



2019

Annual Activity Report

Annexes

DG for Communications Networks, Content and Technology

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ANNEX 1: Statement of the Director(s) in charge of Risk Management and Internal Control

"I declare that in accordance with the Commission's communication on the internal control framework¹, I have reported my advice and recommendations on the overall state of internal control in the DG to the Director-General.

I hereby certify that the information provided in the present Annual Activity Report and in its annexes is, to the best of my knowledge, accurate and complete."

Date

(e-signed) Morten Fjalland

¹ C(2017)2373 of 19.04.2017.

ANNEX 2: Reporting – Human Resources, Better Regulation, Information Management and External Communication

Human resources

Objective 1: The DG deploys effectively its resources in support of the delivery of the Commission 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.

potential within supportive and healthy working conditions.				
Indicator 1: Percentage of fer Source of data: HR Reporting	•	dle management.		
Baseline	Target		Latest known results	
01/01/2016	2019	2019		
28.9%	40%		37% on 01/01/2020	
Indicator 2: First appointmen	ts of female middle manag	jers.		
Source of data: HR Reporting				
Baseline	Target		Latest known results	
01/05/2017	2019		2019	
9	+6		+7 on 01/01/2020	
Indicator 3: Percentage of sta		vission cares about their wel		
Source of data: Commission		ission cales about their wer	i-beilig.	
Baseline	Target		Latest known results	
2014	2019		2018	
33.5%	50% by the end 2019		57%	
55.570	This target is in line with	the DG CONNECT results	5,70	
	in the former (2013) staf			
	slightly above the current			
Indicator 4: Staff engagemen	5,			
Source of data: Commission				
Baseline	Target		Latest known results	
2014	2019		2019	
62	70 by the end of 2019		68% (2018)	
02		the DG Connect results in	00 /0 (2010)	
	the former (2013) staff s			
	with the current EC avera			
Main outputs in 2019:				
	Indicator	Target	Latest known results	
Description	Number of female	Target At least 1.		
Women in management: - 2018/2019 Career development programme which includes a 360 degree feedback and coaching sessions, - close monitoring of all females in pre/middle- management positions, - steering the women in pre- management network including ad hoc workshops and trainings.	applicants shortlisted in each pre/middle management selection procedure.	At least 1.	Results of 4 (Deputy) Heads of Unit recruitment procedures: 1°): 2 male shortlisted applicants out of 2. Male appointment. No female shortlisted candidate as target for first female appointments already exceeded. 2°) 1 female shortlisted applicants out of 3 Male appointment. 3°) 1 female shortlisted applicants out of 3. Male appointment. 4°) Pre-selection on- going	
Close monitoring and management of job quotas / budget and careful assessment of replacements for every departure, in light of the operational and political priorities.	Taxation targets met within the deadlines set by the budgetary authority.	Staff reduction laid down in the 2019 allocation of establishment plan posts (-1%) and the appropriations for external personnel.	All taxations targets due by 1.1.2019, 1.7.2019 and 1.1.2020 were met. Monthly monitoring of consumptions of appropriations for	

		1	
			external personnel at HRC led to controlled 2019 consumption within the budgetary ceiling.
Learning & Development Strategy tailored to the skills/ competences/ knowledge required for the completion of our operational and political priorities.	L&D priorities to be adopted as part of the overall HR strategy for the DG.	Complete curriculum reflecting newly identified requirements.	2019 L&D priorities were adopted by the management team on 21/01/2019. The Final DG CONNECT's L&D Priorities for 2020 were endorsed by MT on 09/12/2019.
Reduction of support functions to focus resources on operational activities.Reduction of FTEs in support functions under scrutiny by DG Human Resources and Security.		FTE reduction in support functions: -20 for 2019/2020 -95 cumulative 2016- 2019/2020.	Monthly monitoring of reduction of support functions at HRC. 2019/2020 targets are met.
Increase of DG CONNECT presence in Luxembourg within the Digital Pole. Increase of FTEs in Luxembourg.		FTE increase: +40 for 2019/2020 +100 cumulative over 2017-2019/2020	Cumulative 2018 targets are met. DG CONNECT in process of increasing presence in Luxembourg by end of 2020.
Develop and monitor the implementation of the DG action plan as a follow-up to the 2018 Commission staff satisfaction survey.	Staff Engagement Index within the 2018 Commission staff satisfaction survey.	Staff Engagement Index of 65.	68%
Action plan as follow-up on staff opinion survey 2018.	Approval of action plan by Director-General	By end of Q2 2019	Development plan endorsed by Management Team on 08/07/2019 (Ares(2019)4266176).
Well-being activities organised at DG CONNECT within the context of the Fit@Work Programme.	Number of wellbeing Activities organised within DG CONNECT in close cooperation with AMC3.	 2 series of well-being trainings per year, 3 blood donation sessions, weekly well-being activities, ad hoc workshops to build resilience depending on staff needs (based on staff survey). 	Ongoing cooperation with AMC on <u>well-being</u> activities largely extended on Beaulieu site, within the context of the corporate Fit@work programme. 3 Blood Donations; Easter Eggs Sale; Aromatherapy; AMC Day; 2 Walks in the Park; VeloMai events: Opening breakfast (by DG REGIO) Closing breakfast (by DG CONNECT); Seated massage, Yoga, Pilates, Qi Jong, Stretching Tandava, Mindfulness, Reconnective healing, Zumba, Walks in the Park

Better Regulation

Objective 1: The DG deploys effectively its resources in support of the delivery of the Commission priorities and core business, has a competent and engaged workforce, which is driven by an effective and gender-balance management and which can deploy its full potential within supportive and healthy working conditions.

Indicator 1: Percentage of Impact assessments submitted by DG CONNECT to the Regulatory Scrutiny Board that received a favourable opinion on first submission.

Source of data: DG CONNECT and the Regulatory Scrutiny Board²

Baseline	Interim milestone	Target	Latest known results				
2015	2016	2020	2019				
68% = Commission average	Positive trend compared	Positive trend compared	Undefined [*]				
in 2014:	to the DG's 2014	to the DG's 2016					
We use the percentage of	situation.	situation					
2014, as the CONNECT value							
for 2015 is 100% (2 out of							
the 2 IA submitted) because							
this figure has limited							
significance as DG CONNECT							
had very few IAs in 2015							

*No impact assessment was submitted by DG CONNECT to the RSB in 2019 and – hence – no impact assessment could have received a positive opinion in the first reading. In line with principles of ordinary arithmetic, dividing zero by zero results in undefined value. This is in line with the methodology agreed with IAS^3

The last known result was recorded in 2018, where 3 out of 4 IAs submitted to the RSB received a positive opinion – a rate of 75%.

Indicator 2: Percentage of the DG's primary regulatory acquis covered by evaluations and Fitness Checks not older than five years.

Source of data: DG CONNECT

2019
trend compared 71% stone

This indicator's value for 2016 has been re-calculated to ensure comparability (by means of streamlining and removal of acquis items being less than 5 years old unless they have already undergone an evaluation or fitness check). The recalculated 2016 value is 56% (instead of 61%).

Information management aspects

Objective: Information and knowledge in DG CONNECT is shared and reusable by other DGs. Important documents are registered, filed and retrievable.					
	Indicator 1: Percentage of registered documents that are not filed ⁴ (ratio)				
Source of data: Her	Source of data: Hermes-Ares-Nomcom (HAN) ⁵ statistics				
Baseline Target Latest known results					
2015		2019			
3.07% 0% 0.69%					
Indicator 2: Number of HAN files readable/accessible by all units in the DG					
Source of data: HA	N statistics				

² According to the Impact Assessment Board (IAB) 2014 statistics and the Regulatory Scrutiny Board Annual report 2016, which do not provide details per DG, there were 25 IAs examined in 2014 and 10 required resubmission, so 15 received positive opinion on first submission (60%).

³ Ares(2019)7821894.

⁴ Each registered document must be filed in at least one official file of the Chef de file, as required by the e-Domec policy rules (and by ICS 11 requirements). The indicator is to be measured via reporting tools available in Ares.

⁵ Suite of tools designed to implement the e-Domec policy rules.

Baseline	Target		Latest known results	
2015			2019	
98.63%	95% ⁶		92.40%	
Indicator 3: Number of HAN f		is	<u></u>	
Source of data: HAN statistics	5			
Baseline	Target		Latest known results	
2015			2019	
22.55%	95% ⁷		14.12% ⁸	
Indicator 4: Percentage of un Source of data: CONNECTED	-	ols to manage their	activities	
Baseline 2015	Target		Latest known results 2019	
95% ⁹	$100\%^{10}$		100% for CONNECTED	
			100% for SharePoint	
Main outputs in 2019:	·		· 	
Description	Indicator	Target	Latest known results	
Provide and training and coaching on document registration and filing	Training/coaching of unit secretariat and DMO correspondent.	100% of units trained/coached	No overall or specific trainings took place during the 1st semester. The DMO and archivist completed several unit targeted actions following complete checks & cleaning of ARES/NOMCOM-filing plan (A2, A4, B1, H3, H4, I2, I4). The DMO visits all new secretaries in the first week of their arrival. Notes from DMO to all staff i) updated filing plan 2019-2024 with additional reminders and rules & guidelines ii) delegations in ARES and related rules and guidelines in Q1 2020 iii) Note to Directors & HoUs recalling roles and obligations and that Directors & HoUs must appoint a DMO correspondent (DDMO / DMDO-Network); and ensure that their staff are trained on document management. First meeting with	
Awareness campaigns.	2 for Ares/Areslook and Eurolook 1 for Connected and SharePoint (including bridges with Ares).	Q3 2019	DMO- correspondent planned before Easter 2020. After integration of changes in all tools – Ares, Decide and EuroLook –, following adoption of C(2019)1904 "Information Security Strategy and new markings system" and launch of awareness campaign; and possible info session/training based on	

⁶ HR and OLAF files remain restricted; this is why 100% is not the target. A revised file sharing policy will be developed in the course of 2019-2020 in line with the new marking system.

⁷ Same comment as in footnote above.

⁸ It is not mandatory to share HAN-files; it is a recommendation from SG. As per SG/DIGIT request, all files, apart from those with specific impact e.g. (projects, studies etc.) are created as 'Shared institution'.

Files for 'procurement' — e.g. files considered as 'financial': public procurement and studies; project files, contracts for experts and evaluators, grants, DG internal matters etc.— are in the category 'file visible to DG or Service'. For DG CONNECT, the majority of files fall into this category. This practice follows a recommendation /instructions from IAS. Some files, e.g. for specific contractual matters or HR, are always created with 'limited visibility'. Note that the average sharing rate for all DGs & services in HAN is 11.08%.

⁹According to the most recent figures, 95% of staff are at least 'readers', while 70% are 'contributing'.

¹⁰ All units are encouraged to use collaborative tools, but some categories of personnel (e.g. ushers) are not concerned.

			corporate info material produced by DG HR DS. These changes have been integrated into standard DG CONNECT 'Ares/AresLook and Eurolook'. A specific IT security plan is being prepared, integrating rules and guidelines on secure handling of information and documents. Since Q3 2019: The ABC-IT-tools trainings has been available and is mandatory for all newcomers. It introduces the collaborative platforms, Ares/AresLook and Eurolook', SECEM and Security markings. And specific working arrangements in DG CONNECT. Activation of AresBridge for Connected & SharePoint: date still pending. Awareness Days / campaigns for the use of the right tool, especially primary use of Connected and SharePoint, will be given to all newcomers.
Doris Drive-In available to all staff to perform analysis of documents and data.	75% of operational units using the service at least once.	Q3 2019	 Deployment of Doris Drive-in is complete 17 units from 14 DGs have used it in Q1 and Q2 2019.
Application of a taxonomy reflecting the scope of DG CONNECT.	To review and re- organise the content of Connected, SharePoint and possibly Ares to make it more retrievable and linked.	Q1 2019	Cleaning of all Connect spaces and groups, including the use of a proper taxonomy, especially the manual cleaning of tags. Implementation of the Connect Taxonomy via DIGIT on Connected to overwrite the Connected auto- tagging. Pilot Collaboration with OP to use their Taxonomy platform VocBench). SharePoint is not yet part of this exercise
Enhancement of Stakeholder Relationship Management (SRM).	Integration with Basis workflow.	Q1 2019	SRM/AVA available to the entire DG. SRM/AVA is completely integrated with Basis (synchronisation of events, requests and contributors).
Extension of Futurium to more communities in view of MFF engagement campaigns to support digital policies.	Porting Futurium into DIGIT cloud and enhancing its usability and functionalities.	Q2 2019	 New communities are created regularly; Porting of Futurium into DIGIT cloud delayed to Q4.

External communication activities

Objective 1: Citizens perceive that the EU is working to improve their lives and engage						
with the EU. They feel that their concerns are taken into consideration in European						
	decision-making and they know about their rights in the EU.					
Indicator 1: Percentage of EU citizens having a positive image of the EU Source of data: Standard Eurobarometer (DG COMM)						
Baseline Target Latest known results						
Q4 2014	2020		2019			
Total 'Positive': 39%	Positive image		Total 'Positive': 42%			
Neutral: 37 %	of the EU \geq 50%		Neutral: 37%			
Total 'Negative': 22%			Total 'Negative': 20%			
Main outputs in 2019:						
Description	Indicator	Target	Latest known results			
	People reading the Digital Single Market website People participating	Yearly median 7 329 unique browsers per day (baseline 7 329) (keep at least stable) Total of registrations	Yearly median 9 023 unique browsers per day Total of Event in the Box			
How many people we have	in our events	for events (currently Event in the Box accounts 91 500 (baseline 83 960) (increase by 1.5%)	accounts 93 112			
reached through our communication activities.	People reading any of the DSM Newsletters	TotalofNewsroomsubscriptionfornewsletters254 000(baseline249 968)(increase by 1.5%)	Total of Newsroom subscription for newsletters 275 705			
	People following DSM Facebook page	Total of DSM Facebook likes 32 000 (baseline 28 967) (increase by 10%)	Total of DSM Facebook likes/fans (followers) 31 473			
	People following DSM Twitter account	Total of DSM Twitter followers 101 000 (increase by 10%)	Total of DSM Twitter followers 92 435			
How people interacted with us on the base of our	Engagement with DSM Facebook page	Cumulative monthly average 1 190 points engagement (baseline 1 189) (keep stable)	638 Interactions per month (likes, comments, shares) ¹¹			
communication activities	Engagement with DSM Twitter account	Cumulative monthly average 8 000 points engagement (baseline 7 991) (keep stable)	4 182 Interactions per month (likes, replies, shares) ¹²			
Participation in Code Week 2019 events	People attending	2 million participants	4.2 million participants			
Participation in Digital Day III	People attending	500 participants	647 registered participants attended			
Participation in Digital Assembly 2019	People attending	1 300 participants	1 098 registered participants attended			
ICT Proposers' Day 2019	People attending	3 000 participants	2 462 participants			

¹¹ The final result seems lower due to the change on Facebook algorithms and change in corporate monitoring tools by DG COMM. ¹² The final result seems lower due to the change on Facebook algorithms and change in corporate monitoring

tools by DG COMM.

Annual communication spending (based on estimated commitments):					
Baseline (2017):	Estimated commitments (2019)	Total amount spent (2019)	Total of FTEs working on external communication		
EUR 5.4 million	EUR 950 000	EUR 897 501	26.50 FTEs		

ANNEX 3: Draft annual accounts and financial reports

Annex 3 Financial Reports - DG CNECT - Financial Year 2019

Table 1 : Commitments

Table 2 : Payments

Table 3 : Commitments to be settled

 Table 4 : Balance Sheet

Table 5 : Statement of Financial Performance

Table 5 Bis: Off Balance Sheet

Table 6 : Average Payment Times

Table 7 : Income

Table 8 : Recovery of undue Payments

Table 9 : Ageing Balance of Recovery Orders

Table 10 : Waivers of Recovery Orders

Table 11 : Negotiated Procedures

Table 12 : Summary of Procedures

Table 13 : Building Contracts

Table 14 : Contracts declared Secret

Table 15 : FPA duration exceeds 4 years

Additional comments

Difference in total amounts of Income - Table 7 and Ageing balance of RO's - Table 9

The difference in total amount of Ageing balance of RO's EUR 35 528 649.02 in table 9 and total amount of Income EUR 35 424 637.77 in table 7 is related to 26 RO local keys with total amount of EUR 60 795 (included in table 9).

The reason for having this difference is explained on page 15 of the user's guide of Annex 3 of the AAR2019: "It is important to note that this report only refers to BGUE, budget regime 'I' (contrary to Table 9 which includes CGUE as well)."

T.	TABLE 1: OUTTURN ON COMMITMENT APPROPRIATIONS IN 2019 (in EUR million) for DG CNECT					
	Commitment appropriations authorised					
			1	2	3=2/1	
	Title 02 Internal market, industry, entrepreneurship and SMEs					
0 2	02 02	Competitiveness of enterprises and small and medium-sized enterprises (COSME)	0.7	0.7	100.00 %	
Tot	al Title 02		0.7	0.7	100.00 %	

	Title 05 Agriculture and rural development				
0 5	05 09	Horizon 2020 - Research and innovation related to agriculture	13.94462932	13.94462932	100.00 %
Tot	Total Title 05		13.9446293 2	13.9446293 2	100.00 %

		Title 08 Research a	nd innovation		
0 8	08 02	Horizon 2020 - Research	1.9997	1.9997	100.00 %
Tot	al Title 08		1.9997	1.9997	100.00 %

	Ti	tle 09 Communications network	s, content and	technology	
0 9	09 01	09 01 Administrative expenditure of the 'Communications networks, content and technology' policy area		9.86670802	98.39 %
	09 02	Digital single market	33.65745625	33.52307226	99.60 %
	09 03	Connecting Europe Facility (CEF) - Telecommunications networks	51.48580048	47.17410511	91.63 %
	09 04	Horizon 2020	2015.619753	1859.424158	92.25 %
	09 05	Creative Europe	29.82329459	29.059	97.44 %
Tot	Total Title 09		2140.61442	1979.04704 3	92.45 %

Title 12 Financial stability, financial services and capital markets unio					
1 2	12 02	Financial services and capital markets	0	0	0.00 %
Tot	al Title 12		0	0	0.00 %

		Title 15 Educa	ation	and culture		
1 5	15 04	Creative Europe Programme		31.19088686	31.19088686	100.00 %
			~		6 4 9 9	

	31.1908868	31.1908868	100.00
Total Title 15	6	6	%

		Title 19 Foreign polic	cy instruments		
1 9	19 06	Information outreach on the Union's external relations	2.85	2.85	100.00 %
Tot	al Title 19		2.85	2.85	100.00 %

		Title 26 Commission's administration	on	
2 6	26 03	Services to public administrations, businesses and citizens	0	
Tot	al Title 26		0	

		Title 32 Er	ergy			
3 2	32 04	Horizon 2020 - Research and innovation related to energy	13.975879	13.975879	100.00 %	
Tot	al Title 32		13.975879	13.975879	100.00 %	
	2205.27551 2043.70813 92					
		Total DG CNECT	2205.27551	2043.70813	92.67 %	

* Commitment appropriations authorised include, in addition to the budget voted by the legislative authority, appropriations carried over from the previous exercise, budget amendments as well as miscellaneous commitment appropriations for the period (e.g. internal and external assigned revenue).

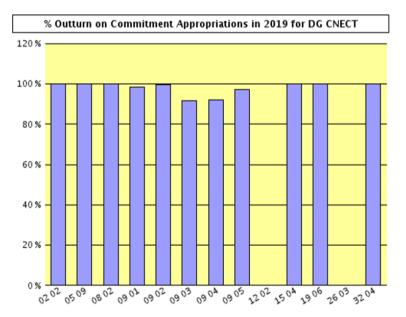


	TABLE 2: OUTTURN ON PAYMENT APPROPRIATIONS in 2019 (in EUR million) for DG CNECT						
			Payment appropriations authorised *	Payments made	%		
			1	2	3=2/1		
		Title 02 Internal market, indust	ry, entrepreneurs	hip and SMEs			
02	02 02	Competitiveness of enterprises and small and medium-sized enterprises (COSME)	0	0	#DIV/0		
Tot	al Titl	e 02	0	0	#DIV/0		

		Title 05 Agriculture an	d rural developm	ient		
05	05 09	Horizon 2020 - Research and innovation related to agriculture	4.42180475	4.42180475	100.00 %	
	al Titl		4.42180475	4.42180475	100.00%	
		Title 08 Research	and innovation			
08	08 02	Horizon 2020 - Research	1.59976	1.59976	100.00 %	
Tot	al Titl	e 08	1.59976	1.59976	100.00%	
		Title 09 Communications netwo	orks, content and	l technology		
09	09 01	Administrative expenditure of the 'Communications networks, content and technology' policy area	19.80393387	9.74452399	49.20 %	
	09 02	Digital single market	27.00412974	26.52267536	98.22 %	
	09 03	Connecting Europe Facility (CEF) - Telecommunications networks	21.86648451	21.65384471	99.03 %	
	09 04	Horizon 2020	1815.300331	1400.201304	77.13 %	
	09 05	Creative Europe	25.88514821	23.45608132	90.62 %	
Tot	al Titl	e 09	1909.860028	1481.578429	77.58%	
		Title 12 Financial stability, financial	services and capital markets union			
12	12 02	Financial services and capital markets	0.2982	0.2982	100.00 %	
Tot	al Titl	e 12	0.2982	0.2982	100.00%	
		Title 15 Educatio	on and culture			
15	15 04	Creative Europe Programme	11.68285859	11.68285859	100.00 %	
Tot	al Titl	e 15	11.68285859	11.68285859	100.00%	
		Title 19 Foreign po	olicy instruments			
19	19 06	Information outreach on the Union's external relations	3.68325	3.68325	100.00 %	
Tot	al Titl	e 19	3.68325	3.68325	100.00%	
			n's administratio	n		
26	26 03	Services to public administrations, businesses and citizens		0.23825		
Tot	al Titl	e 26		0.23825		
		r	Energy			
32	32 04	Horizon 2020 - Research and innovation related to energy	12.97807727	12.97807727	100.00 %	
Tot	al Titl	e 32	12.97807727	12.97807727	100.00%	
		Total DG CNECT	1944.523978	1516.48063	77.99 %	

* Payment appropriations authorised include, in addition to the budget voted by the legislative authority, appropriations carried over from the previous exercise, budget amendments as well as miscellaneous payment appropriations for the period (e.g. internal and external assigned revenue).

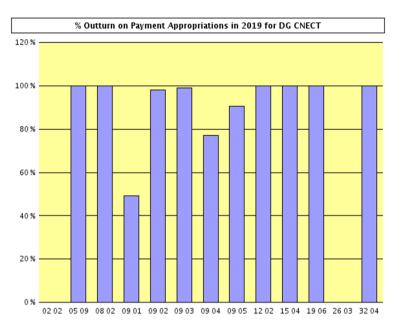


	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2019 (in EUR million) for DG CNECT								
Chapter		Con	nmitmen	ts to be se	ettled	ments commit comm		Total of commit ments	
		Commit ments	Paym ents	RAL	% to be settled	settled from financia I years previou s to 2018	to be settled at end of financia I year 2019	to be settled at end of financia I year 2018	
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
02	0 2 0 2	Competitive ness of enterprises and small and medium- sized enterprises (COSME)	0.70		0.70	100.00%	0.00	0.70	0.00
Total Title 02		0.70		0.70	100.00%	0.00	0.70	0.00	

	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2019 (in EUR million) for DG CNECT								(in EUR
Chapter		Con	nmitmen	ts to be se	ettled	Commit ments to be	Total of commit ments	Total of commit ments	
		Commit ments	Paym ents	RAL	% to be settled	settled from financia l years previou s to 2018	to be settled at end of financia l year 2019	to be settled at end of financia I year 2018	
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
0 5	0 5 0 9	Horizon 2020 - Research and innovation	13.94	4.42	9.52	68.29%	4.54	14.07	4.54
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	related to agriculture	12.04	4.42	0.50	60.20%	4.54	14.07		
	l Title 05	13.94	4.42	9.52	68.29%	4.54	14.07	4.54	

	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2019 (in EUR million) for DG CNECT								
	Chapter		Con	nmitmen	ts to be se	Commit ments to be	Total of commit ments	Total of commit ments to be settled at end of financia I year 2018	
			Commit ments	Paym ents	RAL	% to be settled	settledto befromsettledfinanciaat endl yearsofprevioufinancias tol year20182019		
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
0 8	0 8 0 2	Horizon 2020 - Research	2.00	1.60	0.40	20.00%	0.00	0.40	0.10
т	Total Title 08		2.00	1.60	0.40	20.00%	0.00	0.40	0.10

	Т	ABLE 3 : BRE	AKDOWN		1ITMENTS llion) for D		TLED AT 31	/12/2019	(in EUR
			Con		ts to be se		Commit ments to be	Total of commit ments	Total of commit ments
	Chapter		Commit ments	Paym ents	RAL	% to be settled	settled from financia l years previou s to 2018	to be settled at end of financia l year 2019	to be settled at end of financia I year 2018
	ł		1	2	3=1-2	4=1-2/1	5	6=3+5	7
0 9	0 9 0 1	Administrati ve expenditure of the 'Communicat ions networks, content and technology' policy area	9.87	4.09	5.78	58.59%	0.24	6.02	6.90
	9 0 2	Digital single market	33.52	22.98	10.54	31.44%	3.68	14.22	7.55
	0 9 0 3	Connecting Europe Facility (CEF) - Telecommun ications networks	47.17	0.30	46.87	99.36%	131.35	178.22	156.57
	0 9 0 4	Horizon 2020	1 859.42	783.4 9	1 075.9 4	57.86%	961.56	2 037.50	1 691.76

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Tota	al Title 09	1 979.0 5	812.4 4	1 166.6 1	58.95%	1 109.9 5	2 276.5 6	1 897.9 3
0 9 0 5	Creative Europe	29.06	1.59	27.47	94.54%	13.13	40.60	35.15

	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2019 (in EUR million) for DG CNECT								(in EUR
			Con	nmitmen	ts to be se	Commit ments to be	Total of commit ments	Total of commit ments	
	Chapter		Commit ments	Paym ents	RAL	% to be settled	settledto befromsettledfinanciaat endl yearsofprevioufinancias tol year20182019		to be settled at end of financia I year 2018
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
1 2	1 2 0 2	Financial services and capital markets	0.00	0.00	0.00	0.00%	0.15	0.15	0.45
Т	Total Title 12		0.00	0.00	0.00	0.00%	0.15	0.15	0.45

	T	ABLE 3 : BRE	AKDOWN		1ITMENTS llion) for D	TO BE SET	TLED AT 31	/12/2019	(in EUR
	Chapter		Con	nmitmen	ts to be se	Commit ments to be	Total of commit ments	Total of commit ments to be settled at end of financia l year 2018	
			Commit ments	Paym ents	RAL	% to be settled	settledto befromsettledfinanciaat endl yearsofprevioufinancias tol year20182019		
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
1 5	1 5 0 4	Creative Europe Programme	31.19	0.69	30.51	97.80%	23.39	53.90	34.54
Т	Total Title 15		31.19	0.69	30.51	97.80%	23.39	53.90	34.54

	T	ABLE 3 : BRE	AKDOWN		4ITMENTS llion) for [TO BE SETT	LED AT 31	/12/2019 Total of	(in EUR Total of	
	Chapter		Con	nmitmen	its to be se	ments to be	commit ments	commit ments		
			Commit ments	Paym ents	RAL	% to be settled	settled from financia I years previou s to 2018	to be settled at end of financia l year 2019	to be settled at end of financia I year 2018	
			1	2	3=1-2	4=1-2/1	5	6=3+5	7	
1 9	1 9	Information outreach on	2.85	0.00	2.85	100.00%	1.49	4.34	5.17	

