

Annual Activity Report 2022

Annexes

Joint Research Centre

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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 framework (¹), 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.'

29/03/2023

(signed)

Sabine Henzler

^{(&}lt;sup>1</sup>) C(2017)2373 of 19.04.2017.

ANNEX 2: Performance tables

General objective 7: A modern, high-performing and sustainable European Commission				
Impact indicator: Image of the European Union Source of the data: <u>Eurobarometer</u>				
Baseline	Interim Milestone (²)	Target	Latest known results	
(2019)	(2022)	(2027)	(2022)	
43% (EU27)	Increase	Increase	47%	

Specific objective 7.1: The JRC supports evidence-informed policymaking through creating and managing high-quality and fit-for-purpose scientific knowledge <i>Related to spending programme(s): Horizon Europe and Euratom</i> Result indicator: Proportion of peer-reviewed publications in the top 10% most-cited journals Source of the data: Abstract and citation database of peer-reviewed literature Scopus [®]				
Baseline (2019)	Interim Milestone	Target (2024)	Latest known results (2022)	
46%	> 40%	> 40%	45% ³	
	tor: Field-weighted citation i e data: Abstract and citation		ewed publications reviewed literature Scopus®	
Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2022)	
2	> 2	> 2	1.934	
Result indicator: Number of innovations and scientific results addressing specific EU policy priorities Source of the data: JRC internal process				
Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2022)	
340	> 300	> 300	482	

² In case of short- or medium-term objectives (all targets are set to be achieved in less than 3 years) the milestones column should be deleted from the table.

- ³ Data extracted on 14/02/2023. At time of extraction, 2022 was still marked as incomplete therefore data may vary.
- ⁴ Data extracted on 14/02/2023. At time of extraction, 2022 was still marked as incomplete therefore data may vary.

Result indicator: Level of satisfaction with JRC's science services Source of the data: JRC customer survey				
Baseline	Interim Milestone	Target	Latest known results	
(2019)	(2022)	(2024)	(2022)	
88%	> 80%	> 80%	87%	
Result indica	tor: Level of satisfaction wit	h timeliness of so	ience services	
Source of the	e data: JRC customer survey			
Baseline	Interim Milestone	Target	Latest known results	
(2019)	(2022)	(2024)	(2022)	
86%	>80%	>80%	96%	

Main outputs in 2022:				
New policy initiatives				
Output	Indicator	Target	Latest known results (situation on 31/12/2022)	
Related to GO1 - European Green Deal	1			
Evolving the chemicals acquis towards a simpler and better regulatory framework (Revision of Regulation (EC) No 1272/2008 on classification, labelling and packaging)	Information provided to the lead DG	Q4	Q4	
Monitoring data analysis of substances which are on the Watch List (Integrated water management – revise lists of surface and groundwater pollutants)	Technical report delivered	Q4	Q4	
Regional and urban dimensions of air quality (Revision of EU ambient air quality legislation)	Technical report delivered	Q3	Q3	
Contribution to the Euro 7 vehicle emission standards (Development of post-Euro 6/VI emission standards for cars, vans, lorries and buses)	Information provided to the lead DG	Q3	Q3	
Technical review of CO2 emissions from heavy-duty vehicles (Review of the CO2 emission standards for heavy-duty vehicles)	Technical report delivered to main policy DG	Q2	Q2	
Scientific support to the enhancement of the GHG inventories (Carbon removal certification)	Information provided to the lead DG	Q3	Q3	
Design of bio-based indicators (Policy framework for bio-based, biodegradable and compostable plastics)	Technical report published	Q2	Q2	
Related to GO2 - A Europe fit for the digita	al age			

Output	Indicator	Target	Latest known results (situation on 31/12/2022)	
Analysis of potential supply chains bottlenecks in strategic sectors in the energy, defence and ICT domains (European chips act)	Technical report published	Q3	Q1 2023	
New achievements in implementing traditional forensic methods (e.g. fingerprinting, DNA extraction) in nuclear environment (Roadmap on security and defence technologies)	Summary report published	Q1	Q1	
Support to the implementation of research, development and innovation actions to evolve the EU GOVSATCOM capability (Building an EU space-based global secure communication system)	Technical report published	Q3	Q2	
Update of the Digital Competence framework for citizens towards version DigComp 2.2 (Recommendation on improving the provision of digital skills in education and training)	Technical report published	Q1	Q1	
Development of a quantitative tool to evaluate the proposed measures in terms of transport costs and modal shift (Multimodal digital mobility services)	Validated methods, reference methods and measurements	Q4	Q4	
Related to GO3 - An Economy that works fo	or people			
Analysis of international tax rules and of policy options (Proposal on implementation of the OECD global agreement on re-allocation of taxing rights)	Report published	Q4	JRC did not provide any analytical input, as no specific request for analysis was required.	
Effectiveness of minimum income schemes to address poverty in the EU and simulations of possible reforms (Recommendation on minimum income)	Technical report delivered	Q4	Q4	
Analysis of impact on women's labour supply of alternative childcare policies (Council Recommendation on the revision of the Barcelona targets on early childhood education and care)	Technical report delivered	Q3	Q3	
Analysis of macro impacts of policy options to address the debt-equity bias in corporate taxation (Council Directive on laying down rules on a debt-equity bias reduction allowance and on limiting the deductibility of interest)	Technical report delivered	Q2	Q2	
Related to GO4 - A stronger Europe in the world				

Output		Indicator	Targe		atest known results ituation on 31/12/2022)	
Report of best practices and assessment of regional risk assessments (New strategy on international energy engagement)		Report published	Q4	re im su 20	1 (The original 'best actices report' was placed by the report on apact of long-term gas apply disruptions on the D22 European gas system agreed with DG ENER.)	
Related to GO5 - Promoting our Eu	r <mark>ope</mark> an v	vay of life				
Analysis of impact on women's labour supply of alternative childcare policies (European Care strategy - Council Recommendation on the revision of the Barcelona targets on early childhood education and care)		Technical report delivered	t Q3	Q	3	
Related to GO6 - A new push for Eu	Iropean	democracy				
Development of systems for monitoring sentiment values and emotions in published text (Strengthening the role and independence of equality bodies)		Report published	Q4		The JRC did not support this initiative by its work.	
Evaluations and fitness check	ks					
Output		Indicator		Target	Latest known results (situation on 31/12/2022)	
Support for the establishment of the European Green Deal data space; Data Spaces Cookbook (GreenData4All - Revision of the infrastructure for spatial information in the European Community (INSPIRE) Directive and the public access to environmental information Directive)		Technical report published	ts	Q4	Q2	
External communication action	ons		I			
Output	Indicato	r	Target		known results on on 31/12/2022)	
· 3· 1· · · · ·		of mentions in a monitoring	10	were pu them w to med their su outread report p organiz	ree JRC flagship reports ublished in 2022. Two of vere not promoted widely ia due to sensitivity of ubject. However specific ch event launch and presentation were red for the users of the dge of the reports.	

Output	Indicator	Target	Latest known results (situation on 31/12/2022)
The #EUKnowledge4SDGS campaign	Number of readers/ listeners of the launch event	100	Communication campaign was limited to the launch of the Knowledge Centre 2021
	Number of contacts made during the campaign	50	
	Number of visits of the dedicated website	50	
	Number of mentions in the media monitoring	10	
Launch of the Annual Foresight Report	Number of mentions in the media monitoring	10	21
	Number of interactions (cumulative for all above outputs)	45 000	19,704 impressions on the JRC's social media channels 1911 views of two Science Hub articles (each media mention could mean thousands of views)
JRC monthly newsletter	Number of subscribers	26 500	27,400
Commissioner's monthly newsletter	Number of subscribers	4 200	5390
JRC mentioned in press	Number of mentions in the media monitoring	12 000	13 367
Science Flash For You national newsletters	Number of subscribers	5 000	6.987
Other important outputs	1		
Output	Indicator	Target	Latest known results (situation on 31/12/2022)
Responses to digital disinformation as part of hybrid threats: a systematic review on the effects of disinformation and the effectiveness of fact- checking/debunking	Article published	Q1	Q1
Global Energy Climate Outlook 2021	Report published	Q1	Q1

