10/2016	€ 20	1) 142 2) 134 3) 161	1) 0.7% 2) 2.2% 3) 15.7%	1) 44 2) 45 3) 44	1) 31% 2) 33.6% 3) 27.3%	115	17.18	4	12.91
ERC-2016-AdG – Advanced – Grant	24/05/2016	01/09/2016	€ 540	2 401	1.1%	229	9.54%	231	543.21	-	208.74
ERC-2017-StG – Starting Grant	26/07/2016	18/10/2016	€ 605	3 082	1.0%	406	13.2%	337	501.58	2	53.43
ERC-2017-CoG – Consolidator Grant	20/10/2016	09/02/2017	€ 575	2 539	1.4%	298	11.7%	5	9.29	-	-
ERC-2017-AdG – Advanced Grant	16/05/2017	31/08/2017	€ 567	2 166	1.1%	On-going	On-going	-	-	-	-
ERC-2017-PoC – Proof of Concept	02/08/2016	1) 19/01/2017 2) 25/04/2017 3) 05/09/2017	€ 20	1) 124 2) 139 3) 269	1) 5.6% 2) 3.6% 3) 2.6%	1) 51 2) 51 3) 52	1) 41.1% 2) 36.7% 3) 19.3%	92	13.74	-	7.89

Source of data: ABAC Data Warehouse

1.1.2 Implementation of H2020 and FP7 calls financed under previous year's budget (2007-2013)

The following table provides an overview on the implementation of calls charged to previous year's budget, highlighting the volume of ERCEA in terms of grant preparation, pre-financing, interim and final payments.

Calls	Running projects 01/01/2017		Grant signed in 2017		Payments made in 2017		Projects closed in 2017		Running projects 31/12/2017	
	Number	Open balance Mio €	Number	Mio €	Number	Mio €	Number	De- commi- tments Mio €	Number	Open balance Mio €
FP7										
StG	1 546	358.4	-	-	981	167.40	428	12.22	1 118	178.78
CoG	313	309.3	-	-	230	116.22	3	3.17	310	189.91
AdG	1 152	505.4	-	-	750	244.79	263	15.65	889	244.96
PoC	7	0.065	-	-	-	-	7	0.07	-	-
SyG	24	128.7	-	-	12	26.13	-	0.02	24	102.55
Total FP7	3 042	1 301.8	-	-	1 973	554.53	701	31.13	2 341	716.20
H2020										
StG	954	1 073	498	743.62	888	363.61	-	-	1 452	1 453.01
CoG	696	972.9	297	572.05	679	342.33	1	2.54	992	1 200.09
AdG	469	729.6	231	543.21	404	301.84	1	1.43	699	969.54
PoC	298	10.1	207	30.93	324	25.86	146	0.69	359	14.48
Total H2020	2 417	2 785.6	1 233	1889.82	2 296	1033.64	148	4.66	3 502	3637.12
Grand total	5 459	4 087.4	1 233	1889.82	4 269	1588.17	849	35.79	5 843	4353.32

Source of data: ABAC Data Warehouse

Each financial year, the Agency processes the remaining part of the successful projects from the calls of the previous year, in the form of grant agreements and budgetary commitments (C8 credits) and proceeds with the commitments (global under C1 credits) and the granting for the given year calls as soon as evaluation results are available.

In 2017 the granting process for the H2020 2016 calls was finalised while the H2020 2017 granting process started and will be completed in 2018. Overall, 1 233 Grant Agreements were signed throughout the year, totalling to € 1 889.81 billion. The related C8 credits linked to L1 (global) commitments for the 2016 calls reached 100% by means

of L2 (individual) commitments.

A total number of 4 269 payments were carried out in 2017 (versus 3 745 in 2016), representing an increase of 13.96%. Out of these transactions, 2 296 related to H2020 and 1 973 relating to FP7.

In line with the programme's maturity, H2020 payments related mainly to pre-financings (1 186 vs. 1 163 in 2016) for an amount of € 668.61 million, 964 interim payments summing up to € 361.51 million, 139 final payments summing up to € 3.74 million. Payments related to FP7, worth a total of € 554.53 million, concerned mainly interim (1281) and final payments (692), respectively worth € 462.57 million and € 91.97 million.

At year-end, the total ERCEA grant portfolio of both FP7 and H2020 programmes counted a total of 5 843 running grant agreements, including 2 341 for FP7 worth € 716.20 million and 3 502 grants for H2020 worth € 3 637.12 million.

Throughout 2017, 5 897 expert payments were processed representing a moderate increase of 3.9 % in comparison with 2016.

1.1.3 Amendments to grant agreements

During 2017, 1 071 new amendments were requested (351 for H2020 and 720 for FP7) by beneficiaries and 1 017 amendments were signed which represents an aggregate decrease of about 0.7% for the two programmes.

The highest number of amendments in 2017 was registered for the Starting Grants followed by the Advanced Grants. Most of the H2020 amendments had to do with changes of bank credentials and modifications of Annex 1 (action description). Differently from the H2020 amendments, FP7 amendments were mostly related to changes of the authorised representative and modifications of the grant duration.

The change of Host Institution (portability) is considered to be the most complex type of amendment. The number of such requests has decreased by 36% for FP7 grants and increased by 93% for H2020 grants compared to 2016. This may be explained mainly by the maturity of the programmes as portability is mostly observed in the early stage of the programme implementation. In 2017, the number of grant terminations has also increased compared to 2016 mainly due to departures of the Principal Investigators to third countries (a 33.3% increase in the number of terminations, totalling 11).

The average time to amend (21.8 days for H2020 and 12.4 days for FP7) was within the set targets (45 days for both programmes). Furthermore, for both H2020 and FP7 the values of the indicator improved in comparison to 2016, which were respectively 36.3 days and 13.2 days. Also, 98.6% of the FP7 amendments and 90.8% of the H2020 amendments signed in 2017 were approved or rejected within 45 days upon the receipt of a valid amendment request.

The higher Time to Amend result for H2020 (i.e. in comparison with FP7) is partially linked to the functional modalities of the H2020 IT tools, as the FP7 "informal" phase (i.e. taking into consideration the elapsed time between the reception of a valid amendment request) is incorporated into the Compass/Sygma workflow and in the assessment phases.

Following discussions with the Common Support Centre (CSC) and technical updates to the Compass/Sygma system, the ERCEA amendment workflow including a parallel consultation of two actors (Scientific and Ethics officers) in line with a set of automated business rules depending on the amendment type, was put into production in the spring of 2017. This has increased the overall efficiency as in the previous version of the workflow the consultation was done sequentially. Furthermore, a comprehensive internal guide to the amendment process in the ERCEA was issued.

1.1.4 Implementation of ERCEA operating budget

The administrative budget for 2017 was initially adopted on 16 December 2016 for a total amount of EUR 46 950 000 and it was subsequently amended twice by Steering

Committee decisions to reflect budget line re-allocations.

The first amendment was adopted on 24 October 2017 to accommodate the budget requirements for the new initiative to transfer the ERC evaluation facilities to the building COVE 1/7th floor. The cost of the project was estimated to EUR 1 597 000, out of which EUR 1 269 300 was foreseen to impact the 2017 budget. This was accomplished via re-allocating funds from several budget lines to the appropriate destinations as well as the increase of the total budget by EUR 373 400. The second amendment was adopted on 28 November 2017 in order to decrease the total budget 2017 by EUR 100 000, which resulted from the less than anticipated annual salary indexation (1.5% instead of 2.1% budgeted).

Furthermore, the Director approved two budget transfers within the same chapters: one for EUR 72 040 (0.15% of the total budget) and one for EUR 40 255 (0.09% of the total budget). Finally, the Director approved a budget modification on 6 December 2017, for the total value of EUR 82 123 (0.17% of the total budget). The Steering Committee was informed accordingly.

The administrative budget structure remained largely consistent with the ones from previous years with the staff expenditure representing 76% of the budget, whereas costs for the building, ICT and other operating expenditure increased by 17% mainly due to the exceptional evaluation facilities project.

1.2 Example of EU-added value of ERC funded projects

2017 was marked by a break-through scientific discovery to which the ERC support significantly contributed. In February, an international team of researchers discovered seven potentially habitable planets in the context of the ERC-funded project called **SPECULOOS** (Search for habitable Planets Eclipsing ULtra- cOOl Stars). The planets, orbiting a star named TRAPPIST-1, may hold liquid water on their surfaces. The international team, led by Belgian scientist Michaël Gillon, got its primary findings thanks to the telescope TRAPPIST-Sud, co-financed by the EU.

The core of the ERC project takes place at the SPECULOOS Southern Observatory at the ESO Paranal Observatory in the Chilean Atacama desert. Two EU-funded small robotic telescopes (with primary mirrors of 80 cm) were installed. The grantee managed to secure funding for three more telescopes: TRAPPIST-North (installed in 2016) and two telescopes to be installed at Paranal (one funded by Cambridge University and the other one by Jeddah University). The installation of the last fourth telescope is currently planned for April 2018.

The Exoplanets discovery is an example of how the European (and international) scale of research is essential for leveraging the funds, expertise and infrastructure necessary to push the frontiers of knowledge.

ERC researchers of the **COMPROM** project analysed the information circulating on social media around major votes and elections in the UK, US and France to shed light on the phenomenon of fake news and manipulation on internet. Led by Phil Howard, they examined whether algorithms can 'steal elections' and how, and are developing a tool for users to discern 'fake news'. Using the most recent methodology in social and computer science, they showed that the consequences of online misinformation are very serious and spill over outside politics. In December 2017, the research project received the National Democratic Institute (NDI) W. Averell Harriman Democracy Award. This ERC funded research contributes to the understanding of how media usage around political information is changing and how the preconditions for citizens' political participation are altered as a result. In a climate of declining public trust in political institutions and social media platforms across Europe, grasping 'bot' activity in today's important political events in Europe is a key foundation for designing technology that will allow the public to evaluate suspicious social media accounts. This knowledge and technology are crucial for the functioning and evolution of our modern European deliberative democracies.

2. ORGANISATIONAL MANAGEMENT AND INTERNAL CONTROL

This section answers to the question *how* the achievements described in the previous section were delivered by ERCEA. This section is divided in two subsections.

The first subsection reports the control results and all other relevant information that supports management's assurance on the achievement of the financial management and internal control objectives. It includes any additional information necessary to establish that the available evidence is reliable, complete and comprehensive appropriately covering all activities, programmes and management modes relevant for the Agency.

The second subsection deals with the other components of organisational management: human resources, better regulation principles, information management and external communication.

2.1 Financial management and internal control

Assurance is an objective examination of evidence for the purpose of providing an assessment of the effectiveness of risk management, control and governance processes.

This examination is carried out by management, who monitors the functioning of the internal control systems on a continuous basis, and by internal and external auditors. Its results are explicitly documented and reported to the Director. The reports produced are:

- Management reports on control results;
- The contribution of the Internal Control Coordinator, including the results of internal control monitoring at the Agency level;
- The reports of the ex-post audits;
- The limited conclusion of the Internal Auditor on the state of control;
- The observations and recommendations reported by the Internal Audit Service (IAS);
- The observations and the recommendations reported by the European Court of Auditors (ECA).

These reports result from a systematic analysis of the evidence available. This approach provides sufficient guarantee as to the completeness and reliability of the information reported and results in a complete coverage of the budget delegated to the Director of ERCEA.

This section reports the control results and other relevant elements that support management's assurance. It is structured into (a) Control results, (b) Audit observations and recommendations, (c) Effectiveness of the internal control system, and results in (d) Conclusions as regards assurance.

2.1.1 Control results

This section reports and assesses the elements identified by management that support the assurance on the achievement of the internal control objectives²³. The ERCEA's assurance building and materiality criteria are outlined in the AAR Annex 4. Annex 5 outlines the main risks together with the control processes aimed to mitigate them and

²³ Effectiveness, efficiency and economy of operations; reliability of reporting; safeguarding of assets and information; prevention, detection, correction and follow-up of fraud and irregularities; and adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments (FR Art 32).

the indicators used to measure the performance of the control systems.