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Tota	Title 19	2.85	0.00	2.85	100.00%	1.49	4.34	5.17
0 6	the Union's external relations							

	Т	ABLE 3 : BRE	AKDOWN		AITMENTS Ilion) for D		TLED AT 31	/12/2019	(in EUR
	Chapter		Con	nmitmen	its to be se	Commit ments to be	Total of commit ments	Total of commit ments	
			Commit ments	Paym ents	RAL	% to be settled	settled from financia l years previou s to 2018	to be settled at end of financia I year 2019	to be settled at end of financia I year 2018
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
2 6	2 6 0 3	Services to public administratio ns, businesses and citizens	0.00	0.00	0.00	0.00%	0.00	0.00	0.24
т	Total Title 26		0.00	0.00	0.00	0.00%	0.00	0.00	0.24

	Т	ABLE 3 : BRE			ITMENTS (IIION) for D	TO BE SET	TLED AT 31	/12/2019	(in EUR
	Chapter		Commitments to be settled				Commit ments to be	Total of commit ments	Total of commit ments
			Commit ments	Paym ents	RAL	% to be settled	settled from financia l years previou s to 2018	to be settled at end of financia I year 2019	to be settled at end of financia I year 2018
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
3 2	3 2 0 4	Horizon 2020 - Research and innovation related to energy	13.98	4.90	9.08	64.95%	6.96	16.03	15.08
Т	Total Title 32		13.98	4.90	9.08	64.95%	6.96	16.03	15.08
	_				1010 5			2266 4	
	ſo	tal for DG CNECT	2043.70 8138	824.0 5	1219.6 61027	59.68 %	1146.48 822	2366.1 49247	1958.0 5683

TABLE 4 : BALANCE SHEET for DG CNECT

BALANCE SHEET	2019	2018
---------------	------	------

NET ASSETS (ASSETS less LIABILITIES)	1 306 363 258.89	1 270 460 863.32
LIABILITIES	219 945 741.77	240 870 627.48
P.II.5. Current Accrued Charges &Defrd Income	- 150 411 327.41	- 172 780 024.71 -
P.II.4. Current Payables	42 536 412.91	57 907 728.63
P.II.2. Current Provisions	8 509 029.92	2 261 035.14
P.II. CURRENT LIABILITIES	- 201 456 770.24 -	232 948 788.48
P.III.1. Reserves	- 95 153.53	886 990.00
P.III. NET ASSETS/LIABILITIES	- 95 153.53	886 990.00
P.I.2. Non-Current Provisions	- 18 393 818.00	- 8 808 829.00
P.I. NON CURRENT LIABILITIES	- 18 393 818.00	- 8 808 829.00
ASSETS	1 526 309 000.66	1 511 331 490.80
A.II.6. Cash and Cash Equivalents	36 139 262.17	29 888 645.00
A.II.3. Curr Exch Receiv & Non-Ex Recoverables	38 971 890.33	48 258 321.12
A.II.2. Current Pre-Financing	663 040 010.44	682 345 554.46
A.II.1. Current Financial Assets	3 935 259.29	1 264 028.46
A.II. CURRENT ASSETS	742 086 422.23	761 756 549.04
A.I.6. Non-Cur Exch Receiv & Non- Ex Recoverab	-	1 436 890.00
A.I.5. Non-Current Pre-Financing	769 014 390.63	731 978 132.10
A.I.4. Non-Current Financial Assets	15 208 187.80	16 159 919.66
A.I.3. Invstmnts Accntd For Using Equity Meth	-	
A.I.1. Intangible Assets	-	
A.I. NON CURRENT ASSETS	784 222 578.43	749 574 941.76

, , , , , , , , , , , , , , , , , , , ,	P.III.2. Accumulated Surplus/Deficit	9 273 977 226.96	7 903 539 168.10
---	--------------------------------------	------------------	------------------

Non-allocated central (surplus)/deficit*	-10 580 340 485.85	- 9 174 000 031.42
--	--------------------	-----------------------

TOTAL DG CNECT0.000.00

It should be noted that the balance sheet and statement of financial performance presented in Annex 3 to this Annual Activity Report, represent only the assets, liabilities, expenses and revenues that are under the control of this Directorate General. Significant amounts such as own resource revenues and cash held in Commission bank accounts are not included in this Directorate General's accounts since they are managed centrally by DG Budget, on whose balance sheet and statement of financial performance they appear. Furthermore, since the accumulated result of the Commission is not split amongst the various Directorates General, it can be seen that the balance sheet presented here is not in equilibrium.

Additionally, the figures included in tables 4 and 5 are provisional since they are, at this date, still subject to audit by the Court of Auditors. It is thus possible that amounts included in these tables may have to be adjusted following this audit.

TABLE 5 : STATEMENT OF FINANCIAL PERFORMANCE for DG CNECT

STATEMENT OF FINANCIAL PERFORMANCE	2019	2018
II.1 REVENUES	- 8 313 625.99	- 7 182 834.61
II.1.1. NON-EXCHANGE REVENUES	- 8 892 683.50	۔ 5 408 482.70
II.1.1.4. FINES	- 530 000.00	
II.1.1.5. RECOVERY OF EXPENSES	- 7 955 546.55	۔ 5 198 806.97
II.1.1.6. OTHER NON-EXCHANGE REVENUES	- 407 136.95	- 209 675.73
II.1.2. EXCHANGE REVENUES	579 057.51	- 1 774 351.91
II.1.2.1. FINANCIAL INCOME	- 442 264.94	- 256 628.00
II.1.2.2. OTHER EXCHANGE REVENUE	1 021 322.45	۔ 1 517 723.91
II.2. EXPENSES	1 468 670 839.50	1 377 620 893.47
II.2. EXPENSES	1 468 670 839.50	1 377 620 893.47
II.2.10.OTHER EXPENSES	32 274 768.72	22 145 361.24
II.2.2. EXP IMPLEM BY COMMISS&EX.AGENC. (DM)	1 217 804 095.18	1 075 087 158.01
II.2.3. EXP IMPL BY OTH EU AGENC&BODIES (IM) II.2.5. EXP IMPLEM BY OTHER	190 849 520.32	235 334 472.98
ENTITIES (IM)	17 945 878.33	45 000 199.66
II.2.6. STAFF AND PENSION COSTS	-	
II.2.8. FINANCE COSTS	9 796 576.95	53 701.58
STATEMENT OF FINANCIAL PERFORMANCE	1 460 357 213.51	1 370 438 058.86

Explanatory Notes (facultative):

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It should be noted that the balance sheet and statement of financial performance presented in Annex 3 to this Annual Activity Report, represent only the assets, liabilities, expenses and revenues that are under the control of this Directorate General. Significant amounts such as own resource revenues and cash held in Commission bank accounts are not included in this Directorate General's accounts since they are managed centrally by DG Budget, on whose balance sheet and statement of financial performance they appear. Furthermore, since the accumulated result of the Commission is not split amongst the various Directorates General, it can be seen that the balance sheet presented here is not in equilibrium.

Additionally, the figures included in tables 4 and 5 are provisional since they are, at this date, still subject to audit by the Court of Auditors. It is thus possible that amounts included in these tables may have to be adjusted following this audit.

		
OFF BALANCE	2019	2018
OB.1. Contingent Assets	-	172.310,00
GR for pre-financing	-	172.310,00
OB.2. Contingent Liabilities	- 18 804 385.53	- 18 804 386.00
OB.2.1. Guarantees given for EU FI OB.2.7. CL Legal cases OTHER	- 18 804 385.53	- 18 804 386.00 -
OB.3. Other Significant Disclosures	- 2 176 606 871.34	- 1 719 716 860.25
OB.3.2. Comm against app. not yet consumed	- 2 176 606 871.34	- 1 719 716 860.25
OB.4. Balancing Accounts	2 195 411 256.87	1 738 348 936.25
OB.4. Balancing Accounts	2 195 411 256.87	1 738 348 936.25
OFF BALANCE	- 0.00	0.00

TABLE 5bis : OFF BALANCE SHEET for DG CNECT

Explanatory Notes (facultative):

Please enter the text directly (no copy/paste of formatted text which would then disappear when saving the document in pdf), use \\\"ctrl+enter\\\" to go to the next line and \\\"enter\\\" to validate your typing.

It should be noted that the balance sheet and statement of financial performance presented in Annex 3 to this Annual Activity Report, represent only the assets, liabilities, expenses and revenues that are under the control of this Directorate General. Significant amounts such as own resource revenues and cash held in Commission bank accounts are not included in this Directorate General's accounts since they are managed centrally by DG Budget, on whose balance sheet and statement of financial performance they appear. Furthermore, since the accumulated result of the Commission is not split amongst the various Directorates General, it can be seen that the balance sheet presented here is not in equilibrium.

Additionally, the figures included in tables 4 and 5 are provisional since they are, at this date, still subject to audit by the Court of Auditors. It is thus possible that amounts included in these tables may have to be adjusted following this audit.

TABLE 6: AVERAGE PAYMENT TIMES in 2019 for CNECT

Times	Legal	
	Times	

Maximu m Payment Time (Days)	Total Number of Payments	Nbr of Payment s within Time Limit	%	Average Payment Times (Days)	Nbr of Late Payments	%	Average Payment Times (Days)
16	1	1	100.00 %	15			
24	1	1	100.00 %	9			
28	1	1	100.00 %	17			
29	1	1	100.00 %	10			
30	2611	2598	99.50 %	11.890685 14	13	0.50 %	36.7692307 7
33	1	1	100.00 %	11			
34	1	1	100.00 %	13			
38	1	1	100.00 %	16			
40	1	1	100.00 %	28			
41	1	1	100.00 %	9			
43	2	2	100.00 %	17			
44	1	1	100.00 %	23			
45	2	2	100.00 %	26			
46	1	1	100.00 %	25			
47	1	1	100.00 %	6			
48	1	1	100.00 %	30			
60	195	190	97.44 %	29.952631 58	5	2.56 %	65.2
76	1	1	100.00 %	21			
90	602	592	98.34 %	57.204391 89	10	1.66 %	99.3
105	3	3	100.00 %	5			
120	27	27	100.00 %	31.740740 74			

Total Number of Payment s	3456	3428	99.19 %		28	0.81 %	
Average Net Payment Time	21.24884 259			20.89819 137			64.178571 43
Average Gross Payment Time	33.57349 537			33.24591 599			73.678571 43

Suspensi ons							
Average Report Approval Suspensi on Days	Average Payment Suspensi on Days	Number of Suspend ed Payment s	% of Total Number	Total Number of Payments	Amount of Suspende d Payments	% of Total Amou nt	Total Paid Amount
0	42	1023	29.60 %	3456	283 701 57 4.23	23.77 %	1 193 767 3 36.86

Late Interest paid in 2019					
DG	GL Account	Description	Amount (Eur)		
CNECT	65010100	Interest on late payment of charges New FR	6 038.33		
			6 038.33		

	TABLE 7 : SITUATION ON REVENUE AND INCOME in 2019 for DG CNECT							
			nue and in recognized		Revenue	and incom from	e cashed	Outstandi ng
	Chapte r	Current year RO	Carried over RO	Total	Current Year RO	Carried over RO	Total	balance
		1	2	3=1+2	4	5	6=4+5	7=3-6
5 2	REVENU E FROM INVEST MENTS OR LOANS GRANTE D, BANK AND OTHER INTERE ST OTHEP	38 643.0 0	62.00	38 705.0 0	38 643.00	62.00	38 705.00	-
57	OTHER CONTRI BUTION S AND REFUND S IN CONNE CTION WITH THE ADMINI STRATI VE OPERAT ION OF THE INSTITU	5 416.89	-	5 416.89	5 416.89	-	5 416.89	-
6 4	TION CONTRI BUTION S FROM FINANC IAL	340 542. 96	-	340 542. 96 19_annexe	340 542.9 6	- Page 23 of	340 542.9	-

		38	3.21	4.59	8	2	0	19
9 0	MISCEL LANEOU S REVENU	313 241.	2 100 46	2 413 70	247 827.8	94 478.5	342 306.4	2 071 398.
7 1	S FINES AND PENALTI ES	530 000. 00	-	530 000. 00	-	-	-	530 000.00
6 6	MENTS OTHER CONTRI BUTION S AND REFUND	8 126 51 6.38	42 581 7 57.11	50 708 2 73.49	5 659 982 .06	12 225 0 51.85	17 885 03 3.91	32 823 239 .58

TABLE 8 : RECOVERY OF PAYMENTS in 2019 for DG CNECT(Number of Recovery Contexts and corresponding Transaction Amount)

INCOME BUDGET RECOVERY ORDERS ISSUED IN 2019	Irregularity		OLAF notified		Total undue payments recovered		Total transactions in recovery context (incl. non- qualified)		% Qualified/To tal RC	
Year of Origin (commitme nt)	N br	RO Amount	N b r	RO Amount	N br	RO Amount	N br	RO Amount	Nbr	RO Amou nt
2005	1	84 671.24			1	84 671.24	3	93 827.82	33.3 3%	90.24 %
2007	1 9	2 022 995 .94			1 9	2 022 995 .94	2 5	2 183 630 .30	76.0 0%	92.64 %
2008	1 9	620 430.8 1	1	88 452. 00	2 0	708 882.8 1	2 1	717 728.0 1	95.2 4%	98.77 %
2009	2 6	636 611.3 1	2	145 006 .00	2 8	781 617.3 1	3 2	794 486.5 6	87.5 0%	98.38 %
2010	3 5	1 658 169 .60	2	287 821 .00	3 7	1 945 990 .60	4 0	2 060 682 .81	92.5 0%	94.43 %
2011	3 2	997 312.7 0	2	406 055 .00	3 4	1 403 367 .70	3 6	1 458 965 .20	94.4 4%	96.19 %
2012	3 3	536 138.4 3	2	280 923 .00	3 5	817 061.4 3	3 6	818 895.8 3	97.2 2%	99.78 %
2013	4 3	1 022 742 .00	1	274 718 .00	4 4	1 297 460 .00	4 6	1 307 875 .56	95.6 5%	99.20 %
2014	2 7	372 017.8 9			2 7	372 017.8 9	2 8	506 207.5 0	96.4 3%	73.49 %
2015	1				1		2		65.0	21.70

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Sub-Total	2 5 5	8 287 90 9.25	1 0	1 482 9 75.00	2 6 5	9 770 884 .25	3 0 8	12 807 1 15.15	86.0 4%	76.29 %
No Link							2	1 350 590. 70		
2019	1	752.63			1	752.63	1	752.63	100. 00%	100.00 %
2018							4	167 306.6 4		
2016	6	116 150.1 3			6	116 150.1 3	1 4	332 704.4 2	42.8 6%	34.91 %
	3	219 916.5 7			3	219 916.5 7	0	1 013 461 .17	0%	%

EXPENSES BUDGET	Irregularity		r	OLAF Notified	F	otal undue Dayments recovered	in (i	Total ansactions recovery context incl. non- ualified)	Quali	% fied/To I RC
	N br	Amount	N b r	Amount	N br	Amount	N br	Amount	Nbr	Amou nt
INCOME LINES IN INVOICES	3 7	347 806.6 4			3 7	347 806.6 4	3 7	347 806.6 4	100. 00%	100.00 %
NON ELIGIBLE IN COST CLAIMS	1 1 8	5 917 032 .58			1 1 8	5 917 032 .58	2 6 9	27 402 33 8.11	43.8 7%	21.59 %
CREDIT NOTES	1 5	91 686.38			1 5	91 686.38	2 6	675 086.8 3	57.6 9%	13.58 %
Sub-Total	1 7 0	6 356 52 5.60			1 7 0	6 356 525 .60	3 3 2	28 425 2 31.58	51.2 0%	22.36 %
60.4ND	4				4		6			20.11

GRAND TOTAL	4 2 5	14 644 4 34.85	1 0	1 482 9 75.00	4 3 5	16 127 40 9.85	6 4 0	41 232 3 46.73	67.9 7%	39.11 %	
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TABLE 9: AGEING BALANCE OF RECOVERY ORDERS AT 31/12/2019 for DG CNECT

	Number at 01/01/202 0	Number at 31/12/201 9	Evolutio n	Open Amount (Eur) at 01/01/2020	Open Amount (Eur) at 31/12/2019	Evolutio n
200 2	2	2	0.00 %	737 418.19	737 418.19	0.00 %
200 3	1	1	0.00 %	350 703.53	350 703.53	0.00 %
200 4	4	4	0.00 %	455 707.50	455 707.50	0.00 %
200 6	2	2	0.00 %	235 881.26	235 881.26	0.00 %
200 8	11	11	0.00 %	1 655 788.71	1 655 788.71	0.00 %
200 9	22	22	0.00 %	3 671 547.45	3 671 547.45	0.00 %

	321	321	0.00 %	35 528 649.0 2	35 528 649.0 2	0.00 %
201 9	34	34	0.00 %	3 061 947.82	3 061 947.82	0.00 %
201 8	12	12	0.00 %	1 684 361.73	1 684 361.73	0.00 %
201 7	24	24	0.00 %	1 927 111.24	1 927 111.24	0.00 %
201 6	23	23	0.00 %	3 751 141.38	3 751 141.38	0.00 %
201 5	20	20	0.00 %	552 204.04	552 204.04	0.00 %
201 4	25	25	0.00 %	3 886 685.48	3 886 685.48	0.00 %
201 3	23	23	0.00 %	1 523 062.57	1 523 062.57	0.00 %
201 2	35	35	0.00 %	1 697 439.79	1 697 439.79	0.00 %
201 1	56	56	0.00 %	7 671 614.28	7 671 614.28	0.00 %
201 0	27	27	0.00 %	2 666 034.05	2 666 034.05	0.00 %

TABLE 10 :Recovery Order Waivers >= 60 000 € in 2019 for DG CNECT

	Waiver Central Key	Linked RO Central Key	RO Accepted Amount (Eur)	LE Account Group	Commissio n Decision	Comments
0	3233190017	3241506287	-75 596.20	Private Companie s		
1	3233190018	3241506288	-74 168.28	Private Companie s		
2	3233190026	3240809450	-102 039.32	Private Companie s		
3	3233190079	3241305881	-243 395.31	Private Companie s		
4	3233190085	3241804772	-332 080.93	Other Public Bodies		
5	3233190103	3230911516	-217 162.88	Private Companie s		
6	3233190104	3230911519	-135 023.74	Private Companie s		
7	3233190145	3241415468	-120 475.00	Private Companie s		
8	3233190146	3241415469	-102 644.00	Private Companie s		
9	3233190174	3241315151	-311 184.30	Private Companie s		
1 0	3233190176	3241605705	-161 334.83	Private Companie s		
1	3233190177	3241605706	-386 992.50	Private		

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1				Companie s	
1 2	3233190182	3241816106	-78 038.95	Private Companie s	

	-
Total DG CNECT	2 340 136.2
	4

Number of RO waivers 13

There are 18 waivers below 60 000 € for a total amount of -435 377.75

Justifications:

Please enter the text directly (no copy/paste of formatted text which would then disappear when saving the document in pdf), use "ctrl+enter" to go to the next line and "enter" to validate your typing.

TABLE 11 :Negociated Procedures in 2019 for DG CNECT

Internal Procedures > € 60,000

Negotiated Procedure Legal base	Number of Procedures	Amount (€)
Annex 1 - 11.1 (b) - Artistic/technical reasons or exclusive rights or technical monopoly/captive market	2	189 951.40
Total	2	189 951.40

TABLE 12 : Summary of Procedures in 2019 for DG CNECT

Internal Procedures > € 60,000

Procedure Legal base	Number of Procedures	Amount (€)
Negotiated procedure middle value contract (Annex 1 - 14.2)	2	233 920.00
Negotiated procedure without prior publication (Annex 1 - 11.1)	2	189 951.40
Open Procedure (Art. 104(1) (a) FR)	1	399 750.00
Open procedure (FR 164 (1)(a))	24	32 923 147.05
Restricted procedure based on a call for expressions of interest - Preselection of candidates (Annex 1 - 13.3 (a))	3	241 175.00
Total	32	33 987 943.45

	TABLE 13 : BUILDING CONTRACTS in 2019 for DG CNECT										
Legal Base	Procedure subject	LC/FW?	Contract/FW Number	Contractor Name	Contract/FW Subject	Amount (€)					

1			

	TABLE 14 : CONTRACTS DECLARED SECRET in 2019 for DG CNECT							
Le gal Ba se	Proce dure subjec t	LC/F W?	LC Contract/ Grant type or FW type	LC Date	Contract /FW Number	Contractor Name	Contract/FW Subject	Amoun t (€)

TABLE 15 : FPA duration exceeds 4 years - DG CNECT%

None of your FPA (if any) exceeds 4 years

ANNEX 4: Materiality criteria

The present document details the way DG CONNECT assesses the level of errors in its annual financial statements and the definition of the level of misstatement that is considered as quantitatively material.

DG CONNECT managed in 2019 financial operations under H2020, FP7 and other programmes such as CIP ICT PSP/SI.

The Research Framework programmes H2020, FP7 (common aspects)

Effectiveness of controls

The starting point to determine the effectiveness of the controls in place is the cumulative level of error expressed as the percentage of errors in favour of the EC, detected by ex-post audits, measured with respect to the amounts accepted after exante controls.

However, to take into account the impact of the ex-post controls, this error level is to be adjusted by subtracting:

- Errors detected corrected as a result of the implementation of audit conclusions.
- Errors corrected as a result of the extrapolation of audit results to non-audited contracts with the same beneficiary.

For FP7, this results in a residual error rate, which is calculated in accordance with the following formula:

$$\operatorname{Re} sER\% = \frac{(\operatorname{Re} pER\% * (P - A)) - (\operatorname{Re} pERsys\% * E)}{P}$$

Where:

- **ResER%** residual error rate, expressed as a percentage.
- **RepER%** representative error rate, or error rate detected in the common representative sample, expressed as a percentage. For FP 7 this rate is the same for all Research services.
- **RepERsys%** portion of the RepER% representing (negative) systematic errors, expressed as a percentage. The RepER% is composed of two complementary portions reflecting the proportion of negative systematic and non-systematic errors detected.
- **P** total aggregated amount in EUR of EC share of funding in the auditable population. In FP7, the population is that of all received cost statements, and the EUR amounts those that reflect the EC share included in the costs claimed in each cost statement.
- **A** total EC share of all audited amounts, expressed in EUR. This will be collected from audit results.
- **E** total non-audited amounts of all audited beneficiaries. In FP7, this consists of the total EC share, expressed in EUR, of all non-audited received cost statements for all audited beneficiaries (excluding those beneficiaries for which an extrapolation in ongoing).

The Common Representative Audit Sample (CRAS) is the starting point for the calculation CNECT_aar_2019_annexes_final Page 29 of 120 of the residual error rate. It is representative of the expenditure of each FP as a whole. Nevertheless, the Director-General (or Director for the Executive Agencies) must also take into account other information when considering if the overall residual error rate is a sufficient basis on which to draw a conclusion on assurance (or make a reservation) for specific segment(s) of FP7/Horizon 2020. This may include the results of other ex-post audits, ex-ante controls, risk assessments, audit reports from external or internal auditors, etc. All this information may be used in assessing the overall impact of a weakness and considering whether to make a reservation or not.

If the CRAS results are not used as the basis for calculating the residual error rate this must be clearly disclosed in the AAR, along with details of why and how the final judgement was made.

In case a calculation of the residual error rate based on a representative sample is not possible for a FP for reasons not involving control deficiencies,¹³ the consequences are to be assessed quantitatively by making a best estimate of the likely exposure for the reporting year based on all available information. The relative impact on the Declaration of Assurance would be then considered by analysing the available information on qualitative grounds and considering evidence from other sources and areas. This should be clearly explained in the AAR.

Multiannual approach

The Commission's central services' guidance relating to the quantitative materiality threshold refers to a percentage of the authorised payments of the reporting year of the ABB expenditure. However, the Guidance on AARs also allows a multi-annual approach, especially for budget areas (e.g. programmes) for which a multi-annual control system is more effective. In such cases, the calculation of errors, corrections and materiality of the residual amount at risk should be done on a 'cumulative basis' on the basis of the totals over the entire programme lifecycle.

Because of its multiannual nature, the effectiveness of the Research services' control strategy can only be fully measured and assessed at the final stages in the life of the framework programme, once the ex-post audit strategy has been fully implemented and systematic errors have been detected and corrected.

In addition, basing materiality solely on ABB expenditure for one year may not provide the most appropriate basis for judgements, as ABB expenditure often includes significant levels of pre-financing expenditure (e.g. during the initial years of a new generation of programmes), as well as reimbursements (interim and final payments) based on cost claims that 'clear' those pre-financings. Pre-financing expenditure is very low risk, being paid automatically after the signing of the contract with the beneficiary.

Notwithstanding the multiannual span of their control strategy, the Director-Generals of the Research DGs (and the Directors of ERCEA, REA, and, for Horizon 2020, EASME and INEA) are required to sign a statement of assurance for each financial reporting year. In order to determine whether to qualify this statement of assurance with a reservation, the effectiveness of the control systems in place needs to be assessed not only for the year of reference but also with a multiannual perspective, to determine whether it is possible to reasonably conclude that the control objectives will be met in the future as planned.

In view of the crucial role of ex-post audits defined in the respective common audit strategies, this assessment needs to check in particular whether the scope and results of the ex-post audits carried out until the end of the reporting period are sufficient and adequate to meet the multiannual control strategy goals.

¹³ Such as, for instance, when the number of results from a statistically-representative sample collected at a given point in time is not sufficient to calculate a reliable error rate.

The criteria for making a decision on whether there is material error in the expenditure of the DG or service, and so on whether to make a reservation in the AAR, will therefore be principally, though not necessarily exclusively, based on the level of error identified in ex-post audits of cost claims on a multi-annual basis.

Adequacy of the audit scope

The quantity of the (cumulative) audit effort carried out until the end of each year is to be measured by the actual volume of audits completed. The data is to be shown per year and cumulated, in line with the current AAR presentation of error rates. The multiannual planning and results should be reported in sufficient detail to allow the reader to form an opinion on whether the strategy is on course as foreseen.

The Director-General (or Director for the Executive Agencies) should form a qualitative opinion to determine whether deviations from the multiannual plan are of such significance that they seriously endanger the achievement of the internal control objective. In such case, she or he would be expected to qualify his annual statement of assurance with a reservation.

<u>Research Framework programmes – specific aspects</u>

The control system of each framework programme is designed in order to achieve the operational and financial control objectives set in their respective legislative base and legal framework. If the effectiveness of those control systems does not reach the expected level, a reservation must be issued in the annual activity report and corrective measures should be taken.

Each programme having a different control system, the following section details the considerations leading to the establishment of their respective materiality threshold and the conclusions to draw with regard to the declaration of assurance.

Seventh Framework programme

For the Seventh Framework programme, the general control objective, following the standard quantitative materiality threshold proposed in the Standing Instructions for AAR, is to ensure that the residual error rate, i.e. the level of errors which remain undetected and uncorrected, does not exceed 2% by the end of the programmes' management cycle.

The question of being on track towards this objective is to be (re)assessed annually, in view of the results of the implementation of the ex-post audit strategy and taking into account both the frequency and importance of the errors found as well as a cost-benefit analysis of the effort needed to detect and correct them.

Horizon 2020 Framework Programme

The Commission's proposal for the Regulation establishing the H2020 framework programme $^{\rm 14}$ states that.