The Observatory on Critical Technologies Civil-Space- Defence	Launch of observatory	Q1	Launch of the Observatory was postponed by agreement with DG DEFIS.
Improving the evaluation of gamma spectra using Artificial Intelligence for nuclear safeguards and nuclear security	Report published	Q4	Work is still ongoing and planned to deliver in Q4 2023
Analysis of the costs and benefits of chemical risk management measures along the food chain, with a view to informing a holistic assessment of food sustainability	Report published	Q3	Q1
Cooperation agreement with the UN Scientific Committee on the Effects of Atomic Radiation	Agreement signed	Q2	Agreement still in preparation
Knowledge Centre on Biodiversity's Actions Tracker and targets dashboard	Actions Tracker and Biodiversity targets dashboard updated	Q4	Q4
Agreement between the European Commission and European Space Agency on nuclear	Agreement signed	Q4	Q1
Support to the implementation of the Nuclear Safety directive (Akkuyu nuclear power plant, EU-wide peer review on fire safety nuclear of nuclear installations)	Contributions on stress tests delivered to DG Energy	Q4	Q4
Support to the Strategic Agenda for Medical Ionising Radiation Applications (SAMIRA)	Proposals for the next Euratom indirect actions call delivered	Q4	Q4
Competence building through the Exploratory Research (ER) Programme	% of thematic priority areas addressed with Exploratory Research projects	60%	70%
	Number of running ER projects	> 15	27
	JRC scientific staff actively involved in the exploratory Research community (ER&CAS) Programmes	> 3%	3.5% JRC Scientific Staff was actively involved in Exploratory Research programmes (ER, CAS, SciArt and CDP)

		-	-
Projects of the Centre of Advanced Studies (CAS)	Number of implemented CAS projects	5	5
	number of high-level experts engaged with CAS	>35	60 fee paid experts including 27 for SciArt as well as over 15 invited experts for seminars and smaller workshops.
Science and Art (SciArt) projects	Number of artists	Between	27
EUSA Talks: Stimulating/state of the art	participating in summer school	8 and 12	
	Number of scientists	> 25	33
	participating in summer school		
	Number of participants per talk	> 50	On average 85
Open Access to JRC Research Infrastructures	Number of RIs engaged in the programme	>20	17 JRC held discussions with ECVAM, VELA and MEL labs. Due to JRC reorganisation the labs preferred to wait to engage in the programme until 2023.
	Percentage of access delivered in the programme	20%	10% This percentage is lower because in 2022 only one call was opened for some labs, that were waiting for more clarity on COVID restrictions at the beginning of the year. The calls were also opened at the end of the year so the results on access are seen 6 months down the line.
Evaluation of the JRC in Horizon 2020 and the Euratom Research and Training Programme	Report published	Q3	Q2
Implementation of the preparatory action 'Advancing evidence for policy at Union, regional and local level'	Events, training and pairing schemes	20+	40+
Earth Observation for Biodiversity	Case study on Earth Observation for Biodiversity	Q4	Report ready – To be published in Q1 2023 following review of involved policy DGs

The Africa Knowledge Platform	Presentation of the Africa Knowledge Platform (AKP) during the EU-Africa Summit 2022	Q1	Q1
Report on territorial disparities and opportunities across European locations for improving policies	Report delivered	Q2	Q2
Partnerships for Regional Innovation Pilot action launched in partnership with COR	Territories involved	25	39 individual applications accepted, 74 EU territories involved.
Full development of the Monitoring Transport Infrastructures with Connected and Automated Vehicles (MITICA) testing site, and workshop on indirect structural health monitoring techniques	Workshop, report and testing site development	Q2	Q2
Capacity-building events in Cambodia (24-25 March 2022) and Brunei (5-6 July 2022) within the E- READI Eurocodes Dialogue.	Event organisation	Q4	Q4
Security by Design: Protection of public spaces from terrorist attacks	Technical report published	Q4	Q4

Specific objective 7.2: The JRC operates modern, sustainable and open research campuses

Related to spending programme(s): Horizon Europe, EURATOM

Result indicator: Proportion of surface area compliant with energy standards Source of the data: JRC internal indicator and Directive 2012/27/EU

Baseline (2018)	Target (2024)	Latest known results (situation on 31/12/2022)
Geel : 29 423 sqm (74.3% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	Increase of 3% of surface compliant with energy standards	Target was not achieved due to the reduced infrastructure investments budget in 2022, impacted by the increased cost of the labour market and the most notably the cost of energy. A number of planned investments in accordance to the sites development plans was halted or postponed. The projects aimed to ameliorate the energy efficiency and standards of the buildings at the Geel site are starting in 2023 as a result of an internal prioritisation of the investments in view
		prioritisation of the investments in view of the reduced budget.

Ispra : 98 661 sqm (61% of built surface area) not compliant with energy standards according to Directive 2012/27/EU.	Increase of 3% of surface compliant with energy standards	Refurbishment works underway on building 48. External thermal insulation added to buildings 58c-45. New PV planton buildings 1 and 28f.
Karlsruhe: 31 637 sqm (77% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	Increase of 23% of surface in comparison to 2012, compliant with energy standards requiring an increase of energy performance of at least 1,5% per year. The Karlsruhe's increase of 23% will cover the period until 2027 included.	In Karlsruhe, 31,657 sqm of older existing buildings (Wing A-B-D-E-F-G-H) are out of the range of the national minimal standards in terms of energy efficiency on the basis of article 5 of the Directive 2012/27/EU. 9498 sqm of more recent buildings are compliant (Wing NCO in 2013: 7927 m2, Wing R+S in 2015: 1571 m2). The improvement of the Energy Performance of the site increased by 23% in 2016 in comparison to 2012. This has accelared the increase of performance according the Directive 2012/27/EU covering the next 15 years for improvement. Additionally, considering the compliant energy performance of Wing M with a surface of ca. 8500 sqm, once the building will be terminated by 2027 the energy improvement of the site will be increased of additionally 11.5%. Thus, though Karlsruhe is not improving on yearly basis, its energy performance requalification is above (quicker) the minimum required by the Directive 2012/27/EU.
Petten : 19 981 sqm (100% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	Increase of 3% of surface compliant with energy standards	All buildings comply with the regulation of the Netherlands. 7 buildings (13472 sqm) have an Energy Label A. Two buildings (6137 sqm) have an Energy Label B. Reduction of the energy consumption of buildings (kWh/sqm) 2021: -20 % (baseline 2018). 2022: -32% (baseline 2018).
Seville : 7 698 sqm (100% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	EXPO building is not affected by the scope of the Directive (EPGASA dose not have the consideration as "Administrative Body")	EXPO building is not affected by the scope of the Directive (EPGASA does not have the consideration as "Administrative Body") however the landlord has made several actions (i.e. replacement of electrical transformer)) to improve the energy performance of the EXPO building

Main outputs in 2022:			
Other important outpu	ıts		
Output	Indicator	Target	Latest known results
Geel : Refurbishment and adaptation of the conference centre following the New European Bauhaus approach	ne tre following		Design ready by Q2 2023
Geel : Safety and security improvements	% completion of a fence around Building 40	100%	Start works February 2023
Geel : Renewal electricity and data cabling for site perimeter	% completion	100%	Start works March 2023
Ispra: Refurbishment of the tri-generation plant	% completion of the construction of the hosting building	100%	20% The construction of the hosting building will start in Q1 2023 and complete before the summer 2023. By the end of 2022, only the foundations were partly completed, this does not delay the overall project.
Ispra : Finalisation of the Citizens' Space/new Visitors Centre	% completion	100%	100%
Ispra : Renovation of the sewage system	Sewage Lines (waste/rainwater drainage) Via Francia from Via Germania towards Via Irlanda.	100%	100%
Karlsruhe : Construction of the nuclear facility 'Wing M', including hot laboratories	Wing M 1.0: final consensual termination of the project on Dec 2022.	100%	Successful negotiation leading to a consensual termination of the contract with the 3 Lots in charge of the project Wing M 1.0 achieved on 21.12.2022.
	Wing M 2.0: The technical specifications for (3 calls for tenders) are to be finalised by the contractor by end of Feb 2023.		Signature of the contract for the preparation of the technical documentation for new call for tenders concerning the technical building equipment for Wing M 2.0 (civil works being completed except minor measures to be executed after installation of the technical systems).
Petten : Construction of a new entrance building	Complete the final stages of the engineering phase	Engineering study delivered	Engineering study was delivered in 2022.

Output	Indicator	Target	Latest known results
		Q2 2022	
		Launch of tender procedure Q3 2022	The tender has not been launched in 2022 due to delay in the confirmation of the budget and the requirement to follow the Procedure Immobiliere.
Petten: New fence	Contract Award	100%	The tender has not been launched in 2022 due to needed clarification of details with regard to the finalization of the Tech. Specs.
Seville: New Commission	Architectural Contest; Awards and	100%	100%
building	signature of contracts		
Conference centre	% completion	100% - operational 20 2022	100%
New collaborative dynamic	% completion		
space including facilities for hybrid working		100% - operational 1Q 2022	100%

Specific objective 7.3: The Commission has appropriate capacity to manage risks related
to intellectual property (IP) rights and be compliant with the rules and regulations

Related to spending programme(s): Horizon Europe and Euratom

Result indicator: Proportion of DGs introducing IP assets in EURECA **Source of the data:** EURECA IT platform

Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (situation on 31/12/2022)
0	70%	100%	77.5% 31 DGs out of 40 have introduced a total of 864 assets.