Operational and administrative payments 2017							
		Payments made²⁴				Total administrative expenditure	% of total (admin/operational)
		Pre-financing	Payments against cost statements	Experts' payments	Total operational expenditure		
2017	FP7	0.00	554 533 315	69 250	554 602 565	47 019 663	2.9%
	H2020	668 610 165	365 258 618	12 769 390	1 046 638 172		
	Total	668 610 165	919 791 933	12 838 640	1 601 240 737		
2009 - 2017		4 551 614 319	4 315 765 585	77 590 791	8 944 970 695	316 048 849	3.5%

Source of data: ABAC Data Warehouse

The H2020 and FP7 programmes are implemented under the direct management mode.

The operational appropriations are dissociated appropriations, meaning that ERCEA manages separate budgets for commitments and payments. In 2017, the commitment budget of € 1 803.76 million was fully committed. The finally available payment budget for Horizon 2020 of € 1 034.95 million and for FP7 of € 531.24 million in C1/E0 credits were fully consumed. Payment transactions for operational expenditures consist of pre-financing, interim, final payments and regularisation payments. In an average grant agreement of five years, the pre-financing is paid at the start of the project followed by three interim payments and one final payment.

It should be noted that in 2017, 57.44% of the total amount executed concerned payments against cost statements, while the remaining 42.56% payments executed concerned pre-financings and expert payments, both assessed as low risk transactions as regards the control objective related to the legality and regularity of underlying transactions. It is noted that out all 2017 payments against cost statements, 60% related to FP7 and 40% to H2020. While the legality and regularity of underlying transactions is underpinned for FP7 by ERCEA MUS error rate, no sufficient error rate results²⁵ are available at the time of finalising the AAR from the Common Audit Service (CAS) to draw a conclusion on the legality and regularity of H2020 payments.

As a consequence and in agreement with its parent DG, the ERCEA applies in the context of this AAR the error rate deriving from the ERCEA FP7 programme to its H2020 expenditure for the purpose of the declaration of assurance and of calculating the Agency's estimated overall amounts at risk and their estimated future corrections. Indeed, since the ERCEA's beneficiary base remains the same as under FP7 and the specificities of the program have not been changed in H2020, it is unlikely that the latter programme will be adversely impacted by the error rate.

Therefore, the assurance provided for this control objective covers FP7 as well as H2020 payments, whilst other control results, in particular regarding the effectiveness in achieving ERCEA objectives, the efficiency and the cost-effectiveness, are reported as appropriate for H2020 (call management and evaluations as well as granting) or for both programmes (grant implementation).

²⁴ The figures in this table include all types of credits (fund sources), like the voted credits and assigned revenue.

²⁵ Results are not statistically representative, as ERCEA has only 4 participations out of the 110 available results from the Research family Common Representative Sample (= a share of 3.6% so far). Overall, 7 audits (8 participations) have been carried out on ERCEA H2020 specific expenditure.

Control effectiveness as regards ERCEA objectives' achievement

In line with article 30 of the Financial Regulation, the ERCEA has set up internal control processes to ensure the yearly achievement of its objectives as set out in its AWP.

Control effectiveness as regards legality and regularity

ERCEA results of the ex post audits for FP7

The ERCEA has set up internal control processes aimed at ensuring the adequate management of risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

The control objective is to ensure that the ERCEA residual error rate does not exceed 2% for FP7, in line with the materiality criteria in Annex 4.

The starting point for the calculation of the residual error rate in the Research Family is the Common Representative Audit Sample (CRaS), which aims at estimating on a multi-annual basis the error rate at the level of the programmes, across all the services involved in their management. However, since the risk profile of the "Ideas" programme is inherently lower when compared to the rest of the FP7, the ERCEA has adopted for FP7, since 2015, an alternative assessment to provide additional assurance on the ERC specific population, in line with annex 4 , in particular from the multi-annual (2009-2017) ERCEA residual error rate (MUS sample).

At year-end 2017, with a multi-annual detected error rate amounted to 1.08 % and the residual error rate to 0.82%, the ERCEA is confident that these results will stay below the materiality threshold of 2% at the end of the "Ideas" programme, thus positively supporting the ERCEA 2017 Declaration of Assurance.

Research family results of the ex-post audits and expectations for Horizon 2020

Given the stage of the programme lifecycle, a limited number of cost claims totalling 4.1 € billion of requested funding had been received by the services for H2020 by the end of 2017. The first Horizon 2020 audits were launched in the middle of 2016 and further audits were launched in 2017. The first Common Representative Sample (CRS), a Common Risk Sample and an Additional Sample²⁶ have been selected. In total, by December 2017, 625 participations had been selected for audit, covering all the services signing grants under Horizon 2020.

Overall, the audit of 392 participations has been finalised. This includes 110 out 142 selected in the first CRS. The results at the end of 2017 are:

Overall detected error rate based on 392 participations: 1.54 %

The detected error rate based on 110 out of 142 participations selected in the first CRS is 1.6%. However, if we take into account the draft audit reports then the expected representative error rate for the full sample will be around 2.82% .

Residual Error Rate for the research family: 1.44 %, expected to rise to around 2.24% when taking into account the draft audit reports.

The error rates set out above can only be a preliminary estimation and must be treated with care. The CRS is not yet complete, and so is not yet fully representative of the expenditure that it covered. Also the programme being multi-annual, the error rates, and especially the residual error rate, must be considered over time. In particular, the implementation of audits results (so-called 'cleaning effect') over time will tend to increase the difference between the representative/detected error rate and residual error rate, with the residual error rate finishing at a lower rate.

²⁶ This last sampling accommodates special needs of certain stakeholders with regard to audit coverage and selection method. In addition, top ups, which are participations of selected beneficiaries which are added to the selected participations, are included in the total participations selected.

The Financial statement accompanying the Commission's proposal to the legislative authority for the Horizon 2020 regulation states: "*The Commission considers therefore that, for research spending under Horizon 2020, a risk of error, on an annual basis, within a range between 2-5% is a realistic objective taking into account the costs of controls, the simplification measures proposed to reduce the complexity of rules and the related inherent risk associated to the reimbursement of costs of the research project. The ultimate aim for the residual level of error at the closure of the programmes after the financial impact of all audits, correction and recovery measures will have been taken into account is to achieve a level as close as possible to 2%.*"

The first audit results from the CRS and other audits²⁷ suggest that, over the multiannual period, and especially considering the high level of audit coverage of Horizon 2020 expenditure that can be expected, the detected and residual errors rate will remain within the established range. Additional evidence to support this conclusion will arrive in 2018. However, there are today no indications that the residual error rates identified in FP7 – below 2% - will rise in Horizon 2020.

Thus, in agreement with its parent DG, for the purpose of the declaration of assurance and the calculation of the Agency's estimated overall amount at risk and their estimated future corrections, considering the ERCEA limited H2020 ex post control results, the Agency applies the error rate of the ERCEA FP7 programme (1.08%) to its H2020 expenditure. Indeed, since the ERCEA's beneficiary base remains the same as under FP7 and the specificities of the program have not been changed in H2020, it is unlikely that the latter programme will be adversely impacted by the error rate.

In conclusion, ERCEA considers that error rate will stay below the materiality level established, so it does not consider that a reserve is needed for Horizon 2020 expenditure.

In the context of the protection of the EU budget, at the Commission's corporate level, the Agency's estimated overall amounts at risk and their estimated future corrections are consolidated.

For ERCEA, the estimated overall amount at risk at payment²⁸ for the 2017 expenditure is 16.3 M€. This is the AOD's best, conservative estimation of the amount of *relevant expenditure*²⁹ during the year (1 533.2 M€) not in conformity with the applicable contractual and regulatory provisions at the time the payment is made.

This expenditure will be subsequently subject to ex-post controls and a sizeable proportion of the underlying error will be detected and corrected in successive years. The conservatively estimated future corrections³⁰ for the 2017 expenditure are 3.86 M€. This is the amount of errors that ERCEA conservatively estimates to identify and correct from controls that it will implement in successive years.

The difference between those two amounts leads to the estimated overall amount at risk at closure of 12.4 M€.

²⁷ From the common residual error rate of 1.44% for the whole research family, the ERCEA specific error rate is 1.37% considering the results of 4 risk based audited participations.

²⁸ In order to calculate the weighted average error rate (AER) for the total *relevant expenditure* in the reporting year, the *detected*, estimated or other equivalent error rates have been used.

²⁹ "*relevant expenditure*" during the year = payments made, minus new pre-financing paid out [plus retentions made by the Cohesion family DGs], plus previously paid pre-financing which was cleared in the reporting year [minus retentions released or (partially) withheld by the Cohesion family DGs].

³⁰ Even though to some extent based on the 7 years historic average of recoveries and financial corrections (ARC), which is the best available indication of the corrective capacity of the ex-post control systems implemented by the DG over the past years, the AOD has adjusted this historic average. Any coding errors, ex-ante elements, one-off events, (partially) cancelled or waived ROs, and other factors from the past years that would no longer be relevant for current programmes (e.g. higher ex-post corrections of previously higher errors in earlier generations of grant programmes) have been adjusted in order to come to the best but conservative estimate of the expected corrective capacity average to be applied to the reporting year's relevant expenditure for the current programmes in order to get the related estimated future corrections.

Estimated overall amount at risk at closure

ERCEA	"payments made" (FY; m€)	<i>minus</i> new ^a prefinancing [<i>plus</i> retentions made ^b] (in FY; m€)	<i>plus</i> cleared ^c prefinancing [<i>minus</i> retentions released ^b and deductions of expenditure made by MS] (in FY; m€)	= "relevant expenditure"^d (for the FY; m€)	Average Error Rate (<i>weighted</i> AER ; %)	estimated overall amount at risk at <i>payment</i> (FY; m€)	Average Recoveries and Corrections (<i>adjusted</i> ARC ; %)	estimated future corrections [and deductions] (for FY; m€)	estimated overall amount at risk at closure^e (m€)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Programme, Budget Line(s), or other relevant level	as per AAR annex 3, table 2 ^f	as per ABAC DWH BO report on prefinancing ^f	as per ABAC DWH BO report on prefinancing ^f	= (2) -/+ (3) +/- (4)	Detected error rates, or equivalent ^g estimates ^f	= (5) x (6)	<i>based on 7Y-avg historic H-ARC (as per ABAC DWH BO report on corrective capacity) (0,31%), but was adjusted to become the best but conservative estimate for the current MFF</i>	= (5) x (8)	= (7) - (9)
Ideas – FP7 H2020	554.6 1 046.6	672.2			1.08%				
Total operational budget	1 601.2	672.2	557.2	1 486.2	1.08%	16.1	0.26%	3.86	12.2
Total operating budget	47.0			47.0	0.5%	0.2			0.2
Overall ERCEA	1 648.2 mEUR	672.2 mEUR	557.2 mEUR	1 533.2 mEUR	1.06%	= 16.3 mEUR; and 1.06% of 5	0.26%	= 3.86 mEUR; and 0.25% of (5)	= 12.4 mEUR; and 0.81% of (5)

Cost-effectiveness and efficiency

This section outlines the indicators used to monitor the efficiency of the control systems, including an overall assessment of the costs and benefits of controls.

Cost-effectiveness of controls

Cost-effectiveness indicators are provided for each control stage on the basis of the number of posts allocated which results from a workload assessment performed during the last quarter of the year. In addition, an overall, Agency-wide, cost effectiveness indicator, comparing the administrative versus the operational 2017 payments, is taken into account.

Thus, the result of the overall cost effectiveness indicator in 2017 (2.9%) is comparable to the one of 2016 (2.8%) and is below its target value of 3%.

In terms of the costs/benefits analysis of controls, it has to be kept in mind that while most costs of controls are quantifiable in monetary terms, most of their undeniable benefits are not. The controls related to the scientific evaluation ensure that the most meriting projects are funded following the sole criterion of "excellence" and allow the ERCEA to fulfil its mission statement and operational objectives. Also, benefits of grant implementation controls can be measured by the low error rate resulting from ex-ante controls – H2020: 0.11% and FP7: 0.31%, even if these are affected by the deliberate limitation of the depth of the ex-ante controls as part of the overall control framework, as established by FP7 and H2020. This is also supported by the low level of the same indicator in the operating budget – 0.5% in 2017. Finally, the non-quantifiable benefits of auditing should also be considered. Ex-post controls bear an inherent deterrent effect, as beneficiaries will take extra care over the preparation of their cost claims knowing that on the spot audits may follow. Furthermore, results of ex-post control provide a valuable feedback regarding the effectiveness of ex-ante controls. Ex-post control audits also result in reducing the exposure to future errors, thanks to guidance provided to audited beneficiaries.