'It remains the ultimate objective of the Commission to achieve a residual error rate of less than 2% of total expenditure over the lifetime of the programme, and to that end, it has introduced a number of simplification measures. However, other objectives such as the attractiveness and the success of the EU research policy, international competitiveness, scientific excellent and in particular the costs of controls need to be considered'.

¹⁴ COM(2011) 809/3 Proposal for a Regulation of the European Parliament and of the Council establishing Horizon 2020 – the Framework programme for Research and Innovation (2014-2020), see point 2.2, pp 98-102.

Taking these elements in balance, it is proposed that the Directorates General charged with the implementation of the research and innovation budget will establish a costeffective internal control system that will give reasonable assurance that the risk of error over the course of the multiannual expenditure period is, on an annual basis, within a range of 2-5%, with the ultimate aim to achieve a residual level of error as close as possible to 2% at the closure of the multi-annual programmes, once the financial impact of all audits, correction and recovery measures have been taken into account.'

Further, it explains also that

'Horizon 2020 introduces a significant number of important simplification measures that will lower the error rate in all the categories of error. However, [...] the continuation of a funding model based on the reimbursement of actual costs is the favoured option. A systematic resort to output based funding, flat rates or lump sums appears premature at this stage [...]. Retaining a system based on the reimbursement of actual costs does however mean that errors will continue to occur.

An analysis of errors identified during audits of FP7 suggests that around 25-35% of them would be avoided by the simplification measures proposed. The error rate can then be expected to fall by 1.5%, i.e. from close to 5% to around 3.5%, a figure that is referred to in the Commission Communication striking the right balance between the administrative costs of control and the risk of error.

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%.'

In summary, the control system established for Horizon 2020 is designed to achieve a control result in a range of 2-5% detected error rate, which should be as close as possible to 2%, after corrections. Consequently, this range has been considered in the legislation as the control objective set for the framework programme.

The question of being on track towards this objective is to be (re)assessed annually, in view of the results of the implementation of the ex-post audit strategy and taking into account both the frequency and importance of the errors found as well as a cost-benefit analysis of the effort needed to detect and correct them.

Adequacy of the audit scope

The quantity of the (cumulative) audit effort carried out until the end of each year is to be measured by the actual volume of audits completed. The data is to be shown per year and cumulated, in line with the current AAR presentation of error rates. The multiannual planning and results should be reported in sufficient detail to allow the reader to form an opinion on whether the strategy is on course as foreseen.

The Director-General should form a qualitative opinion to determine whether deviations from the multiannual plan are of such significance that they seriously endanger the achievement of the internal control objective. In such case, she or he would be expected to qualify his annual statements of assurance with a reservation.

As from 2019¹⁵, a 'de minimis' threshold for financial reservations is introduced.

¹⁵ Agreement of the Corporate Management Board of 30/4/2019.

Quantified AAR reservations related to residual error rates above the 2% materiality threshold, are deemed not substantial for segments representing less than 5% of a DG's total payments and with a financial impact below EUR 5 million. In such cases, quantified reservations are no longer needed.

ANNEX 5a: Relevant Control System(s) for budget implementation (RCSs)

Grants direct management – FP7 and H2020

Stage 1: Programming, evaluation and selection of proposals

A - Preparation, adoption and publication of the Annual Work Programme and Calls for proposals

Main control objectives: Ensuring that the most promising projects for meeting the policy objectives are among the proposals submitted; Compliance; Prevention of fraud

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The work programme and the subsequent calls for proposals do not adequately reflect the policy objectives, priorities, are incoherent and/or the essential eligibility, selection and award criteria are not adequate to ensure the evaluation of the proposals. The annual work programmes are not consistent within the Research and Innovation family and with the 7 years' framework. The programme Horizon 2020 implementation (procedures, monitoring arrangements, communication with beneficiaries, budget planning, etc) is not consistent within the Research and Innovation family and with the 7 years' framework.	 within the authorising department Inter-service consultation, including all relevant services Adoption by the Commission Explicit allocation of responsibility. The Common Support Centre in RTD provides all the members of the Family with harmonised procedures, guidance and IT tools. DG RTD centralises the budget planning and the 	Coverage / Frequency: 100% Depth: All work programmes are thoroughly reviewed at all levels, including for operational and legal aspects. Coverage/ Frequency: 100% Depth All the underlying implementation tools are defined et developed at family level.	Effectiveness: The work programme is adopted by the Commission. Success ratios in terms of 'over-subscription': number of proposals retained for funding compared to number of eligible proposals received. Qualitative Benefits: A good Work Programme and well publicised calls should generate a large number of good quality projects, from which the most excellent can be chosen. There will therefore be real competition for funds. Optimised procedures, common approach on multiple issues (audits, fraud, legal aspects, reporting); better reporting on the whole programme – better management of the programme.

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B - Selecting and awarding: Evaluation, ranking and selection of proposals

Main control objectives: Ensuring that the most promising projects for meeting the policy objectives are among the proposals selected; Compliance; Prevention of fraud

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The evaluation, ranking and selection of proposals is not carried out in accordance with the established procedures, the policy objectives, priorities and/or the essential eligibility, or with the selection and award criteria defined in the annual work programme and subsequent calls for proposals.	Selection and appointment of expert evaluators Assessment by independent experts Comprehensive IT system supporting the stage and allowing better monitoring of the process Validation by the AOSD of ranked list of proposals. In addition, if applicable: Opinion of advisory bodies; comitology; inter-service consultation and adoption by the Commission; publication Systematic checks on operational and legal aspects performed before signature of the GA Redress procedure Evaluation review procedure	 100% vetting (including selecting) of experts for technical expertise and independence (e.g. conflicts of interests, nationality bias, ex-employer bias, collusion). 100% of proposals are evaluated. Coverage: 100% of ranked list of proposals. Supervision of work of evaluators. 100% of contested decisions are analysed by redress committee 	Effectiveness: Number of proposals evaluated Efficiency Indicators: % of Time-To-Inform on time. % of number of (successful) redress challenges upheld / total number of proposals evaluated Qualitative benefits: Expert evaluators from outside the Commission bring independence, state of the art knowledge in the field and a range of different opinions. This will have an impact on the whole project cycle : better planned, better implemented projects

Stage 2: Contracting

Main control objectives: : Ensuring that the most promising projects for meeting the policy objectives are among the proposals contracted; SFM (optimal allocation of the budget available); Compliance; Prevention of fraud

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The description of the action in the grant agreement includes tasks which do not contribute to the achievement of the programme objectives. and/or that the budget foreseen overestimates the costs necessary to carry out the action. The beneficiary lacks operational and/or financial capacity to carry out the actions. Procedures do not comply with regulatory framework. The evaluation stage hasn't detected a potentially fraudulent proposal/beneficiary.	Project Officers implement evaluators' recommendations. Hierarchical validation of proposed adjustments. Validation of beneficiaries (financial capacity checks on demand). Systematic checks on operational and legal aspects performed before signature of the GA Risk assessment and risk based checks before the grant agreement signature and reinforced monitoring flagging if necessary Ad hoc anti-fraud checks for riskier beneficiaries Signature of the grant agreement by the AO. Financial verification where necessary Participant Guarantee Fund.	 100% of the selected proposals and beneficiaries are scrutinised. Coverage: 100% of draft grant agreements. Depth may be differentiated; determined after considering the type or nature of the beneficiary (e.g. SMEs, joint-ventures) and/or of the modalities (e.g. substantial subcontracting) and/or the total value of the grant. Note that, given the constraints on the time to grant set out in the Horizon 2020 legislation, 'negotiation' of projects is kept to a minimum, as far as possible the positively evaluated projects are accepted without modification. 	Effectiveness: Number of grants signed Efficiency Indicators: Average time to grant % of Time-to-grant on time Qualitative benefits: The whole committed budget checked for quality (prevention of later errors, prevention of ethics issues). This stage should lead to a higher assurance on the achievement of the projects – and policy objectives.

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Stage 3: Monitoring the implementation

Main control objectives: ensuring that the operational results (deliverables) from the projects are of good value and meet the objectives and conditions; ensuring that the related financial operations comply with regulatory and contractual provisions; prevention of fraud; ensuring appropriate accounting of the operations.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The actions foreseen are not, totally or partially, carried out in accordance with the technical description and requirements foreseen in the grant agreement. The amounts paid exceed what is due in accordance with the applicable contractual and regulatory provisions. The cost claims are irregular or fraudulent. Lack of harmonised approach within the family with the consequence of unequal treatment of the beneficiaries	 Kick-off meetings and 'launch events' involving the beneficiaries in order to avoid project management and reporting errors. Effective external communication about guidance to the beneficiaries. Anti-fraud awareness raising training for the project officers. Enhanced family approach (anti-fraud cooperation; common legal and audit service; comprehensive and common IT system for all the family). Operational and financial checks in accordance with the financial circuits. Operation authorisation by the AO For riskier operations, more in-depth exante controls . Selection and appointment of expert for scientific reviews of intermediate and/or final reporting . If needed: application of 	controlled, including only value- adding checks. Riskier operations subject to more in-depth controls. The depth depends on risk criteria. However, as a deliberate policy to reduce administrative burden, and to ensure a good balance between trust and control, the level of control at this stage is reduced to a minimum High risk operations identified by risk criteria. Red flags: suspicions raised by staff, audit results, EDES, individual or 'population' risk assessment. Audit certificates required for any	Effectiveness: Number of payments (interim and final) Efficiency: Time-to-pay: % of payments made on time Qualitative Benefits: Projects are excecuted and produce benefits for the community

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Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
	Suspension/interruption of payments, Referring case to OLAF		

Overall economy and quantitative benefit for ex-ante control

Economy: a. Estimation of cost of staff involved in the ex-ante checks Programme management and monitoring Financial management Budget and accounting b.Estimation of other costs linked to ex-ante checks Cost of experts Costs of IT external contracts	
Benefits : Total amount commited for grants signed Total amount paid against cost claims including clearings on prefinancing	

Stage 4: Ex-post controls

Effectiveness, efficiency and qualitative benefits are detailed per stages A to D. Economy is calculated overall for the ex-post controls and detailed at the end of paragraph 2.

A - Reviews, audits and monitoring

Main control objectives: Measuring the level of error in the population after ex-ante controls have been undertaken; detect and correct any error or fraud remaining undetected after the implementation ex-ante controls; identifying possible systemic weaknesses in the ex-ante controls, or weaknesses in the rules.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The ex-ante controls (as such) do not prevent, detect and correct erroneous payments or attempted fraud to an extent going beyond a tolerable rate of error. Lack of consistency in the audit strategy within the family. Lack of efficiency for absence of coordination: multiple audits on the same beneficiary, same programme: reputational risk and high administrative burden on the beneficiaries' side.	 Common Ex-post control strategy for the entire Research and Innovation family (Horizon 2020), implemented by a central service (Common Support Centre, DG RTD): At intervals carry out audits of a representative sample of operations to measure the level of error in the population after ex-ante controls have been performed Additional sample to address specific risks When relevant, joint audits with the Court of Auditors Multi-annual basis (programme's lifecycle) and coordination with other AOs concerned. Validate audit results with beneficiary. In case of systemic error detected, extrapolation to all the projects run by the audited beneficiary. 	 Common Representative audit Sample (CRaS): MUS sample across the programme to draw valid management conclusions on the error rate in the population. Risk-based sample, determined in accordance with the selected risk criteria, aimed to maximise deterrent effect and prevention of fraud or serious error 	Effectiveness: Representative and residual error rate identified Number of audits finalised % of beneficiaries & value coverage Efficiency: Percentage of implementation of CAS audit plan Qualitative benefits: Deterrent effect. Learning effect for beneficiaries. Improvement of ex-ante controls or risk approach in ex- ante controls by feeding back findings from audit. Improvement in rules and guidance from feedback from audit.

B - Implementing results from ex-post audits/controls

Main control objectives: Ensuring that the (audit) results from the ex-post controls lead to effective recoveries; Ensuring appropriate accounting of the recoveries made

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The errors, irregularities and cases of fraud detected are not addressed or not addressed in a timely manner	control results to be implemented and actual implementation. Validation of recovery in accordance with financial circuits. Authorisation by AO. Notification to OLAF and regular	 Coverage: 100% of final audit results <i>with a financial impact.</i> Depth: All audit results are examined in-depth in making the final recoveries. Systemic errors are extrapolated to all the non-audited projects of the same beneficiary 	Effectiveness: Amounts being recovered and offset Efficiency: Number/value/% of audit results pending implementation, Number/value/% of audit results implemented Benefits: Budget value of the errors, detected by ex-post controls, which have actually been corrected (offset or recovered). Loss:
	follow up of detected fraud.		Budget value of such ROs which are 'waived' or have to be cancelled.

Overall economy for ex-post control

	Economy:	
	Estimation of cost of staff involved in the	coordination and
	execution of the ex-post audit strated	gy and in the
	implementation of audits.	

ANNEX 5b: Relevant Control System(s) for budget implementation (RCSs)

Indirect entrusted management DG CONNECT

The RCS covers: (1) the executive agencies EACEA, INEA, REA and EASME (the two latter for H2020)¹⁶ (2) cross delegations to other Commission services (3) the ESCEL Joint Undertaking (4) Active and Assisted Living (AAL) Association, (5) Decentralised Agencies (BEREC Office & ENISA).

Stage 1: Establishment (or prolongation) of the mandate to the entrusted entity ('delegation act'/ 'contribution agreement' / etc).

Main control objectives: Ensuring that the legal framework is fully compliant and regular (legality & regularity), delegated to an appropriate entity (best value for public money, economy, efficiency), without any conflicts of interests (anti-fraud strategy), and gives all the references necessary for a smooth running of the new entity.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The establishment (or prolongation) act of the mandate of the entrusted entity lacks clear references regarding the responsibilities of each involved actor. For PPPs: the evaluation method of the in-kind contributions provided by the industry partners is not	Ex-ante evaluation Widespread consultation, internally and with external stakeholders. Hierarchical validation within the authorising department Inter-service consultation, including all relevant DG. Adoption by the Commission.	Coverage/Frequency : 100%/once for the establishment and partial for amendments or extensions.	Effectiveness: Quality of the legal work (basic act, delegation act/contribution agreement) Efficiency: Average cost of preparation, adoption and selection work done for the entrusted entities. Overall supervision cost per (type of) entrusted entity (%) Economy: Estimation of costs of staff involved in monitoring the

¹⁶ The contribution of DG CONNECT to the administrative budget of the executive agencies is removed from the financial programming at the beginning of the Multi-annual Financial Framework. The operational budget is directly allocated to the Agency on a yearly basis – DG CONNECT does not strictly have a financial responsibility, but does still have a responsibility to supervise the agency in terms of the achievement of results.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
clear.			entrusted entity.
			Benefits: Benefits cannot be calculated in terms of budget.

Stage 2: Assessment and supervision of the entrusted entity's financial and control framework (towards `budget autonomy'; `financial rules').

Main control objectives: Ensuring that the entrusted entity is fully prepared to start/continue implementing the delegated funds autonomously with respect of all 5 ICOs.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The financial and control framework deployed by the entrusted entity is not fully mature to guarantee achieving all 5 ICOs	Ex-ante assessment, conditional to granting budget autonomy Hierarchical validation within the authorising department Use of Model- or Framework- financial rules (MFR or FFR) Standard business processes and IT tools (EAs and JUs) Secondment or selection of key staff Continuous cooperation within the Research family (IC network, FAIR) in order to harmonize the IC framework Review of audit reports (IAS, ECA)	Coverage/frequency: 100% of entrusted entities/once at the beginning and partial (problem focussed) for amendments or work arrangements Depth is determined after considering the type or nature of the entrusted entity, its form and/or the value of the budget concerned.	Effectiveness: The entrusted entities is granted budget autonomy, without too significant delays. Efficiency: Number of deviations from the MFF. Economy: Estimation of costs of staff involved in ex-ante assessment process. Benefits: The total budget amount entrusted to the entity.

Stage 3: Operations: monitoring, supervision, reporting.

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Main control objectives: Ensuring that the Commission is fully and timely informed of any relevant management issues encountered by the entrusted entity, in order to possibly mitigate any potential financial and/or reputational impacts (legality & regularity, achievement of scientific objectives, sound financial management, true and fair view reporting, anti-fraud strategy).

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The Commission is not informed of relevant	Delegation Act/ Contribution agreement/etc. specifying the	Coverage : 100% of the entities are	Effectiveness:
management issues encountered by the	control, accounting, audit, publication, etc. related requirements	monitored/supervised.	Relevance and reliability of control data reported back, quality of underlying mngt/audit reports received.
entrusted entity in a timely manner	 incl. the modalities on reporting back relevant and reliable control 	Frequency: key KPI's reported on a monthly basis,	Efficiency:
The Commission does not	results Membership of the Governing Boards	regular steering committee or Governing Board	Overall supervision cost per entrusted entity
react upon and mitigate notified issues in a timely	(ECSEL – the Commission holds 1/3 of voting rights) or the Steering	meetings), annual reports (AAR and operational	Economy:
manner which may reflect negatively on the	Committee (Executive Agencies) Monitoring or supervision of the	reporting), evaluation reports.	Estimation of costs of staff involved in monitoring of the entrusted entities
Commission's governance reputation and quality of	entrusted entity e.g. 'regular' monitoring meetings at operational	In case of operational and/or financial issues,	Benefits:
accountability reporting.	level to review progress in achieving operational results; review of	appropriate mitigating measures are available and	The average annual budget amount entrusted to the entity. Optimised procedures, harmonised approach to
The programme H2020 implementation	reported control results and any underlying management/audit	should be used	beneficiaries on multiple issues (audits, fraud, legal)
(procedures, monitoring arrangements,	reports; scrutiny of annual report,	Coverage/ Frequency: 100%	
communication with beneficiaries, budget	etc.		
planning, etc.) is not consistent within the	Management review of the supervision results.	Depth	
Research family and with the 7 years' framework	If appropriate/needed: - reinforced monitoring of operational	All the underlying implementation tools are defined et developed at	

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Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
	and/or financial aspects of the entity - potential escalation of any major governance-related issues with entrusted entities	family level.	
	The Common Support Centre provides all the members of the Research Family with harmonised procedures, guidance and IT tools.		
	DG RTD centralises the budget planning and the monitoring of the H2020's budget implementation.		

Stage 4: Commission contribution: payment or suspension/interruption.

Main control objectives: Ensuring that the Commission adequately assesses the management situation at the entrusted entity, before either paying out the (next) contribution for the operational and/or operating budget of the entity, or deciding to suspend/interrupt the (next) contribution. This is very closely linked to stage 3 above.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The Commission pays out	Delegation Act/ Contribution	Coverage: 100% of the	Effectiveness:
the (next) contribution to	agreement/etc specifying the control,	contribution payments.	
the entrusted entity, while	accounting, audit, publication, etc	Frequency: following the	Number of control failures.
not being aware of the	related requirements - including	rhythm of the payments	
management issues that	reporting		Efficiency:
may lead to financial and/or		There is a review before	

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Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
reputational damage.	Management review of the supervision results.	each payment is made. However, the depth will depend on identified issues	Overall supervision cost per entrusted entity
Bad cash forecast leading to the Commission paying too much compared to the EE's needs	Standard procedures for the validation of all payments and recovery of non-used operating budget subsidy	and on the body involved.	Economy: Estimation of costs of staff involved in monitoring of the entrusted entities.
In times of shortage of credits, the budget appropriations are not optimised with the current needs within the family.	Good internal communication to ensure that issues are known and dealt with (see stage 3) Family level budget coordination		Benefits: The average annual budget amount entrusted to the entity Qualitative benefit: optimised credit implementation

Stage 5: Audit and evaluation, Discharge for Joint Undertakings

Main control objectives: Ensuring that assurance building information on the entrusted entity's activities is being provided through independent sources as well, which may confirm or contradict the management reporting received from the entrusted entity itself (on the 5 ICOs).

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
The Commission has not sufficient information from independent sources on the entrusted entity's management achievements, which prevents drawing conclusions on the assurance for the budget entrusted to the entity – which may reflect negatively on the Commission's governance reputation and quality of accountability reporting.	Delegation Act/Contribution agreement/etc. specifying the control, accounting, audit, publication, etc. related requirements – including independent audit function (where appropriate) and cooperation with IAS and ECA. The IAS is the internal auditor for all EAs and JUs. The ECA has access to all bodies for which recourse to new management modes has been done and gives a separate opinion (leading to separate discharge) for JUs and EAs for their administrative budget. Harmonised ex-post audits (common audit strategy for H2020), common audit service- potential escalation of any major governance-related issues with entrusted entities – Exchange of relevant anti-fraud information about shared beneficiaries within the Research family Interim evaluations by independent experts of achievement of policy objectives	Coverage: sample as needed (e.g.random/representative, value-targeted, risk-based). Frequency: whenever necessary. The depth depends on the type of entity and the level of risks assessed. Annual report of the ECA on all JUs.	Effectiveness: Assurance being provided (via management/audit reporting). Efficiency: Overall supervision cost per entrusted entity Economy: Estimation of costs of staff involved in monitoring of the entrusted entities.

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The below RCS covers: (1) the cultural and creative sectors guarantee facility.

IFI = (entrusted) International Financial Institution (eg EIB/EIF, etc); **FI** = (further entrusted) Financial Intermediaries; '**sub'-FI** = (further) sub-delegated FI; **FR** = Final Recipient

Stage 1 – Set-up/design of the Financial Instrument and designation of International Financial Institution (IFI)

Main control objectives:

- Ensuring that the Financial Instrument is adequate for meeting the policy or programme objectives (effectiveness); Compliance (legality & regularity); Prevention of fraud (anti-fraud strategy)
- Ensuring that the most promising International Financial Institution (IFI) is pre-determined or selected to ensure that the Financial Instrument is implemented effectively and efficiently; Sound financial management; Legality and regularity; Fraud prevention and detection

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
a) The actions supported through the Financial Instrument do not adequately reflect the policy objectives	 a) Hierarchical validation (incl. at DG level) of the: 1) Regulation (approved by the Legislative Authority); 2) Delegation agreement, including notably an ex-ante evaluation (required by RAP art. 224); 3) Annual work programme for 'Access to risk finance' (part of the H2020 WP) with an annual budget Inter-service consultation of relevant DGs (horizontal and operational) Consultation of the H2020 Advisory Group on Access to Risk 	If risk materialises, the Financial Instrument would be irregular. Theoretical impact 100% of the funds involved and significant reputational consequences. <u>Coverage/frequency</u> : 100%	Effectiveness: Assurance being provided (via management/audit reports). Efficiency: Overall supervision cost. Economy: Estimation of the cost of staff involved in the monitoring of the Financial Instrument. Benefits: The total value of the Financial Instrument (this is our maximum risk exposure if the basic acts are inadequate)

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Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
	Finance Formal adoption by the Legislative Authority (for the Regulation), by Commission decision (for the DA), and by the Budgetary Authority (for the WP and the annual budget). Regular evaluations (see Stage 3)		
b) The Delegation Agreement is inadequate in coverage of operational and management provisions (RAP art. 217 & 222-225)	b) The main principles were agreed with the IFI in the FAFAs (managed by ECFIN)		
c) The selection of <u>the</u> <u>IFI</u> is not in line with FR & RAP criteria, especially re: 'alignment of interests' (FR art 140.2e)	c) EIF was pre-determined in accordance with FR art. 58.1c.		Effectiveness: Assurance being provided (via management/audit reports). Efficiency: Overall supervision cost. Economy: Estimation of the cost of staff involved in the monitoring of the Financial Instrument.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
d) The IFI (and the (sub)FI) does not have the experience and financial capacity / administrative & control capacity to ensure an effective & sound implementation of the Financial Instrument (FR art 60.2)			
e) The RSM (Risk-Sharing Mechanism) is too generous to the IFI (risk of unbalanced risks)	 e) Same controls as for a) above The EU's risk share is defined in the Delegation agreement. The risk sharing model was agreed in line with horizontal guidance for Financial instruments from DG BUDG and ECFIN. It was also subject to a formal Commission decision. 		

Stage 2 – Implementation of the Financial Instrument by the International Financial Institution (IFI), via Financial Intermediaries (FIs)

Main control objectives:

- Ensuring that the funds allocation is optimal (best value for public money; effectiveness, economy, efficiency); ensuring that the most promising Financial Intermediaries (FI), Final Recipients (FR) are selected to meet the policy objectives (effectiveness)
- Ensuring that the remuneration paid to the IFI is adequate (cost-effectiveness)
- Compliance (legality & regularity); Prevention of fraud (anti-fraud strategy); Safeguarding of assets and information; Reliable reporting (true

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and fair view)

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
a) The call for and selection of the <u>contracted FIs and FRs</u> is not in line with FR & RAP criteria for eligibility or exclusion, especially 'alignment of interests' and 'no relations with offshore banking and tax havens'	 a) Responsibility for the call, for evaluating, proposing and selecting FIs, lies with the IFI (the FIs do not perform calls). Due diligence by the IFI, which checks as part of the evaluation that banks are not registered in tax havens etc. Redress procedure for FIs not selected (part of EIF's evaluation procedure) Implementation of various controls by the IFI/FIs in accordance with the FAFA and Delegation agreement EIB's control strategy is presented to the Commission Ex-ante controls by IFIs at 'contracting' stage – EIF has a large department who check ex-ante that the proposed projects are eligible, excellent science and financially viable. On-the-spot_verifications by IFIs – a 'monitoring team' visits FIs and FRs before project and after project 	<u>Coverage</u> / <u>frequency:</u> determined by the IFI/FIs in accordance with the Delegation agreement <u>Depth:</u> determined by the IFI/FIs in accordance with the Delegation agreement	Effectiveness: Number of control failures. Assurance being provided (via management/audit reports) Efficiency: Overall supervision cost Economy: Estimation of the cost of staff involved in the monitoring of the Financial Instrument.

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
accounting and reporting		c) In-depth assessment of the statement of expenses	

Stage 3 - Monitoring and supervision of the Financial Instrument by the Commission, incl. ex-post control and assurance building

Main control objectives:

[•] Ensuring that the operational results (deliverables) from the Financial Instrument are of good value and meet the objectives and conditions

¹⁷ Remuneration may include administrative fees, treasury management fees and incentives as well as exceptional and unforeseen expenses.

(effectiveness & efficiency); ensuring that the related financial operations comply with regulatory and contractual provisions (legality & regularity); prevention of fraud (anti-fraud strategy); ensuring appropriate accounting of the operations (reliability of reporting, safeguarding of assets and information)

- Ensuring appropriate accounting of the repayments and assigned revenue made (reliability of reporting)
- Ensuring that the (audit) results from the ex-post controls lead to assurance for the accountable AOD (5 ICOs)

Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
 a) The IFI (and the (sub)FI) provide support to activities which are not contributing to achieving the policy objectives and the implementation is not in compliance with applicable regulations and is not in accordance with the principle of sound financial management b) Internal control weaknesses, irregularities, errors and fraud are not detected and corrected by the IFI 	a, b) Monitoring and supervision of the IFI/FIs is organised formally through the Steering Committee. Regular reporting (quarterly, annually and ad hoc) by the IFI to the Commission 'Designated Service' on operational and financial performance and administrative costs. <u>Annual reporting:</u> Financial statements; Management declaration; Summary report of audits and controls; independent (external) audit opinion. <u>In case of a key issue (weak</u> <u>reporting, negative audit opinion, high risk operations, etc)</u> :	<u>Coverage:</u> 100% of the funding payments to the entrusted entity are controlled	Effectiveness: Number of control failures. Assurance being provided (via management/audit reports). Efficiency: Management (fees) and supervision costs over assets under management Benefits: Estimation of the cost of staff involved in the monitoring of the Financial Instrument.
(and the (sub)FI), resulting in the EU funds not achieving the policy objectives and not complying with applicable	Reinforcedmonitoringandsupervision,Ifneeded:TheCommissionhastherighttosuspendorinterruptpayments,orevenapplytheexitstrategy		

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Main risks It may happen (again) that	Mitigating controls	How to determine coverage, frequency and depth	Cost-Effectiveness indicators (effectiveness, efficiency, economy)
regulations	(winding-up) Referring IFI/FI to OLAF		
c) The IFI does not report information that DG CONNECT considers crucial	c) Annual report has to be audited by an independent auditor, who also reports on the control system		
d) The Financial Instrument transactions lead to contingent liabilities for the EU budget	d) The legal base stipulates that the EU's liability (i.e. financial risk) is limited to the contribution it has paid , so there can be no contingent or off-balance sheet liabilities over this amount.		