Main outputs in 2022: Other important outputs

other important outputs					
Output	Indicator	Target	Latest known results (situation on 31/12/2022)		
Trade mark strategy for the Commission	Delivery of a draft strategy and launch of an inter service group	Q3	In Q4 a presentation outlining the strategy was made to the IP correspondents network; on track for adoption in 2023.		
Raising awareness on IP management with Commission staff	Number of staff trained	Maintain 2021 results	723 EC staff trained in 2022, some 30 persons less than in 2021.		
Improved accessibility of available information on IP management	Revised dedicated webpage IP management	Number of visits to website/ number of page views to exceed the figures of 2021	Postponed because MyIntracomm will change to Sharepoint; preparation to do so for the dedicated webpage IP management has started.		
Implementing the Commission decision on the open source licensing and reuse of Commission software (cooperation with DG DIGIT)	Discussion of draft guidelines in inter service group Organise information sessions	Q1 Minimum two by Q2	Q1 Training sessions held in April, June, October and November.		
Introducing guidelines on publications	Discussion of draft guidelines with IP Correspondents Network, adoption	Q1	Q1 Guidelines adopted in Q2		
Impact case studies	Delivered	10	10		

General objective 1: The European Green Deal

Impact indicator: Greenhouse gas emissions

Explanation: This indicator measures man-made emissions of the so-called 'Kyoto basket' of greenhouse gases, which are integrated into a single indicator expressed in units of CO2 equivalents using each gas' global warming potential. It shows changes in percent of the emissions compared to 1990 levels

Source of the data: European Environmental Agency/Eurostat online data code: sdg_13_1

Baseline	Interim Milestone (2022)	Target	Latest known results
(2018)		(2030)	(2022)
-23%	-23%	-55% of net GHG emissions	-31% of GHG emissions - 34% of net GHG emissions (i.e. including emissions and removals from land use, land use change and forestry

Specific objective 1.1: The JRC progressively decommissions its disused nuclear facilities and safely disposes of its radioactive waste

Related to spending programme(s): Decommissioning and waste management

Result indicator: Progress in finalisation of waste treatment routes and waste management facilities in Ispra

Source of the data: JRC internal indicator

Baseline	Interim Milestone (2022)	Target	Latest known results
(2019)		(2024)	(2022)
44%	77%	100%	55% Two facilities supposed to enter in operation in 2022 will be commissioned later due to the COVID-related delays and the termination of one of the contracts.

Result indicator: Progress of characterisation and removal of legacy Low Level Waste (LLW) at JRC Karlsruhe (backlog campaign) **Source of the data:** JRC internal indicator

Baseline (2019)	Interim Miles (2022)	tone	Target (2024)		Latest known results (2022)	
	Declaration	Removal	Declaration	Removal	Declaration	Removal
0%	60%	50%	85%	75%	62%	35% The 2022 Interim Milestone could not be met, as the new building of the external waste treatment facility KTE was not ready for acceptance in 2022

Result indicator: Progress of waste management and removal in JRC Petten **Source of the data:** JRC internal indicator

Baseline	Interim Milestone	Target	Latest known results (2022)
(2019)	(2022)	(2024)	
0%	30%	60%	1% Removal of waste in Petten is externalised and managed by the appointed operator (NRG) and the National operator managing waste disposal (COVRA). The 2024 target is contractually binding

Result indicator: Progress of waste management and removal in JRC Geel **Source of the data:** JRC internal indicator

Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2022)
0%	10%	50%	5% No progress due to lack of human resources. Waste manager position is vacant since November 2021.

Result indicator: Proportion of budget consumption according to the decommissioning budget line planning

Source of the data: JRC internal indicator

JRC Site	Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2022)
Ispra	0%	11%	20%	11%
Karlsruhe	0%	4%	7%	4%

General objective 1 - the European Green Deal

Specific objective 1.1 – The JRC progressively decommissions its disused nuclear facilities and safely disposes of its radioactive waste

Related to spending programme(s): Horizon Europe and Euratom

Main outputs in 2022:

Other important outputs

Output	Indicator	Target	Latest known results (situation on 31/12/2022)
Geel: Transport of 1st batch (reference materials) of nuclear material	Transfer of 1st batch executed	Q2	Q2 2023
Preparation of 2nd batch for removal of nuclear material	Transport mode, containers and timeline defined	Q4	Q4
Petten: Implementation of the framework contract established in 2021 to remove and dispose historical waste	Preparation of contractual arrangement with Nuclear Research Grop for the 1st batch	Q3	Q1 2023
Karlsruhe: Update declaration of LLW legacy packages (backlog campaign)	% updated waste package declarations	100%	62 % The Interim Milestone of 2022 could not be met, as the new building of the external waste treatment facility KTE was not ready for acceptance
Ispra: Treatment of the bituminised drums waste stream	Signature of a contract for off- site treatment	Q3	Q2 2023
Super-compaction treatment of waste	Transfer the first batch to super-compaction plant	Q4	Q1 2023
Transfer and storage of waste to Interim Storage Facility (ISF) at	Transfer of first batch of unconditioned Very Low Level Waste to ISF	Q2	Q3
Cyclotron decommissioning	Submission of the decommissioning application to competent authorities	Q3	Q3 2023
Management of irradiated nuclear material	Feasibility studies related to the off-site long term storage of nuclear material available	Q3	50% achieved 50% in Q1-2023
Management of non-irradiated nuclear material	Signature of a contract for the outsourcing of part of the nuclear material inventory	Q4	Q4

General objective 1 - the European Green Deal

Specific objective 1.2 – The JRC establish links and tools for nuclear decommissioning knowledge sharing and dissemination with stakeholders in the Member States

Related to spending programme(s): Horizon Europe and Euratom

Main outputs in 2022:									
New policy initiatives									
Output	Indicator	Target	Latest known results (situation on 31/12/2022)						
Platform for dissemination of knowledge on operational nuclear decommissioning	Prototype available	Q4	Q4						

ANNEX 3: Draft annual accounts and financial reports

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

Table 16 : Commitments co-delegation type 3 in 2022

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TABLE	1: OUTTURN ON		ROPRIATIONS IN 20	22 (in Mio €) for DG	JRC
			Commitment appropriations authorised	Commitments made	%
			1	2	3=2/1
		Title 01 Researc	ch and Innovation		
01 07	1 01	Support administrative expenditure of the "Research and Innovation" cluster	148.23	105.23	70.99 %
0,	1 02	Horizon Europe	121.13	37.59	31.03 %
0,	1 03	Euratom Research and Training Programme	37.41	8.22	21.96 %
0'	1 20	Pilot projects, preparatory actions, prerogatives and other actions	458.49	52.72	11.50 %
Total Title 01			765.27	203.76	26.63 %
	Ti	tle 02 European S	Strategic Investment	s	
02 02	2 04	Digital Europe programme	0.00	0.00	0.00 %
02 02 Total Title 02	2 04		0.00 0.00	0.00 0.00	0.00 % 0.00 %
	2 04	programme			
Total Title 02	3 02	programme	0.00		
Total Title 02		Title 03 Single Market	0.00 ingle Market	0.00	0.00 %
Total Title 02 03 03		Title 03 Single Market	0.00 ingle Market 0.10	0.00	0.00 %
Total Title 02 03 03 Total Title 03		programme Title 03 S Single Market Programme	0.00 ingle Market 0.10 0.10	0.00	0.00 %
Total Title 02 03 03 Total Title 03	3 02	programme Title 03 S Single Market Programme Title 04 Space programme of the	0.00 ingle Market 0.10 0.10 0.10 Space	0.00 0.10 0.10	0.00 % 100.00 % 100.00 %
Total Title 02 03 03 Total Title 03 04 04	3 02	programme Title 03 S Single Market Programme Title 04 Space programme of the Union	0.00 ingle Market 0.10 0.10 0.10 0.13	0.00 0.10 0.10 16.13	0.00 % 100.00 % 100.00 %
Total Title 02 03 03 Total Title 03 03 04 04 Total Title 04 04	3 02	programme Title 03 S Single Market Programme Title 04 Space programme of the Union	0.00 ingle Market 0.10 0.10 0.10 0.10 0.10 0.10 16.13 16.13	0.00 0.10 0.10 16.13	0.00 % 100.00 % 100.00 %