Control efficiency

In 2017, the ERCEA maintained its high efficiency in terms of Time to Pay observed also in the previous years. All type of payments (i.e. pre-financings, interim, final and experts) are well below their legal targets (please see the detailed results in section 2.1.1.1).

Last year, the ERCEA achieved a significant improvement in the efficiency of the granting process which is reflected in the Time to Grant and Time to Sign results. In 2016, the internal control system identified deviations in the 2015 calls which led to the conclusion that only partial efficiency was present. In reply to that, in early 2017, ERCEA management agreed upon and implemented certain corrective actions aimed at addressing the shortcomings. One year later, those measured proved their effectiveness and the TTS and TTG results (with just one exception in each category) of the 2016 calls met their AWP targets (please see the detailed results in section 2.1.1.1 and Annex 12).

However, the results of the evaluation process indicate that the partial efficiency from the previous year persisted. In 2017, Time to Inform results suffered mainly from a number of issues related to the H2020 common IT systems (e.g. Compass/Sygma) which did not always implement the ERCEA specific requirements in the field of evaluation on time. Only two calls (e.g. PoC-3 2016 and PoC-2 2017) met their AWP targets in 2017. This is an area where efforts to achieve full efficiency will continue in 2018. In this respect it is planned to modify the budget tables that are part of the proposals in order to avoid negotiations and budget adjustments related to obvious clerical errors after establishing the ranking lists which slows down transmission of the information letters to the applicants.

Conclusion(s)

Based on an assessment of the most relevant key indicators and control results, the ERCEA has assessed the cost-effectiveness and the efficiency of the control system and reached a positive conclusion.

Fraud prevention and detection

The ERCEA has developed and implemented its own anti-fraud strategy since 2011 elaborated on the basis of the methodology provided by OLAF. It has been updated twice, in 2013 and 2015.

In accordance with the Agency Anti-Fraud Strategy, in December 2017, ERCEA performed an update of its Anti-Fraud Action Plan 2015-2017. The 2017 annual fraud-related risk assessment exercise evidenced that five out of the six 2015-2017 priority actions had been implemented and were therefore closed. The last pending action is to be carried out during the first quarter of 2018 by means of the organisation of further awareness raising trainings at unit level. With the latter, the ERCEA's anti-fraud action plan 2017-2018 will be fully implemented. Thus, the Agency has developed over the past two years a strong capacity to prevent, detect and report potential fraud. These measures reinforce the existing fraud related governance arrangements and procedures. Also, the recently adopted *Vade mecums on Red flags in ERC proposals and grants and in public procurement* help ERCEA staff to detect potential fraud and irregularities.

The ERCEA has furthermore actively contributed to the on-going revision of the Commission's anti-fraud strategy (CAFS) through the participation in workshops, questionnaires, surveys and the coordination of actions within the Research Family. Following the approval of the CAFS, the Agency's current anti-fraud strategy may have to be updated triggering, eventually, a new action plan.

In 2017 OLAF opened two investigations, one of which was reported by the Agency, closed one and dismissed four cases. At year-end five OLAF investigations were ongoing.

2.1.1.1 Implementation of the internal control system for the operational budget

The implementation of the FP7 and H2020 programmes is organised along four distinct stages with specific control mechanisms in place. These are described below following their respective control objective. Detailed description of the implemented controls is shown in the related Internal Control template (annex 5.1).

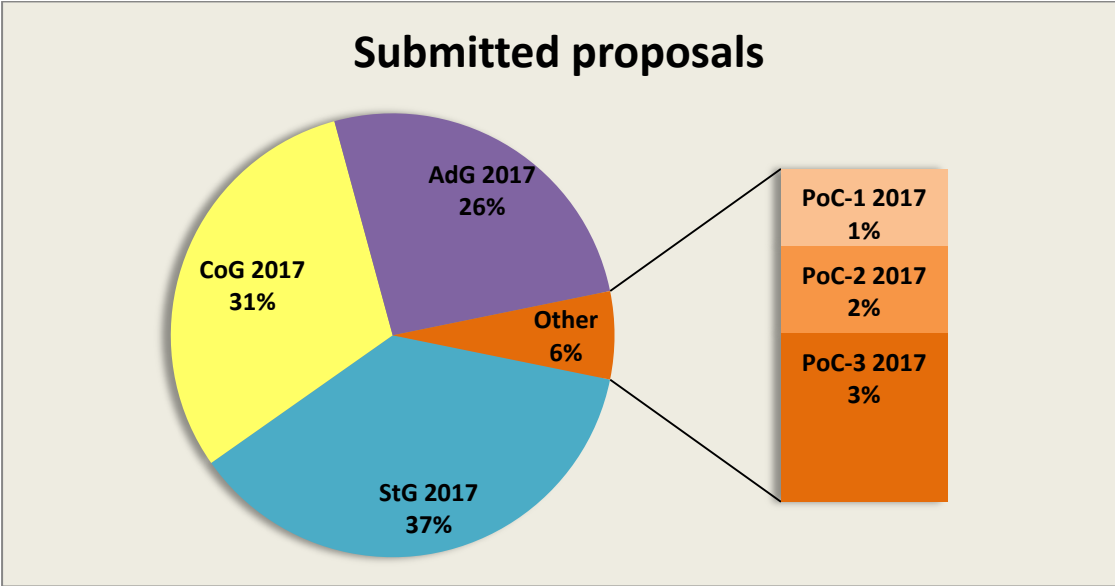
Stage 1: From call for proposals to evaluation results

This stage encompasses the implementation of the peer review process for the selection of ERC grants, the management of calls for proposals, the evaluation and selection of proposals, resulting in the execution of budgetary global commitments.

Control effectiveness as regards ERCEA objectives' achievement

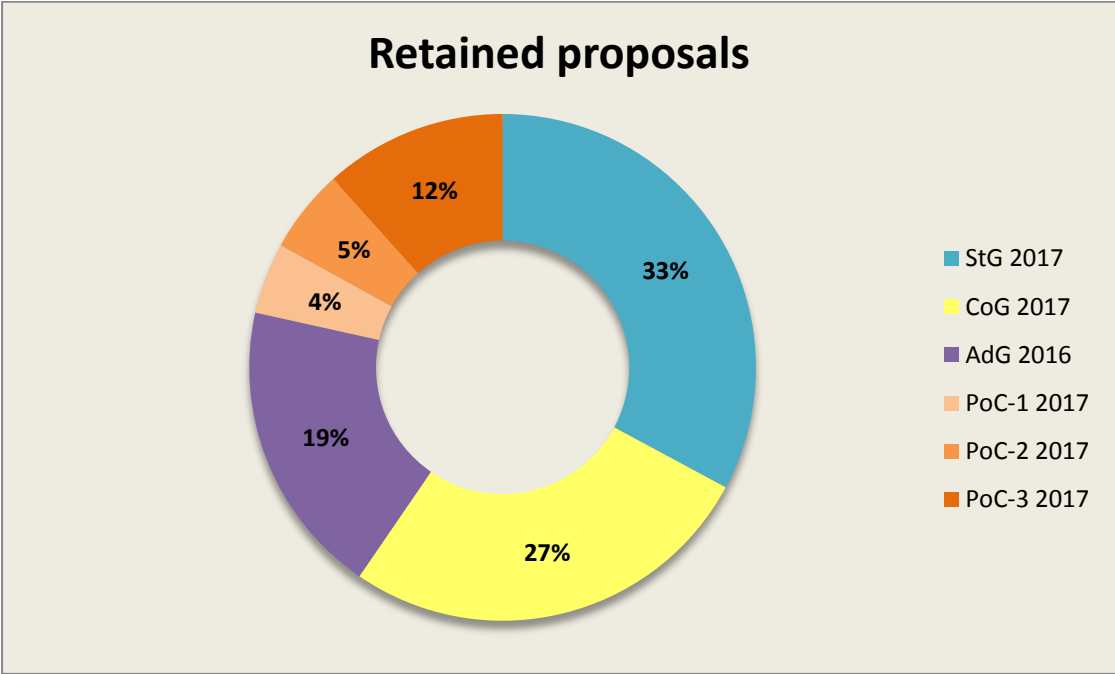
Call management

Year 2017 was marked with an increased workload in the evaluation and selection of proposals. The Agency received overall 3% more proposals compared to 2016 which still fell short of the expectations (AWP target: 10% increase). The applications were distributed as follows:



Explanatory note: Starting Grant (StG), Consolidator Grant (CoG), Advanced Grant (AdG), Proof of Concept (PoC).

The increase was due to the positive results of CoG 2017 (+10.2%) and PoC 2017 (+22%) while AdG 2017 (-9.9%) and StG 2017 (+5%) did not meet the target. The distribution above slightly differs from the one showing the retained proposals³¹ (below):



The reasons for that are: 1) the evaluation of AdG 2017 was still on-going at the time of writing, and the chart includes the result of AdG 2016; and 2) the different success rates in the different schemes which vary from 10% in AdG 2016, 13.5% in StG 2017, 13.4% in CoG 2017 and up to 52.6% in PoC 2017. Those results are either just below their respective AWP targets or above them, namely 11% for AdG, 14% for StG & CoG and

³¹ It should be noted however that retained proposals consists of main list plus reserve list proposals whereas in section 1.1.1 and Annex 12 the results reflect only the main list projects.

40% for PoC.

Evaluation

ERCEA 2017 AWP	2017 Target	31/12/2017
Overall average number of remote referee reviews per proposal	AdG 2016: 2 StG, CoG, AdG 2017: 2	AdG 2016: 3.5 StG/CoG 2017: 3.6

ERCEA 2017 AWP	2017 Target	31/12/2017
% execution of L1 commitment	100%	100%

Control effectiveness as regards legality and regularity

ERCEA 2017 AWP		
Ineligible proposals (not withdrawn)	2017 Target	31/12/2017
StG, CoG, AdG 2017	1.5%	StG/CoG/AdG: 1.1%
PoC 2017	5%	PoC: 3.9%
Evaluation complaints		
% of re-evaluations out of the overall proposals submitted and following requests for redress	All calls: 0.1%	0.04%

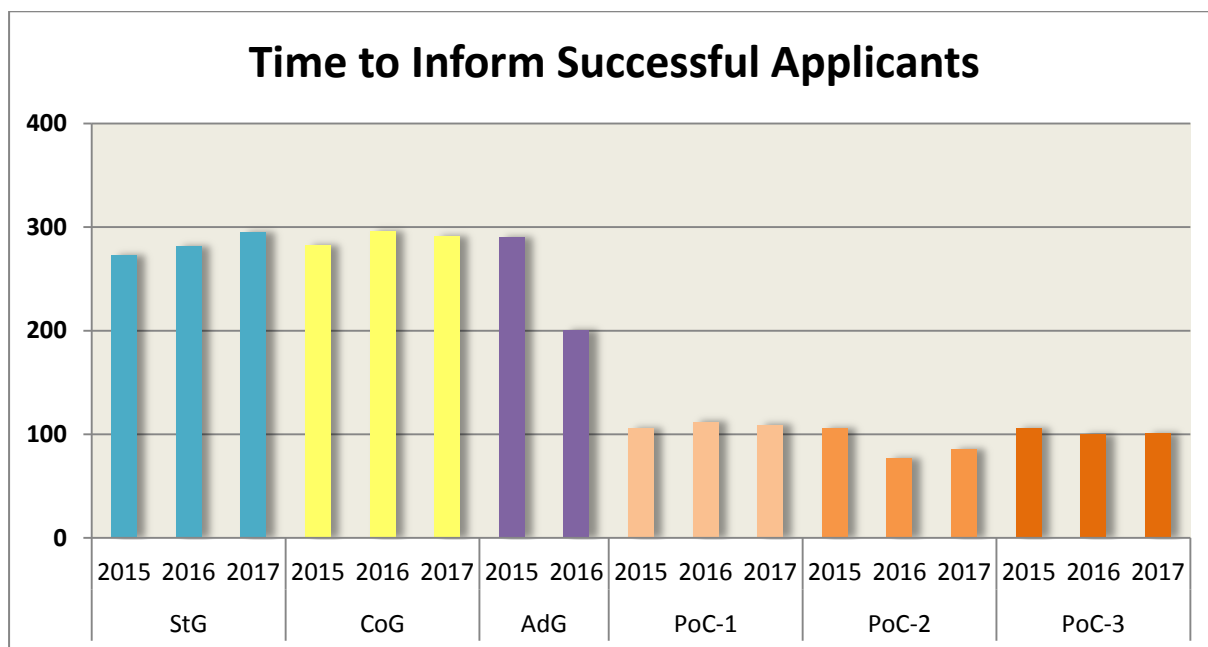
Out of a total of 85 redress cases received in 2017, one AdG 2016 proposal was re-evaluated.