ANNEX 6: Implementation through national or international public-sector bodies and bodies governed by private law with a public sector mission (if applicable)

This annex, which applies only to indirect management, includes information about implementing tasks entrusted to national or international public sector bodies and bodies governed by private law with a public sector mission. In practice, this includes 'national agencies' and bodies governed by private law with a public sector mission including PPPs such as Joint Undertakings (but <u>not</u> executive agencies, regulatory agencies, EIB and EIF).

ECSEL Joint Undertaking

1. Programmes concerned:	Horizon 2020 - the Framework Programme for RTD (2014-2020) - PART II. PRIORITY Industrial leadership, under specific objective - Leadership in enabling and industrial technologies
2. Annual budgetary amount entrusted / payments made	EUR 194.53 million / EUR 169.47 million
3. Duration of the delegation:	27 June 2014 - 31 December 2024
4. Justification of recourse to indirect centralised management:	Required by the Council Regulation establishing ECSEL Joint Undertaking to implement a Joint Technology Initiative on Electronic Components and Systems for European Leadership ¹⁸
5. Justification of the selection of the bodies (identity, selection criteria, possible indication in the legal basis etc):	Set out in the Council Regulation establishing the ECSEL Joint Undertaking as a Union body
6. Summary description of the implementing tasks entrusted.	The ECSEL JU shall carry out the following tasks: (a) support financially research and innovation indirect actions, mainly in the form of grants; (b) implement the tasks related to the operations of the Participants Guarantee Fund (PGF) for all the grants awarded by the ECSEL JU, according to the rules set out in the Rules for Participation and the Commission Decision on the financial management of the Participants Guarantee Fund C (2013) 9092, that establishes that the Executive Director of the ECSEL JU as the Authorising Officer (AO) will be responsible: - for retaining, from each initial pre-financing, 5% of the maximum grant amount provided for in the grant agreement and for transferring this amount from their specific account to the PGF; - for returning PGF contributions to beneficiaries, for PGF interventions and for receipts. (c) ensure sustainable management of the ECSEL JU;

¹⁸ Council Regulation (EU) No 561/2014 of 6 May 2014, OJ L 169, 7.6.2014, p. 152.

(d) develop close cooperation and ensure coordination wit
European (in particular Horizon 2020), national an
transnational activities, bodies and stakeholders, aiming a
fostering a fertile innovation environment in Europe
creating synergies and improving exploitation of researc
and innovation results in the area of electroni
components and systems;
(e) define and make any necessary adjustments to th
multiannual strategic plan;
(f) draw up and implement work plans for executing th
multiannual strategic plan;
(f) initiate open calls for proposals, evaluate proposals
and award funding to indirect actions through open an
transparent procedures within the limits of available funds
(g) publish information on the indirect actions;
(h) monitor the implementation of the indirect actions and
manage the grant agreements or decisions;
(i) monitor overall progress towards achieving th
objectives of the ECSEL JU;
(j) engage in information, communication, exploitation an
dissemination activities by applying mutatis mutandi
Article 28 of Regulation (EU) No 1291/2013, includin
making the detailed information on results from calls for
proposals available and accessible in a common Horizo
2020 e-database;
(k) liaise with a broad range of stakeholders, includin
research organisations and universities.

Active and Assisted Living (AAL II) Joint Programme

1. Programmes concerned:	H2020 Societal Challenges – Health, demographic change and well-being
2. Annual budgetary amount entrusted /payments made	EUR 14.96 million / EUR 14.77 million
3. Duration of the delegation:	2014-2027
4. Justification of recourse to indirect centralised management:	Required by co-decision ¹⁹ by the European Parliament and the Council concerning the Community participation in the AAL Joint Programme (represented by the AAL Association, an International ASBL under Belgian Law)
5. Justification of the selection of the	Set out in co-decision by the European Parliament and the
bodies (identity, selection criteria,	Council on the participation of the Union in the AAL
possible indication in the legal basis etc):	Programme jointly undertaken by several Member States
6. Summary description of the	The AAL JP shall implement the following tasks set-out in
implementing tasks entrusted.	the co-decision by the European Parliament and the Council ²⁰ :
	1. Support market-oriented research and innovation

 ¹⁹ Decision 554/2014/EU of 15 May 2014.
 ²⁰ Annex II of Decision 554/2014/EU of 15 May 2014.

projects for active and healthy ageing, which shall demonstrate the capability to exploit the project results within a realistic time frame; the financing of those indirect actions under the AAL Programme shall mainly take the form of grants. It may also take other forms such as prizes, pre-commercial procurement, and public procurement of innovative solutions. 2. Implement actions for the purposes of brokerage,
programme promotion, in particular outreach activities to countries not currently participating in the AAL Programme, actions to raise awareness of the current capabilities, foster deployment of innovative solutions and connect supply and demand side organisations and
facilitating access to finance and investors may be supported.
 Draw up and implement annual work plans identifying forms of funding and topics for calls for proposals. Consult with relevant stakeholders (including decision- makers from public authorities, user representatives, private caster carries providers and incurrence providers.
private-sector service providers and insurance providers as well as industry, including small and medium-sized enterprises) concerning the applied research and innovation priorities to be addressed.
5. Take into account demographic trends and demographic research in order to provide solutions that reflect the social and economic situation across the Union.6. Take into account the Union's industrial, climate and
energy policies. The AAL Programme shall also promote energy efficiency and reflect the need to tackle energy poverty.
7. Due account shall be taken of gender, ethical, social sciences and humanities and privacy issues, in line with the Horizon 2020 principles and rules. Account shall also be taken of relevant Union and national legislation and international guidelines, in particular regarding the rights to privacy and data protection.
8. In line with the close-to-market nature of the AAL Programme and in compliance with the rules set out in Regulation (EU, Euratom) No 966/2012, the AALA shall ensure time-to-grant and time-to-payment in accordance with Regulation (EU) No 1290/2013 and ensure
compliance with them by Participating States during the implementation of the AAL Programme. 9. Each Participating State shall strongly promote, from the earliest stage of all research and innovation projects,
the participation of organisations representing demandside actors, including end users.10. Each Participating State shall co-finance its national
participants whose proposals are successful through national agencies that shall, in addition, channel the Union co-funding from the dedicated implementation structure, on the basis of a common project description, which forms part of an agreement to be concluded between the

respective national programme management agencies and
their national participants for each project.
11. After the closure of a call for project proposals, a
central eligibility check shall be carried out by the AALA in
cooperation with the designated national programme
management agencies. That check shall be performed on
the basis of the common eligibility criteria for the AAL
Programme which shall be published with the call for
project proposals.
12. The AALA shall, with the assistance of the national
programme management agencies, check the fulfilment of
additional national eligibility criteria set out in the calls for
project proposals.
13. The national eligibility criteria shall relate only to the
legal and financial status of the individual applicants and
not to the content of the proposal and shall concern the
following aspects:
13.1. applicant type, including legal status and purpose;
13.2. liability and viability, including financial soundness,
fulfilment of tax and social obligations.
14. Eligible project proposals shall be evaluated by the
AALA with the assistance of independent experts, on the
basis of transparent and common evaluation criteria, as set out in the published call for proposals, and a list of
projects in order of score shall be produced. Projects shall
be selected in accordance with that ranking and taking
account of available funding. That selection, once adopted
by the General Assembly of the AALA, shall be binding on
the Participating States.
15. If a project participant fails to meet one or more of the
national eligibility criteria or if the corresponding national
budget for commitment for funding is exhausted, the
Executive Board of the AALA may decide that an additional
central independent evaluation of the proposal concerned
should be carried out with the assistance of independent
experts, in order to evaluate the proposal either without
the participation of the participant in question or with a
replacement participant, as suggested by project
participants.
16. Legal and financial issues concerning participants in
projects selected for funding shall be handled by the
designated national programme management agency.
National administrative rules and principles shall be
applied.

ANNEX 7: EAMR of the Union Delegations (N/A)

ANNEX 8: Decentralised agencies and/or EU Trust Funds (if applicable)

European Union Agency for Cybersecurity (ENISA)

Policy concerned	Annual budgetary amount entrusted (EUR)
To achieve a high and effective level of Network and Information Security within the European Union. Together with the EU- institutions and the Member States, ENISA seeks to develop a culture of Network and Information Security for the benefit of citizens, consumers, business and public sector organisations in the European Union.	

Office of the Body of European Regulators for Electronic Communications

Policy concerned	Annual budgetary amount entrusted (EUR)
The main task of the BEREC Office is to support and assist BEREC, the Body of European Regulators for Electronic Communications. BEREC's mission is to contribute to the development and better functioning of the internal market for electronic communications networks and services by aiming to ensure a consistent application of the EU regulatory framework for electronic communications.	5 701 000

ANNEX 9: Evaluations and other studies finalised or cancelled during the year

		Reason 1		Turne	Asso-	Contra		
No	Title	L,LMFF, FR, REFIT, CWP, O	Scope ²	Туре	e ciated DGs	Costs (EUR)	Comments ⁴	Reference ⁵
	I. Evaluations finalised or cancelled in 2019							
	a. Evaluations finalised in 2019							
	Report on the implementation of the open internet access provisions of Regulation (EU) 2015/2120	L	Article 9 of the Regulation calls on the Commission to review the regulation's provisions on open internet access and submit a report to the European Parliament and the Council, 'accompanied, if necessary, by appropriate proposals with a view to amending the Regulation.' The report assessed the implementation of the regulation since it entered into force.	0		250 000	Review/report on the implementation of the Regulation	https://ec.europa.eu/di gital-single- market/en/news/comm ission-report-open- internet
	Report on the review of the roaming market	L	The Roaming Regulation mandates the Commission to submit, by 15 December 2019, a comprehensive report to the European Parliament (EP) and the Council to assess the functioning of the roaming market under the Roaming Like At Home (RLAH) rules.	0		359 330	Review/report on the implementation of the Regulation	https://ec.europa.eu/di gital-single- market/en/news/comm ission-report-review- roaming-market
	b. Evaluations cancelled in 2019							
	-	-	-	-	-	-	-	-

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	a. Other studies finalised in 2019						
2017 /006 3	Evaluation of the Implementation of the Alliance to Better Protect Minors Online - SMART 2017/0063	0	This study evaluates the implementation of the Alliance to Better Protect Minors Online ('the Alliance'), a multi-stakeholder platform facilitated by the EC, through which companies make a series of commitments to address emerging risks that minors face online. The evaluation finds that the Alliance is an original, relevant means to protect minors online, bringing together an impressive range of stakeholders. Most companies' commitments have successfully achieved the majority of their intended results There is however some unrealised potential to further discuss and forge common solutions across different stakeholder types, including on new and emerging threats to the safety of minors online.	STUDY	59 950	Published: 2019- 02-05	https://op.europa.eu/e n/publication-detail/- /publication/122e3bdd- 237b-11e9-8d04- 01aa75ed71a1
2016 /003 9	Overview of the legal framework of notice and- action procedures in Member States – SMART 2016/0039	0	The general objective of this study is to provide evidence on the current practices that highlights any potential need for EU action in the field of online intermediary liability and notice-and-action procedures. The specific objectives of the study are: - To increase the level of understanding of existing voluntary practices for online platforms based on, inter alia, an in-depth review of existing approaches and voluntary measures; - To analyse the current legislative measures and judicial interventions; and - To analyse the emerging use of technology in assisting effective implementation provisions	STUDY	284 850	Published: 2019- 01-29	https://op.europa.eu/e n/publication-detail/- /publication/a56ceb47- 2446-11e9-8d04- 01aa75ed71a1
2018 /003 3	Hosting intermediary services and illegal content online: an analysis of the scope of article 14 ECD in light of developments in the online service	0	This short study looks at the scope of the hosting safe harbour, in view of policies with respect to illegal content online and questions about the scope of Article 14 of the Electronic Commerce Directive (2000/31/EC) from a legal and practical perspective. Specifically, the study addresses the question of what are the kinds of services that could invoke Article 14 ECD and develops an updated typology of hosting intermediaries for policy experts. It outlines the different potential revenue streams of different hosting intermediaries and discusses how these	STUDY	15 000	Published: 2019- 01-29	https://op.europa.eu/e n/publication-detail/- /publication/7779caca- 2537-11e9-8d04- 01aa75ed71a1

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	landscape – SMART 2018/0033		revenue streams may influence the incentives of services to address unlawful or infringing third-party activity. Finally, the study discusses the most important legal issues with respect to the scope of Article 14 ECD, focusing on the case law of the Court of Justice of the EU and other legal developments					
2016 /004 5	Mobile Broadband Prices in Europe 2018- SMART 2016/0045"	0	The current study provides comprehensive data on 2018 retail prices of mobile broadband offers for consumers in the EU28, Iceland, Norway, Turkey, Japan, South Korea, and the USA. The largest Mobile Network Operators (MNOs) in each country were included. In February 2018, data was collected from provider websites. Offers were analysed to determine the least expensive offer in each country for each of the standard mobile internet usage baskets defined by the OECD. To support valid crossnational comparison of retail prices of mobile broadband offers in respect of a usage basket, consistent price normalisation procedures were applied. These take full account of contractual features affecting usage costs such as one-off fees, discounts, contract duration, and limits for telephony call time, numbers of SMS, and data volumes. Comparing normalised prices in Euro, the inexpensive countries for mobile broadband in the EU are Italy, Poland, Austria, France, the United Kingdom, Luxembourg, and Finland. Prices differ considerably between the least and most expensive countries in the EU. The four most high-priced countries are Cyprus, the Czech Republic, Slovakia, and Greece. Prices for broadband mobile internet usage in Europe have fallen significantly since 2017. Comparison of EU28 prices with prices in selected non-EU countries (Iceland, Norway, Turkey, Japan, South Korea, and the USA) in 2018 showed that, on average, mobile broadband in the EU28 is about as expensive as or is more expensive than in the non-European countries, for most of the OECD usage baskets. No offers adapted to the lowest OECD usage levels were found in South Korea and the United States.	STUDY	49 176	Published: 02-25	2019-	https://op.europa.eu/e n/publication-detail/- /publication/276111d8- 5139-11ea-aece- 01aa75ed71a1

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2015 /007 1	2nd Survey of Schools: ICT in education – SMART 2015/0071	0	The European Commission's 2nd Survey of Schools: ICT in Education follows the Digital Education Action Plan Communication's call to provide comprehensive, up-to-date data and evidence regarding digitisation in education and digital technologies in learning, and builds on the results of the 1st Survey of Schools: ICT in Education published in 2013. This survey was conducted by Deloitte and IPSOS to achieve two objectives: 1) Objective 1: Benchmark progress in ICT in schools 2) Objective 2: Model for a 'highly equipped and connected classroom'	STUDY	998 790	D Published: 2019- 03-14	https://op.europa.eu/e n/search- results?p p id=portal2 012searchExecutor WA R portal2012portlet IN STANCE q8EzsBteHybf &p p lifecycle=1&p p state=normal&queryTe xt=2nd+Survey+of+Sc hools%3A+ICT+in+edu cation+%E2%80%93+ SMART+2015%2F0071 &facet.collection=EULe x%2CEUPub%2CEUDir %2CEUPub%2CEUDir %2CEUWebPage%2CE USummariesOfLegislati on&startRow=1&results PerPage=10&SEARCH TYPE=SIMPLE
2017 /008 5	Ex-ante evaluation of new financial instruments for SMEs, mid-caps and organisations from the Cultural and Creative Sectors	0	The Cultural and Creative Sectors (CCS) span a wide range of activities, including audiovisual and broadcasting, print, music, visual and performing arts, heritage, design and architecture. CCS collectively accounts for 4.5% of EU's GDP, is growing across Europe at above average rates, and is a significant source and user of innovation. New starts, SMEs, mid-caps and not-for-profit organisations play key roles in creating and maintaining cultural identities and diversity. However, the sector faces specific challenges in funding new activities and enabling growth; these constraints are linked to market failures at local, pan-European and global levels. The issues are being addressed through the EU's €1.46bn Creative Europe Programme (CEP), set up in 2014. CEP also facilitates access to debt finance for CCS SMEs through the Guarantee Facility that provides credit risk protection as well as capacity building to financial intermediaries. This study found that funding gaps and barriers persisted across Europe, both for loan and equity finance, and recommends that these are addressed through a mix of financial instruments and technical assistance under	STUDY	227 40	0 Published: 2019- 04-03	https://op.europa.eu/e n/publication-detail/- /publication/935e114a- 5687-11e9-a8ed- 01aa75ed71a1

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			InvestEU. Alongside continuation/expansion of the CCS Guarantee Facility, these instruments could include co investment with business angels through a fund structure (below $\in 2m$), and co-investment with venture capitalists (above $\in 2m$), complemented by equity crowdfunding.				
2016 /008 4	e-IDAS study on Pilots for replication of multipliers: Supporting the uptake of elDAS services by SMEs	0	The study aims to improve the adoption of eIDAS services among SMEs in Europe and to raise awareness among European SMEs about the benefits that eIDAS services can bring to their businesses. The study identified key drivers and barriers for SMEs to implement eIDAS services in their businesses. Based on a market analysis, including detailed analysis of the markets in FR, NL, IT, PL, BG, DK, DE and ES, a pilot programme was developed to raise awareness of the SMEs about eIDAS solutions. An eIDAS toolkit was developed especially for SMEs, including a dedicated website, a guidebook, videos, an interactive tool, infographics etc. In addition, an online engagement programme was launched. This pilot programme has been a success. For example, during the 4 months of the pilot programme the material reached almost 2500 persons from 76 countries, over 300 persons attended webinars and the eIDAS for SME videos were watched over 1200 times. Finally, the study provides policy recommendations focused on increasing the awareness and capacity building in the EU on the benefits of eID and trust services among SMEs.	STUDY	299 300	Published: 2019- 04-05	https://op.europa.eu/e n/publication-detail/- /publication/712f9ce2- 5042-11e9-a8ed- 01aa75ed71a1
2016 /007 1	Study on Safety of non- embedded software; Service, data access, and legal issues of advanced robots, autonomous, connected, and AI-based	O	The results of the Study show first that no safety incidents of non-embedded software, in particular health-related apps, were found and are to be reported. Despite this lack of reported incidents at the point in time of end of the Study research, several of the eight Member States studied are aware of the need to offer transparency regarding the safety of health, lifestyle and wellbeing apps. According to the Study Report, many countries undertake activities to help citizens in assessing the relevance, adequacy and effectiveness of such apps. However, these guidelines focus on medical content,	STUDY	379 479	Published: 2019- 04-02	https://op.europa.eu/e n/publication-detail/- /publication/aad6a2875 523-11e9-a8ed- 01aa75ed71a1https://o p.europa.eu/en/publica tion-detail/- /publication/aad6a2875 523-11e9-a8ed- 01aa75ed71a1

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	vehicles and systems		security and privacy, usability, effectiveness and would not (yet) cover safety incident reporting or registration.				
2017 /001 1	Study on the implementation of the open internet provisions of the Telecoms Single Market Regulation	0	The net neutrality provisions in Regulation 2015/2120 aim to protect end-users and guarantee the continued functioning of the internet ecosystem as an engine for innovation. This study provides a facts-based overview and analysis regarding the implementation and effectiveness of the Regulation in all Member States and Norway. The study finds that the Regulation has significantly contributed to a more consistent approach to the establishment, implementation and enforcement of the net neutrality rules. Additionally, the study presents specific recommendations: 1. Investigate the impact of a possibly diverging interpretation of the term Network Termination Point on the effectiveness of the Regulation. 2. Clarify the interpretation of traffic management measures and specialised services in light of the objectives of the Regulation. 3. Clarify the relevance of individual orders by Civil Courts or public authorities referred to in Article 3(3)(a) for other market parties not addressed by the order. 4. Consider distinguishing between consumers and business users when evaluating the effectiveness, efficiency and proportionality of the Regulation. 5. Consider how greater transparency and accessibility of national measures and court rulings could be achieved.	STUDY	250 000	Published: 2019- 04-23	https://op.europa.eu/e n/publication-detail/- /publication/7dcd02e3- 680a-11e9-9f05- 01aa75ed71a1
2018 /006 5	eID/mID for migrants and assessing future R&D in the field of identification	0	This study aims to identify and analyse the landscape of initiatives using (innovative) information and communication technology (ICT) to tackle migration challenges. In particular, it looks at those related to electronic <i>identification</i> and authentication, and provides recommendations to the European Commission on how innovative ICT could help the EU tackle these challenges, minimise bureaucratic tasks and concurrently meet the associated societal and humanitarian challenges. The report draws on a series of data sources (desk research, strategic interviews with migration and <i>eID</i> experts, an analysis of existing worldwide initiatives	STUDY	148 580	Published: 2019- 06-12	https://op.europa.eu/e n/publication-detail/- /publication/d22bc049- 8d85-11e9-9369- 01aa75ed71a1

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			followed by interviews with the project leaders, a survey of EU-28 and European Economic Area (EEA) governmental identity experts) in order to present deliverables and conclusions. Concretely, the report draws on the identified initiatives using electronic <i>identification</i> to define a list of best practices in terms of governance, operations, financials and architecture, as well as general trends in the use of innovative ICT. Building on this, the report considers three possible scenarios for EU action, eventually expanding on one –interoperability with third party <i>eID</i> schemes– to develop recommendations for a pilot programme.				
2017 /009 1	Assessment of the cost of providing mobile telecom services in the EU/EEA countries	0	Axon Consulting assesses in this study the costs of mobile telecommunication networks in each of the 31 EU/EEA countries. The assessment is based on Axon's Bottom-up LongRun Incremental Cost (BULRIC) model, developed thanks to the collaboration from National Regulatory Authorities and telecom operators across EU/EEA . This initiative was commissioned to Axon Consulting by the European Commission (EC) in the context of the following regulations: - The Regulation - WRR) which defined, in the context of the Roaming Like at Home (RLaH) policy, the wholesale roaming caps until 2022 and mandated the Commission to biannually assess the need to amend them The Directive (EU) 2018/1972 (the European Electronic Communications Code - EECC) from December 2018, required the Commission to establish a single maximum voice termination rate that apply Unionwide. The results of our assessment will be one of the main inputs the European Commission will use to fulfil its obligations for the revision and potential update of the wholesale roaming caps as well as to define mobile termination Euro-rate for all the EU/EEA Member States.	STUDY	206 940	Published: 2019- 08-06	https://op.europa.eu/e n/publication-detail/- /publication/8bb1c427- b986-11e9-9d01- 01aa75ed71a1
2018 /001 2	Technological developments and roaming	0	This study assesses technological and other market developments which could impact competition in wholesale and/or retail roaming markets over the medium term (5-10 years), with a view to	STUDY	59 800	Published: 2019- 08-01	https://op.europa.eu/e n/publication-detail/- /publication/7c74b70b- b4d8-11e9-9d01-

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			understanding whether regulation of data, voice and SMS roaming will continue to be necessary going forwards. Our analysis suggests that there does not seem to be a case for significant changes to the (retail or wholesale)rules applying to international roaming by individual travellers under the current review (without prejudice to review of maximum wholesale rates). However, the deployment of eSIM and evolution in over-the-top voice and messaging services should be monitored with a view to assessing their impact on competition in retail roaming markets in the medium term. Developments in 5G and IP-based mobile communications in the coming years could also affect the nature, variety and pricing of wholesale roaming products going forwards. In the more immediate term, it may be helpful to review whether there is a need for more explicit rules or guidelines governing access requests for permanent roaming for the purposes of connectivity for M2M/IoT.				01aa75ed71a1
2017 /001 5	Study on using millimetre waves bands for the deployment of the 5G ecosystem in the Union	0	Study on using mm-waves bands for the deployment of the 5G ecosystem in the Union (SMART 2017/0015)" The objective of the study was to explore the state of play and the prospects for the use of the mm-waves frequency bands for the 5G ecosystem in the Union, while taking into account also the prospective use of these bands in other geographical regions, in view of the ITU World Radiocommunication Conference 2019 (WRC 19). In line with the policy priorities of the European Union, the study has explored the potential services that would make use of mm-wave bands and their respective demand, with a focus on the 24.25-27.5 GHz ('26 GHz') 'pioneer' band in order to strengthen the prospects of using this band for 5G. In addition, synergies with the use of the adjacent '28 GHz' band for fixed terrestrial and/or satellite services have been explored such as the potential development of hybrid terrestrial-satellite systems. The study has also analysed the co-existence scenarios between incumbent (mainly satellite) and terrestrial 5G services in the 26 GHz band and assessed the prospects for the evolution of the business	STUDY	149 543	Published: 2019- 07-25	https://op.europa.eu/e n/publication-detail/- /publication/68f2074c- af4f-11e9-9d01- 01aa75ed71a1

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			environment alongside the progressive deployment of terrestrial 5G services. It has addressed business- related and regulatory aspects (such as authorisation) and assessed the potential health effects due to exposure to the electromagnetic fields (EMF) of mm-wave spectrum. The findings of the Study have contributed to assessing the impacts of the Commission implementing decision for designating the 26 GHz pioneer band for wireless broadband electronic communications services in the Union under harmonised technical conditions suitable for 5G. This measure is a follow-up of to the 5G Action Plan (5GAP) and the European Electronic Communications Code. Furthermore, the results of the study will contribute to the assessment of opportunities of usage of other mm-wave bands for electronic communications and other relevant services, in line with the 5GAP and the opinion of the Radio Spectrum Policy Group (RSPG).				
2015 /004 2	Cybersecurity Industry Market Analysis	0	This Cybersecurity Industry Market Analysis (CIMA) report documents the market research of the European Cybersecurity industry and its comparison with other relevant markets. PwC and LSEC – Leaders In Security performed the study for the European Commission in 2017 – 2018. The report results from a quantitative research for gathering, categorising and analysing the Cybersecurity Industry Market data of 2016, by applying a big data approach to extracting economic and market values from over 900, mainly transactional data sources. Its methodology considers all relevant Cybersecurity sales, including products and services that are distributed and resold by system integrators, and represents genuine economic activities. The study considers companies that solely provide Cybersecurity products and services; companies that (amongst other activities) provide Cybersecurity supply/value chain. It was challenged by teams of experts in different Member States during interactive workshops detailing market insights. The report builds a <i>Cybersecurity</i> products	STUDY	358 860	Published: 2019- 08-28	https://op.europa.eu/e n/publication-detail/- /publication/0be963c5- ca06-11e9-992f- 01aa75ed71a1

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			and services catalogue and analyses what products and services require attention taking into account the Network Information Security directive, the existing gaps in the <i>market</i> and the upcoming trends and threats. It documents the strengths of the European <i>Cybersecurity market</i> in supply and demand, including the sector's segmentation , vertical <i>market</i> insights and comprises an <i>analysis</i> of the demand patterns per category and the geographical <i>market</i> fragmentation. Furthermore, the intra and extra European <i>market</i> flows and the main barriers that providers find when selling their products and services inside and outside the European <i>market</i> are documented. The report concludes with a wrap-up of the main findings of the study and an overview of the strengths, weaknesses, opportunities and threats of the European <i>Cybersecurity market</i> .				
2016 /100 5	Smart Factories in new EU Member States Study	0	For the period 2021-2027 the European Commission foresees to invest €9.2 billion in the first ever Digital Europe programme for increasing the EU's international competitiveness through investing in the digital capacity of the European economy. For this new investment programme to succeed, a solid network of European Digital Innovation Hubs will be set up. In each European region there will be at least one European Digital Innovation Hub. The network will be built upon a wide variety of programmes to stimulate the creation and capacity building of Digital Innovation Hubs (DIHs), in particular with the assistance of the European Regional Development Funds and the Horizon 2020 programme. Coordination and Support Actions (e.g. I4MS, Smart Anything Everywhere, etc.), Interreg projects (KETGATE, S34Growth), initiatives under macro- regional strategies and the S3 thematic partnerships are experimenting with Digital Innovation Hubs' collaborations across Europe. This project focused on the creation of Digital Innovation Hubs' capacity in the new EU Member States.	STUDY	1 797 250	Published: 2019- 09-23	https://op.europa.eu/e n/publication-detail/- /publication/2fc06b3a- de75-11e9-9c4e- 01aa75ed71a1
	b. Other studies						

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¹ L - legal act, LMFF - legal base of MFF instrument, FR - financial regulation, REFIT - listen on REFIT programme, REFIT/L - both legal act requirement+listed on REFIT, CWP - 'evaluate first', O - other (please specify in Comments)

² Specify what programme/regulatory measure/initiative/policy area etc. has been covered

³ FC – fitness check, E – expenditure programme/measure, R – regulatory measure (not recognised as a FC), C – communication activity, I – internal Commission activity, O – other – please specify in the Comments

⁴ Allows to provide any comments related to the item (in particular changes compared to the planning). When relevant, the reasons for cancelling evaluations/ other studies also needs to be explained in this column.