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	06 07	Emergency support within the Union	0.00	0.00	0.00 %
Total Title 06			4.00	4.00	100.00 %
		Title 08 Agriculture	e and Maritime Polic	у	
08	08 02	European Agricultural Guarantee Fund (EAGF)	6.24	5.40	86.60 %
Total Title 08			6.24	5.40	86.60 %
		Title 09 Environme	nt and Climate Actic	'n	
09	09 02	Programme for the Environment and Climate Action (LIFE)	0.07	0.07	100.00 %
Total Title 09			0.07	0.07	100.00 %
		Title 12	Security		
12	12 01	Support administrative expenditure of the "Security" cluster	2.31	2.31	100.00 %
	12 04	Nuclear Safety and decommissioning including for Bulgaria and Slovakia	33.30	32.91	98.82 %
Total Title 12			35.61	35.22	98.90 %
	Title 20	Administrative expendi	ture of the Europea	n Commission	
20	20 04	Information and communication technology related expenditure	1.11	1.10	99.16 %
Total Title 20			1.11	1.10	99.16 %
Total Excludir	ng NGEU		828.53	265.78	32.08 %
			1		<u> </u>
		· · · · · · · · · · · · · · · · · · ·			

Total DG JRC 828.53 265.78 32.08 %
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^{*} 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).

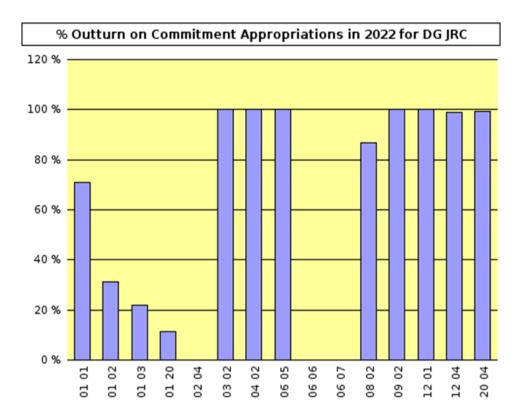


	TABLE	2: OUTTURN ON PAYME		NS in 2022 (in Mio €)) for DG JRC
			Payment appropriations authorised *	Payments made	%
			1	2	3=2/1
		Title 01	Research and Inn	ovation	
01	01 01	Support administrative expenditure of the "Research and Innovation" cluster	224.87	104.68	46.55 %
	01 02	Horizon Europe	129.78	42.67	32.88 %
	01 03	Euratom Research and Training Programme	36.64	8.31	22.69 %
	01 20	Pilot projects, preparatory actions, prerogatives and other actions	328.41	39.52	12.03 %
Total Title 01	·	·	719.70	195.19	27.12%
		Title 02 E	uropean Strategic I	nvestments	
02	02 04	Digital Europe programme	1.65	1.52	91.89 %
Total Title 02	!		1.65	1.52	91.89%
		Ti	tle 03 Single Mark	et	
03	03 02	Single Market Programme	0.08	0.06	81.84 %
Total Title 03	}		0.08	0.06	81.84%
			Title 04 Space		
04	04 02	Space programme of the Union	15.32	15.30	99.88 %
Total Title 04			15.32	15.30	99.88%
		Title 06	Recovery and Re	silience	·
06	06 05	Union Civil Protection Mechanism (rescEU)	2.88	2.88	100.00 %

EU4Health Programme	0.01	0.01	100.00 %
Emergency support within the Union	0.98	0.73	74.60 %
	3.87	3.62	93.59%
Title 08 A	Agriculture and Maritin	ne Policy	
European Agricultural Guarantee Fund (EAGF)	8.15	7.13	87.59 %
	8.15	7.13	87.59%
Title 09 E	nvironment and Clima	ate Action	
Programme for the Environment and Climate Action (LIFE)	1.06	1.05	99.62 %
I	1.06	1.05	99.62%
	Title 12 Security		
Support administrative expenditure of the "Security" cluster	4.27	2.29	53.52 %
Nuclear Safety and decommissioning			
including for Bulgaria and Slovakia	30.65	29.89	97.50 %
including for Bulgaria and	30.65 34.93	29.89 32.18	97.50 % 92.12%
including for Bulgaria and Slovakia		32.18	92.12%
including for Bulgaria and Slovakia	34.93	32.18	92.12%
including for Bulgaria and Slovakia Title 20 Administrative Information and communication technology related	34.93 e expenditure of the E	32.18 Suropean Commiss	92.12% ion
including for Bulgaria and Slovakia Title 20 Administrative Information and communication technology related	34.93 e expenditure of the E	32.18 Suropean Commissi 0.50	92.12% ion 36.17 %
including for Bulgaria and Slovakia Title 20 Administrative Information and communication technology related	34.93 e expenditure of the E 1.39 1.39	32.18 Suropean Commiss 0.50 0.50	92.12% ion 36.17 % 36.17%
	Emergency support within the Union Title 08 A European Agricultural Guarantee Fund (EAGF) Title 09 E Programme for the Environment and Climate Action (LIFE) Support administrative expenditure of the "Security" cluster Nuclear Safety and	Programme Emergency support within the Union 0.98 Image: Support within the Action (LIFE) 8.15 Image: Support administrative expenditure of the "Security" cluster 1.06 Image: Support administrative expenditure of the "Security" cluster 4.27	Programme0.98Emergency support within the Union0.980.733.873.62Title 08 Agriculture and Maritime PolicyEuropean Agricultural Guarantee Fund (EAGF)8.157.13Title 09 Environment and Climate Action7.13Title 09 Environment and Climate ActionProgramme for the Environment and Climate Action (LIFE)1.061.05Title 12 Security1.061.05Support administrative expenditure of the "Security" cluster4.272.29Nuclear Safety andNuclear Safety and1.051.05

* 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).

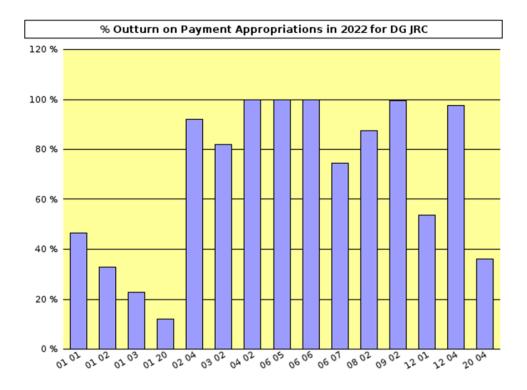


TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2022 (in Mio €) for DG JRC										
			Commitments to be settled				Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be	
Chapter		Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021		
	•		1	2	3=1-2	4=1-2/1	5	6=3+5	7	
01	01 01	Support administrative expenditure of the "Research and Innovation" cluster	105.23	52.26	52.97	50.34%	18.90	71.88	79.67	
	01 02	Horizon Europe	37.59	11.19	26.39	70.22%	8.94	35.33	43.89	
	01 03	Euratom Research and Training Programme	8.22	2.43	5.79	70.45%	4.57	10.36	11.78	
	01 20	Pilot projects, preparatory actions, prerogatives and other actions	52.72	15.63	37.08	70.34%	6.96	44.05	36.02	
Total T	itle 01		203.76	81.52		59.99%	39.37	161.61	171.36	

	TABL	E 3 : BREAKDOWN C	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in M	/lio €) for D	G JRC
			Co	mmitment	s to be se	ttled	Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be
		Chapter	Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
02	02 04	Digital Europe programme	0.00	0.00	0.00	0.00%	1.03	1.03	2.60
Total	Fitle 02		0.00	0.00		0.00%	1.03	1.03	2.60
	TABL	E 3 : BREAKDOWN C	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in M	/lio €) for D	G JRC
Commitments to be settled						Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be	
Chapter			Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
03	03 02	Single Market Programme	0.10	0.02	0.09	85.15%	0.35	0.43	0.39
Total ⁻	Fitle 03		0.10	0.02		85.15%	0.35	0.43	0.39
	TABL	E 3 : BREAKDOWN C	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in I	Mio €) for D	G JRC
			Commitments to be		ommitments to be settled		Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be
		Chapter	Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
	04 02	Space programme of the Union	16.13	0.65	15.49	96.00%	8.13	23.62	23.21
04	04 02								