During the reporting period, the Commission received 11 requests for legal review in accordance with Article 22 of Regulation 58/2003 ('Article 22 requests') concerning ERCEA's decisions. The Agency provided timely contributions to the parent DG in all cases. All requests stemmed from unsuccessful applicants and concerned the outcome of the scientific evaluation (subject-matter outside the scope of the Commission's legal review). Out of the 11 cases, eight cases were closed in 2017 and three in early 2018. Overall, in only one case the applicant's position was considered founded.

Control efficiency and cost-effectiveness

The evaluation process in 2017 demonstrated some inefficiency in terms of meeting the time-related targets set the AWP. Out of the seven evaluated calls – three main calls (StG 2017, CoG 2017 and AdG 2016) and four cut-off dates for PoC (one from 2016 and three from 2017) -, only two calls (namely PoC-3 2016 and PoC-2 2017) were finalised ahead of the scheduled deadline. However, it should be noted that the delays in the other calls were either insignificant in terms of magnitude or unpredictable in terms of causes

and nature. Moreover, if the dynamics of results is analysed within the last three years, the trend is rather positive.



Source of data: Compass

The evaluation of StG 2017 recorded the largest delay in 2017 (TTI Successful applicants: 295 days versus the AWP target: 280 days). This was also the only result which was both outside its target and higher than the respective TTI of the previous year (2016 TTI Successful: 281 days). In reality, those 15 days of delay in 2017 represented a deviation of just 5.4% off the AWP target and came from the structure of the call calendar. The latter was structured in a way that allowed AdG 2016 Step 1 and step 2 evaluation phases to take place between the StG 2017 call deadline and its step 1 phase. Although all the calls and steps were effectively managed, this situation demonstrated that the AWP target set at the end of 2016 (280 days) was too ambitious. Therefore, the StG 2018 target was changed accordingly (300 days for the TTI of successful applicants in the 2018 AWP) in order to take into account this shift in the calendar where AdG calls will recurrently take place between the StG deadline and related step 1 evaluation in the future.

CoG 2017 was also slightly above the target (TTI Successful applicants: 291 days versus the AWP target: 280 days) These 11 days above the target represented 3.9% deviation. The 2017 result, however, improved compared to the 2016 TTI Successful applicants (296 days). The underlying causes for this delay were exclusively attributed to several problems linked with the use of the Sygma central system (e.g. longer than expected period of time for the SEP team to upload the evaluation results, wrong template of the Information letter was used, etc).

The evaluation of AdG 2016 was finalised in early 2017 and also showed 4 days of delay (TTI Successful applicants: 200 days versus the AWP target: 196 days). It should be noted however that the ADG 2016 result was considerably better than the ADG 2015 TTI Successful applicants (290 days). AdG 2016 was the first main call for which ERCEA carried out the evaluation using fully the SEP central system (except for the PMA meetings). Due to the Agency's specific requirements for IT functionalities, a number of IT issues were encountered and solved in the course of the evaluation which at the end delayed the transmission of the Information letters to the applicants.

As per the first deadline of PoC 2017 call, the TTI result (109 days) exceeded the AWP target (100 days) but still was lower than the 2016 level (112 days). The finalisation of the evaluation was negatively impacted by one project which required consultation of the Legal Sector in ERCEA and the Scientific Council which delayed the communication for

the whole call.

It should be noted that before having to use the SEP central system for evaluating its calls, ERCEA was able to communicate the results to applicants by the scientific domain of the proposal using the its legacy system (the evaluation of the three scientific domains in ERCEA is not finalised on the same date). However, the Sygma central system forces the communication to be done in one batch only for all domains at the same time which additionally affects negatively the TTI because all domains must be finalised before being able to inform applicants on the outcome of the evaluation.

Some of the problems described above were anticipated by the Agency at the beginning of the year, particularly potential delays resulting from the use of the common H2020 IT systems. Therefore, as a mitigating measure ERCEA has actively used the so called early information mechanism. This was put in place in 2015 in order to provide applicants with a better and more efficient service and to allow them to take career decisions as soon as possible once the evaluation results can be communicated (although the final details are still being processed).

Research Family harmonised KPI	31/12/2017
Average evaluation cost per proposal (external experts paid/ total number of proposals evaluated)	€ 1 355.67

Stage 2 : Grant preparation and signature

Stage two encompasses the preparation of grant agreements up to the time of their signature and the main control objective is to translate selected proposals into legally binding grant agreements. 2017 activities concerned exclusively the "Excellent science" Programme (Horizon 2020). In addition to the Internal Control and Management Control Systems in place for the entire Horizon 2020 Programme, further controls are implemented by the ERCEA taking into account the specificity of the "Excellent science" Programme, namely the duality of the actors, the Host Institutions (HI) as the legal beneficiaries of the grants and the Principal Investigators (PIs) conducting the scientific research. These ERCEA's specificities are addressed in detail in the related internal ERCEA procedures.

Control effectiveness as regards ERCEA objectives' achievement

ERCEA 2017 AWP	2017 Target	31/12/2017	31/12/2016
% execution of L2/L1 commitment (C8) ³²	100%	99.93%	99.9%

Source of data: ABAC Data Warehouse

³² The indicator for the percentage execution L2/L1 is dependent on the timing of the evaluation process.

Throughout the year, 1 233 grant agreements for a total of € 1.9 billion were signed which was comparable to the volume achieved last year allowing to effectively meet ERCEA's objectives.

Control effectiveness as regards legality and regularity

ERCEA specific control indicators	31/12/2017
% of exclusion from granting process following financial viability checks	-
% of weak financial viability checks / total financial viability checks	30%

Source of data: CORDA

In 2017, 10 Financial Viability Checks were performed either related to H2020 granting concluded this year or to amendments signed in 2017 for change of Host Institution in FP7 projects. Three of these checks concerned two start-up companies and therefore, in absence of financial data, the results had to be considered as "weak". Additional information was requested as to their respective founding bodies which provided sufficient assurance to go ahead with concluding the grants/amendment.

Three non-compliance cases were registered in 2017, none of them impacting the declaration of assurance.

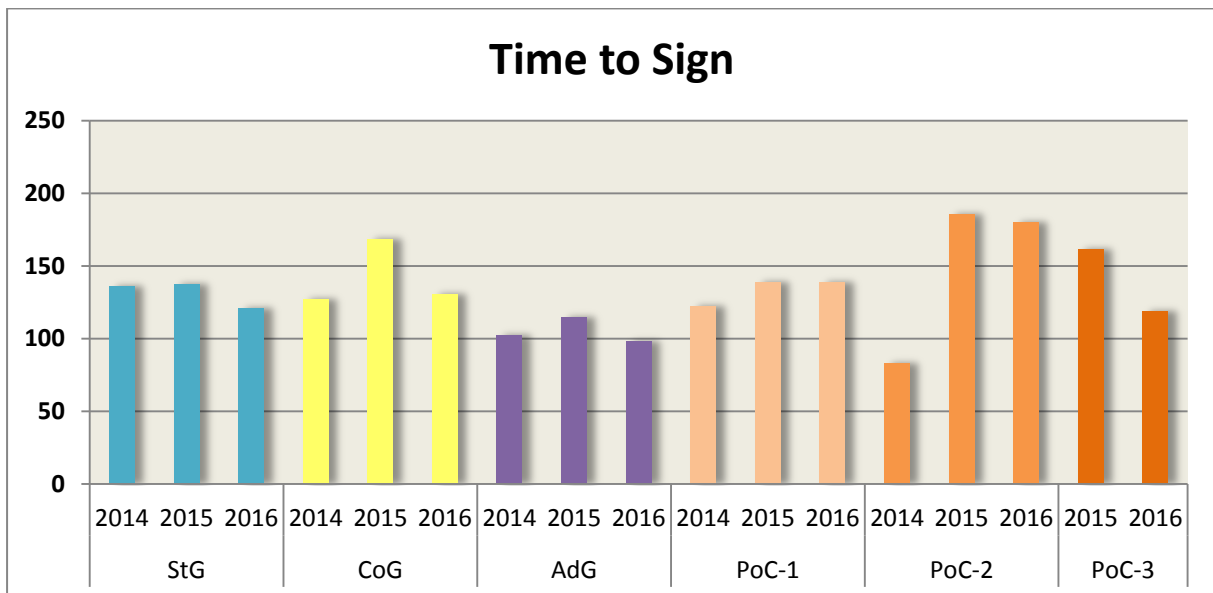
Control efficiency and cost-effectiveness

The efficiency and cost-effectiveness of transactions related to the grant preparation and signature process is underpinned by the following 2017 results of related key controls³³:

The H2020 legal framework rules the Time to Sign (TTS) which measures the period of time from the date of informing applicants of their successful evaluation result to the grant signature. Thus, the grant preparation process starts at the moment when the evaluation process ends, the triggering event being the date of the information letter to applicants. However, ERCEA processes are designed slightly differently: after the transmission of information letters to successful applicants - ending the evaluation process - the granting process is launched with a second letter, the invitation letter.

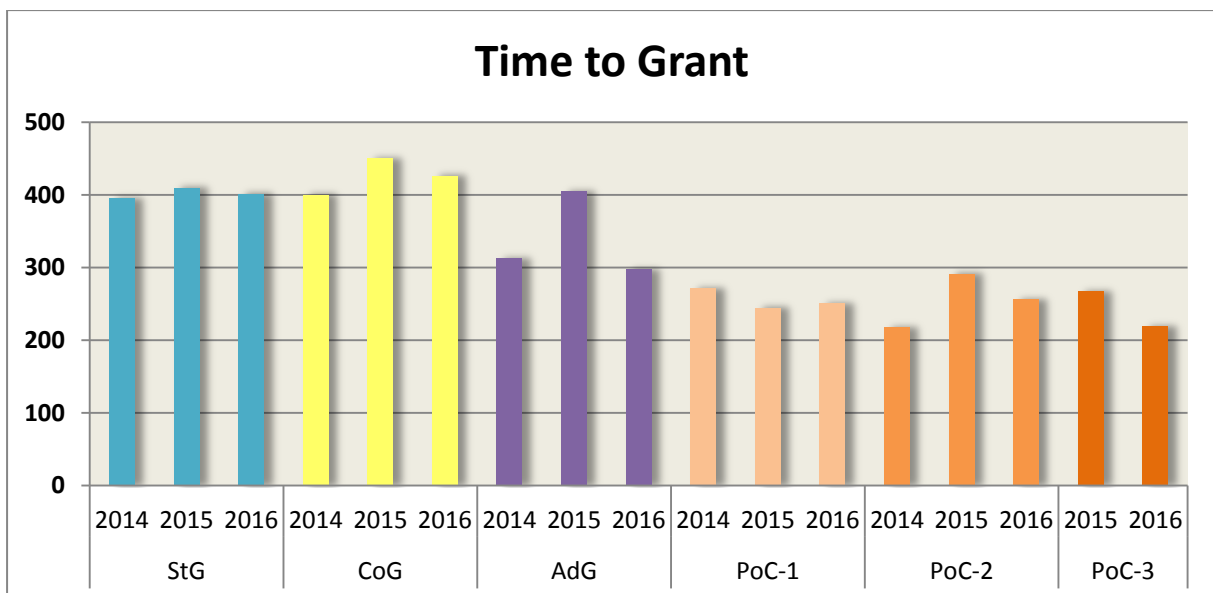
In 2016, ERCEA calculated the TTS starting from the invitation letter which generated a "grey zone" - a period of time between the dates of the two letters - affecting negatively the TTG results and therefore since the start of 2017, it was decided to measure the TTS from the information letter date to grant signature and eliminate as far as possible the grey zone.