⁵ For evaluations the references should be 1) number of its Evaluation Staff Working Document and number of the SWD's executive summary; 2) link to the supportive study of the SWD in EU bookshop. For other studies the references should be the link to EU bookshop or other reference where the 'other study' is published via different point.

ANNEX 10: Specific annexes related to "Financial Management"

This annex 10 is divided in two sections: The first one contains details on the information provided in Sections 2.1.1 and 2.1.2 of the Annual Activity Report. The second contains the 'Table Y', which details the figures on the DG's cost of control at Commission.

SECTION 1

This section provides further information about different aspects of 'Control results' of the AAR. Following the structure of the main text of the document, it presents the following:

- information on the implementation of audit results and extrapolations of FP 7 and on H2020 audit results;
- information on the supervisory arrangements and control results by budget implemented by entrusted entities;
- information on fraud prevention, detection and correction activities developed within DG CONNECT in 2019;
- detailed analysis of efficiency indicators;
- information on the cost of controls for DG CONNECT and for the monitoring and the supervision of the entrusted entities;
- additional information on audit observations and recommendations;
- table on DG CONNECT activities covered by cross sub-delegations in 2019.

A) Information on the implementation of audit results and extrapolations of FP 7 and on H2020 audit results (Section 2.1.1, 'legality and regularity of the transactions' of the AAR)

FP7 audit results

The table below provides the results of the implementation of FP7 direct audits (EUR 54.1 million adjusted).

	FP7 Total			
	Audit activity	# audits closed	898	
		#participation audited	1788	
Resu	ilts in favour of t	# participations	940	
		Adjustments in EUR	54 102 238	
Оре	n for implementa	#	29	
		EUR	1 420 233	
Implemented	(registered in contract management	Compensation	#	337
		on payment	EUR	16 927 863

	system)	Recoveries	#	488
			EUR	33 202 081
TOTAL	(in terms of participations)	Ор	3%	
	participations)	Implem	97%	

The level of implementation of ex-post audit results is 97%. The cumulative amount of corrections implemented by extrapolation of systemic errors amounted to EUR 13.6 million. This is EUR 3.4 million more compared to the end of 2018.

H2020 audit results

The table below provides the results of the implementation of H2020 direct audits (EUR 2.54 million adjusted).

	H2020 Total			
	287			
	438			
Resu	180			
	2 544 119			
Ope	20			
	799 995			
	(registered in contract management system)	Compensation on payment	#	108
Implemented			EUR	1 205 336
		Recoveries	#	48
			EUR	651 070
TOTAL	(in terms of	Ор	31%	
	participations)	Implen	69%	

The level of implementation of ex-post audit results is 69%. The cumulative amount of corrections implemented by extrapolation of systemic errors amounted to EUR 0.4 million.

B) Information on the supervisory arrangements and control results by budget implemented by entrusted entities (Section 2.1.1, 'legality and regularity of the

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transactions' of the AAR)

DG CONNECT has entrusted the implementation of parts of its budget to different entities. As the entities are different in nature (other DG, Executive Agencies, Joint Undertaking, Private Law Body and Financial Instruments), the controls put in place are adapted to their specificities, as explained bellow.

1) EU Institutions - expenditure cross-sub delegated

As in previous years, DG CONNECT has cross-sub delegated a number of activities to different services within the Commission, in order to arrange the provision of certain operations more efficiently. Being a Commission service itself, the Authorising Officer by delegation (AOD) of the cross-delegated service is required to implement the appropriations subject to the same rules, responsibilities and accountability arrangements.

Entity	Туре	Purpose	Payments (million)
Other Commission Services through a number of cross-sub delegations	EU Institution	In the interests of sound budget implementation, the authorising officer by delegation ('the delegator') may, by way of exception, sub delegate management of a budget line or part of a line to another Director- General or Head of Service ('the delegatee'). DG CONNECT both gives and receives sub delegations.	0.02

Control results

The cross-delegation agreements require the AODs of cross-delegated services to report on the use of these appropriations. The reports on the sub-delegations received from other DGs and offices did not provide any indication of any particular unfavourable observation with regard to the regularity and legality of the transactions concerned. As a result, DG CONNECT considers that the control system over expenditure cross-sub delegated has been effective in 2019.

2) Executive Agencies (EA)

In 2019, DG CONNECT was a partner DG of the following executive agencies: the Research Executive Agency (REA), the Innovation and Networks Executive Agency (INEA), the Executive Agency for Small and Medium-sized Enterprises (EASME) and the Education, Audio-visual and Culture Executive Agency (EACEA).

In 2019, the amount of operational appropriations delegated by DG CONNECT to the executive agencies was EUR 458.9 million.

Entity	Туре	Purpose	Payments (million)
REA	Executive Agency	REA manages large parts of the Horizon 2020 Framework Programme which began in 2014 and continues to look after remaining FP7 projects.	259.54
INEA	Executive Agency	INEA officially started its activities on 1 January 2014. For DG CONNECT it implements part of the Connecting Europe Facility (CEF) programme.	75.88
EASME	Executive Agency	The Executive Agency for Small and Medium-sized Enterprises (EASME) has been set-up by the Commission to manage several EU programmes on its behalf.	15.32
EACEA	Executive Agency	EACEA is responsible for the management of certain parts of the EU funding programmes in the fields of education, culture, audio-visual, sport, citizenship and	108.16

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	implements parts of the Creative programme.
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Supervision arrangements

The monitoring and supervision of the activities of the executive agencies are mainly achieved by means of participation of the partner DG(s) in the Steering Committees of the executive agencies. The Agency's Director ensures that the members and observers of the Steering Committee receive all relevant information and reliable control results needed for the appropriate fulfilment of their mandates.

This supervisory role is defined in several legal documents and guidance (the Commission Delegation Act to the agency, the Memorandum of Understanding between the DGs and the agency, the Commission Guidelines on Executive Agencies, etc.). The annual planning and reporting cycle forms the basis of the monitoring and supervision of the Agencies' activities by the Steering Committee. In particular, the Annual Work Programme contains an obligation of assessment of risks and risk exposure, and provides a number of key performance indicators. These constitute the benchmark against which the performance of the Es is monitored through its interim reporting and AAR. It is complemented by other relevant sources of information such as the reports from the discharge authority, ECA, IAS and OLAF. DG CONNECT uses their reports as an element of the supervision of these bodies. In addition, all the executive agencies participate in horizontal governance processes, such as the peer review of critical risks.

Since the entry into force of the new Memoranda of Understanding between the executive agencies and their parent DGs, the executive agencies also report half-yearly to the partner DG on the use of resources. The preparation of the executive agencies' budgets and annual work plans is coordinated with the DGs concerned.

The cost-benefit analysis for delegation of programmes implementation under the next Multiannual Financial Framework presents a new opportunity for strengthening and clarifying roles in the supervision of executive agencies to which DG CONNECT is already contributing. IAS has particularly looked into supervision roles and responsibilities in its 2019 special consulting engagement, which should serve as input for the new delegation framework.

Control results

<u>EACEA</u>

The 2014-2020 programmes managed by EACEA do not show any issues in terms of error rate. This includes the Creative Europe programme, for which the error rate is below 0.5%.

Following the audits on grant management during the period 2017-2019, including Creative Europe, the IAS identified important weaknesses in the internal control system of EACEA that resulted in critical and very important recommendations.

So far, the IAS has concluded positively on the actions taken by the Agency to improve the part of grant management that goes from the call to the signature of contracts (Phase I) as well as on human resources management. However, the IAS still needs to follow-up on the actions of EACEA to improve the part covering from project monitoring to payment (Phase II).

Despite the positive assessment given by the IAS in its limited opinion, EACEA keeps a

prudent approach by concluding that its internal control system is effective but improvements are needed concerning compliance, the financial circuit and internal control culture. The severity of these weaknesses is not considered by EACEA of a magnitude to affect the assurance for 2019, nor to require a reservation.

It should be noted that due to the weaknesses identified by the IAS and the need to implement important improvements in its internal control system, EACEA has been subject to an enforced supervision by the parent DGs. Overall, DG CONNECT considers that the supervision of the Executive Agency, whose Authorising Officer receives delegation directly from the Commission, has been effective and sufficient in 2019.*INEA*

In its AAR 2019, INEA reported an error rate of more than 4% for **CEF-Telecom**. Given the relatively low amounts involved and in line with the de-minimis rule, INEA did not issue a reservation. This higher error rate is linked to several factors:

- a high incidence of NGO and SME participation;
- a significant proportion of declared costs are personnel costs;
- limited use of the Certificate for Financial Statements for CEF Telecom projects.

The audit coverage of the CEF Telecom sector was increased from 7% to 15%.

The overall assessment of the internal controls performed by INEA did not detect major deficiencies that would affect assurance. Hence, INEA's management has obtained satisfactory evidence that the system of internal controls is implemented effectively in INEA.

The outcome of the audits performed by the European Court of Auditors and the Internal Audit Service during the reporting period did not lead to critical recommendations. The residual risk from open audit recommendations of previous years does not have a bearing on the declaration of assurance.

<u>EASME</u>

In the 2019 AAR of EASME, the agency lifts the previous reservations on high error rates for CIP IIE II, CIP Eco-Innovation and COSME. The new "*de minimis*" rule allows the removal of the reservations for CIP, whereas in the case of COSME, the cumulative residual error rate has been drastically reduced below the materiality threshold of 2% (from above 5% at the end of 2018). However, these concern programmes which EASME implements for DG ENER, DG ENV and DG GROW respectively.

The cumulative error rate derived from EASME's implementation of Horizon 2020 is estimated to be over 2%, moderately higher than the average error rate of the whole research family.

The Agency does not have any critical new or outstanding audit recommendations, nor a combined effect of a number of very important recommendations, which could have a material impact on the achievement of the internal control objectives and the assurance. EASME concludes on the effectiveness of its internal control systems and reports that its components and principles are functioning as intended.

<u>REA</u>

The FP7 segment of REA's expenditure is still affected by material errors. However, the low share that it represents in the budget for 2019 and the low financial impact of the

errors fall within the "de minimis" threshold and, therefore, no reservation is made.

As for Horizon 2020, the cumulative residual error rate of the part implemented by INEA is estimated slightly above the material error of 2%, moderately higher than the estimations of the average for the whole research family.

REA has assessed its internal control system during the reporting year and concludes that it is effective and the components and principles are present and functioning. The Agency only identified some minor deficiencies regarding staff satisfaction and the need to raise further awareness on the control strategy, the reporting of deviations or antifraud.

The IAS did not issue any critical or very important recommendations to REA in 2019 and concluded that the internal control systems audited during the period 2017-2019 are affective.

The regular supervision of the executive agencies did not identify any particular events, issues or problems that could have a material impact on assurance or that would need to be included in this report. DG CONNECT is well aware of the high error rate for CEF Telecom and does not consider that they represent a failure of DG CONNECT supervision.

3) Joint Undertaking – ECSEL

The ECSEL Joint Undertaking is established within the meaning of Article 187 of the Treaty on the Functioning of the European Union for the implementation of a Joint Technology Initiative on 'Electronic Components and Systems for European Leadership' for a period up to 31 December 2024. It was established by Council Regulation (EU) No 561/2014 of 6 May 2014.

Entity	Туре	Purpose	
ECSEL	Joint Undertaking	ECSEL is a partnership between the private and the public sectors for electronic components and systems. It, inter alia, contributes to the development of a strong and globally competitive electronics components and systems industry in the EU.	169.46

Supervision arrangements

The Commission's Internal Audit Service (IAS) performs ECSEL's internal audit function. The European Court of Auditors (ECA) is the external auditor of ECSEL and DG CONNECT receives copies of the reports, for action, if necessary.

Directorate A 'Digital Industry' of DG CONNECT represents the Commission in the Governing Board and the Public Authorities Board of the ECSEL JU. DG CONNECT closely monitors the work of the ECSEL JU^{21} , inter alia by preparing the Commission's position in the Boards referred to above.

In 2019 ECSEL launched three calls for proposals with a total EU estimated contribution amounting to EUR 174.2 million, leveraging a similar amount from the participating Member States and associated countries and some EUR 350 million in-kind contributions from the private participants.

²¹ The ENIAC and ARTEMIS Joint Technology Initiatives operated until the 27 June 2014, when ECSEL was established and took over their operations.

In its 2018 audit report, the Court considered the accounts of the ECSEL JU for the year ended 31 December 2018 to present fairly, in all material respects, the financial position of the JU at 31 December 2018, the results of its operations, its cash flows, and the changes in net assets for the year, in accordance with its Financial Regulation and with accounting rules adopted by the Commission's accounting officer. The Court highlighted that it is not possible for the ECSEL JU to calculate a single reliable weighted error rate nor a residual error rate for FP7 payments. For Horizon 2020 payments, the Commission's Common Audit Service is responsible for the ex-post audits. The residual error rates for the ex-post audits calculated by the JU at the end of 2019 was 1,49 % for Horizon 2020.

DG CONNECT highlights the increasing importance of the outstanding successes of the initiatives obtained, making the JU vital for the digital future of Europe. DG CONNECT will continue to provide its advice and support to the ECSEL JU in its efforts to address all the concerns of the Court and of the budgetary authorities.

Control results

During the full reconciliation exercise of all operational and administrative accounts, in view of the preparation of a smooth winding-down in the final phase of the JU, the JU office had discovered a shortage of approximately EUR 1 million in its administrative accounts. This has been immediately audited and traced back to a missing payment by one of the private partners of a previous contribution. In order to avoid a negative cash position at the end of the year 2018, all the contributors to ECSEL's administrative budget contributed the missing amount. From the Commission's side, this was recorded as an advance of EUR 320.000 from the amount to be contributed in 2020. At the same time, private entity in debt committed to pay the missing amount in the instalments over the years 2019 and 2020. The first instalment of EUR 549.500 has already been paid.

Overall, DG CONNECT considers that its supervision of the ECSEL JU has been effective and appropriate in 2019. The regular supervision of ECSEL did not identify any particular events, issues or problems that could have a material impact on assurance or that would need to be included in this report.

4) Decentralised Agencies

BEREC Office²²

The tasks, organisation and operation of BEREC and the Agency for Support for BEREC (BEREC Office) are set out in Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office).

The Body of European Regulators for Electronic Communications (BEREC) is composed of the head or a high-level representative of each of 28 national regulatory authorities. The Commission has an observer role (with no voting rights) in the Board. The Board is not an EU agency and does not have legal personality. BEREC has the objective of promoting

²² The tasks, organisation and operation of BEREC and the Agency for Support for BEREC (BEREC Office) were set out in Regulation (EC) No 1211/2009 of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office. Regulation (EU) 2018/1971 of the European Parliament and of the Council of 11 December 2018 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Agency for Support for BEREC (BEREC Office), amending Regulation (EU) 2015/2120, repealed Regulation (EC) No 1211/2009 as of 20 December 2018.

a consistent application of the EU regulatory framework and its tasks are focused mainly on market regulation. It has also an advisory role towards the EU institutions and individual national regulatory authorities.

The BEREC Office which is responsible for providing administrative and professional support to BEREC (e.g. establish, maintain and make available databases on numbering resources and on operators' authorisations; implementation of a proper information and communication system for collaboration and data gathering) is established as an EU agency with legal personality. The BEREC Office is managed by a Director under the supervision of a Management Board composed of the Heads of the 28 national regulators and a representative of the Commission with voting rights (one vote).

Entity	Туре	Purpose	Payments (million)
BEREC Office	Decentralised Agency	BEREC contributes to the development and better functioning of the internal market for electronic communications networks and services.	5.70

Supervision arrangements

In 2019, the Commission was represented in the management body of the BEREC Office by DG CONNECT's Director-General and the Director of Directorate B, respectively as member and as alternate member. Arrangements are in place within the DG, including the services dealing with financial and human resources, to ensure that all Agency's acts are properly assessed and the Commission's position is agreed.

The Agency's Director, as authorising officer of the BEREC Office, produces a consolidated annual activity report, which includes all information on management and internal control systems. The Director also signs the declaration of assurance in line with the one of the Commission.

The Commission's Internal Audit Service (IAS) is the internal auditor of the BEREC Office and the European Court of Auditors, its external auditor on the BEREC Office Annual accounts, on the reliability, legality and regularity of the transactions. All the audit Reports are presented by the Director of the BEREC Office to the Management Board, of which the Commission is part. In addition, the Report of the European Court of Auditors is published in its website. The Accounting Officer function of BEREC Office is performed by the Commission Accounting Officer, appointed by the Management Board.

Control results

Based on the reports and all other available information, DG CONNECT can conclude that the activities of BEREC Office have been used for the purpose of achieving its objectives and in accordance with the principles of sound financial management.

In 2019, the BEREC Office reached a budget execution rate of 99.93% in terms of commitment appropriations and 81.99% of of available payment appropriations. A first estimate of the 2019 surplus that should be reimbursed to the EU budget (as assigned revenue) is EUR 32 419.13 - this amount will be recovered by the Commission in 2020 and will be used to pay the 2021 EU contribution.

Overall, DG CONNECT considers that its supervision of BEREC and the BEREC Office has been effective and appropriate in 2018.

ENISA²³

The European Union Agency for Cybersecurity (ENISA), which was renamed by virtue of the Cybersecurity Act - Regulation (EU) 2019/881, is tasked to contribute to a high level of network and information security within the European Union. It supports EU Institutions, Member States and business community in addressing, responding and especially preventing network and information security problems.

As outcome of the evaluation of the previous mandate of the Agency²⁴, there was an agreement on the strengthening of ENISA's roles and on the attribution of a permanent mandate and better defined set of current and new tasks. The main elements identified were integrated into the Cybersecurity Regulation of 2019.

ENISA carries out its activities according to an annual and multiannual work programme. It has been granted an autonomous budget financed primarily through a contribution from the Union as well as contributions from third countries from countries in the European Economic Area participating in the Agency's work. Member States are also allowed to make voluntary contributions to the revenue of the Agency.

Entity	Туре	Purpose	Payments (million)
ENISA	Decentralised Agency	ENISA carries out the tasks assigned to it under the Cybersecurity Act for the purpose of achieving a high common level of cybersecurity across the Union, including by actively supporting Member States, Union institutions, bodies, offices and agencies in improving cybersecurity. ENISA acts as a reference point for advice and expertise on cybersecurity for Union institutions, bodies, offices and agencies as well as for other relevant Union stakeholders. ENISA contributes to reducing the fragmentation of the internal market by carrying out the tasks assigned to it under the Cybersecurity Act.	16.29

Supervision arrangements

The Commission is represented in the Management and Executive Board by DG CONNECT (Director for Digital Society, Trust and Cybersecurity) and the DG DIGIT (Director for IT Security). The Boards meet three or four times per year.

At operational level, the cooperation between CONNECT and ENISA is ensured via a designated desk officer who maintains regular contact with ENISA's staff. Day to day working level communication between DG CONNECT staff and ENISA staff is encouraged and followed as a practice. In addition, a bi-weekly video call between DG CONNECT and ENISA is scheduled on a permanent basis.

At managerial level, regular meetings between the Executive Director of ENISA and senior members of the Management Board and the DG CONNECT's Director responsible take place. At any time, any additional information deemed necessary by DG CONNECT can be requested.

²³ The tasks, organisation and operation of ENISA are set out in the Cybersecurity Act under Regulation (EU) 2019/881 of 17 April 2019 on ENISA (the European Union Agency for Cybersecurity) and on information and communications technology cybersecurity certification, and repealed Regulation (EC) No 526/2013 of 21 May 2013. The Cybersecurity Act entered into force on 27 June 2019. ²⁴ Published as annex to the Cybersecurity Act Regulation proposal (COM(2017)477 final).

The Executive Director of ENISA, as authorising officer, must produce a consolidated annual activity report, which should include information on the management and internal control systems, a summary of internal audits carried out, the recommendations made and the action taken on these recommendations as well as any observations of the ECA and the actions taken on these observations. He signs the declaration of assurance. In addition, the Executive Director presents to the Management Board an annual ex-post evaluation on the Agency's core activities.

The Commission's Internal Audit Service (IAS) performs ENISA's internal audit function and the ECA is the external auditor of ENISA. DG CONNECT receives copies of the reports, for action, if necessary.

Control results

The various reports presented at the Management Board and other available information did not provide any unfavourable observations with regard to the regularity and legality of the transactions. Where specific recommendations were made by the IAS, these are being addressed. DG CONNECT has no reason to believe that the reports would be incomplete or unreliable.

Overall, DG CONNECT considers that its supervision of ENISA has been effective and appropriate in 2019.

5) Private Law Body

Active and Assisted Living Joint Programme (AAL JP)

The AAL JP is a Member States' initiative. The budget for calls for proposals is composed of contributions from the Commission, of Participating Countries and organisations participating in the projects (approximately 25%, 25% and 50% respectively). The current AAL JP is a prolongation of the AAL JP (2008-2013), which has obtained a new mandate for the period $2014-2020^{25}$ with the same annual budget as a part of the Innovation Investment Package.

The programme is managed by the Participating Countries through the AAL Association²⁶. The Commission is part of the governance structure. It has the right to undertake every year an operational review with independent external experts in order to supervise its financial contribution. Furthermore, the Commission can veto the work programme of the AAL in the General Assembly. Day-to-day operations are run by the Central Management Unit supervised by the Executive Board.

Entity Type		Purpose	Payments (million)
Active and Assisted Living (AAL) Association	Private Law Body	The AAL Programme is a funding activity that aims to create better conditions of life for the older adults and to strengthen the international industrial opportunities in the area of information and communication technology.	14.77

Supervision arrangements

²⁵ Decision No 554/2014/EU.

²⁶ The AAL Association is an international not-for-profit association established under Belgian law and constitutes the dedicated implementation structure created by the participating EU Member States, Canada, Norway, Switzerland and Taiwan (Participating Countries).

The General Assembly is the decision making body of the AAL. It appoints the members of the Executive Board and supervises the implementation of the AAL Joint Programme, including approval of annual work programmes, allocation of national funding to projects and applications for new memberships. The Commission has observer status in the meetings of the General Assembly and has the right to veto the AAL JP annual work programme.

Day-to-day operations are run by the Central Management Unit (CMU) supervised by the Executive Board. The CMU is supported by a network of national contact points (NCPs) responsible for the administrative, financial and contractual management at national level. The 2017 restructuring of the CMU resulted in an improved sense of participation in management and the governing bodies, which not only relates to operational aspects of the business but also to debate on strategy to ensure a place for AALA in Europe beyond Horizon 2020.

The Commission is also part of the governance structure. DG CONNECT undertakes every year an annual on-site (2 days) operational review with independent external experts to assess the overall performance of the AALA and whether all contractual obligations are met.

The AAL JP risk management assessment includes verification of financial commitments of Participating Countries before EU financing is allocated. It also includes a review of the payments, where the EU contribution is subject to a certification of incurred costs by the responsible national public bodies before disbursement of EU funds by the AALA. The Association has to provide information about the audit procedures in each of the Participating Countries and reports annually on audits implemented. In addition, the AALA should report as soon as there is a suspicion of fraud or irregularities.

Following-up on the ECA audit finding on the level of reporting control related information between the involved authorities in a Participating Country, DG CONNECT developed mitigating actions that were adopted by senior management in January 2019. Their follow-up and implementation began immediately and is still ongoing. Moreover, for the purposes of sound administrative, budgetary and financial management, DG CONNECT proceeded in the administrative closure of the AAL I Joint Programme, in parallel with the closure of FP7.

Control results

The annual on-site review performed by DG CONNECT with independent external experts to assess the overall performance of the AAL Association confirmed the good operation of the AAL JP and supports the assurance of DG CONNECT.

DG CONNECT concludes from the information available, and there is no reason to believe that this information would not be complete or reliable, that resources assigned to the activities of AAL JP have been used for the purpose of achieving the objectives of AAL JP and in accordance with the principles of sound financial management.

6) Financial Instruments

CEF Debt Instrument

The European Investment Bank (EIB) manages, on behalf of the Commission²⁷, the

²⁷ DG ECFIN, DG MOVE, DG ENER, DG CONNECT.

financial instruments established under the Project Bond Pilot Initiative (PBI), which - on a risk-sharing basis - aims to enable long-term capital market financing of infrastructure projects including, but not limited to, those carried out under project finance structures. The amount committed by DG CONNECT for projects in ICT and broadband sectors is EUR 20 million.²⁸ This amount was spent on a single transaction in a project concerning extension and renewal investments in 11 already operational broadband Public Initiative Networks in France.

Based on the 2015 CEF Debt Instrument Delegation Agreement, as a cost-saving measure, in 2016 the original individual portfolio components of the total contribution were merged into one CEF Debt Instrument (CEF DI) portfolio.

In 2017, the final date of implementation of DG CONNECT's original commitment of EUR 17.5 million to the CEF DI was postponed and is now in line with the end date of the CEF Debt Instrument Delegation Agreement, i.e. 31 December 2020. Payments are therefore possible until 30 June 2021. At this stage, no payments have been made to the EIB in the context of the CEF Debt Instrument; early indications from the EIB indicate expected payments in 2020.

Entity	Туре	Purpose	Payments (million)
European Investment Bank (CEF Debt Instrument)	Financial Instrument	Enable long-term capital market financing of infrastructure projects including, but not limited to, those carried out under project finance structures (on a risk-sharing basis).	0

Supervision arrangements

The EIB delivers an annual operational report on the CEF DI to all Services involved. The same applies for financial reporting. Quarterly reports informing on the allocation of the CEF DI assets are also provided. The Commission has four nominees on the Steering Committee of the CEF DI, which is chaired by DG ECFIN. DG ECFIN also coordinates the exchange of views between Commission members of the committee before the meetings. DG ECFIN also reports twice a year to the European Parliament and to the Council on behalf of the Commission with the support of the Designated Services.