			Со	mmitment	s to be se	ttled	Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be
		Chapter	Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
06	06 05	Union Civil Protection Mechanism (rescEU)	4.00	1.19	2.81	70.27%	0.01	2.82	1.72
	06 06	EU4Health Programme	0.00	0.00	0.00	0.00%	0.80	0.80	0.83
	06 07	Emergency support within the Union	0.00	0.00	0.00	0.00%	0.30	0.30	1.03
Total	Title 06	•	4.00	1.19	ŀ	70.27%	1.11	3.92	3.58
	TABL	E 3 : BREAKDOWN O	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in M	/lio €) for D	G JRC
			Со	mmitment	s to be se	ttled	Commit ments to be settled from		Total of commit ments to be
		Chapter	Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
08	08 02	European Agricultural Guarantee Fund (EAGF)	5.40	3.65	1.74	32.31%	0.09	1.84	3.67
Total 7	Title 08		5.40	3.65		32.31%	0.09	1.84	3.67
	TABL	E 3 : BREAKDOWN O	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in I	lio €) for D	G JRC
			Со	mmitment	s to be se	ttled	Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be
		Chapter	Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
09	09 02	Programme for the Environment and Climate Action (LIFE)	0.07	0.00	0.07	100.00 %	0.02	0.09	1.07
Total 1	Title 09		0.07	0.00		100.00 %	0.02	0.09	1.07

jrc_aar_2022_annexes

TABLE 3: BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2022 (in Mio €) for DG JRC										
			Со	Commitments to be settled				Total of commit ments to be	Total of commit ments to be	
Chapter			Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021	
			1	2	3=1-2	4=1-2/1	5	6=3+5	7	
12	12 01	Support administrative expenditure of the "Security" cluster	2.31	0.49	1.82	78.71%	0.00	1.82	1.96	
	12 04	Nuclear Safety and decommissioning including for Bulgaria and Slovakia	32.91	5.98	26.93	81.82%	35.91	62.83	61.69	
Total T	itle 12		35.22	6.48		81.61%	35.91	64.65	63.65	
	TABLI	E 3 : BREAKDOWN C	F COMMIT	MENTS TO	BE SETTLE	ED AT 31/12	2/2022 (in I	/lio €) for D	G JRC	
			Со	mmitment	s to be se	ttled	Commit ments to be settled from	Total of commit ments to be	Total of commit ments to be	
Chapter			Commit ments	Payment s	RAL	% to be settled	financia I years previou s to 2021	settled at end of financial year 2022	settled at end of financial year 2021	
			1	2	3=1-2	4=1-2/1	5	6=3+5	7	
20	20 04	Information and communication technology related expenditure	1.10	0.22	0.88	80.01%	0.00	0.88	0.28	
Total T	itle 20		1.10	0.22		80.01%	0.00	0.88	0.28	
Total E	xcluding N	NGEU	265.78	93.72		64.74%	86.01	258.07	269.81	

Total for DG JRC	265.78	93.72	172.07	64.74 %	86.01	258.07	269.81	
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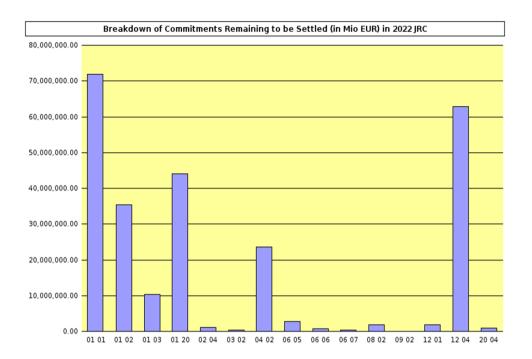


TABLE 4 : BALANCE SHEET for DG JRC

BALANCE SHEET	2022	2021
A.I. NON CURRENT ASSETS	246,920,489.32	245,247,115.05
A.I.1. Intangible Assets	18,858,485.66	9,687,344.68
A.I.2. Property, Plant and Equipment	228,044,130.92	235,541,897.63
A.I.6. Non-Cur Exch Receiv & Non- Ex Recoverab	17,872.74	17,872.74
A.II. CURRENT ASSETS	-1,672,629,513.88	-1,505,421,365.14
A.II.2. Current Pre-Financing	6,353,437.91	5,988,327.37
A.II.3. Curr Exch Receiv &Non-Ex Recoverables	-1,733,517,017.10	-1,569,826,941.71
A.II.4. Inventories	54,495,727.60	58,350,460.87
A.II.6. Cash and Cash Equivalents	38,337.71	66,788.33
ASSETS	-1,425,709,024.56	-1,260,174,250.09
P.I. NON CURRENT LIABILITIES	-1,709,687,463.54	-2,404,642,703.09
P.I.2. Non-Current Provisions	-1,709,683,620.52	-2,404,638,860.07
P.I.3. Non-Current Financial Liabilities	-3,843.02	-3,843.02
P.II. CURRENT LIABILITIES	-43,500,774.53	-44,406,574.66
P.II.2. Current Provisions	-35,614,647.08	-35,274,508.97
P.II.3. Current Financial Liabilities	0.00	0.00
P.II.4. Current Payables	-7,877,922.11	-9,123,927.96
P.II.5. Current Accrued Charges &Defrd Income	-8,205.34	-8,137.73
LIABILITIES	-1,753,188,238.07	-2,449,049,277.75
NET ASSETS (ASSETS less LIABILITIES)	-3,178,897,262.63	-3,709,223,527.84

P.III.2. Accumulated Surplus/Deficit	6,230,963,053.59

Non-allocated central (surplus)/deficit*	-3,052,065,790.96	-2,360,216,055.64

TOTAL DG JRC	0.00	0.00
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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. The accounting situation presented in the Balance Sheet and Statement of Financial Performance does not include the accruals and deferrals services calculated centrally the of the Accounting Officer by

The amount under A.II.3. Curr Exch Receiv &Non-Ex Recoverables is mainly related to intercompany accounts. This explain the unusual credit balance.

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.

STATEMENT OF FINANCIAL PERFORMANCE	2022	2021
II.1 REVENUES	-767,146,701.25	-108,873,396.84
II.1.1. NON-EXCHANGE REVENUES	-657,071,388.51	-1,096,072.92
II.1.1.6. RECOVERY OF EXPENSES	-312,952.19	-1,096,072.92
II.1.1.8. OTHER NON-EXCHANGE REVENUES	-656,758,436.32	
II.1.2. EXCHANGE REVENUES	-110,075,312.74	-107,777,323.92
II.1.2.2. OTHER EXCHANGE REVENUE	-110,075,312.74	-107,777,323.92
II.2. EXPENSES	234,807,292.77	270,396,866.95
II.2. EXPENSES	234,807,292.77	270,396,866.95
II.2.10.OTHER EXPENSES	113,732,219.16	151,956,045.79
II.2.2. EXP IMPLEM BY COMMISS&EX.AGENC. (DM)	117,626,728.22	117,181,346.25
II.2.6. STAFF AND PENSION COSTS	3,442,242.25	1,257,695.61
II.2.8. FINANCE COSTS	6,103.14	1,779.30
STATEMENT OF FINANCIAL PERFORMANCE	-532,339,408.48	161,523,470.11

TABLE 5 : STATEMENT OF FINANCIAL PERFORMANCE for DG JRC

Explanatory Notes (facultative):

It should be noted that II.1 REVENUE includes the impact on the Statement of Financial Performance of the change of estimation of the Decommissioning Provision (656,7 million euro). Additionally, most of Staff and Pension costs are delegated to DG PMO hence do not appear in the JRC accounts

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 5bis : OFF BALANCE SHEET for DG JRC

OFF BALANCE	2022	2021
OB.1. Contingent Assets	16,252,994.98	16,882,098.43
GR for other	0.00	0.00
GR for performance	13,006,249.80	13,835,236.53
GR for pre-financing	3,246,745.18	3,046,861.90
OB.2. Contingent Liabilities	-2,800,000.00	-2,800,000.00
OB.2.7. CL Legal cases OTHER	-2,800,000.00	-2,800,000.00
OB.3. Other Significant Disclosures	-30,318,284.74	-28,744,035.57
OB.3.3.7.Other contractual commitments	-29,829,901.39	-27,793,971.90
OB.3.5. Operating lease commitments	-488,383.35	-950,063.67
OB.4. Balancing Accounts	16,865,289.76	14,661,937.14
OB.4. Balancing Accounts	16,865,289.76	14,661,937.14
OFF BALANCE	0.00	0.00

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.