³³ The cost and benefits of the controls related to grant preparation & signature phase is shown under the grant implementation phase (stage3).



Source of data: Compass

These measures proved very effective in tackling the deviations observed in 2016 as all TTG targets were achieved for the 2016 calls with the exception of PoC 2016 (deadline 1) which exceeded the target by 15.8 days. TTS targets were met for all calls completed in 2017 with the exception of PoC 2016 (deadline 2) which stood with 34.1 days above the target, due to serious ethics issues faced by some of the grants – 61% of the PoC 2016 grants went through a full ethics review (i.e. ethics assessment). Hence, the timeline for their signature had to be extended. Yet, the overall TTG was respected thanks to the positive TTI result.



Source of data: Compass

Overall, the TTS and TTG results registered in 2017 for the 2016 calls displayed a significant improvement compared to the results observed in 2016 for the 2015 calls. It is worth mentioning that concerning TTS the highest improvements was found in the PoC 2016 (deadline 3) call and the CoG 2016 call with a reduction of 42.8 and 37.6 days respectively. While for TTG the most substantial gain was again in the PoC 2016 (deadline 3) call with a decrease of 48.8 days and of 106.7 days for the AdG 2016 call .

In conclusion, effective strategic planning and resources attribution as well as granting process simplification allowed the record reduction of TTS and TTG for all the calls

completed in 2017.

Research Family harmonised KPIs	31/12/2017
Average "Time to grant" (H2020 Rules of participation³⁴ <245 /ERCEA 2017 AWP: 384 for main 2016 calls)	368.40 days
Average "Time to grant" (H2020 Rules of participation³⁵ <245 /ERCEA 2017 AWP: 257 for 2016 PoC calls)	255.05 days

Source of data: Compass

Stage 3: Grant implementation

Control effectiveness as regards ERCEA objectives' achievement

Grant & experts payments

ERCEA 2017 AWP	2017 Target	31/12/2017		31/12/2016	
		H2020	FP7	H2020	FP7
% execution of payment credits - grants	100%	100%	100%	100%	100%
% execution of payment credits - experts	100%	100%	100%	100%	-

Source of data: ABAC Data Warehouse

Given the parallel implementation of two framework programmes, the workload related to payments posed a particular challenge in 2017, as payments for the H2020 programme increased significantly in the number of transactions (+84.48% compared to 2016).

ERCEA achieved its budget execution target, preserving its excellent KPIs as in previous years, a high satisfaction of beneficiaries and a steady improvement and simplification of all its procedures and operations despite some technical limitations (e.g. processing of termination in absence of a complete COMPASS workflow and late implementation of the specific workflow for mid-term scientific reporting).

The good results were achieved thanks to the efforts of the Grant Management Department to implement as of early 2017 the ex-ante control Strategy for H2020 payments. A related guide "A-Z Payments" was prepared from the earlier steps of the payments and was regularly revised – given the evolving functionalities of the IT system and processes defined by the CSC – so as to guide staff in all related new processes. Moreover, an ERCEA internal procedure for payments is currently being drafted and is to be concluded subject to completion of the central CSC guidance and the conclusion of the newly launched IAS audit in the ERC on H2020 project management.

³⁴ Regulation N° 1290/2013 of the European Parliament and of the Council of 11 December 2013, OJ L 347/81 of 20.12.2014.

³⁵ Regulation N° 1290/2013 of the European Parliament and of the Council of 11 December 2013, OJ L 347/81 of 20.12.2014.

Control effectiveness as regards legality and regularity

ERCEA control indicators – 2017						
Rejection of interim and final payment costs	Number of Invoices		Amount		% of ineligible costs on total declared costs ³⁶	
	H2020	FP7	H2020	FP7	H2020	FP7
Total declared cost	1 128	2 329	385 922 658	1 101 935 178		
Of which Ineligible costs declared³⁷	31	297	437 769	3 429 262	0.11%	0.31%

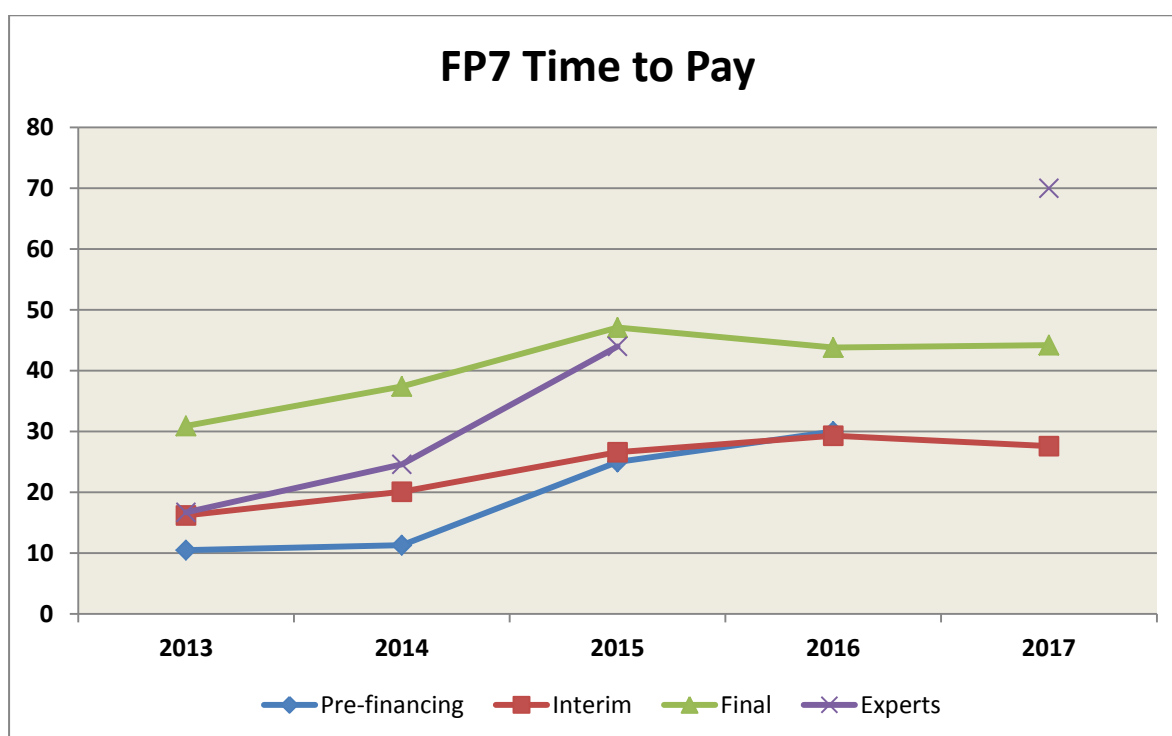
Source of data: DWH BO reports

The above table presents the ex-ante control results, reflecting the percentage of declared costs considered as ineligible.

In addition, during the reporting period, the Scientific Management Department assessed a total of 1 449³⁸ scientific reports (mid-term and final).

Control efficiency and cost-effectiveness

Time to pay related to grants & experts



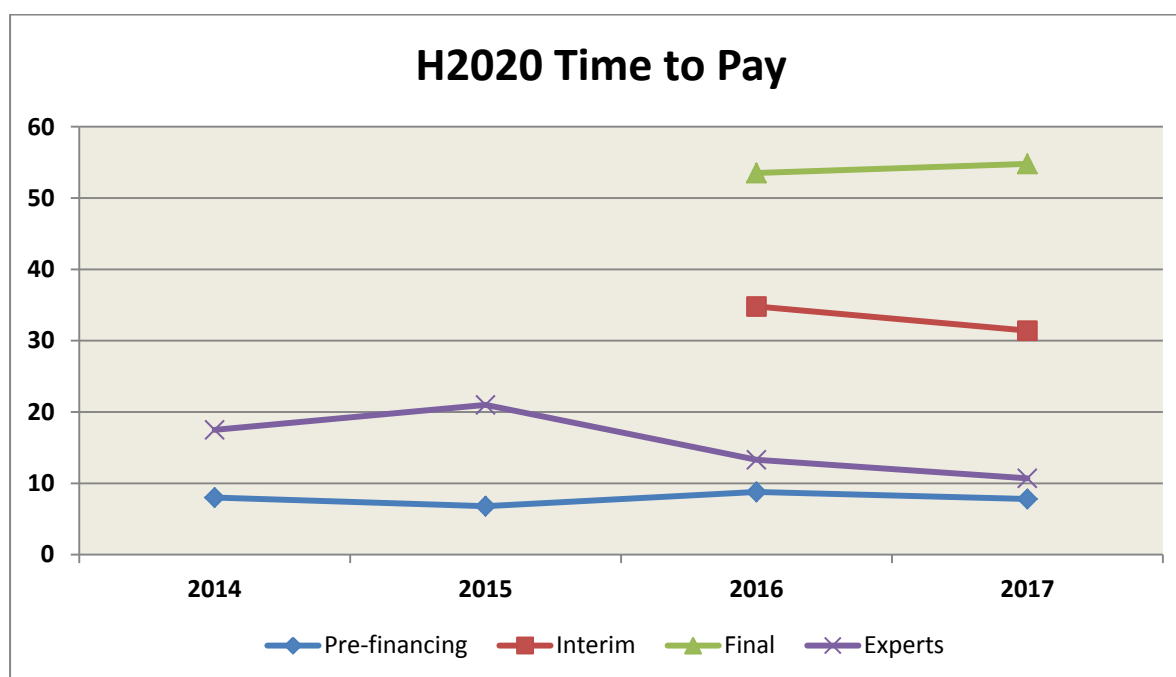
Source of data: ABAC Data Warehouse

³⁶ Covering ex-ante rejections by Financial Officers and independent certified auditors (CFS).

³⁷ Ineligible costs as identified in the recovery context of the respective cost claim (e.g. independent controls, community controls/desk checks and on the spot).

³⁸ Namely, 587 StG, 254 CoG, 437 AdG, 156 PoC and 15 SyG scientific reports (final and mid-term).

In 2017, the Time to pay of FP7 Experts stands at 70 days. This concerns only two belated payments related to grants to identified beneficiaries³⁹ as all FP7 projects are now in grant implementation stage. Moreover, no FP7 experts payments were made in 2016. The interim and final payments maintain their excellent results (there are no pre-financings any more for FP7 projects).



Source of data: ABAC Data Warehouse

The 2017 H2020 results are either in line with the 2016 level or are improving. All type of payments are well below their AWP targets. With view of the nature of the ERCEA grant schemes, the first interim and final payments under the H2020 programme started in 2016.

Research Family harmonised KPIs	31/12/2017	31/12/2016
Average time to pay (% on time) (FR 92.1)	17.4 days (99% on time[<30/90])	18.2 days (98.80% on time [<30/90])

Cost effectiveness of controls

Research Family harmonised KPIs	31/12/2017	31/12/2016
Average project mngt cost per running* project (staff FTE * standard staff cost)⁴⁰ (ALL projects - Range of € 5 000 - 10 000)	€ 3 425.58	€ 3 593.38
Average number (Range of 15 - 35) & value of running projects managed 'per' staff FTE (Range of € 1 Mio - 50 Mio)	27.92 € 54.4 Mio	25.4 € 44.2 Mio

³⁹ In previous ERC Work Programmes, so called CSA.

⁴⁰ FTE's accounted for are the staff intervening in the grant execution and monitoring process taking into account their contribution to the process and their work pattern. Running projects are those related to commitments with completion flag set to "no" in ABAC.

The costs associated with the control system are quantifiable through the "Average project management cost per running project" which decreased in 2017 compared to 2016. This improved cost effectiveness over the previous year is reflected also in the average number and value of the running projects managed per staff member.