The EC contribution to the CEF DI serves as a guarantee for the project. The amounts provided from the EU budget are further invested by the EIB. In case of project default or construction cost overruns, this money provisioned as a guarantee will actually be disbursed to support the reimbursement of the overdue amounts, up to the level of EU budget commitment.

Control results

Overall, DG CONNECT considers that its supervision of the CEF DI has been effective and appropriate in 2019. In particular, DG CONNECT considers that the operational and financial reporting (monthly and annual reports) is sufficient and provides relevant information and figures to ensure sound and effective management of the policy aspects of this financial instrument.

<u>CEF Equity Instrument – Connecting Europe Broadband Fund ("CEBF")</u>

The Connecting Europe Broadband Fund ('CEBF' or the 'Fund') is an investment fund

²⁸ During the pilot phase of the PBI, the total EU budget contribution for the PBI was limited to EUR 230 million.

which provides equity and quasi-equity financing to smaller-scale, higher-risk broadband projects, which do not have sufficient access to financing, in (under-served) suburban and rural areas. Five public institutions have committed capital to the Fund, namely the Commission, the EIB and three National Promotional Banks and Institutions ('NPBIs'), alongside private investors. The Fund is the first investment platform to support broadband infrastructure under the European Fund for Strategic Investments (EFSI), the heart of the Investment Plan for Europe. Cube Infrastructure Managers S.A., an independent investment firm with extensive experience in infrastructure and ICT projects, has been selected to manage the Fund through an open and public selection process carried out by the EIB.

The operational launch of the Fund took place on 27 June 2018 with EUR 420 million at first closing (including EUR 100 million from the Commission via the Connecting Europe Facility). In 2019, the Fund has signed three projects, including in Croatia and Slovenia, with individual commitments of up to EUR 30 million each.

Entity Type		Purpose	Payments (million)
European Investment Bank via Cube Infrastructure Managers S.A Connecting Europe Broadband Fund	Financial Instrument	Investment Fund to provide equity and quasi-equity financing to smaller-scale, higher-risk broadband projects, which do not have sufficient access to financing, in (under-served) suburban and rural areas. Cube Infrastructure Managers S.A. manages the Fund through a public procurement process carried out by the EIB.	8.81

Supervision arrangements

So far, three payments have been made for a total amount of EUR 9 730 930.47. Control mechanisms are fully reflected in the available documentation, such as clear investment guidelines for the selection of projects (Private Placement Memorandum), compliance with non-cooperative jurisdictions rules (Investment Management Agreement) and specific reporting obligations imposed on the Fund Manager and defined jointly with DG Budget (European Commission's Side Letter). The vehicle, involving EFSI and EIB own capital, is additionally supervised by the EIB.

Control results

DG CONNECTs supervision of this fund did not identify issues that would need to be included in this report.

Overall, we can conclude that DG CONNECT has set up internal control processes aimed to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions.

Cultural and Creative Sectors Guarantee Facility

The implementation of the Cultural and Creative Sectors Guarantee Facility (CCS GF) under Creative Europe programme is entrusted to the European Investment Fund (EIF) in compliance with the Financial Regulation, the Financial and Administrative Framework Agreement and specific conditions laid down in the Delegation Agreement signed by the Commission and the EIF²⁹. Full reporting on control results (effectiveness as regards legality and regularity, efficiency and cost effectiveness and Fraud prevention and

 $^{^{\}rm 29}$ On the 30 June 2016 and amended on 12 December 2017 and on 9 January 2020.

detection) is part of the Delegation Agreement in force.

Entity	Туре	Purpose	Payments (million)
European Investment Fund - Cultural and Creative Sectors Guarantee Facility	Financial Instrument	The CCS GF is managed by the EIF on behalf of the Commission in the context of the <u>Creative Europe</u> programme. The Facility benefits micro, <u>small and medium-sized enterprises</u> in the cultural and creative sectors, often facing difficulties in accessing loans, based in any of the <u>participating countries</u> .	9.36

Supervision arrangements

The Delegation Agreement provides for detailed supervision arrangements. Those provisions require the EIF to undertake comprehensive and timely monitoring of CCS GF Transactions under the CCS GF, covering financial intermediaries, financial subintermediaries and final recipients, and to report on the monitoring activities to the Designated Service. In line with the provisions of the Delegation Agreement, the reports are delivered on annual, quarterly or monthly basis.

Based on its own controls, the EIF shall monitor the compliance of the operations with this Delegation Agreement, asses the eligibility of financial intermediaries, monitor the eligibility of the final recipients, and monitor the proper execution by the financial intermediaries of their contractual obligations, including their reporting obligations.

The EIF shall require the financial intermediary to monitor the contractual compliance of the agreements with final recipients, where applicable, assess the eligibility of financial sub-intermediaries, and monitor the eligibility of final recipients.

The Commission may exercise further controls to validate the operational and financial reporting received from the EIF. The Commission may request the EIF to transmit representative and/or risk-based samples of transactions.

The Commission appointed four members (from DGs CONNECT, EAC, ECFIN and Budget) to the governance body (called the Steering Committee) that supervises the implementation of this financial instrument.

Control results

DG CONNECTs supervision of this financial instrument did not identify particular issues that would need to be included in this report, which is the reason why DG CONNECT considers that its supervision of the CCS GF was effective and appropriate. In particular, the operational and financial reporting (monthly, quarterly and annual reports) provided sufficient and relevant information and figures to ensure sound and efficient management of the policy aspects of this financial instrument.

C) Fraud prevention, detection and correction activities developed within DG CONNECT in 2019 (Section 2.1.1, 'fraud prevention, detection and correction' of the AAR)

Based on DG CONNECT's 2019 Management Plan, the following measures to minimize the risk of fraud in the DG were taken in the last year:

Minimisation of the risk of fraud through application of effective anti-fraud measures, integrated in all activities of the DG, based on the DG's anti-fraud strategy (AFS) aimed at the prevention, detection and reparation of fraud.

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Main outputs in 2019:			
Description	Indicator	Target	Latest known results
Implementation of the anti- fraud strategies (Research Anti-Fraud Strategy, DG CONNECT).	% of implementation of actions planned for 2019 in the anti- fraud strategies	100%	As regards the 2015 action plan of the Research anti- fraud strategy, the final assessment showed a global implementation rate of 82.5%. Several deadlines of the March 2019 action plan had to be postponed due to the re-organisation of DG
Fraud And Irregularities in Research Committee.	Number of meetings	2	Research and Innovation. DG CONNECT participated in the 2 FAIR committee meetings organised by the Common Audit Service and the 2 meetings of the FAIR working group on the revision of the common anti-fraud training material.
Fraud risk awareness raising trainings and similar anti-fraud trainings.	Number of participants from DG CONNECT	50 in 2019	DG CONNECT organised two trainings with 53 participants in early 2020.
Revision of the Research Anti-Fraud Strategy.	Timely contribution to the Fraud and Irregularities in Research Committee	Q1 2019	DG CONNECT actively participated in the update of the Strategy and the action plan, which was elaborated in the FAIR Committee and endorsed by the CIC Executive Committee in March and by the Steering Board in June 2019.
Use of the anti-plagiarism tool	Number of requests to use the anti- plagiarism tool	More than 8 requests (increase compared to previous period)	9 requests involving 140 documents

D) Detailed analysis of efficiency indicators (Section 2.1.1, 'Efficiency = the Time-to-...' of the AAR)

The control system for grant management under direct management of DG-CONNECT is divided into four distinct stages – programming, evaluation and selection of proposals (stage 1), contracting (stage 2), monitoring the execution of the projects (stage 3) and ex-post controls and recoveries (stage 4). Key indicators have been defined for each stage of the process.

Stage one: Programming, evaluation and selection of proposals

The first stage concerns the preparation and the publication of the calls for proposals and the subsequent evaluation of the received proposals. The overall control objective of this stage is to ensure that the most promising projects, meeting the policy objectives, are among the selected proposals. In order to ensure this control objective, DG CONNECT has put in place a set of rules and procedures that are objective, transparent and ensure equal treatment of all applicants.

The selection process implies an initial screening of the submitted proposals to assess their admissibility and eligibility. In a second stage the eligible proposals are evaluated by an independent evaluation panel and an adequate evaluation review procedure is put in place in case of complaints regarding the evaluation. The aim of all steps in this process is to ensure a robust and transparent selection which in turn will guarantee the highest value for money return.

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The key indicators which can be used to measure the efficiency of this stage are the level of execution of the DG's work programmes, the attractiveness of the calls, the time-to-inform, the time-to-pay evaluation experts and the number of requests for an evaluation review.

Level of execution of the DG's work programmes

DG CONNECT's work programmes for 2019 contained the implementation of 16 calls for proposals for Horizon 2020 and 1 call coordinated by other DGs or agencies. All of these calls have been successfully implemented.

Attractiveness of the calls

The attractiveness of the DG CONNECT's funded programmes can be measured by the proportion of the proposals received compared to the ones which were effectively selected. In 2019 there were on average 9* proposals received for each selected proposal (*only proposals already evaluated are taken into account), which is higher than the 6.9 average of 2018. This demonstrates the attractiveness of the programmes managed by DG CONNECT.

Average time-to-inform

DG CONNECT complied with this control effectiveness indicator (target: above 95%). In 99.5% of the cases, the applicants were informed of the results of the evaluation within the maximum time-to-inform period of 5 months (average time to inform was 114 days in 2019 compared to 109 days in 2018 and 121 in 2017). The average time to sign grant agreements was 228 days in 2019 compared to 210 days in 2018 and 209 days in 2017. This shows that the evaluation exercises have been carried out in an efficient manner.

Evaluation review procedures

As shown in the table below the number of introduced requests for review (4) is very low compared to the total proposals (889 if we only take into account already evaluated proposals; 0.45%). The latter is a good indication for the efficiency of the selection process.

	TOTAL (2016)	TOTAL (2017)	TOTAL (2018)	TOTAL (2019 [*])
Number of proposals received	1994	1637	1491	1286*
Number of proposals selected	281	163	217	129
Number of evaluation review request received	15	10	16	4
Number of review requests received as % of number of proposals received	0,75%	0,61%	1,07%	0,45%
Number of review cases leading to a re- evaluation	1	0	1	0
Number of reviews leading to a re- evaluation as % of number of proposals received	0,05%	0%	0,07%	0%
Number of (successful) evaluation reviews / total number of proposals received	0	0	1	0

*397 Proposals are still being evaluated

Time-to-pay evaluation experts

The average time for paying reviews in 2019 is 10.9 calendar days compared to 12.8 days in 2018. This is well within the binding deadline of 30 days for payments, imposed by the Financial Regulation.

The evaluation exercise benefits are the selection of proposals that address the objectives and priorities of the work programmes, that due to their high maturity have the best chances for successful completion within the eligibility period, and that provide the highest EU added value for the completion of the respective policy targets. This and the oversubscription described above underlines the importance of the controls in place at this stage of the grant management process.

Stage two: grant preparation/contracting

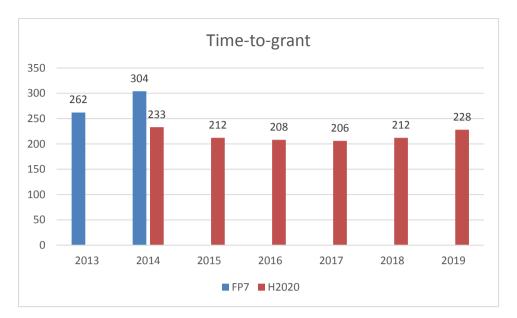
After a sound and transparent selection process, the next stage consists of formalizing the contractual side of the proposals. The overall control objective of this stage is translating each of the selected proposals into legally binding grant agreements, allowing for the management of both the scientific and financial aspects of the projects and to ensure the best value for money output of each of the contracted projects.

Proposals under Horizon 2020 are expected to be mature and ready to be implemented without the need for substantial adjustments in the scope and repartition of the scientific work, the duration or the maximum financial contribution for the project. Given that no negotiation phase is foreseen for this programme, the difference between the recommended funding and the final grant awarded is negligible.

The key indicator which can be used to measure the performance of this stage it the time-to-grant.

Time-to-grant (TTG)

The time-to-grant is the length of the time between the closure date of the call for proposals and the date of the signature of the grant agreement. The TTG indicator shows the average period between the calls' closure date and the grants' signature. The evolution of the TTG in the last 2 years of FP7 and the first 6 years of Horizon 2020 is shown in the table below.



In 2019, 185 H2020 projects were signed for a total EC contribution of EUR 1 293.67 million and a total budgeted cost of EUR 1 470.60 million. The average TTG of these projects was 229 days, which is similar to previous years₁₆. The legal TTG (eight months or 245 calendar days) was complied with in 70% of the grants. The target for this indicator was set at above 95% and was therefore not reached. Nevertheless, it needs to be noted that a short TTG does bring some risks at it reduces the time available for the Commission to carry out extensive checks before signing grants.

The main benefits of the grant preparation/contracting stage consists in translating valuable scientific ideas into legally binding grant agreements in a way that ensures an optimal allocation of EU funds.

Stage three: monitoring the execution

The overall control objective of this stage is to ensure that the projects are performing according to their schedule and that the financial operations comply with regulatory and contractual provisions.

The execution of the projects is monitored through different tools, the ex-ante controls being one of the most important ones at the time of cost claims submitted by the beneficiaries. Other monitoring measures include the assessment of the technical reports, which in some Programmes may have further pre-financing implications and commitments adjustments (only applicable to multi-annual programmes), as well as direct and regular contacts with the beneficiaries and project promoters, technical site visits, project management workshops, among others.

The key indicators which can be used to measure the performance of this stage are the time-to-pay (TTP) and the average project management cost per running project.

The time-to-pay (TTP) indicator:

This indicator gives the percentage of payments made within the binding deadlines. DG CONNECT continued its efforts to maintain the low number of late payments, in line with the tighter deadlines imposed by the Financial Regulation.

For the year 2019, 99.0% of the total number of payments were paid on time compared to 98.5% in 2018. DG CONNECT complied with this control effectiveness indicator (target: above 95%). The average time for payments made on time is 20.4 days. The overall average payment time is 21.0 days.

2019	2018	2017	2016	2015
99.0%	98.5%	97.2%	97.6%	93.4%

Table: Evolution of the TTP in DG CONNECT (%)

Average project management cost per running project

2019	Projects	Budget (EUR)	Programme Officers (FTE)	Average Project	Average Budget (EUR)
FP7	5	48 640 000		0.04	9 728 600
CIP	1	4 446 000		0.01	4 446 000
H2020	946	5 410 093 043		7.51	5 718 914
Total	952	5 463 179 043	125.95	7.55	5 738 633

Table: Number of running projects in 2019

The real benefits of the ex-ante controls cannot be fully quantified. Indeed, many interactions take place between the consortia and the DG's operational services in order to clean the costs statements from substantial errors still before the official submission of the latter. Therefore, the costs accepted for reimbursement are often very close to the one submitted in the 'pre-cleaned' financial statements. As a consequence, the difference between the accepted costs and the ones claimed with the latest submission of the financial statements cannot fully measure the 'gain' from the ex-ante control measures. Nevertheless, it can be reported that the rejection of the costs as non-eligible amounts in cost claims at the time of ex-ante controls led to a reduction of EUR 5.9 million of EU contribution in 2019.

Stage four: ex-post controls

The fourth stage includes the ex-post audits as well as the recovery of any amounts found to have been paid in excess of the amount due. The results of the audits, namely the error rates, are detailed in the section dedicated to the control results in terms of effectiveness as regards legality and regularity. Unlike the other stages of the grant management control system, the scope of the audit stage is wider than just DG CONNECT. The Common Audit Service (CAS) is responsible for representative FP7 audits for all DGs of the Research Family, and for all Horizon 2020 audits (including executive agencies and joint undertakings).

A detailed analysis of the work performed by the Common Implementation centre (CIC) can be found in DG RTD's Annual Activity Report.

The benefit of ex-post controls in terms of adjustment, recoveries and offsetting is set out above; however, the real benefit of the ex-post controls, including the deterrent and training effect, cannot be fully quantified.

E) Information on the cost of controls for DG CONNECT and for the monitoring

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and the supervision of the entrusted entities

The control system for grant management is divided into four distinct stages. Key indicators have been defined for each stage of the process.

The table below provides an estimate of the total costs of control for direct grant management within DG CONNECT including the costs of the shared services. The estimated cost of controls for each of the four stages was calculated based on the corporate methodology for the estimation, assessment and reporting on the cost-effectiveness of controls.

As the Common Implementation Center (CIC) is a corporate service whose work is crucial for the assurance model of all members of the Research Family, its costs are presented in this report as a whole and split per DG. The support services provided by REA to the Horizon 2020 implementing bodies is part of this family-wide integrated control system as well. The estimated cost of controls of DG CONNECT is given for each of the different grant management stages. The complete picture is shown in the table below.

Cost of controls indicator in direct grant management		Costs (EUR millior	1)	Operational Payments 2019 H2020 Family	Overall rate (total costs/total amount paid)
Common Implementation Centre	Internal costs	External costs	Total	Total amount (EUR million)	%
Ex-ante controls (mainly common services for IT systems and operations, business processes)	6.9	26.6	33.5	9 085	0.37%
Ex-posts audits	8.9	2.70	11.6		0.13%
TOTAL	15.8	29.3	45.1		0.50%
Evaluation Experts costs paid by REA	11.8	52.2	64.0	7 419	0.86%
DG CONNECT costs of controls grant management				Operational payments for grants 2019 DG CONNECT (H2020, FP7, CIP, etc)	
Stage 1 – programming and evaluation	4.56	0.29	4.85	1 269.34	0.38%
Stage 2 – contracting	3.00	0.13	3.13	1 269.34	0.25%
Stage 3 – monitoring the execution (financial circuits)	22.63	1.14	23.77	1 269.34	1.87%
Stage 4 – ex-post controls and recoveries	0.75	0.0	0.75	1 269.34	0.06%

TOTAL	30.94	1.56	32.5	1 269.34	2.56%
DG CONNECT share in the costs REA evaluation experts & support services			10.15	1 269.34	0.80%
DG CONNECT share in the costs Common Implementation Centre			10.96	1 269.34	0.86%
Overall cost effectiveness for grant management in DG CONNECT					4.22%

Table: Overall cost of controls indicator for direct grant management including the shared services costs

Common support services provided by the CIC

The costs of common services (in legal support, ex-post audits, IT systems and operations, business processes, programme information and data) represent 0.50% of the total implemented budget for all research DG's, executive agencies and joint undertakings implementing Horizon 2020 (in terms of payments) in 2019. The part of costs dedicated to ex-post audits represents 0.13%.

Common support services provided by REA

For efficiency and cost-effectiveness reasons, REA pays the expert evaluators³⁰ for the whole Research and Innovation Family (except ERCEA) in H2020. For this activity, last year the costs³¹ of REA represented 0.86% of the total budget implemented by the Research Family.

DG CONNECT costs³²

The total cost of control within DG CONNECT can be evaluated at approximately EUR 32.5 million, corresponding to 2.56% of the total operational grant payments made in 2019. Including the costs of common services, this percentage would reach 4.22%.

The costs incurred by DG CONNECT for the monitoring and the supervision of the entities entrusted with budget implementation tasks amounts, approximately, to EUR 3.57 million. They include primarily personnel costs (in total 24 Full Time Equivalents) and mission costs to attend supervisory board meetings for entities not based in Brussels. Personnel costs relate in particular to the monitoring activities (via the supervisory Committees), the preparation of budgets (for executive agencies), the assessment of the annual activity reports and other periodic reports as well as the annual work programmes.

The average cost of the monitoring and supervision of the executive agencies, ECSEL, AAL Association, BEREC/BEREC Office, ENISA, the Financial Instruments and payments made under cross-subdelegations represent 0.52% of the operational payments made to these entities.

³⁰ Stage 1 of the grant management control system.

³¹ In terms of payments.

³² The corporate methodology for the estimation, assessment and reporting on the cost-effectiveness of controls was revisited in September 2018 and applied for the first time in the 2018 annual reporting. The difference of the estimated cost of controls as compared to previous year derives also from this new methodology and does not reflect any substantial change in the DG's control strategy.

Year	Payments made (million EUR)	Estimated costs of control	Ratio
2016	580.1	1.90	0.33%
2017	693.7	2.17	0.31%
2018	654.5	2.39	0.36%
2019	683.31	3.57	0.52%

Table: Evolution cost of controls Indirect Management at DG/Commission level

The table below provides a more detailed overview of the supervision and monitoring cost per entity in 2019:

Entity	Payments made (million EUR)	Estimated costs of control	Ratio
EC services through cross-sub delegations ³³	0.02	0.0004	1.86%
Executive agencies	458.9	1.789	0.37%
ECSEL	169.46	0.412	0.24%
BEREC Office	5.70	0.482	8.46%
ENISA	16.29	0.492	3.02%
Active and Assisted Living Association	14.77	0.140	0.95%
Financial Instrument (CCS GF)	9.36	0.211	1.42%
Financial Instrument (CEBF)	8.81	1.073	
Financial Instruments (CEF) Broadband Fund	0		
TOTAL	683.31	3.57	0.52%

The estimated cost of control has also been calculated at entrusted entity level.

Entity	Payments made (million EUR)	Management/ Remuneration fees paid	Ratio
EC services through cross-sub delegations	0.02	0	
EACEA	108.16	0	
INEA	75.88	0	
REA	259.54	0	
EASME	15.32	0	N/A ³⁴
ECSEL	169.46	2.06	1.21%
BEREC Office ³⁵	5.70	3.75 ³⁶	65.75%
ENISA ⁴²	16.29	11.34	69.58%
Active and Assisted Living Association	14.77	0.90	6.08%
Financial Instrument (CCS GF)	9.36	0.97	10.36%
Financial Instrument (CEBF)	8.81	1.73	19.60%
Financial Instrument (CEF) Broadband Fund)	0	0.04	N/A
TOTAL	683.31	20.45	2.99%

³³ For 'Administrative expenditure cross-subdelegated', the supervision arrangements are based on the principle of controlling 'with' the relevant entity. Being a Commission service itself, the Authorising Officer by delegation (AOD) of the cross-delegated service is required to implement the expenditure/ appropriations subject to the same rules, responsibilities and accountability arrangements, notably on efficiency and cost effectiveness.

³⁶ Title 1 and Title 2 expenditure has been considered as management expenses paid.

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³⁴ DG CONNECT did not pay management fees for cross-subdelegations and to the executive agencies as it was not the lead parent DG. The payments made to those entities were removed from DG CONNECT's budget a priori, without any link to specific type of expenditure. ³⁵ The BEREC Office and ENISA have relatively small annual budgets. Those agencies do not manage calls for

³⁵ The BEREC Office and ENISA have relatively small annual budgets. Those agencies do not manage calls for proposals, and the EU funds serve mainly for staff remuneration and administration purposes. They nevertheless have to fulfil a number of administrative requirements similar to all EU agencies but weigh more heavily on smaller agencies due to significant fixed costs and inability to take advantage of economies of scale. This explains the relatively high cost of control when compared to the payments made.

F) Additional information on audit observations and recommendations (Section 2.1.2 of the AAR)

IAS-Audits closed in 2019 (including January 2020)

IAS Audit on the implementation of the better regulation principles in the Digital Single Market policy development and decision-making

The IAS concluded that DG CONNECT has put in place an internal control system related to the preparation of digital single market policy proposals that is adequately designed and effectively implemented and in line with the better regulation principles. This control system enables the Directorate-General to plan and prepare good quality legislative and non-legislative initiatives related to the Digital Single Market.

While the audit work did not identify any critical or very important issues, the IAS considered that there is room for further improvement regarding: first, human resources capabilities and the need to monitor and ensure the availability of adequate skills for policy-making activities; and second, the implementation of the better regulation requirements and related document management.

IAS Consulting engagement on policy feedback from research and innovation projects delegated to Executive Agencies and Joint Undertakings.

The engagement was requested by the Common Implementation Centre (CIC) in view of drawing conclusions on the existing policy feedback practices that could be considered for the future common guidelines on policy feedback for the research family.

The final report, received in January 2020, included five issues to be considered by the CIC in cooperation with the research and innovation family Services, including DG CONNECT. In particular, the IAS advices to establish a common definition of policy feedback and to define the needs, the formulation of requests, the process to follow as well as the tasks to be carried out and the resources to devote.

IAS Consulting engagement on governance and supervision of executive agencies

The engagement was requested by SG and DGs BUDG and HR in view of identifying best practices and providing advice on the arrangements concerning the governance and supervision of the executive agencies by the parent DGs. Its results will feed the reflection on the governance of executive agencies post-2020. The consulting report was received by the central services at the end of January 2020.

IAS-Audits started in 2019 and ongoing at the end of January 2020

IAS Audit on experts' management in the Research area

The audit assesses how the Commission is organising its own resources in order to be able to select the best experts, who are able (in terms of experience, skills, knowledge, and independence) to select the best proposals and to effectively monitor projects implementation. The IAS plans to conclude this audit in the first half of 2020.

IAS Audit on the implementation of anti-fraud actions in the research area

This multi-DG audit for the research family assesses if the implementation of anti-fraud actions is effective at the level of the Research family and of the individual implementing bodies. The IAS plans to conclude this audit in the first half of 2020.

IAS audit on WiFi4EU

This multi-DG audit, including DG CONNECT, INEA and DIGIT, assesses the effectiveness of the management of the Wifi4EU initiative, including its IT components. The IAS expects to conclude this engagement in the second half of 2020.

IAS Audit on the Commission's supervision of the EFSI programme

The multi-DG audit assesses the efficiency and effectiveness of Commission's strategy for the supervision of the EFSI programme. DG CONNECT participated in the preparatory phase of the audit but it was not included in the final scope defined by the IAS.

Limited conclusion of the Internal Auditor on the state of Internal Control in DG CONNECT

In its contribution to the 2019 AAR process, the IAS provides a limited conclusion on the state of internal control in DG CONNECT. The IAS concludes that the internal control system in place for the audited processes are effective, except for a "very important" recommendation that needs to be addressed regarding CEF Telecom. In particular, DG CONNECT needed to put in place a performance framework that provides an overview of the performance of individual DSIs and their contribution to the implementation of the annual CEF work programmes.

During 2019, five out of seven actions addressing the improvement of the current performance framework and its monitoring were implemented.

The actions implemented by DG CONNECT have fully mitigated the risks of:

- a) not achieving the programme objectives due to a fragmented monitoring framework that does not enable informed management decisions,
- b) the risk of not being able to demonstrate properly the impact of the programme due to unclear formulation of indicators, and
- c) not being able to identify delays in the implementation due to inadequate output indicators.

Through the implemented action points, the CEF telecom has now a new comprehensive performance framework based on full set of KPIs meeting the SMART and RACER criteria (including result indicators) that aggregated allow to monitor the overall performance of the programme.

Therefore, in view of the progress of the action plan at the end of 2019, the risks linked to this recommendation are considered to be mitigated. Note that the IAS did not yet perform a follow up audit on the implementation of this recommendation.

State of play of the implementation of IAS recommendations

The 2019 final overview report on the state of implementation of IAS recommendations lists ten pending recommendations stemming from the following five audits:

a) Audit the management of recovery orders for competition fines and for recovery CNECT_aar_2019_annexes_final Page 94 of 120 orders in the context of the Commission's 'corrective capacity'.