Legal Times									
Maximum Payment Time (Days)	Total Nbr of Payments	Nbr of Payments within Time Limit	Percentage	Average Payment Times (Days)	Nbr of Late Payments	Percentage	Average Payment Times (Days)	Late Payments Amount	Percentage
30	17,644	17,201	97.49 %	15	443	2.51 %	47.7	4,264,152	2. %
60	331	330	99.70 %	26.6	1	0.30 %	86	41,032.8	0. %
90	1	1	100.00 %	40				0	0. %

Total Number of Payments	17,976	17,532	97.53 %		444	2.47 %		4,305,185	2. %
Average Net Payment Time	16.0			15.2			47.75		
Average Gross Payment Time	19.4			18.3			63.98		

Suspensions							
Average Report Approval Suspension Days	Average Payment Suspension Days	Number of Suspended Payments	% of Total Number	Total Number of Payments	Amount of Suspended Payments	% of Total Amount	Total Paid Amount
0	43	1,427	7.94 %	17,976	26,706,820.28	10.17 %	262,492,908.82

Late Interest paid in 2022						
DG	GL Account	Description	Amount (Eur)			
JRC	65010000	Interest expense on late payment of charges	526.49			
JRC	65010100	Interest on late payment of charges New FR	3,675.48			
			4,201.97			

	TABLE 7 : SITUATION ON REVENUE AND INCOME in 2022 for DG JRC									
		Revenue a	and income re	cognized	Revenue a	Outstandin g				
	Chapter	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		
3 0	Revenue from staff	51,920,527		51,920,527	51,920,527		51,920,527	-		
3 3	Other administra tive revenue	8,239	-	8,239	8,239	-	8,239	-		
4 2	Fines and penalties	167,080	58,225	225,305	149,980	58,225	208,205	17,100		
6 0	Single market, innovation and digital	74,866,321	2,882,218	77,748,539	70,496,584	2,881,668	73,378,252	4,370,287		
6 4	Security and defence	23,000	-	23,000	23,000	-	23,000	-		
6 6	Other contributio ns and refunds	4,500,617	326,433	4,827,050	4,120,434	311,452	4,431,886	395,164		
6 7	Completio n for outstandin g recovery orders prior to 2021	30,843,020	3,982,850	34,825,870	29,059,310	3,966,121	33,025,431	1,800,439		
То	tal DG JRC	162,328,804	7,249,726	169,578,530	155,778,073	7,217,467	162,995,540	6,582,990		

TABLE 8 : FINANCIAL IMPACT OF EX-ANTE AND EX-POST CONTROLS in 2022 for DG JRC

EX-ANTE CONTROLS	Irregularity	OLAF Notified	Total undue payments recovered
	Amount	Amount	Amount
NON ELIGIBLE IN COST CLAIMS			
CREDIT NOTES			
RECOVERY ORDERS ON PRE-FINANCING			
Sub-Total			

EX-POST CONTROLS	Irregularity	OLAF Notified	Total undue payments recovered
	Amount	Amount	Amount
INCOME LINES IN INVOICES			
RECOVERY ORDERS OTHER THAN ON PRE- FINANCING			
Sub-Total			

	GRAND TOTAL (EX-ANTE + EX-POST)			
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TABLE 9: AGEING BALANCE OF RECOVERY ORDERS AT 12/31/2022 for DG JRC

	Number at 1/1/2022 1	Number at 12/31/2022	Evolution	Open Amount (Eur) at 1/1/2022 1	Open Amount (Eur) at 12/31/2022	Evolution
2010	1	1	0.00 %	728.67	728.67	0.00 %
2019	3	1	-66.67 %	512,120.00	10,000.00	-98.05 %
2020	2	1	-50.00 %	6,400.00	6,000.00	-6.25 %
2021	31	2	-93.55 %	6,730,477.04	15,530.44	-99.77 %
2022		38			6,550,730.86	
	37	43	16.22 %	7,249,725.71	6,582,989.97	-9.20 %

	Waiver Central Key	Linked RO Central Key	RO Accepte d Amount (Eur)	LE Accoun t Group	Commissio n Decision	Comments
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Number of RO waivers	
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Justifications:

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TABLE 11: Negotiated procedures in 2022 for DG JRC

External Procedures > € 20,000

Negotiated Procedure Legal base	Number of Procedures	Amount (€)
Annex 1 - 11.1 (b) - Artistic/technical reasons or exclusive rights or technical monopoly/captive market	1	35,000.00
Total	1	35,000.00

Internal Procedures > € 60,000

Negotiated Procedure Legal base	Number of Procedures	Amount (€)
Annex 1 - 11.1 (a) - Follow-up of an open/restricted procedure where no (or no suitable) tenders/requests to participate have been submitted	2	1,846,395.75
Annex 1 - 11.1 (b) - Artistic/technical reasons or exclusive rights or technical monopoly/captive market	19	24,434,921.22
Annex 1 - 11.1 (c) - Extreme urgency caused by unforeseeable events not attributtable to the contracting authority	3	3,298,828.92
Annex 1 - 11.1 (d) - Service contract following a design contest	1	2,783,685.00
Annex 1 - 11.1 (e) - New services/works consisting in the repetition of similar services/works	1	2,500,000.00
Annex 1 - 11.1 (f) (i) - Supplies of additional deliveries	1	316,000.00
Total	27	35,179,830.89

During the course of 2021 the JRC had twenty-seven contracts signed under the exceptional negotiated procedure without competition (Annex 1 - 11.1).

Of the nineteen notified as I.11.1(b) for reasons of "technical monopoly" thirteen related to technical compatibility requirements of previous purchases of scientific equipment, for example, maintenance and upgrades that the JRC cannot give to any other organisation aside from the original equipment contractor, which holds intellectual property rights.

In addition, the JRC has had to deal with a number of areas where for legal or scientific reasons the choice was limited to one supplier, such as scientific repeatability or national rules in the nuclear sector.

One procedure concerned the right of the scientist to decide where his/ her results are to be published.

Finally, one procedure related to the design competition of the JRC site in Seville and one other to cover the transition period to a non-monopoly situation.

The JRC has very strong mitigating measures in place with a positive *ex ante* visa required by the financial legal services such an exceptional procedure is launched. In addition, all such procedures above EUR 60 000 are analysed and reviewed by the JRC's public procurement advisory group (PPAG) before contract signature

TABLE 12: Summary of procedures in 2022 for DG JRC

External Procedures > € 20,000

Procedure Legal base	Number of Procedures	Amount (€)
Negotiated procedure without prior publication (Annex 1 - 11.1)	1	35,000.00
Total	1	35,000.00

Internal Procedures > € 60,000

Procedure Legal base	Number of Procedures	Amount (€)
Competitive dialogue - Specific research and development services (Annex 1 - 12.1 (e))	1	115,872.12
Competitive procedure with negotiation (Annex 1 - 12.1)	7	9,404,937.88
Design contest (Annex 1 - 8)	1	70,000.00
Negotiated procedure middle value contract (Annex 1 - 14.2)	34	6,838,328.91
Negotiated procedure without prior publication (Annex 1 - 11.1)	27	35,179,830.89
One-step procedure based on a call for expressions of interest - Vendors' list (Annex 1 - 13.3 (b) (i))	1	127,260.00
Open procedure (FR 164 (1)(a))	56	123,971,059.40
Restricted procedure without Dynamic purchasing system (FR 164 (1)(b))	10	25,472,802.04
Total	137	201,180,091.24

TABLE 13 : BUILDING CONTRACTS in 2022 for DG JRC

None

TABLE 14 : CONTRACTS DECLARED SECRET in 2022 for DG JRC

None

TABLE 15 : FPA duration exceeds 4 years - DG JRC

None

TABLE 16 : Commitments co-delegation type 3 in 2022 for DG JRC

None

Annex 3 Financial Reports - for EDF - Financial Year 2022

 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

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TABLE 1: OUTTURN ON COMMITMENT APPROPRIATIONS until 2021 (in Mio €) for EDF								
EDF N°	Fund Source	Cumulative Commitment appropriations authorised	Commitment appropriations authorised in the year	Cumulative Commitments made	Commitments made in 2022	%		
		1		2		3=2/1		
11	11			0.62				
				0.62				

т	TABLE 2: OUTTURN ON PAYMENT APPROPRIATIONS until 2021 (in Mio €) for EDF											
EDF N°	Fund Source	Cumulative Payments appropriations authorised	Payment appropriations authorised in the year	Cumulative Payments made	Payments made in 2022	%						
	1			2		3=2/1						
11	11			0.62								
				0.62								

	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2022 (in Mio €) for EDF											
		Commitme	ents outstanding a	at the end of p	revious	Commitme	Total commitm.					
EDF N°	Fund Source	Commitm. carried forward from previous year	Decommitm./ Revaluations/ Cancellations	Payments	Commitm. outstanding at year-end	Commitm./ Decommitm./ Revaluations/ Cancellations	Payments	Commitm. outstanding at year-end	outstanding at the end of the year			
		1	2	3	4=1+2-3	5	6	7=5-6	8=4+7			
11	11	-0.00			-0.00				-0.00			
		-0.00			-0.00				-0.00			

	TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2022 (in Mio €)										
EDF N°	Fund Source	Commitments	Contracted	Payments	% to be settled	to be settled at end 2022	RAL Evolution		volution		
		1	2	3	4 = 3/1	5 = 1-3	6	5-6	(5-6)/5		
11	11	0.62	0.62	0.62	100.00%	0.00	-0.00	0.00	-100.00%		
		0.62	0.62	0.62	100.00%	0.00	-0.00	0.00	0.00%		

TABLE 4 : BALANCE SHEET for EDF								
BALANCE SHEET								
NET ASSETS (ASSETS less LIABILITIES)								

Non-allocated central (surplus)/deficit*	
Non-allocated central (surplus)/deficit*	
P.III.2. Accumulated Surplus/Deficit	

TABLE 5 : STATEMENT OF FINANCIAL PERFORMANCE for EDF

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 5bis : OFF BALANCE SHEET for EDF

TABLE 6: AVERAGE PAYMENT TIMES in for EDF DG JRC

Suspensions							
Average Report Approval Suspension Days	Average Payment Suspension Days	Number of Suspended Payments	% of Total Number	Total Number of Payments	Amount of Suspended Payments	% of Total Amount	Total Paid Amount

TABLE 7 : SITUATION ON REVENUE AND INCOME in 2022 for EDF										
	RO cr	eated durir	ng 2022	RO cre	ated befor	e 2022	Total			
Revenue Type	Issued	Cashed	Open amount	Open amount at the begining of the year	Cashed	Open amount	Issued	Cashed	Open amount	
	1	2	3 = 1 - 2	4	5	6 = 4 - 5	7 = 1 + 4	8 = 2+5	9 = 3 + 6	
Extraordinary gains	14.81	5.58	9.23	22.71	0.01	22.70	37.52	5.59	31.93	
Revenue Decreasing Consumption	59.27	54.45	4.82	55.94	17.14	38.80	115.21	71.60	43.61	
Uncalled Capital - DE	504.45	504.45	0.00	185.22	0.00	185.22	689.67	504.45	185.22	
Uncalled Capital - SI	5.61	5.61	0.00	2.02	0.00	2.02	7.63	5.61	2.02	
Uncalled Capital - SP	195.80	195.80	0.00	71.39	0.00	71.39	267.19	195.80	71.39	
Uncalled Capita - FIN	37.09	37.09	0.00	13.58	0.00	13.58	50.67	37.09	13.58	
Uncalled Capital - LV	2.90	2.90	0.00	1.05	0.00	1.05	3.95	2.90	1.05	
Uncalled Capital - CY	2.79	2.79	0.00	1.00	0.00	1.00	3.80	2.79	1.00	
Interest on prefinancement	0.00	0.00	0.00	3.16	0.00	3.16	3.17	0.00	3.16	
Interest EIB				0.00		0.00	0.00		0.00	
Uncalled Capital - PT	29.50	29.50	0.00	10.77	0.00	10.77	40.27	29.50	10.77	
Uncalled Capital - NL	117.17	117.17	0.00	42.99	0.00	42.99	160.17	117.17	42.99	
Uncalled Capital - SK	9.40	9.40	0.00	3.39	0.00	3.39	12.79	9.40	3.39	
Contribution cofinancement - IT				0.00		0.00	0.00		0.00	
Uncalled Capital - SE	72.30	72.30	0.00	26.45	0.00	26.45	98.76	72.30	26.45	
Uncalled Capital - FR	434.87	434.87	0.00	160.31	0.00	160.31	595.18	434.87	160.31	
Uncalled Capital - LU	6.25	6.25	0.00	2.30	0.00	2.30	8.55	6.25	2.30	
COF-Payable-Canada				0.00		0.00	0.00		0.00	
Uncalled Capital - BE	79.55	79.55	0.00	-868.79	0.00	-868.79	-789.24	79.55	-868.79	
Uncalled Capital - RO	17.95	17.95	0.00	6.46	0.00	6.46	24.42	17.95	6.46	
Bank Interests to allocate				-2.49		-2.49	-2.49		-2.49	
To allow regularisation of open items by DG DEVCO (Ares (2011) 754001				-2.82	0.00	-2.82	-2.82	0.00	-2.82	
Uncalled Capital - BG	5.46	5.46	0.00	0.00	0.00	0.00	5.46	5.46	0.00	
Uncalled Capital - AT	58.80	58.80	0.00	21.58	0.00	21.58	80.38	58.80	21.58	

Virements à reimputer				-0.41		-0.41	-0.41		-0.41
Uncalled Capital - DK	48.59	48.59	0.00	17.82	0.00	17.82	66.42	48.59	17.82
Uncalled Capital - IT	307.86	307.86	0.00	112.77	0.00	112.77	420.63	307.86	112.77
Uncalled Capital - EE	2.16	2.16	0.00	0.78	0.00	0.78	2.94	2.16	0.78
Uncalled Capital - LT	4.52	4.52	0.00	1.63	0.00	1.63	6.15	4.52	1.63
Uncalled Capital - IE	23.23	23.23	0.00	8.46	0.00	8.46	31.70	23.23	8.46
COF-Payable-LU				0.00		0.00	0.00		0.00
Uncalled Capital - PL	50.18	50.18	0.00	18.07	0.00	18.07	68.25	50.18	18.07
Bank interests Stabex to allocate				-0.76		-0.76	-0.76		-0.76
Uncalled Capital - MT	0.95	0.95	0.00	0.34	0.00	0.34	1.29	0.95	0.34
COF-Payable-SE	1.91	1.91	0.00	0.00	0.00	0.00	1.91	1.91	0.00
Default Interest on Claims				-4.09	0.00	-4.09	-4.09	0.00	-4.09
Contribution cofinancement - FR				0.00		0.00	0.00		0.00
Contribution cofinancement - NL				0.00		0.00	0.00		0.00
Contribution cofinancement - SE				0.00		0.00	0.00		0.00
Uncalled Capital - HU	15.36	15.36	0.00	5.53	0.00	5.53	20.90	15.36	5.53
Interest on late payments Contribution				1.78		1.78	1.78		1.78
Uncalled Capital - GR	37.15	37.15	0.00	13.57	0.00	13.57	50.71	37.15	13.57
Interest Recovery				2.31		2.31	2.31		2.31
COF-Payable-FIN				0.00		0.00	0.00		0.00
COF-Payable-UK				0.00		0.00	0.00		0.00
Manual liaison account BG32/FEDF				0.00	0.00	0.00	0.00	0.00	0.00
Uncalled Capital - CZ	19.94	19.94	0.00	7.18	0.00	7.18	27.11	19.94	7.18
COF-Payable-DK				0.00		0.00	0.00		0.00
Uncalled Capital - UK	361.51	361.51	0.00	132.11	0.00	132.11	493.62	361.51	132.11
COF-Payable-BE				0.00		0.00	0.00		0.00
Contribution cofinancement - BE				0.00		0.00	0.00		0.00
COF-Payable-FR				0.00	0.00	0.00	0.00	0.00	0.00
Contribution cofinancement - ES				0.00		0.00	0.00		0.00
Bank Intere Secu Stabex				0.76		0.76	0.76		0.76
COF-Payable-CH				0.00		0.00	0.00		0.00
Losses on realisation of trade debtors				-0.20		-0.20	-0.20		-0.20
Uncalled Capital - Croatia	5.63	5.63	0.00	2.03	0.00	2.03	7.66	5.63	2.03