The different indicators presented above provide a robust indication on the cost-effectiveness of the control system put in place at the grant implementation stage to ensure a sound financial management of the grant implementation throughout the lifetime of the projects, as well as the monitoring of their scientific progress. Also, benefits can be measured by the low error rate resulting from ex-ante controls (H2020: 0.11%; FP7: 0.31%), even if these are affected by the deliberate limitation of the depth of the ex-ante controls as part of the overall control framework, as established by FP7 and H2020.

Finally, the established control framework strikes the right balance between the efforts to simplify and minimise the administrative burden on beneficiaries and the necessity to provide assurance as regards the sound financial management of the operational budget and the timely provision of financial means to beneficiaries allowing them to conduct their research in line with the grant agreements' provisions.

Stage 4 : Ex post controls

The fourth stage includes the ex-post audits and their implementation via recovery or offsetting of amounts found to have been paid in excess of the amount due. Related activities cover only the "Ideas" programme (FP7).

Particular focus is put on the fourth stage to obtain main part of the assurance from ex-post controls, with careful monitoring of their efficiency and cost effectiveness.

Control effectiveness as regards ERCEA objectives' achievement

Implementation of the Ex post control audit plans and audit coverage

In the AWP 2017 the ERCEA audit has planned – also according to the Annex 1 of the Common Audit Strategy of the Research Family – to launch 60 audits, to close 60 audits and to ensure an audit coverage between 6-7%. ERCEA closed 69 audits by the end of 2017.

A number of 50 audits (177 cost statements) remained open at year end 2017, out of which 26 audits have been launched in 2017 on the account of the 2018 audit exercise. The audit coverage of 10,06 % has met the planned expectation. During 2017, ERCEA finally achieved (and even exceeded) the cumulative number of 475 launched and closed audits between 2009 and 2017.

Control effectiveness as regards legality and regularity

ERCEA ex post control error rates for FP7

To conclude on the legality and regularity of transactions, ERCEA does not rely on the results of the CRaS common approach, since its risk and program profiles are different. It takes into account all the evidence available, especially the results of its own MUS sample and, more widely, the cumulative results of all audits carried out specifically on ERCEA expenditure.

Thus, ERCEA has implemented its own multi-annual ex-post controls indicators to provide assurance to the Authorizing Officer by Delegation on the ERC specific population using an ERCEA specific MUS sample. The completion of this specific ERCEA stratified MUS sample, although not yet statistically representative, is becoming more and more indicative and useful to draw preliminary conclusions given that 255 out of 310 items (82%) of ERCEA population are closed as of 31 December 2017. The so far detected error rate is 1.08% and the related residual error rate 0.82%.

Since the start of its ex-post control activity in 2010, the ERCEA specific error rate is constantly lower than the FP7 Common Representative Error Rate confirming the lower inherent risk profile of ERC grants and the higher concentration of the beneficiaries, as compared to the rest of the FP7.

The ERCEA therefore considers that, taking into consideration all the information available, it has sufficient evidence to expect the multiannual residual error rate based on the MUS sample to stay below the materiality threshold by the end of the FP7 programme.

The overall error rate (all audited costs statements except joint Court of auditors' audits) maintain levels between 2%-3% (slightly above 2%) and confirm the robustness of the risk analysis applied for this strand of audits. In addition, a couple of technical audits and audits on request have been performed with impact on the overall results.

The most common errors in ERC projects are usually found in personnel costs, namely incorrect methodology used to calculate the hourly rate, incorrect productive hours or incorrect reported hours devoted to ERC projects. Other common errors include lack of supporting documents (as invoices, timesheets), costs claimed outside of the eligibility period, VAT included, incorrect depreciation, costs not relevant to the project and non-compliance with EU public procurement principles.

Implementation of FP7 audit results in 2017

The table below shows the cumulatively activities on the implementation of external audits from the moment the final audit report has been sent to the beneficiary and the amount to be recovered/paid has been established (by project).

EX-POST AUDIT IMPLEMENTATION											
Type of Call	Results from external audits						Adjustments pending neg implementation		Adjustments implemented (neg implemented)		% cases neg implemented / total
	Total number of findings R=A'+A*	Findings with negative adjustments		Findings with positive adjustments		Number of findings with zero adjustments	Number (S)	Value (B)	Number (T)	Value (C)	
		No (A'+S+T)	Amount (A'-B+C)	No A*	Amount						T/A ¹
AdG	214	143	-4,905,520.61	71	2,536,694.56	200	17	-1,082,678.55	126	-3,822,842.06	88.1%
StG	226	126	-2,829,520.21	100	3,448,184.18	255	14	-322,278.13	112	-2,507,242.08	88.9%
SyG	1	1	-89,074.63	0	0.00	1	1	-89,074.63	0	0.00	
CoG	4	2	-73,070.42	2	183,069.41	3	1	-25,180.22	1	-47,890.20	50.0%
PoC	2	1	-15,733.24	1	3.14	3	1	-15,733.24	0	0.00	
CSA	4	3	-3,926.31	1	29,258.45	2	0	0.00	3	-3,926.31	100.0%
TOTAL	451	276	-7,916,845.42	175	6,197,209.74	464	34	-1,534,944.77	242	-6,381,900.65	87.7%

Source of data: Grant management tool

As per the approved implementation procedure, the period to implement the negative adjustments in favor of the ERCEA cannot be longer than three months from issuing the letter of conclusion. For 19 pending cases with a negative adjustment out of the total reported (34) the issue date of the letter of conclusion is on average not older than three months. Thus, in accordance with the standard business practice, the pending cases will be implemented in the first months of 2018.

Implementation of FP7 extrapolations in 2017

In case of encountering systematic errors during an external audit, the results may be extrapolated to other projects run by the same beneficiary. One extrapolation case may include several projects. The table below shows the extrapolation recommendations by project (cumulatively).

IMPLEMENTATION OF EXTRAPOLATION									
Type of Call	Results from extrapolations		Implemented cases				Number of cases to be implemented (neg adjustments) (E)	Number of cases to be implemented (pos adjustments) (F)	% cases neg implemented / total
	Total number of contracts with systematic errors A=C+D+E+F	Number of contracts without systematic errors (B)	In favour of the ERCEA		In favour of the BENEFCIARY				
			No (C)	Amount	No (D)	Amount			C/C+E
AdG	16	27	16	-208,195.32	0	0.00	0	0	100%
StG	14	46	10	-117,648.30	3	9,424.98	0	1	100%
SyG	0	0	0	0.00	0	0.00	0	0	
CoG	0	0	0	0.00	0	0.00	0	0	
PoC	0	1	0	0.00	0	0.00	0	0	
CSA	0	1	0	0.00	0	0.00	0	0	
TOTAL	30	75	26	-325,843.62	3	9,424.98	0	1	100%

Source of data: Grant management tool

Control efficiency and cost-effectiveness

Average time to audit closure

The 2017 ex post control audit programme has been executed beyond the plan of 60 audits with 69 closed audits. The time to audit for audits launched before 2017 significantly improved by 38% and for audits performed by external resources by 7%.

Costs of ex post control auditing

ERCEA indicators	31/12/2017	31/12/2016
Internal resources (FTE)	10	12
Cost of internal resources (€)	€ 1 011 538.46 for 8 audits	€ 1 179 200 for 17 audits
Average cost per closed audit/own resources	€ 126 442.31	€ 69 365
Cost of externalised auditing (€)	€ 849 621 for 61 audits	€ 872 105 for 70 audits
Average cost per closed audit/externalised	€ 13 928.21	€ 12 458.64
Research Family harmonised indicators	31/12/2017	31/12/2016
Number of audits performed⁴¹	69	87
Beneficiaries coverage	46.15%	43.69%
Value coverage⁴²	10.06%	9.55%
Total & Average ex-post audit cost in-house (FTE * standard staff cost) and/or outsourced (audit fees paid)	€ 1 861 159 – total € 26 973 - average	€ 2 051 305– total € 23 578 - average

Source of data: Consolidated figures on the basis of the value of each batch audit closed in 2017 (Prices lists of the contractor).

⁴¹ This number refers to the total number of audits closed in 2014 by the ERCEA Ex-Post Controls Unit, steaming from the corrective strand (ERCEA "CRaS1" audits were closed at the end of 2012).

⁴² Only on the basis of the financial statements submitted by the Host Institutions and accepted by ERCEA.

Non-quantifiable benefits

In view of training ERC beneficiaries in procedures, a total of 38 FP7/H2020 grant management workshops have taken place between 2009 and 2017 (six H2020 events in 2017). The objectives of these Host Institution events have been to provide grant management guidance, improve beneficiaries awareness of the ERC programmes, provide best practices in the area of grant management, highlight the H2020 novelties and provide an interactive forum for questions and answers.

The feedback received from the participants was very positive and showed high interest. The events were perceived as "complete and exhaustive overviews of all the different phases of the administration of projects, excellent workshops in clearing misunderstandings, highlighting financial areas exposed to common errors and providing relevant case studies and best practice examples".

2.1.1.2 Implementation of the internal control system for the operating budget

Control effectiveness as regards ERCEA objectives' achievement

ERCEA 2017 AWP	2017 target	31/12/2017	31/12/2016
% budget execution commitments	99%	99.8%	99.7%
% budget execution payments (C1)	99%	99.1%	98.7%

Source of data: ABAC Data Warehouse

Control effectiveness as regards legality and regularity

ERCEA 2017 AWP	2017 target	31/12/2017	31/12/2016
No material findings related to the sound financial management and legality and regularity of budget's underlying transactions in the financial report of the CoA	0	0	0 ⁴³

Further to its audit on the 2016 provisional annual accounts, the Court of Auditors gave a clean opinion regarding the true and fair view as well as the regularity and legality of the annual accounts.

The Court however made the following comment: "The level of committed appropriations carried over was still high for Title III (operational expenditure) at 1.3 million euro, i.e. 40% (2015: 1.5 million euro, i.e. 43%), mainly in relation to external audits and communication, going beyond the year end. The high level of carry-overs is in contradiction with the budgetary principle of annuality". The Agency replied that it takes note of this comment and considers that it does not give rise to corrective actions, as the "carry-overs of committed appropriations for Title III" are justified based on the nature and timing of the underlying economic transactions. The Agency also underlined that the carry-overs of committed appropriations has decreased in 2016 compared to 2015, from 43.1% to 40.1%.

⁴³ In 2016 AAR this indicator included all findings in the financial report of the CoA and subsequently, the reported result was 1. In 2017 AWP however, this indicator was changed and it covers only the 'material findings'. Thus, the 2016 result was adjusted to 0 because the one finding in 2016 was not a material one.

Control efficiency and cost-effectiveness

ERCEA 2017 AWP	2017 target	31/12/2017	31/12/2016
Number (and % of total) of late payments for the administrative budget	< 20 (<1%)	12 0.6%	7 0.34%
Average time to pay (days)	15 days	13.9	9
% of error in transactions related to staff expenditure (salaries) detected through ex-ante checks	< 1.5%	0.5%	1.5%

Source of data: ABAC Data Warehouse

Overall conclusion on the cost-effectiveness of controls

Research Family harmonised indicators (all stages combined)	31/12/2017	31/12/2016
Total cost of fin. management & control⁴⁴ / total value of operational payments made⁴⁵ (target:<3%)	2.9%	2.8%

ERCEA assessed its cost-effectiveness result reaching a positive conclusion, as in 2017 the total financial management and control payments (ie operating budget) compared to the operational ones represented only 2.9%⁴⁶.

The costs related to call coordination, evaluation and selection of proposals (stage 1) is estimated at 0.93% of the total H2020 committed credits and the ones related to grant preparation and signature (stage 2) at 0.34% of the total individual commitments. The costs related to grant implementation (stage 3) stood at 1.27% of the total payments, while those of ex post controls (stage 4) at 0.31% of the total audited amount.

2.1.2 Audit observations and recommendations

This section reports and assesses the observations, opinions and conclusions reported by auditors in their reports as well as the limited conclusion of the Internal Auditor on the state of control, which could have a material impact on the achievement of the internal control objectives, and therefore on assurance, together with any management measures taken in response to the audit recommendations.

Overall, the 2017 audit results supports the Declaration of Assurance as the only recommendation issued was rated important. The Internal Audit Service issued one final report in 2017 related to the audit on the "Closure of FP7 projects in ERCEA"⁴⁷. It resulted in one recommendation highlighting areas for improvement linked to procedures and the monitoring activities for the different phases of the project closure process. The related proposed action plan agreed by the IAS foresees actions to be implemented in 2018.