- b) Audit on H2020 ex-ante controls on payments in DG CONNECT.
- c) Audit on CEF implementation.
- d) Audit on the implementation of better regulation principle in the preparation of Digital Single Market policy proposals.
- e) Audit on dissemination and exploitation of Horizon 2020 results.

The figures above include two recommendations reopened by the IAS in 2019 concerning the monitoring of and reporting on uncashed recovery orders and, on the other hand, the monitoring of the efficiency and effectiveness of the ex-ante controls on payments in DG CONNECT.

European Court of Auditors (ECA)

ECA Audits closed in 2019 with involvement of DG CONNECT

Performance audit on Cross-Border Health Care access in Europe

This multi-DG audit concluded that while EU actions in cross-border healthcare were ambitious and enhanced Member States collaboration, they require better management. Consequently, the Court recommends the Commission to:

- 1. provide more support for national contact points to improve information on patients' rights to cross-border healthcare;
- 2. better prepare for cross-border exchanges of health data;
- 3. improve support for and management of European Reference Networks to facilitate rare disease patients' access to healthcare.

For the specific part concerning e-health, DG CONNECT has worked together with DG SANTE to develop an action plan and actions are already being taken in this respect.

Performance Audit on INEA

The ECA concluded that INEA has fulfilled the delegated tasks as defined in its mandate and delivered expected results, with some limitations related to framework constraints. The ECA found shortcomings in the otherwise well organised CEF selection procedures, risks in the implementation of the programme and weaknesses in performance reporting.

INEA and its parent DGs, including DG CONNECT, are working on the development of a comprehensive action plan to address all the recommendations of the Court.

Rapid case review on the transparency and efficiency of the support to EURONEWS

The ECA concluded that EU support helps Euronews to broaden its coverage of European affairs but funding needs to be better monitored. The ECA pointed out that most citizens in the EU are unable to access the channel as it is not a public broadcaster, together with some shortcomings in the monitoring of the performance of Euronews against objectives and commitments made.

Rapid cases do not require a formal answer by the Commission. However, DG CONNECT has developed a detailed action plan to improve the monitoring of EURONEWS.

Briefing paper on EU support for energy storage

The ECA concluded that the EU needs better energy storage to meet energy targets and achieve its climate objectives. The briefing paper outlined the main challenges for the EU, which include designing an EU strategy for energy storage, using research and innovation effectively, and establishing a supportive legislative framework.

State of play of the implementation of ECA recommendations

At the end of 2019, DG CONNECT is the lead service for three open recommendations from the Court stemming from the special report on broadband in the EU member states.

On the other hand, DG CONNECT is cooperatively working with the correspondent lead services to address other recommendations from the ECA annual report as well as from the audits on broadband, the performance of INEA and cross-border health in the EU.

ECSEL Joint Undertaking

In 2019, the European Parliament granted discharge on the 2017 budget of the ECSEL Joint Undertaking.

Chapter	Article	Fund Mgt Center	Date of signature	Period	Heading	Amo	ount	Date DG's answer	Verified par R1	Ares
09.04	09.040733	CNECT/PMO	01.10.2019	unlimited	Performance	High Ioint —	appropriati on authorised	13.2.2020	13.2.2020	Ares(2020)927516
Chapter	Article	Fund Mgt	Date of	Period	Heading		Amount	Date	Verified	Ares
		Center	signature					DG's answer	par R1	Ales
02.03	02.030100	GROW/CNECT	12.12.2016	unlimited	Ensuring protection rights empowering citizens	the of and	appropriat ion authorised	10.2.2020	30.1.2020	Ares((2020)843960
Chapter	Article	Fund Mgt	Date of	Period	Heading		Amount	Date	Verified	Arres
		Center	signature					DG's answer	par R1	Ares
08.02	08.020102	RTD/CNECT	29.4.2019	Unlimited	Strengthening research in fu and emery technologies		appropriat ion authorised	27.1.2020	23.1.2020	Ares(2020)489023

DG CONNECT activities covered by cross sub-delegations in 2019

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SECTION 2

This section contains the 'Table Y', which details the figures on the DG's cost of control at Commission.

Table Y - Overview of the estimated cost of controls at Commission (EC) level:

Direct management

Relevant control system related to Payments												
Ex ante controls				Ex post controls	Total							
EC total costs (in Mil. EUR)	Funds managed (in Mil. EUR)	Ratio (%)	EC total costs (in Mil. EUR)	Total value verified and/or audited (in Mil. EUR)	Ratio (%)	EC total estimated cost of control (in Mil. EUR)	Ratio (%)					
DG Connect												
31.75	1 269.34	2.50%	0.75			32.50	2.56%					
DG Connect share t	o CSC and REA ³⁷	,										
18.26	1 269.34	1.44%	2.85			21.11	1.66%					
Total												
50.01	1 269.34	3.94%	3.60	116 ³⁸	3.11%	53.61	4.22%					

Indirect management

Relevant control system related to Payments							
Ex ante controls	Ex post controls	Total					

³⁷ The amount contains: share of costs for REA 10,15 Mil. EUR (ex-ante controls) and share of costs for CIC 10,96 Mil. EUR (74% for ex-ante and 26% for ex-post) ³⁸ Total value audited for DG CONNECT in 2019 – H2020, FP7 and Non-Research programmes.

EC total costs (in Mil. EUR)	Funds managed (in Mil. EUR)	Ratio (%)	EC total costs (in Mil. EUR)	Total value verified and/or audited (in Mil. EUR)	Ratio (%)	EC total estimated cost of control (in Mil. EUR)	Ratio (%)
3.57	701.76	0.51%	-	-	-	3.57	0.51%

OVERALL total estimated cost of control at EC level

EC total costs (in Mil. EUR)	Funds managed (in Mil. EUR)	Ratio (%)	EC total costs (in Mil. EUR)	Total value verified and/or audited (in Mil. EUR)	Ratio (%)	EC total estimated cost of control (in Mil. EUR)	Ratio (%)
53.58	1 971.10	4.45%	3.60	115.85	3.11%	57.18	4.73%

ANNEX 11: Specific annexes related to "Assessment of the effectiveness of the internal control systems"

DG CONNECT assesses on a continuous basis the effectiveness of its internal control systems, in order to determine whether they work as intended and ensuring that any control weaknesses in the system are detected, analysed and considered for improvement.

The end of year assessment is based on the assessment of a number of indicators called internal control monitoring criteria and the analysis of various sources of other information such as the register of deviations, IAS and ECA audit findings and the risk register.

Assessment of the internal control monitoring criteria

DG CONNECT established Internal Control Monitoring Criteria (ICMC) to allow the DG to effectively monitor and assess its internal control system and, on that basis, to build on its strengths and to address its weaknesses.

The DG's review of the internal control monitoring criteria was conducted in January and February 2020. Lead units responsible for the internal control principles were asked to report on the internal control monitoring criteria. Where needed, lead services were contacted for further details.

The conclusion of the assessment was positive with remarks in the Principles 10 and 13:

- As regards principle 10³⁹, the error rate of FP7 exceeds the materiality threshold. We are nevertheless not of the opinion that this results from a weakness in the effective implementation of the internal control principles as this error rate reflects what is achievable with the current legal framework taking into consideration an appropriate balance between trust and control.
- As regards principle 13⁴⁰, the assessment noted that the participation of DG CONNECT secretariat and DMO correspondent to Document Management trainings did not achieve the target of 100% (at 70%). This may lead to a lower awareness among key staff concerning the most recent changes to document management rules. DG CONNECT has implemented actions to ensure that all key staff involved received detailed information in management of documents and information.

Register of deviations

The DG has a system in place to ensure the recording of exceptions or noncompliance to procedures/rules through a process of justification by the initiating service, approval by the Director and the maintenance of a central register. Such events do not represent a weakness in controls, as they could be the result of

³⁹ The title of the Principle 10 is "The Commission selects and develops control activities that contribute to the mitigation of risks to the achievements of objectives to acceptable levels".
⁴⁰ The title of the Principle 13 is "The Commission obtains or generates and uses relevant quality information to support the functioning of internal control".

many factors. Nevertheless, such events are recorded an analysed to find indications of a possible underlying, systemic weakness.

During the year, a total number of 33 deviations were reported and analysed to identify any internal control failures. The assessment of potential risks resulting from the deviations reported did not reveal any control weaknesses.

IAS and ECA audit recommendations

DG CONNECT continued its pro-active supervision and frequent reporting on the state of implementation of the audit recommendations. The state of implementation of the IAS and ECA recommendations is regularly reported to senior management. The list of open recommendations was analysed and the outstanding risks assessed. At the end of 2019, DG CONNECT had ten open recommendations of the IAS (one is very important and nine important) and three recommendations from the ECA as a lead service (more details are presented in section 2.1.2).

Risk Management

At the end of 2018, senior management identified a critical risk linked to the implementation of the WiFi4EU initiative for which mitigation actions were established. During 2019, the risk was closely monitored at senior management level to mitigate and monitor each of the aspects of the risk. The overall level of this risk has been reassessed in Q4 2019 and Q1 2020 resulting in a downgrade from 'critical' to 'high' thanks to the completion of mitigation actions. Work continues to further reduce the risk.

Besides the medium risk linked to WiFi4EU initiative, DG CONNECT risk register contains 1 high risk, 15 medium risks and 5 low risks.

Conclusion

DG CONNECT has assessed its internal control system during the reporting year and has concluded that it is effective and that the components and principles are present and functioning as intended. However, and without qualifying the conclusion, minor deficiencies were observed for the Principles 10 and 13:

<u>Performance framework of the CEF Programme and its monitoring (10)</u>: DG CONNECT has one open very important IAS recommendation concerning the need to put in place a performance framework that provides an overview of the performance of individual Digital Service Infrastructures and their contribution to the implementation of the annual CEF work programmes. In view of the progress in the implementation of the related action plan at the end of 2019, which already addresses a large part of the risks identified by the IAS, the residual risk linked to this recommendation is considered to be low (more details on the IAS recommendations are provided in section 2.1.2).

<u>Training/coaching of unit secretariat and DMO correspondent (13)</u>: The low participation of DG CONNECT secretariat and DMO correspondent to Document Management trainings (70%) may lead to a lower awareness among staff concerning the most recent changes to document management rules. Considering the actions undertaken by Management to mitigate the risk including the dissemination of information in management of documents, the risk is considered to be low.

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ANNEX 12: Performance tables

General objective 1 : A Connected Digital Single Market						
Impact indicator: A Source of the data	Aggregate score in Digi : DESI	tal Economy and S	Society I	ndex (DESI) E	EU-28 ⁴¹	
Baseline 2015				Target 2020		Latest known results 2019
41.8				Increase		52.5
	pefore: 45 according to					
Specific objective consumers and bu		are av	allable to	Related to sp programme: Europe MED	Creative	
	Number of Member St				omy and Socie	ety Index (DESI)
	ps://digital-agenda-da Interim Milestone	ta.eu/datasets/des	<u>si/visuali</u>			Latest known
Baseline 2014	2017	2019		Target 2020		Latest known results 2019
13	20	24		28		25
2 years, as part of t start of application;	pact assessment accor the monitoring of the i data sources will be ex e providers or right ho	impact of the legi isting ones (e.g. E	slation, d European	comprehensiv Audio-visual	e assessment Observatory),	5 years after the data provided by
services remain territories.	of online content locked in national	online content across borders adoption of t portability (star 2017).	1 year the Reg t of ap	es portable r after the gulation on oplication in	overall, servi the portabili Regulation practice. The resu Eurobaromet out in Febr confirm this: - 52% of aware of the border port content servi - 49% of EU a subscription content servi travelled in t 2018 have b rules intro Portability F	er survey carried uary/March 2019 EU citizens are e rules on cross- ability of online ces. citizens who have on to an online rvice and have the EU since April enefited from the duced in the Regulation (used
Source of data: Roa Baseline	admap for completing t Interim Milest		Target		Latest k	nown results
			. a. get			i courts

 41 DESI is a composite index that summarises relevant indicators on Europe's digital performance and tracks the evolution of EU Member States in digital competitiveness. The closer the value is to 100, the better. The DESI index is calculated as the weighted average of the five main DESI dimensions: 1. Connectivity (25%), 2. Human Capital (25%), 3. Use of Internet Services (15%), 4. Integration of Digital Technology (20%) and 5. Digital Public Services (15%). The DESI index is updated once a year

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2015	2016	2017	2017	2019
DSM Strategy adopted by the Commission.	Legislative proposal to tackle unjustified geo-blocking.	Adoption of the legislation by EP and Council.	the legislation and transposition in	Launch of 6 letters of formal notice to ensure adoption of necessary measures by Member States in July 2019. Launch and finalisation of several data gathering exercises in view of the report planned for 1Q2020.

Main outputs in 2019			
Delivery on legislative p	roposals pending with t	he legislator	
Output description	Indicator	Target	Latest known results 2019
Directive on copyright in the DSM	Adoption by the co- legislators.	Q1 2019	Adopted in Q2 2019.
Regulation establishing the Creative Europe Programme.	Political agreement.	2019	In negotiations, delay due to diverging views of the EP and the Council.
All new initiatives / sigr	nificant evaluations from	the Commission \	Nork Programme
Output description	Indicator	Target	Latest known results
Important items from w	ork programmes/financ	ing decisions/ope	rational programmes
Output description	Indicator	Target	Latest known results
Creative Europe MEDIA Work Programme 2020.	Adoption by the Commission.	Q2 2019	Adopted 23.08.2019.
Adoption of a CommissionDelegatedActsupplementary performanceindicators for the CreativeEurope Programme.	Adoption by the Commission.	Q1 2019 PLAN/2018/2999	Adopted 17.05.2019.
Strategic stakeholder dialogue through the European Film Forum (EFF) and national film funds, focusing on the future Creative Europe MEDIA.	Holding 7 events in film festivals in 2019.	Q4 2019	9 EFFs were held at biggest industry events: Berlin, Lille, Cannes, Cluj-Napoca, Annecy, Barcelona, Venice, San Sebastian, Tallinn.
Other important outputs	;		
Output description	Indicator	Target	Latest known results
Commission Implementing act containing the lists of reserved and/or blocked .eu domain names by Member States.	Adoption by the Commission	Q3 2019 PLAN/2018/3422	To be adopted by November 2020 (given that the overall deadline is 2022, it was decided to wait for EEA countries to adopt the .eu legal framework to have one implementing act covering EU and EEA).
Commission delegated act laying down the criteria and procedures for the designation of the .eu Top Level Domain Registry operator.	Adoption by the Commission	Q3 2019 PLAN/2018/3421	To be adopted by May 2020.

specific objection	ve 12. Electro	nic communic	ations networks and	Related to spending
convisos digital			rvices benefit from	
				programme. m2020
favourable condition				
Result indicator 1 States	: Future-friendly r	egulatory framew	ork for electronic comm	nunications is in place in Member
Source of data: Roa	adman for complet	ing the DSM		
Baseline	Interim Milesto		Target	Latest known results
2015	2016	2018	2020	2019
Public Consultation	Adoption of the	Adoption of	Transposition into	European Electronic
	legislative	the legislation	national law by all	Communications Code
	proposal by	by the EP and	Member States by	(Directive (EU) 2018/1972)
	the	the Council	2020	entered into force on
	Commission			20.12.2018
Result indicator 2:		ted devices in the	e EU, impacting the IoT r	
	lobal System for I	Mobile Association		istry analysis (International Data
Baseline	Interim Milesto	ne	Target	Latest known results
2016	2018		2020	2019
500 million phones	2 billion connect	ed devices	Multiplication by 10	2018: 680 million SIM in
and 100 million			in 2020, about 5	operation in Europe (GSMA)
machine to			billion connected	
machine devices			devices in Europe, 5	2019 (August): 26.66 billion connected devices of which 7
			devices average per	billion IoT connected devices
			citizen.	installed worldwide, compared
				to 17.8 billion in 2018
				(Statista). Europe accounts for
				approximately 11% of the
				above numbers.
	European agreem	ent of at least 1	GHz identified above 6 (GHz for 5G IMT 2020 allocation in
				nication Conference decisions, 5G
			elecommunications Adm	inistrations (CEPT), EU research,
strategy and legislat Baseline		7. Target		Latest known results
2015		2019		
2015		2019		
	5G above 6 GHz.	2019 1 GHz minir	mum	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified
-	5G above 6 GHz.		mum	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz))
	5G above 6 GHz.		num	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6
-	5G above 6 GHz.		num	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged
-	5G above 6 GHz.		num	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in
-	5G above 6 GHz.		mum	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC).
2015 0 MHz available for 5	5G above 6 GHz.		mum	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global
	5G above 6 GHz.		num	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to
	5G above 6 GHz.		num	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to
0 MHz available for 5	: Policy instruments	1 GHz minir	e public and private secto	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band (partial) only in Italy.
0 MHz available for 5	Policy instruments	1 GHz minir a GHz minir s available for the lidated by the us	e public and private secto se of FIWARE and supp	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band (partial) only in Italy.
0 MHz available for 5 Result indicator 4: Platforms (OSP). Ma industrial companies Source of data: 0	Policy instruments arket actors conso to reach an appro pen Service Platfo	1 GHz minin 1 GHz minin s available for the lidated by the us priate penetration rms study, FIWA	e public and private secto se of FIWARE and supp n in several markets. RE Core Industry Group	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band (partial) only in Italy.
0 MHz available for 5 Result indicator 4: Platforms (OSP). Ma industrial companies Source of data: O carried out by proj	Policy instruments arket actors conso to reach an appro pen Service Platfo ects selected und	1 GHz minin 1 GHz minin s available for the lidated by the us priate penetration rms study, FIWA er the WP 2016	e public and private secto se of FIWARE and supp n in several markets. RE Core Industry Group	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band
0 MHz available for 5 Result indicator 4: Platforms (OSP). Ma industrial companies Source of data: O carried out by proj assessment based on	Policy instruments arket actors conso to reach an appro pen Service Platfo ects selected und n the data sources	1 GHz minin 1 GHz minin s available for the lidated by the us priate penetration rms study, FIWA er the WP 2016 listed above).	e public and private secto se of FIWARE and supp n in several markets. RE Core Industry Group in collaboration with th	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz)) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band (partial) only in Italy.
0 MHz available for 5 Result indicator 4: Platforms (OSP). Ma industrial companies Source of data: O carried out by proj	Policy instruments arket actors conso to reach an appro pen Service Platfo ects selected und	1 GHz minin 1 GHz minin s available for the lidated by the us priate penetration rms study, FIWA er the WP 2016 listed above).	e public and private secto se of FIWARE and supp n in several markets. RE Core Industry Group	Feb. 2020: Radio Spectrum Policy Group (RSPG) identified in 2016 the 26 GHz band (24,25 to 27,5 GHz, in total 3.25 GHz) as a 5G pioneer band above 6 GHz. Member States are obliged to allow use of at least 1 GHz in this band by end 2020 subject to market demand (EECC). WRC-19 confirmed the global allocation of the 26 GHz band to 5G. Assignment of this band (partial) only in Italy.

⁴² https://www.gsmaintelligence.com/research/?file=357f1541c77358e61787fac35259dc92&download

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0	7	13	All Member States	16 Member States (15 schemes
				from 13 Member States
				published; 3 schemes from 3
				Member States pre-notified).

Main outputs in 2019			
Delivery on legislative p	roposals pending with t	he legislator	
Output description	Indicator	Target	Latest known results
Proposal establishing the European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres.	Adoption by the co- legislators.	May 2019	Technical progress under the Romanian and Finnish Presidency. Priority of the Croatian Presidency.
Proposal on fairness in platform-to-business relations.	Adoption by the co- legislators.	May 2019	The proposal was adopted in February 2019 and the resulting Regulation 2019/1150 (EU) entered into force on 31.7.2019.
Proposal on ePrivacy and Electronic Communications.	Adoption by the co- legislators.	May 2019	While the EP has adopted its position in October 2017, the Council continues discussions on the file. The Finnish Presidency has made progress on the file but did not manage to reach a general approach. The Croatian Presidency will continue the work in view of a possible general approach in the Council.
All new initiatives / sign	nificant evaluations from	n the Commission Wor	k Programme
Output description	Indicator	Target	Latest known results
Important items from w			
Output description	Indicator	Target	Latest known results
Other important outputs		Townst	
Output description	Indicator	Target	Latest known results
Commission Report on the open internet access rules of Regulation (EU) 2015/2120 (Telecom Single Market Regulation).	Adoption by the Commission	Q2 2019 PLAN/2018/3423	Report adopted on 30 April 2019; COM (2019) 203 final
CommissionimplementingactonInformationrequirementsforcontracts(contractsummary	Adoption by the Commission	Q4 2019 PLAN/2018/3497	Commission implementing Regulation (EU) 2019/2243 adopted on 17.12.2019.
template).			

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European Parliament and Council on the review of the roaming market.	Commission		PLAN/2019/5031	29.11.2019 (COM(2019) 616 final).
Review of the Commission Implementing Regulation on fair use policy and the sustainability mechanism.	Adoption Commission	by the	Q2 2019	SWD adopted on 28.6.2019 (SWD(2019) 288 final).
Commission Notice on the Weighted Average Cost of Capital (WACC).	Adoption Commission	by the	Q1-Q2 2019 PLAN/2017/1800	SWD adopted on 5.11.2019 (SWD(2019) 397 final).
Report assessing the consistency of Member States' identification of operators of essential services	Adoption Commission	by the	Q2 2019 PLAN/2018/4819	Report adopted on 28.10.2019 (COM(2019) 546 final).

Specific objecti	ve 1.3: The digi	tal economy can o	deve	elop to its fu	II Related to spending
potential underpi	nned by initiative	es enabling full gro	wth	of digital an	d programmes: H2020 &
data technologies					CEF
Result indicator 1 Source of data:	: Actions to digitalis	se European industry			
Baseline	Target			Latest known	ı results
2015	2020			2019	
European	Roll-out of action	s and establishing		There are 147	7 NUTS 2 regions covered out of
industry not	digital innovation	hubs in every region	ı.	281 NUTS 2 re	egions in Europe.
prepared for the					
challenges posed					
by digitalisation.					
Result indicator 2	Number of TOP10	supercomputers insta	alled	in the FU by 2	020
Source of data: ht					
Baseline	Interim Milestor	ne	Та	rget	Latest known results
2015	2018		202	20	2019
1	2 in TOP10		3 ir	n Top 10.	In June 2019, eight hosting
			The	e EuroHPC	entities for supercomputers
			Joint		were selected across Europe,
			Undertaking		three of which to host pre-
				s the	exascale supercomputers, for
			-	ective of	which the procurement for the
				quiring 2 pre- ascale	acquisition was launched in November 2019, with an
				percomputers	expected peak performance
				2020 aiming	putting the three
				the top 10	supercomputers among the top
				iking.	10 in the world, when acquired
					by the end of 2020.
Result indicator 3	Removal of legis	lative and regulatory	obst	tacles at Memb	per States' level to the free flow of
data	-	- ,			
		tating cross-border da			
Baseline 2016	Interim Milestor	-	202	r get	Latest known results
	2017 4 1	2019			2019
Data localisation restrictions as	2017: Adoption	Adoption of the	-	noval of	Adoption of the Free flow of non-
identified by the	of the legislative proposal by the	Free flow of non- personal data	-	islative and Julatory	personal data Regulation on 28 May 2019, which stipulates that
two studies on	Commission.	Regulation on 28	5	stacles at	by 30 May 2021 all Member
'Facilitating cross-	Commission.	May 2019, which		mber States'	States have to repeal any
border data flow in the DSM' –	2018: Adoption	stipulates that by	-	el to the free	unjustified data localisation
in the DSM' – data available in	of legislative	30 May 2021 all		w of data by	requirement. 7 Member States
Q4 2016.	proposal by the	Member States	202	,	notified that they have no data
-	1 1,111 2, 110				

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	EP and the have to repeal Council. any unjustified data localisation requirement.		localisation restrictions.
Result indicator 4	: Interoperable IoT solutions developed	for automotive mar	ket.
	ropean Road Transport Research Advis		
Baseline	Interim Milestone	Target	Latest known results
2015	2016	2020	2019
6 early pilots for connected and autonomous cars	Large-scale pilots showcasing Society of Automotive Engineers autonomy level 4 or higher in at least 10 Member States.	Availability of infrastructure for connected cars; e.g. Long- Term Evolution (LTE)-V 5G upgradable.	11 cross border corridors identified by Member States for 5G Cross border pilots for Connected and Automated Mobility. 4 Corridors are used by the 5G PPP projects. Stable standard for LTE V2X available for more than a year, the tests are ongoing with the products.
	New Data framework for connected at upport action from 2015 Transport call c		l energy efficient smart homes.
Baseline 2015	Target 2020		Latest known results 2019
None	The framework is used by 10 major co least 5 different countries	ompanies in at	Overtaken by the data strategy adopted in February 2020.
Result indicator regardless of their of Source of data: Cl		s e-Government se	ervices in any country of the EU,
Baseline	Interim Milestone	Target	Latest known results
2014/2015	2016	2020	2019
CEF Work Programmes 1 and 2 adopted	Launch of 4 sectoral Digital Service Infrastructures (DSIs) reusing building block DSIs (eProcurement, Business Registers Interconnection Systems, European Energy Service Initiative, e-Justice).	All CEF building block DSIs (e- ID, e-Delivery, e-Signature, e- Invoicing, Automated Translation) are effectively reused by all Member States and integrated in all CEF- funded domain- specific DSIs.	The number of projects reusing the CEF building blocks e-ID, e- Delivery, eSignature, e-Invoicing or Automated Translation rose by 50% from Q4 2018 to Q3 2019 (latest available results) to 184.

Main outputs in 2019						
Delivery on legislative proposals pending with the legislator						
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)			
Recast of Directive 2003/98/EC on the re- use of public sector information (REFIT).	Adoption by the co- legislators	Q2 2019	Adopted as Directive (EU) 2019/1024 on 20.6.2019			
All new initiatives / s	ignificant evaluations	s from the Comn	nission Work Programme			
		Townsh	Latast lucasus secults			
Output description	Indicator	Target	Latest known results			
Output description	Indicator	Target	Latest known results			
· ·		-	Dns/operational programmes			
· ·		-				
Important items from	n work programmes/1	financing decisio	ons/operational programmes			

EuroHPC R&I projects	R&I proposals of the EuroHPC Joint Undertaking		for a total EU funding of EUR 95 million, with a similar amount to be contributed by the EuroHPC Participating States.
Selection of hosting entities for the precursors to exascale and petascale supercomputers	Launch of the Call for Expression of interest to host the pre- exascale and the petascale supercomputers	Q1 2019	Three hosting entities were selected for hosting the precursor to exascale supercomputers. Five hosting entities were selected for hosting the petascale supercomputers. The procurement of the supercomputers was launched in 2019, for a total investment in the order of EUR 510 million (EU and Participating States funding).
Other important outp	outs		
Output description	Indicator	Target	Latest known results
Communication on AI: AI-on-demand platform	Launch of the AI-on- demand platform	Q1 2019	The project building the AI-on-demand platform started in Q1 2019.
	1 st version of the platform	Q4 2019	Some functionalities of the platform became available in Q4 2019.
Communication on AI: network of AI Digital Innovation Hubs (DIH).	Launch of 4 large networks of DIHs in robotics	Q1 2019	5 large networks of DIHs in robotics were launched in Q1 2019.
Communication on building human-centric artificial intelligence			Adopted 8.4.2019.
Informative guidance on the implementation of the Free flow of non- personal data Regulation, specifically with regard to the notion of on 'mixed data sets'.	Adoption by the Commission.	Q2 2019 PLAN/2018/4773	Adopted on 29.5.2019.
Cross-border experimentation and pre-deployment projects on Connected and Automated Driving covering regulatory issues and 5G.	Pre-deployment of at least three 5G cross- border corridors through ongoing 5G- PPP projects and call for at least two new projects covering at least two further corridors in the context of the 5G PPP to support further large-scale trials on 5G corridors.	Q4 2019	In total, 4 5G Cross border corridors covered by 3 5G PPP projects. Additional call will be evaluated in January 2020.
Recommendation on the use of pioneer spectrum for 5G large scale testing, cybersecurity and on a data governance framework.	Adoption by the Commission.	Q1 2019 PLAN/2017/1784	The adoption process of the recommendation is suspended due to new developments during 2019 (first of all the rejection of the C-ITS Delegated Act having impact on the connectivity chapter of the Recommendation and the establishment of the CCAM Platform the work of which is relevant to all the 3 chapters of the Recommendation).
5G PPP: launch of set of large scale validation trials/pilots with vertical	Launch of at least 6 trials/pilots in multiple vertical domains	Q2 2019	8 Pilots launched over a pan-European 5G testing facility.