⁴⁴ For a nearly 'pure' grant management DG/EA, this is approximated by comparing the administrative/operating budget to the total operational budget.

⁴⁵ DG RTD, as the lead DG, ensures the overall effective coordination within the Research and Innovation Family. Its Common support service (CSC) provides common services (legal support, ex-post audit, IT systems and operations, business process..) to all entities implementing H2020. The related costs represent 0.7% of the total H2020 budget implemented in 2017, the part dedicated to ex-post audits accounting for 0.15%.

⁴⁶ Further details on cost effectiveness are provided page 26.

⁴⁷ Ares(2017) 2313328, dated 05/05/2017.

In addition, further to the follow up audit performed during the second semester of 2017, all the recommendations related to the audit on "*H2020 Grant management in ERCEA: from the evaluation of proposals to the signature of the Grant Agreements*" were assessed as adequately and effectively implemented, thus closed. As a result, all recommendations related to audits from previous years were closed.

The 2016 audit on "Human Resources Management in ERCEA"⁴⁸ which resulted in two recommendations, both rated important, were addressed throughout the year by the implementation of a detailed action plan agreed with the IAS. A follow up audit will be performed by the IAS in 2018.

The IAS draft annual opinion concluded that the internal control systems audited in the period 2015 – 2017 are effective.

Further to the audit on the ERCEA annual accounts for the financial year 2016, the Court of Auditors observed that the opening and evaluation committee reports related to public procurement and recruitment committees should present a more accurate record as to ensure an enhanced transparency of the related procedures. The Agency's increased attention to the clarity of its opening record (for public procurement) and recruitment reports' wording.

Based on the above, the ERCEA management believes that the recommendations issued in 2017 do not raise any assurance implications. Furthermore, these are being implemented as part of the Agency's continuous commitment to further improve its internal control system.

2.1.3 Assessment of the effectiveness of the internal control systems

The Commission has adopted an Internal Control Framework based on international good practice, aimed to ensure the achievement of policy and operational objectives. In addition, as regards financial management, compliance with the internal control framework is a compulsory requirement.

ERCEA has put in place the organisational structure and the internal control systems suited to the achievement of the policy and control objectives, in accordance with the standards and having due regard to the risks associated with the environment in which it operates.

The 2017 ERCEA annual review of the effective implementation of the Internal Control Standards' (ICS15) was based on a management self-assessment using DG BUDG internal control assessment tool (iCAT), tailored to the specific needs and control arrangements in place in ERCEA.

The iCAT outcome⁴⁹ indicates that Agency's internal control system is highly effective with 93.09% weighted average – an increase compared to the 2016 level (92.48%) - which confirms the positive trend witnessed in last exercises. The distribution shows narrow fluctuations across the results of different ICSs as even the lowest score of 88.44% (ICS 11. Document Management) is in the high effectiveness area. The perception of high workload, inter alia stemming from the imminent re-introduction of the Synergy Grant call in the 2018 call calendar, coupled with difficulties in recruiting staff with appropriate skills, particularly in the scientific area, have influenced the results of ICS 5 (Objectives and performance Indicators) – 91.33%, and ICS 3 (Staff Allocation and Mobility) – 90.20%. Moreover, the difficulty in adapting the H2020 workflows to the ERCEA organisational structure and the continuous efforts to integrate the specific ERCEA requirements into some IT tools managed by the Common Support Centre (e.g. Compass) have been pointed out by the managers and reflected in their assessment of

⁴⁸ Final audit report:Ares(2016)5609514 - 28/09/2016

⁴⁹ Based on a participation rate of 85% (17 out of 20 managers in ERCEA completed and submitted the 2017 iCAT survey).

ICS 7 (Operational Structure) – 91.57%, and ICS 10 (Business Continuity) – 91.47%.

In 2017, significant improvement was observed in the area of KPI reporting. The deviation identified in 2016 in TTS and TTG results was resolved and the close monitoring of the gap between Information and Invitation letters proved to be very effective – this period of time never exceeded five calendar days. This supports the high effectiveness (94.95%) of ICS 9 (Management Supervision) perceived by management, which improved compared to 2016 (93%).

However, these positive outcomes are not reflected in the 2017 TTI results as the majority of the calls evaluated in 2017 did not meet their respective targets. Considering the limited span of the TTI deviations from the respective call targets (from 4 to 15 days) as well as the underlying causes, namely the structure of the Advanced Grant call calendar⁵⁰ and several issues encountered by corporate IT systems⁵¹ managed centrally, the Agency assesses ICS 8 (Procedures and Process) as fully effective. In addition,, corrective actions will be implemented throughout 2018 along with management's close monitoring and reporting on the progress achieved⁵².

In addition, the implementation rate of "important" audit recommendations within deadline has reached only 40%. Also, the Risk Register shows at year end that the implementation within deadline of mitigating measures related to medium and high risks stands at 53% (i.e. 10 out of 19 actions were implemented on time and nine were either completed but with delay or postponed). It should be underlined that none of these risks have materialised.

The functioning of the internal control systems has also been closely monitored throughout the year by the systematic registration of exceptions / non-compliance events and internal control weaknesses. It should be noted that the number of exceptions has increased up to 16 cases (10 in 2016) along with some delays in their reporting. Despite that, the underlying causes behind the non-compliance events and requests for exceptions have been analysed, corrective mitigating measures have been defined when necessary and their implementation has been regularly followed up.

Management's low responsiveness in implementing on a timely basis mitigating measures to address risks, audit recommendations and in reporting in due time non-compliance events/request for exceptions calls for a more prudent assessment of the effectiveness of Management's supervision (ICS 9). It is underlined that this shortcoming does not jeopardize the annual declaration of assurance.

Additionally, ERCEA undertook the necessary steps to apply the new Internal Control Framework adopted by the Commission in April 2017. The current Head of the Resources and Support Department was appointed as ERC Risk Management and Internal Control (RMIC) officer. Also, the Agency defined and communicated as part of the AWP process its list of internal control monitoring criteria which are based on the information made available from the 2016 staff opinion survey, iCAT, management monitoring tools as well as from independent sources of oversight, such as the Steering Committee, IAS, ECA and OLAF. ERCEA's list of internal control monitoring criteria provides a good mix of compliance and effectiveness criteria, and a prudent balance between the Agency's internal control strengths and weaknesses, including management's low responsiveness in timely implementing mitigating measures. The latter will be addressed in 2018.

In summary, the ERCEA assessed the internal control system during the reporting year and concluded that the internal control standards are fully implemented and functioning as intended with the exception of standard 9 (Management Supervision) where some improvements in functioning are needed, however without having impact on the declaration of assurance.

⁵⁰ The latter being structured in a way that allowed AdG 2016 Step 1 and step 2 evaluation phases to take place between the StG 2017 call deadline and its step 1 phase.

⁵¹ SEP and Sygma.

⁵² Please refer to section 2.1.1.1, stage 1 above for details on underlying causes and mitigating measures.

2.1.4 Conclusions as regards assurance

This section reviews the assessment of the elements reported above (in Sections 2.1.1, 2.1.2 and 2.1.3) and draws conclusions supporting the declaration of assurance and whether it should be qualified with reservations.

The information reported in the AAR covers both the operational budgets related to the FP7 "IDEAS" and to the H2020 "Excellent Science" programmes as well as the operating budget managed by the ERCEA in 2017 and supports the statements of the Declaration of Assurance. It derives from management's and auditors' monitoring based on the systematic analysis of the evidence available as reflected in the reports listed above part 2.

Management's assessment is based on the results of key indicators related to the budget execution addressing the statement on the "use of resources for the intended purpose". It further assesses the "sound financial management" and the "legality and regularity of underlying transactions" per process stages and reports on measures implemented to prevent, detect and mitigate fraud.

As demonstrated throughout the report, the results of performance and control indicators positively support the five statements of the declaration of assurance. Although some indicators related to the efficiency component of the sound financial management in the evaluation phase show some deviation from targets, these do not impair the declaration of assurance. Indeed, neither the Agency's budget execution nor its reputation were impacted. Also, the Agency effectively achieved its operational objectives, its granting and payment efficiency, provided evidence of the legality and regularity of its underlying transactions and of its overall cost-effectiveness.

The assessment of the internal control system, although acknowledging an area requiring improvement in 2018, resulted in an overall positive conclusion. Last but not least, fraud prevention and detection mechanisms in place did not reveal anything that would adversely impair the Declaration of Assurance.

The report has been prepared with the objective of providing the reader with reliable, complete and correct information on ERCEA state of affairs for the reporting period ("true and fair view"). Finally, it does not knowingly contain any material inaccuracy or omit any significant information ("non-omission of significant information"). Management confirms the non-occurrence in 2017 of any significant weakness or reputational event that would have adversely impacted the assurance provided below.

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance.

2.1.5 Declaration of Assurance

DECLARATION OF ASSURANCE

I, the undersigned,

Director of ERCEA

In my capacity as authorising officer for the operating (administrative) budget and authorising officer by delegation for the operational budget

Declare that the information contained in this report gives a true and fair view⁵³.

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the limited conclusion of the Internal Auditor on the state of control, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors - for years prior to the year of this declaration.

Confirm that I am not aware of anything not reported here which could harm the interests of ERCEA or those of the Commission.

Brussels, 21/03/2018

Signed in Ares

Pablo AMOR

⁵³ True and fair in this context means a reliable, complete and correct view on the state of affairs in the DG/Executive Agency.

2.2 Other organisational management dimensions

2.2.1 Specific efforts to improve 'economy' and 'efficiency' of spending and non-spending activities

According to the financial regulation (art 30), the principle of economy required that the resources used by the institution in the pursuit of its activities shall be made available in due time, in appropriate quantity and quality and the best price. The principle of efficiency concerns the best relationship between resources employed and results achieved.

The respect of these principles is continuously pursued through the implementation of internal procedures and predefined practices. These procedures ensure that activities are executed in an efficient manner (e.g. the different workflows contribute to the efficient cooperation between staff, units, etc...) and according to the principle of economy (e.g. the procurement rules ensure procurement in optimal conditions).

ERCEA is continuously fine-tuning its internal arrangements in order to improve the efficiency and economy of its operations. The following three initiatives show how these principles are implemented in our Agency:

2.2.1.1 Streamlining of the amendment process

In 2017, one of the main focal points of ERCEA within the framework of its collaboration with the Common Support Centre was to finalise the full integration of scientific /ethical consultation on amendments into the Compass workflow.

Following discussions with the CSC and technical updates to the Compass/Syigma system, the ERCEA amendment workflow consisting of parallel consultation of two support actors (Scientific and Ethics officers) in line with a set of automated business rules depending on the amendment type, was put into production in spring 2017. Thus, the previous arrangements on managing the same process with multiple systems, such as Ares and Excel, were replaced and a comprehensive internal guide to the amendment process in the ERCEA was issued.

This increased the overall efficiency of the amendment process as the previous version of the workflow provided for sequential running of the consultation. As pointed out in section 1.1.3, the results concerning this activity in 2017 improved compared to 2016. The average time to amend for the H2020 grants from 36.3 days in 2016 decreased to 21.8 days in 2017 and the same trend was observed also for the FP7 grants: 13.2 days in 2016 vs. 12.4 days in 2017. Another significant improvement was witnessed in the percentage of amendments accepted/rejected within deadline for H2020 amendments where 90.8% were signed within 45 days in 2017 compared to 73.4% in 2016.

2.2.1.2 Grant management workshops for ERC beneficiaries

In 2017, the ERCEA continued its tailor-made services for ERC beneficiaries, providing training events for Principal Investigators (PIs), who are often participating in the administration of their projects. A total of 37 PI events have taken place between 2009 and 2016, including five in 2017 (in Germany, France, Israel, Spain, and Poland).

The primary aim of these H2020 events was to provide information for the PIs on the ERCEA's administrative and scientific rules and procedures and facilitate a dialogue among them. In addition, these events have helped the PIs to make appropriate decisions about the implementation of their projects during their lifecycle, and stimulated discussion on various relevant topics in small workshops.

Almost 350 PIs participated in the 2017 events which covered a number of the top 100 beneficiaries (ERC Host Institutions). The aimed at impact of these trainings is lower

number of errors in the submitted amendment requests and increased understanding of administrative issues affecting the PIs, their rights and obligations. This helps to maintain an appropriate level of legality and regularity of transactions as well as increased efficiency. The events also improve the dialogue and feedback among the beneficiaries, PIs and the ERCEA. Finally, it should be noted that these events are an important form of liaising with PIs who are usually employed by the Host Institutions but do not have any direct contractual relationship with the ERCEA.

The H2020 events started in 2016 and have covered so far 33% of all ERC Host Institutions (representing 68% of the ERC contribution), of which 74% of the top 100 beneficiaries (representing more than 54% of the ERC contribution). More than 240 Host Institutions have participated to date.

2.2.1.3 Simplification of the granting process

Building on the experience already gained from the first years of granting in H2020, ERCEA updated its internal procedure in relation to the granting process, with the aim of improving the Agency's economy and efficiency, for the benefit of the research community.

In this framework, ex-ante controls and "preventive checks" were removed for the top 20 ERC beneficiaries that were considered to know the H2020 rules and novelties after four years of on-going granting but kept for new H2020 beneficiaries or when there was a need for a particular rule to be clearly understood (e.g. rules for PI's employment, internal invoices, equipment depreciation policy, expert's travels). Furthermore, the contact of the staff with the beneficiaries was streamlined in order to achieve a more unified approach in terms of communication and responding to requests for clarifications. For example, some general information on rules was included in the invitation letter and the guide of the internal procedure was further simplified providing staff with clearer instructions.

These efforts resulted in a more efficient granting process. In 2017, the TTS results of five out of the six calls that were completed by the end of the year were within their AWP targets and only the result of the PoC call (second cut-off date only) did not meet the target because a good number of the grants underwent ethics assessment⁵⁴.

Further to an IAS audit recommendation, ERCEA ethics procedures were updated in 2017 merging the two existing procedures in order to ensure alignment with the related H2020 processes and the associated corporate IT systems such as SEP, Compass and SyGMa. In addition, the ethics process was revisited as to address the inefficiencies experienced in 2016 which delayed the granting process of certain calls.

The new procedure introduced a simplified risk-based approach to both ethics review and ethics monitoring by classifying projects with either normal ethics or high ethics sensitivity. Indeed, projects with normal ethics sensitivity will no longer require ethics deliverables. In addition, during the course of ethics monitoring, deliverables will be assessed independently of interim payments and therefore have no impact on the time-to-pay of these payments, except in the rare cases where the escalation mechanism will be activated. The latter is foreseen for projects where the PI does not comply with one or more ethics deliverables, in spite of up to three reminders. Based on recommendations of the Ethics Sector, the procedure foresees that the Director of the Agency may decide to grant or not the clearance and take precautionary and conservatory measures and/or other follow up actions (for example: payment suspension, project suspension, ethics audit, amendment, termination of the GA). Furthermore, final payments will not be processed as long as ethics deliverables have not been cleared and approved in SyGMa.

The ERCEA ethics team has also been reinforced by the creation of a second sector devoted to ethics coordination and the recruitment of five additional ethics officers. These measures resulted in improved efficiency of the ethics review process and positively

⁵⁴ Please refer to section 2.1.1.1.

impacted the granting process. At year end, about 90% of the projects selected in the StG 2017 call were cleared from an ethics perspective.

2.2.2 Human resource management

Further to the IAS audit on HR management performed in 2016 and the resulting action plan, the Agency drew up a comprehensive multi-annual HR strategy adopted in July 2017. Also, in the context of the audit recommendations and with a view to adapting the staff's talent, skills and competencies to new requirements, HR performed a benchmarking of existing competence mapping models within the European Institutions to explore a possible implementation in ERCEA. The analysis concluded that establishing a mapping of skills and competencies would be beneficial for the Agency. In view of the results, the initiative will be implemented in the course of 2018 through a pilot project focusing on four job profiles. The Agency finally executed a workload assessment across all departments with a harmonized methodology for the operational departments on the one hand and the horizontal services on the other. At the end of 2017, all actions outlined in the audit action plan had been implemented.

In 2017, ERCEA hired 61 new staff members, and exceeded its target of 98% occupation rate by reaching 99% at the end of the year. The Agency employed 477 agents on 31 December 2017. The average turnover rate was at 7.7%⁵⁵, slightly increased from 7.1% in 2016 but still at a reasonable level.

The Agency continued to enhance the internal mobility and support the professional development and career progression of its staff by publishing internally first all new posts as well as all posts becoming vacant. As a result, 17 staff members changed unit which is below the target set for internal mobility. Moreover, 13 staff members moved to a higher function group or changed grade within the Agency after having succeeded in staff selection procedures.

22 selection processes were organised in view of filling current and future vacant posts with 12 processes making use of the new permanent CAST selection procedure open since January 2017. ERCEA continued to support inter-agency mobility of temporary agents by publishing four posts and recruiting on three posts, thus triggering subsequent moves in other Agencies.

The ERCEA training offer was enriched with additional training on professional and personal development to promote a broad offer for all staff in line with the priorities set in the Agency's Learning and Development Strategy. Staff attended 7.9 days of training on average during the year. In view of strengthening leadership skills, several management seminars for Heads of Unit and Heads of Sector were organised.

As in 2016, the Agency put a particular focus on staff well-being offering a broad programme (Vitality programme) to all staff, with 20 workshops being organised for a total of 335 participants.

The digitalisation project for all personnel files was successfully executed, the only remaining issue being the transfer of parts of files from other Agencies and Commission services.

The office space situation remained an important topic in 2017. Between February and May an open space office was created replacing the cafeteria located on the 20th floor of the COV2 building, permitting the workforce to grow as planned in 2017. In addition, in order to find a solution for 2018, discussions started with REA and DG RTD to share the COVE building wing which until now has been managed by REA for the evaluation of proposals submitted to the H2020 Research and Innovation Programme. An agreement was reached by which ERCEA would transform in 2018 the COVE 7th floor for its own evaluations.

⁵⁵ The method of calculation includes staff leaving, departure on CCP (posts replaced) and departure on invalidity.

Internal Communication was also high on the agenda in 2017 ensuring regular information of all staff through the intranet, emails, audio-videos and the INSIDE magazine.

In view of enhancing knowledge sharing and collaboration across the organisation, a working group dedicated to "Knowledge Management" was set up that will further work on strategy and implementation of concrete actions.

Objective: The EA deploys effectively its resources in support of the delivery of the Commission's priorities and core business, has a competent and engaged workforce, which is driven by an effective and gender-balanced management and which can deploy its full potential within supportive and healthy working conditions.

Indicator 1: Percentage of female representation in middle management

Source of data: ERCEA staff in place (Sysper)

Baseline 2016: 44%	Target: 50% (2018) ERCEA monitors the percentage of female representation in middle management. However, the target of 40% female representation in middle management by 2019 (average target at European Commission level) is not in the remit of ERCEA as the Parent DGs are in charge of the selection of middle managers.
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Indicator 2: Percentage of staff who feel that the Commission cares about their well-being

Source of data: Commission staff survey

Baseline (2016: 58%)	Target 60% (2018) The implementation of a series of wellbeing actions (including a.o. Vitality programme) will contribute to meeting this target in 2018)
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Indicator 3: Staff engagement index

Source of data: Commission staff survey

Baseline (2016: 70.5%)	Target $\geq 70\%$ ⁵⁶ (2018) The implementation of a series of actions focused on staff motivation will contribute to meeting this target in 2018
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Main outputs in 2017:

Output	Indicator	Target	Result 2017
<i>To support Agency's core business by providing the required number of staff on time</i>	<i>Occupation rate at year end</i>	$\geq 98\%$	99%
<i>To develop internal mobility in order to offer more career development prospects to staff</i>	<i>% of staff movements within the ERCEA</i> ⁵⁷	9%	3.8%

2.2.3 Information management aspects

Results are provided in Annex 2.

⁵⁶ This target reflects the AWP 2018..

⁵⁷ Number of staff movements within the ERCEA divided by the average number of staff over the year.

2.2.4 External communication activities

In 2017, ERC's main communication priority was the celebration of its 10th anniversary. A successful campaign was undertaken during this period, contributing substantially to ERC's wide visibility and valued brand. The campaign included a successful event in Brussels⁵⁸ in March, as well as more than 160 events⁵⁹ celebrating EU-funded research through the ERC, in Europe and abroad. European Commissioner, Carlos Moedas, the European Parliament President, Antonio Tajani, and several Research Ministers were some of the key participants at these occasions. Under the coordination of the communication team, the 10th anniversary mobilised research institutions, universities, national governments, science museums and EU Delegations around the world.

In the frame of this campaign, the ERC also developed specific communication tools, including the multimedia product "[Ten Years – Ten Portraits](#)", successfully disseminated with the help of the Commission corporate communication services. The ERC10 activities resonated strongly on the ERC's and other organisations' social media channels ([#ERC10yrs](#)) and resulted in extensive media coverage. An opening campaign on social media was launched at the beginning of 2017 and the anniversary was concluded with a [Thunderclap.it](#) initiative that reached more than one million people on Twitter and Facebook⁶⁰.

In parallel to the anniversary celebrations, the ERC continued to encourage the highest quality research in Europe through the promotion of its call opportunities and results. In 2017, the ERC was present at 22 key events and scientific conferences aiming to attract high-level applicants throughout the world. More than 800 articles⁶¹ in the press in more than 20 countries reflected the announcements of results and winners of the calls for Advanced (April), Starting (September) and Consolidator Grants (December).

During the reporting period the communication unit produced more than 35 ERC stories to promote the results of ERC-funded projects, plus some 60 articles⁶² in the DG RTD Horizon magazine and at least one post a day on social media. These add to the various stories covered to complement the work for the tenth anniversary, numerous project pitches, three thematic brochures and more than 16 videos, including the 10 multimedia portraits "Ten Years – Ten Portraits"⁶³, featuring pictures and testimonials from grantees, scientists, entrepreneurs, patients - all touched by ERC-funded research. These portraits were also featured in a photo book and a photo exhibition. Particular efforts were also made to encourage ERC grantees to communicate independently about their funded work and to act as ambassadors of European science following Commissioner Moedas' call.

These communication activities go hand-in-hand with the efforts to promote the ERC in the press and on social media, which significantly increased in 2017. Near 40 press announcements⁶⁴ covered topics such as the tenth anniversary celebrations, 2017 grant competitions results, ERC-funded project breakthroughs, events with ERC participation and ERC plans for 2018.

A special double-issue ERC 10th anniversary newsletter was published in the spring, as well as a regular issue in autumn. The ERC's external newsletter was distributed electronically to over 36 000 subscribers and handed out at key events.

ERC's online presence, increasingly varied and innovative on [Twitter](#), [Facebook](#) and

⁵⁸ 455 people participated at this event, including Carlos Moedas, Jerzy Buzek, Pascal Lamy and Robert-Jan Smits. President Jean-Claude Juncker took part by means of a video message.

⁵⁹ Source: <https://erc.europa.eu/ERC10yrs/erc-week>

⁶⁰ Source: Twitter and Facebook analytics

⁶¹ Source: Spotter

⁶² Source : <https://horizon-magazine.eu/>

⁶³ <https://erc.europa.eu/10years10portraits/>

⁶⁴ Source: <https://erc.europa.eu/news>

[LinkedIn](#), continued to grow and to engage the wider public, bringing additional traffic also to ERC's website that welcomed nearly 590 000 visitors⁶⁵.

ERC communication endeavours were supported by two multiannual campaigns funded by a Coordination and Support Action (CSA) aiming at highlighting ERC-funded research to a wider, general audience with innovative communication activities. In 2017, ERCcOMICS completed four new web comics reaching a total of eight⁶⁶ since the beginning of the project. During the same period, ERC=Science² focused on the promotion of ERC work linked to two popular themes: Longevity and the Senses⁶⁷. Both project campaigns relied on an intense social media promotion.

⁶⁵ Source: ERC website

⁶⁶ Source: <https://erccomics.com/>

⁶⁷ <https://www.sciencesquared.eu/>