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industry building on the industry large scale validation platform for 5G in Europe.	validating the main 5G KPI's (bandwidth, latency, density, services, security, isolation).		
Better Digital Skills for all Europeans, accompanied by H2020 support.	Implementation of the Digital Opportunity pilot, reaching 4000 students by the end of 2019.	Q4 2019	7200 students (October 2019).
Commission report on "the broader implications for, potential gaps in and orientations for, the liability and safety frameworks for AI, Internet of Things and robotics".	Adoption by the Commission.	Q2 2019	The report was published together with the White Paper on Artificial Intelligence on 19.02.2020.
Amending Commission Implementing Decision amending Decision (EU) 2015/1506 laying down specifications relating to formats of advanced electronic signatures and advanced seals to be recognised by public sector bodies.	Adoption by the Commission.	Q2 2019 PLAN/2018/3464	Postponement to Q4 2020 to allow space for agreement among Member States due to persisting divergences on a number of technical issues and to the need to assess the impact of the possible amendments on the relevant markets.
Amending Commission Implementing Decision (EU) 2016/650 laying down standards for the security assessment of qualified signature and seal creation devices.	Adoption by the Commission.	Q2 2019 PLAN/2018/3465	Postponement to Q4 2020 to allow space for agreement among Member States due to persisting divergences on a number of technical issues and to the need to assess the impact of the possible amendments on the relevant markets.
Providing practical advice, best practices, methodologies and model contracts for data sharing between actors in the European Data Economy	Launch of the Support Centre for data sharing	Q3 2019	The Website https://eudatasharing.eu/ opened in beta version on 15.7.2019 and was officially launched on 14.10.2019.

Specific objective 1.4: All Europeans enjoy effective world-class Related to spending connectivity through future-proof and ubiquitous digital networks and service infrastructures as underlying basis for the digital society and CEF/EFSI/ESIF data economy.

Result indicator 1: Ensure favourable conditions towards full deployment of 5G networks, notably by a 5G PPP investment reaching EUR 700 million matched by 5 times private investment. **Source of data:** Industry roadmaps

Source of data. Industry roadinaps						
Baseline	Interim Milestone		Target	Latest known results		
2015	2017	2020	2022	2019		
Availability of 4 G networks based on 'Long term evolution (LTE)' standards in all	n committed after implementatio	First 5G service introduction in at least 1 Member State	solutions including	- 5G service introductions took place in 8 Member States:, Germany, Ireland, Spain, Italy, Austria, Romania, Finland, UK;		

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Member States EUR 129 million committed as per phase 1 of 5G PPP investment. Result indicator 2: Deploying of Source of data: DEJ Index /Sco Baseline Interim Mi	reboard and industry rep		phase 3 implementation targeting vertical use cases validation, the remaining part of phase 3 to be implemented in 2020. society to socio-economic drivers.
at 30 Mbps (Digital (EU citizens Agenda Europe b) 50% t	 a) 100% coverage at 30 Mbps (EU citizens, DAE target); b) 50% take-up at 100 Mbps (households, DAE target). 		2019 a) The total fixed fast broadband coverage is 83% of households. b) 20% of European households c) Data not yet available. bit ation.
Main outputs in 2019		the legislates	
Delivery on legislative prop			Labort Income
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)
Regulation establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU) No 283/2014.	, j	May 2019	Partial political agreement in March 2019 (subject to agreement on the new multi- annual financial framework).
All new initiatives / signifie	ant evaluations from	m the Commissio	on Work Programme
Output description	Indicator	Target	Latest known results
Important items from work	programmes/finan	cing decisions/o	operational programmes
Output description	Indicator	Target	Latest known results
CEF Broadband fund.	Project pipeline of ongoing fundraising efforts and first projects financed by year-end.	Q1-Q4 2019	In 2019, the Fund signed three projects, including in Croatia and Slovenia, with individual commitments of up to EUR 30 million each (up to EUR 90 million total commitment to date).
CEF Telecom Work Programme 2019-2020 financing projects of common interest in the form of Digital Service Infrastructures and connectivity through the WiFi4EL voucher scheme for loca authorities.	Telecom Work Programme.	Q1 2019 PLAN/2018/4735	Adopted on 14.2.2019, C(2019) 1021, corrigendum of 16.4.2019, C(2019) 2782.
Other important outputs	Indiantor	Townet	I sheet in such as a li
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)
Implementing Decision amendingAdoptionbytheDecision2008/411/EContheCommission.harmonisationofthe3400-3800HHz5GMHz5Gpioneerfrequencyband.		Q1 2019 PLAN/2017/2282	Implementing Decision (2019/235) adopted on 24.1.2019.
		O1 2019	Implementing Decision

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harmonisation of the 24.25-27.5 GHz 5G pioneer frequency band.	Commission.	PLAN/2017/1422	(2019/784) adopted on 14.5.2019; an update of the Decision is needed in view of the ITU World Radiocommunication Conference 2019 results.
Implementing Decision amending Commission Decision 2007/131/EC on allowing the use of radio spectrum for equipment using ultra-wideband technology in a harmonised manner in the Union.	Adoption by the Commission.	Q2 2019 PLAN/2018/3424	Implementing Decision (2019/785) adopted on 14.5.2019.
Implementing Decision on the extension of the Intelligent Transport Systems (ITS) safety- related band at 5.9 GHz.	Adoption by the Commission.	Q3 2019 PLAN/2018/3230	The adoption of the Implementing Decision was postponed to Q2 2020 due to ongoing standardisation work at ETSI regarding the coexistence of road ITS technologies in the band.
AmendmenttoCommissionDecision 2002/622/EC establishinga Radio Spectrum Policy Group.	Adoption by the Commission.	Q2 2019 PLAN/2018/3472	The Commission Decision (2019/C 196/08) was adopted on 11.6.2019.
Council Decision on the Union Position for the ITU World Radiocommunication Conference 2019.	Adoption by the Council.	Q1 2019 PLAN/2018/2865	The Council Decision was adopted on 13.6.2019.
Implementing Decision on amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices (7 th update).	Adoption by the Commission.	Q1 2019 PLAN/2018/3496	The Implementing Decision (2019/1345) was adopted on 2.8.2019.
Implementation of the 5G Action Plan:	 a) Launch of a Call preparing for at least 3 CAM pilot projects to cover additional corridors; 	a) Q3 2019	a) call implemented and projects running.
 a) advanced pre-commercial trials; b) Quarterly reporting on 5G market introduction and progress of preparatory actions; 	b) Implementation of the 5G observatory and of its second phase;	b) Q3 2019	b) 2 nd phase of observatory running.
 c) 5G Release 16 availability (second version of a 5G standard that will allow for new industrial use cases); d) Hand over 5G Pioneer award at 	c) 5G PPP and industry contributions	c) Q4 2019	c) 600 contributions from 5G PPP projects to standards, 5G vertical TF launched to support.
Mobile World Congress 2019.	d) At least 1 award for illustrative 5G European initiative.	c) Q1 2019	d) 5G PPP project MonArch was awarded the GSMA 5G innovation award.
Action Plan for Rural Broadband: a) Update of the Guide on Very High-Speed Broadband; b) Design of a rural broadband project framework in the form of a	Implementation of	a) Q2 2019	a) Update of the Guide awaits finalisation of chapters linked to budget of CEF2 and mapping broadband. New deadline: Q3-Q4 2020.
handbook.	the two actions.	b) Q1 2019	 b) Work on mapping methodology contributed to BEREC Guidelines on Geographic Surveys. Finalisation expected in Q3-Q4 2020 with test phase in 2021.

Specific objective 1.5: A modern, open and pluralistic society building on Europe's cultural diversity, creativity and respect of creators' rights and its values in particular democracy, freedom of expression and tolerance.

Related to spending programmes: H2020, Multimedia Actions, Creative Europe Media, and CEF

Baseline			s in Audiovisual Media Services.	
2012		Target 2020	Latest known results	
	chara an		2014, average calculated based on Member States	
64.1% (average	share on	65% (average share	2014 : average calculated based on Member States reports was 66.57%.	
European level)		on European level). A		
		mature market that	2016: average of 62.41% calculated on a sample of	
		seems to have	55 channels from 11 Member States (5 major	
		reached its level of	channels from each Member State).	
		saturation, so		
		stability to be	The Commission report on the period 2015-19 is	
		expected with a	provisionally scheduled for Q4 2021. (This takes into	
		potential minor	account of the time needed to finalise the independent study that accompanies the report as	
		increase.	required by the Directive.)	
Bocult indicator 2	Shara of Europ	oon works in the satalo	gue of on-demand services.	
			Report on the origin of films and TV series in VOD	
			edition. The calculation was based on sample of 136	
			D was of 146 catalogues from 14 Member States.	
Baseline		Target	Latest known results	
2015		2020	2019	
27% (average share))	30% (average	30% on TVOD and 26% on SVOD (calculated by	
	, ,	share)	titles and/or seasons). The share becomes 27% or	
			TVOD and 20% on SVOD if calculated by films and	
			episodes.	
			in linear broadcast services.	
concerning the prom			ovisions of the Audio-visual Media Services Directive	
Baseline		Target	Latest known results	
2010		2020	2019	
	2)	10% (average	There is no legal obligation to have a share of non-	
0.1 / (average share	8.1% (average share)			
		share).	I HALIOHAI LUIODEAH WORKS, IN 2010, LIELE WAS A	
		share).		
		share).	16.88% share of non-national European works, based on a sample of 55 channels from 11 Member	
		share).	16.88% share of non-national European works,	
Decult indicator 4	Chave of non-n		16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State).	
		ational European works	16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services.	
Source of data: Eur		ational European works ual Observatory – Film a	16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition.	
Source of data: Eur Baseline		ational European works ual Observatory – Film a Target	16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services.	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020	16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019	
Source of data: Eur Baseline	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non- 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV- 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues 	
Source of data: Eur Baseline 2015	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the share (out of the share (out of the share states). 	
Source of data: Eur Baseline 2015 21% (average share	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average share	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the European works share) was of 78%. 	
Source of data: Eur Baseline 2015 21% (average share Result indicator 5:	opean Audiovis	ational European works ual Observatory – Film a Target 2020 25% (average share for web accessibility in	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the share (out of the share (out of the share states). 	
Source of data: Eur Baseline 2015 21% (average share	opean Audiovis New legislation admap for comp	ational European works ual Observatory – Film a Target 2020 25% (average share for web accessibility in leting the DSM.	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the European works share) was of 78%. 	
Source of data: Eur Baseline 2015 21% (average share Result indicator 5: Source of data: Roa Baseline	New legislation admap for comp	ational European works ual Observatory – Film a Target 2020 25% (average share for web accessibility in leting the DSM. Target	 16.88% share of non-national European works, based on a sample of 55 channels from 11 Member States (5 major channels from each Member State). in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non-national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV-on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the European works share) was of 78%. Latest known results 	
Source of data: Eur Baseline 2015 21% (average share Result indicator 5: Source of data: Roa	opean Audiovis New legislation admap for comp	ational European works ual Observatory – Film a Target 2020 25% (average share for web accessibility in leting the DSM.	in the catalogue of on-demand services. and TV content in VOD catalogues – 2019 edition. Latest known results 2019 There is no legal obligation to have a share of non- national European works. For TV-on-demand, based on sample of 146 catalogues from 14 Member States, the share (out of the share of European works) was 55 % if calculated by episodes and 69% if calculated by titles. On SV- on-demand, based on a sample of 136 catalogues from 21 Member States, the share (out of the European works share) was of 78%. place in Member States.	

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Proposal for a Adoption of Directive on the Directive by Accessibility of EP and Public Sector Council. Bodies' Websites adopted in 2012.	Transposition in national law in all Member States (transposition deadline 23.09.2018.)	27 out of 28 Member States have adopted national legislation in transposition of the Web Accessibility Directive. The legislative process in the last Member State is expected to conclude in early 2020.
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Main outputs in 2019:					
Delivery on legislative proposals pending with the legislator					
Output description	Indicator	Target	Latest known results		
All new initiatives / sign	ificant evaluations from	the Commissio	n Work Programme		
Output description	Indicator	Target	Latest known results		
Important items from w	ork programmes/financ	ing decisions/o	perational programmes		
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)		
Reportontheimplementation of the CodeofPracticeonDisinformation and of otheractions included in the April2018Communicationondisinformation.	Adoption by the Commission.	2019 PLAN/2018/3898	The one-year period on the Code of Practice was completed only in Autumn 2019.		
Full implementation of Cultural and Creative Sectors Guarantee Facility, including the top ups from EFSI.	Guarantee Agreements signed up to the ceiling of the Guarantee Facility, including the EFSI top up.	Q4 2019	Agreements signed for the total debt financing of EUR 1.2 billion; loans issued for the value of EUR 340 million. The second top-up moved to 2020.		
Preparatory action 'The development and implementation of a Media Pluralism Monitoring tool in the digital environment'.	Completion of the action.	Q4 2019	A satisfactory Interim Technical Report was presented in September 2019.		
Creative Europe MEDIA Work programme 2020.	Adoption by the Commission.	Q2 2019	Adopted on 23.08.2019.		
Financing Decision on Multi- media Actions (including contracts for Euronews and for Euranet).	Adoption by the Commission.	Q4 2019	Decision pending.		
Other important outputs	;				
Output description	Indicator	Target	Latest known results		

General objective 2: A New Boost for Jobs, Growth and Investment

Impact indicator: Europe 2020 target: Perce investment). Source of the data: Eurostat ⁴³	entage of EU GDP invest	ed in R&D (combined public and private
Baseline 2012	Target 2020	Latest known results 2019
2.00% (Baseline adjusted, before: 2.01%)	3.00%	2.12% (2.12% for the EU28 and 2.19% for the EU27) in 2018.

world lead companies	ler in the digi can grow glob	ital eco ally, dra	ntains its position nomy, where Eur awing on strong o	opean programmes: H2020, CEF digital	
	and public s		start-ups and master the o	digital	
Result indication pursuit of innovation act	tor 1: H2020 to beco excellence by maint	taining at	least the current perce	ion for young companies and dynamic SMEs ntage of H2020 ICT budget dedicated to	
Baseline	Interim Milestone	•	Target	Latest known results	
2015	2017 2	2019	2020	2019	
45%	45%	45%	45 % of the 2020 H2020 LEIT ICT grant budget is allocated to Innovation Actions.	45% of the 2020 H2020 LEIT ICT grant budget is allocated to Innovation Actions (EUR 415.5 million of EUR 926.5 million).	
Result indica Source of da		atform for I	national cybersecurity inc	dustry to cooperate at European level.	
Baseline	Interim Milestone)	Target	Latest known results	
	2017		2020	2019	
None	Contractual Public Private Partnership established and working on Research and Innovation implementation		Industrial cooperation extended to all industrial aspects (standardisation, certification, investment, skills)	Cooperation among stakeholders in the European Cyber Security Organisation Asbl (industry, research, public sector, others) covers inter alia: certification, standardisation, market, investments and international cooperation, cooperation with vertical sectors, support to SMEs and regions, education, training, awareness and cyber ranges, and a vision for strategic investments / innovative technologies.	
the European	Innovation Partnershi	ip on Smar	t Cities and Communities	dissemination of solutions developed under (EIP SCC) and/or H2020. port action from the 2014 Smart Cities call.	
2015	2020			2019	
0 cities			sted replication rate in e projects	46 lighthouse cities and 70 fellow cities from the ongoing and finished Smart Cities Call projects.	
co-creation) a	nd Once Only Large S	Scale Pilot (according to DSM).	ernment activities (including eParticipation, ilot) and 2019 (assessment of the need for	

⁴³ Eurostat periodically revises its published data to reflect new or improved information, also for previous years. The latest published data is available by clicking on 'bookmark'. The 'latest known value' column reflects the data that was available at the time of the preparation of the AARs 2018 and it is the reference point for the AARs of Commission services. Eurostat https://ec.europa.eu/eurostat/databrowser/view/tsc00001/default/table?lang=en

legal measures	legal measures).					
Baseline	Interim Milestor	ne	Target	Latest known results		
2015	2016	2019	2019	2019		
Adoption of H2020 WP 2016-17 with relevant Open Government objectives and calls.	Launch of 4-5 Open Government projects (H2020 WP2016/17) and 1 large-scale pilot to test implementation of Once-Only Principle (OOP) for businesses across borders (H2020 WP 2016/17).	Mid-term review of pilots and OOP pilot.	20 projects launched. Assessment of necessity for legal measures of OOP completed.	8 projects were launched in 2019 for a budget of EUR 31 million. The adoption of the Single Digital Gateway Regulation already provides a very first legal framework for the application of the once-only-principle.		

Main outputs in 2019			
Delivery on legislative propos	als pending with the	egislator	
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)
Regulation establishing the Digital Europe programme for the period 2021 -2027.	Political agreement.	May 2019	Political agreement reached on 13.2.2019. Awaiting outcome of negotiations on the new financial framework.
All new initiatives / significan	t evaluations from th	e Commission Wor	k Programme
Output description	Indicator (e.g. adoption by the Commission; completion)	Target	Latest known results (situation on 31/12/2019)
Commission Recommendation to establish a format for European Electronic Health Record Exchange.	Adoption by the Commission.	Q1 2019 PLAN/2018/3073	Publication of the Commission Recommendation (EU) 2019/243 of 6 February 2019 on a European Electronic Health Record exchange format.
Important items from work pr	ogrammes/financing	decisions/operation	onal programmes
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)
Research and Innovation actions on eHealth, wellbeing and ageing under Horizon 2020 Work Programme 2018-2020.	Launch of 23 H2020 projects	Q4 2019	21 new H2020 projects launched by 1.1.2020.
Reinforced Startup Europe with 7 new projects to benefit 3500 startups and raising EUR 850 million from the market in two years.	Number of startups that benefit from Startup Europe. Capital raised from the market.	- 3500 startups - EUR 425 million raised	7 new projects started 1.1.2020. These project KPIs will feed into the target indicators and results will be known at the end of 2022.
Update of the H2020 Work Programme 2018-20 including Societal Challenges and international engagements (Digital for Development).	Adoption by the Commission.	Q2 2019	Adopted on 2.7.2019 (C(2019)4575).
· · ·			23 Member States signed

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Innovation Radar platform in line with the input received from signatory countries of the Innovation Radar declaration and engagement with the Investor community.	new functionality to the IR platform (website and smartphone apps).		the Innovation Radar declaration. 7000 EU funded innovations analysed and tracked in the radar. 'Market creation potential' indicator introduced.
H2020 - Societal challenges calls.	Timely launch of 2 calls (budget: EUR 87 million).	Q4 2019	Four calls for Societal Challenge 1 and one call for Societal Challenge 6 (health) were launched.
H2020 IoT pilot in smart homes and smart grids.	Launch of the project.	Q1 2019	The H2020 InterConnect project was launched on 1.10.2019.
Other important outputs			
Output description	Indicator	Target	Latest known results
Implementation of the Digital Agenda for Western Balkans (DAWB).	Results announced at the Digital Summit in Belgrade.	Q2 2019	Regional Roaming Agreement signed in June 2019.
Green Digital Charter (GDC) 4.0.	New charter with 25% more signatories compared to the current Charter.	Q3 2019	The Green Digital Charter is no longer pursued since the relevant objective and activities are taken up by the Green Deal.
Full implementation of the One Stop Shop for startups in Europe.	Number of unique visitors to the One Stops Shop and presence in social media.	10K uniquevisitorspermonth,40Ktwitterfollowers,40KFacebookgroupmembers.	Startup Europe one stop shop relaunched 4/2/20 in an upgraded website called Startup Europe Club. New visitor's statistics is in process of being gathered. @startupEU has 30 000 twitter followers.

opportunities for flagships, in partice and using Private P		preakthroughs an 1 2020 programm	d programme: H2020 e	
Result indicator 1: Future and Emerging Technologies: Number of publications in peer-reviewed high-impact journals per EUR 10 million of EU funding (defined in H2020 Specific Programme Regulation). Source of data: Reporting done by H2020 beneficiaries via Common Grant Management System (SYGMA) available through CORDA (RTD/CSC).				
Baseline N/A	Target 2020: The target was set on t for overall number of publicat the share of publications in his	Latest known results 2019		
N/A (new approach adopted under H2020)	25 per EUR 10 million		26.7 per EUR 10 million.	
Result indicator 2: Reinforcing industrial partnerships and strengthened cloud and software research that will enable technological capacity building and wide take up of cloud in Europe. Source of data: The Strategic Research and Innovation Agenda to be developed by stakeholders by mid-2016 - COMPASS / SYGMA.				
Baseline 2014	Interim Milestone 2018	Target 2020	Latest known results 2019	
EUR 174 million investment from	EUR 314 million	EUR 384 million (cumulative).	From 2014 to 2019, 76 projects (EUR 253 million) were funded in	

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H2020 calls 2014/16	(cumulative).		Further leveraging public funding to secure additional private investments and potential ESIF funding.	the areas of Cloud and Software, of which 11 are specifically supporting international cooperation. In 2019, the only call in the Cloud domain resulted in funding of 7 projects (EUR 30.93 million).	
Result indicator 3: Leve Source of data: Interna					
Baseline	Interim Mileste		Target	Latest known results	
2014	2017		2020: target agreed date the inception of the cPPPs.	2019	
Level of private funding in Research and Development			natching at least EU funding at least 3 times the		
up to 1 Thz for mobile co	mmunications, an 20 Future Intern	d invent nove et WP2016/1 2016/17.	l architectures and syst	es, exploit spectrum above 90 Ghz tems for wireless communications. ies consultations for WP2016/17, Latest known results	
2015	2017	Jile	2025	2019	
EUR 18 million for Networking research Beyond 5G; Long term R&D to support the 1000+ constituency that forms the European Technology Platform. Result indicator 5: Ind			EUR 200 million (cumulative) to be commensurate with required efforts to develop technologies beyond 5G. tion Internet. Maximise	EUR 62 million committed for Beyond 5G so far. e the impact of the current PPPs by	
	outcomes into a l f important Europ	Next Generati ean value bey	on Internet objective.	As a very large innovation policy	
Baseline	Interim Mileste		Target 2020	Latest known results 2019	
2016 Concept development	2017 Start developing the industrial strategy and policy support ecosystem. Allocation of funds.	2019 Interim outcomes European industry policy impact.	Adoption of the industrial strategy for the Next Generation Internet.	The Next Generation Internet Initiative invested about EUR 250 million between 2018 and 2020, with about 140 projects running in the fields of privacy and trust, search and discovery, blockchain and decentralised architectures.	
Result indicator 6: Pate Technologies (FET) and L Source of data: CORDA	eadership in Enab	ling and Indu	strial Technologies (LEI	020 grants for Future and Emerging T).	
Baseline 2014	Target 2020: The target was defined in the Horizon 2020 Specific Programme			Latest known results 2019	
N/A (new approach adopted under H2020)	The following targets were defined: a) LEIT ICT: 3 patent applications per EUR 10 million funding; b) FET: 1 patent application per EUR 10 million funding.			 a) LEIT ICT: 1.30 patent applications per EUR 10 million funding; b) FET: 1.25 patent applications per EUR 10 million funding. 	
Result indicator 7: I Organisations in the Activ Source of data: Cordis	ve & Assisted Livir	ng Programme	and H2020 Societal Ch		

Baseline	Target	Latest known results
2015	2020	2019
EUR 28 million	EUR 160 million (the expected leveraged investment from SMEs, industry, public bodies and non- governmental organisations in the Active & Assisted Living Programme and H2020 Societal Challenge 1 topics, estimated on the basis of the used co-funding instruments).	EUR 89 million AAL + EUR 41 million H2020 = total EUR 130 million

Main outputs in 2019				
Delivery on legislative proposals pending with the legislator				
Output description	Indicator	Target	Latest known results (situation on 31/12/2019)	
Regulation establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination.	Political agreement	May 2019	The European Parliament endorsed the provisional agreement reached by the co-legislators on Horizon Europe (2021-2027) in May 2019.	
All new initiatives / significa	ant evaluations from	the Com	mission Work Programme	
Output description	Indicator	Target	Latest known results	
Important items from work	programmes/financ	ing decisi	ons/operational programmes	
Output description	Indicator	Target	Latest known results	
			(situation on 31/12/2019)	
Update of the H2020 Work Programme (WP) 2018-20 to reflect emerging political priorities: - Artificial Intelligence; - Next Generation Internet / Blockchain; - Excellent Science (FET, e- infrastructures); - Industrial Leadership (LEIT ICT, LEIT ICT ECSEL); - Cross-cutting activities.	Adoption by the Commission	Q2 2019	Work Programme update adopted on 2.7.2019, C(2019)4575. FET WP update was adopted in Q2 2019 and included a call on human centric next generation artificial intelligence.	
Revision of the H2020 Work Programme 2018-20 for the new European Innovation Council pilot.	Adoption by the Commission.	Q2 2019	Work Programme adopted. The reinforced EIC pilot launched in spring 2019, with the inclusion of FET open (moved to DG RTD responsibility) and FET proactive (still DG CONNECT responsibility). Due to new political priorities (AI, Green deal) the part of the WP 2020 is to be revised and is expected to be adopted early 2020.	
H2020 - Excellent Science calls.	Timely launch of 2 calls (budget: EUR 36.5 million).	Q1 2019 & Q3 2019	5 FET calls, 3 on Research infrastructures & 1 on Future batteries launched (1 call in Q1, 4 calls in Q3 & 4 calls Q4) as finally scheduled in the modified WP.	
H2020 - Industrial Leadership calls.	Timely launch of 4 calls (budget: EUR 629 million).	Q1 2019 & Q3 2019	1 Security Union-ICT, 2 Digitising and transforming Industry and 3 ICT calls were launched (4 calls in Q3 and 2 calls in Q4) as finally scheduled in the modified WP.	

FET-Flagships: the Graphene Flagship and the Human Brain Project.	Preparation of Specific Grant Agreements for the fourth phase of the Flagships (EUR 300 million).	Q4 2019	Grant preparation ongoing and expected for completion on time by Q1 2020, with a budget of EUR 320 million.
Preparatory actions providing inputs for the future Horizon Europe strategic planning.	Signature of Grant agreements for up to 6 preparatory actions under Horizon 2020 (EUR 6 million).	Q1 2019	All grants signed on schedule. Actions now up and running.
FET Large scale initiative on future batteries technologies - Community building and road mapping action.	Signature of Grant agreement (EUR 0.5 million).	Q2 2019	Grants signed on schedule. Actions now up and running.
Other important outputs			
Output description	Indicator	Target	Latest known results