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EU flight contributions from other EU bodies				0.00		0.00	0.00		0.00
COF-Payable-PT				0.00		0.00	0.00		0.00
Miscellaneous income				2.45		2.45	2.45		2.45
COF-Payable-NL				0.00		0.00	0.00		0.00
Bk Intere Spe Congo Fund				0.02		0.02	0.02		0.02
Bank Interest				2.49		2.49	2.49		2.49
COF-Payable-CZ				0.00		0.00	0.00		0.00
COF-Payable-DE	1.42	1.42	0.00	0.00	0.00	0.00	1.42	1.42	0.00
Bank interests Congo to allocate				-0.02		-0.02	-0.02		-0.02
Contribution cofinancement - DK				0.00		0.00	0.00		0.00
PF Not Migrated - Initial Upload				0.00		0.00	0.00		0.00
COF-Payable-AT				0.00		0.00	0.00		0.00
COF-Payable-IT				0.00		0.00	0.00		0.00
Recettes diverses à imputer				-0.07		-0.07	-0.07		-0.07
Contribution cofinancement - PL				0.00		0.00	0.00		0.00
COF-Payable-RO				0.00		0.00	0.00		0.00
Co-financing Contribution Payable ST-USAID				0.00		0.00	0.00		0.00
Différences constatées lors de l'encaissement d'OR				0.00	0.00	0.00	0.00	0.00	0.00
Current Account-DG BUDG-SWIFT				0.00		0.00	0.00		0.00
COF-Payable-Australia				0.00		0.00	0.00		0.00
Co-financing Contribution Payable ST-EIB				0.00		0.00	0.00		0.00
Contribution cofinancement - DE				0.00		0.00	0.00		0.00
EX Diff/Ajustement Realised (gains)				-8.23	0.00	-8.23	-8.23	0.00	-8.23
EX Diff/Ajustement Realised (losses)				5.06	0.00	5.06	5.06	0.00	5.06
Manual liaison account EEAS/FEDF	5.41	5.41	0.00				5.41	5.41	0.00
Total DG FEDF	2,539.82	2,525.78	14.04	77.61	17.15	60.45	2,617.43	2,542.94	74.50

TABLE 7 : SITUATION ON REVENUE AND INCOME in 2022 for EDF									
	RO created during 2022			RO created before 2022			Total		
Revenue Type	Issued	Cashed	Open amount	Open amount at the begining of the year	Cashed	Open amount	Issued	Cashed	Open amount
	1	2	3 = 1 - 2	4	5	6 = 4 - 5	7 = 1 + 4	8 = 2+5	9 = 3 + 6
Extraordinary gains	14.81	5.58	9.23	22.71	0.01	22.70	37.52	5.59	31.93
Revenue Decreasing Consumption	59.27	54.45	4.82	55.94	17.14	38.80	115.21	71.60	43.61
Uncalled Capital - DE	504.45	504.45	0.00	185.22	0.00	185.22	689.67	504.45	185.22
Uncalled Capital - SI	5.61	5.61	0.00	2.02	0.00	2.02	7.63	5.61	2.02
Uncalled Capital - SP	195.80	195.80	0.00	71.39	0.00	71.39	267.19	195.80	71.39
Uncalled Capita - FIN	37.09	37.09	0.00	13.58	0.00	13.58	50.67	37.09	13.58
Uncalled Capital - LV	2.90	2.90	0.00	1.05	0.00	1.05	3.95	2.90	1.05
Uncalled Capital - CY	2.79	2.79	0.00	1.00	0.00	1.00	3.80	2.79	1.00
Interest on prefinancement	0.00	0.00	0.00	3.16	0.00	3.16	3.17	0.00	3.16
Interest EIB				0.00		0.00	0.00		0.00
Uncalled Capital - PT	29.50	29.50	0.00	10.77	0.00	10.77	40.27	29.50	10.77
Uncalled Capital - NL	117.17	117.17	0.00	42.99	0.00	42.99	160.17	117.17	42.99
Uncalled Capital - SK	9.40	9.40	0.00	3.39	0.00	3.39	12.79	9.40	3.39
Contribution cofinancement - IT				0.00		0.00	0.00		0.00
Uncalled Capital - SE	72.30	72.30	0.00	26.45	0.00	26.45	98.76	72.30	26.45
Uncalled Capital - FR	434.87	434.87	0.00	160.31	0.00	160.31	595.18	434.87	160.31
Uncalled Capital - LU	6.25	6.25	0.00	2.30	0.00	2.30	8.55	6.25	2.30
COF-Payable-Canada				0.00		0.00	0.00		0.00
Uncalled Capital - BE	79.55	79.55	0.00	-868.79	0.00	-868.79	-789.24	79.55	-868.79
Uncalled Capital - RO	17.95	17.95	0.00	6.46	0.00	6.46	24.42	17.95	6.46
Bank Interests to allocate				-2.49		-2.49	-2.49		-2.49
To allow regularisation of open items by DG DEVCO (Ares (2011) 754001				-2.82	0.00	-2.82	-2.82	0.00	-2.82
Uncalled Capital - BG	5.46	5.46	0.00	0.00	0.00	0.00	5.46	5.46	0.00

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Virements à reimputer virements à reimputer -0.41 -0.41 -0.41 -0.41 Uncalled Capital - DK 48.59 48.59 0.00 17.82 0.00 17.82 66.42 48.59 17.82 Uncalled Capital - IT 307.86 307.86 0.00 112.77 420.63 307.86 112.77 Uncalled Capital - EE 2.16 0.00 1.63 0.00 1.63 6.15 4.52 Uncalled Capital - LT 4.52 4.52 0.00 1.63 0.00 8.46 31.70 23.23 8.46 COF-Payable-LU 0.00 8.46 0.00 8.46 0.00
Uncalled Capital - IT 307.86 307.86 307.86 0.00 112.77 0.00 112.77 420.63 307.86 112.77 Uncalled Capital - EE 2.16 2.16 2.16 0.00 0.78 0.00 0.78 2.94 2.16 0.78 Uncalled Capital - LT 4.52 4.52 0.00 1.63 0.00 1.63 6.15 4.52 1.63 Uncalled Capital - IE 23.23 23.23 0.00 8.46 0.00
Uncalled Capital - EE 2.16 2.16 2.16 0.00 0.78 0.00 0.78 2.94 2.16 0.78 Uncalled Capital - LT 4.52 4.52 0.00 1.63 0.00 1.63 6.15 4.52 1.63 Uncalled Capital - IE 23.23 23.23 20.00 8.46 0.00 8.46 31.70 23.23 8.46 COF-Payable-LU 20.18 50.18 0.00 18.07 0.00
Uncalled Capital - LT 4.52 4.52 0.00 1.63 0.00 1.63 6.15 4.52 1.63 Uncalled Capital - IE 23.23 23.23 23.23 0.00 8.46 0.00 8.46 31.70 23.23 8.46 COF-Payable-LU 50.18 50.18 50.18 0.00 18.07 0.00
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Uncalled Capital - PL 50.18 50.18 50.18 50.18 0.00 18.07 68.25 50.18 18.07 Bank interests Stabex to allocate 0.95 0.95 0.00 0.34 0.00 0.34 1.29 0.95 0.34 Uncalled Capital - MT 0.95 0.95 0.00 0.00 0.00 0.00 1.91 1.91 0.00 Default Interest on Claims 1.91 1.91 1.91 0.00 0.00 0.00 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 4.09 0.00 0.00 0.00 0.00 4.09 0.00 4.09 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
Bank interests Stabex to allocate -0.76
Uncalled Capital - MT 0.95 0.95 0.00 0.34 0.00 0.34 1.29 0.95 0.34 COF-Payable-SE 1.91 1.91 1.91 0.00 0.00 0.00 0.00 1.91 1.91 0.00 Default Interest on Claims Image: Contribution cofinancement - FR Image: Contribution cofinancement - FR Image: Contribution cofinancement - NL 0.00 1.78 1.78 1.78 1.78 1.78 1.78 1.78 1.78
COF-Payable-SE 1.91 1.91 0.00 0.00 0.00 1.91 1.91 0.00 Default Interest on Claims Contribution cofinancement - FR -4.09 0.00 -4.09 0.00
Default Interest on Claims -4.09 0.00 -4.09 0.00 -4.09 0.00 -4.09 0.00 -4.09 0.00 -4.09 0.00
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Contribution cofinancement - NL 0.00
Contribution cofinancement - SE A
Uncalled Capital - HU 15.36 15.36 0.00 5.53 20.90 15.36 5.53 Interest on late payments Contribution 1.78 1.78 1.78 1.78 1.78 1.78 Uncalled Capital - GR 37.15 37.15 0.00 13.57 50.71 37.15 13.57 Interest Recovery COF-Payable-FIN 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
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Uncalled Capital - GR 37.15 37.15 0.00 13.57 0.00 13.57 50.71 37.15 13.57 Interest Recovery 2.31 2.31 2.31 2.31 2.31 2.31 2.31 0.00 <td< td=""></td<>
Interest Recovery 2.31 2.31 2.31 2.31 COF-Payable-FIN 0.00 0.00 0.00 0.00
COF-Payable-FIN 0.00 0.00 0.00 0.00
COF-Payable-UK 0.00 0.00 0.00 0.00
Manual liaison account BG32/FEDF 0.00 0.00 0.00 0.00 0.00 0.00
Uncalled Capital - CZ 19.94 19.94 0.00 7.18 0.00 7.18 27.11 19.94 7.18
COF-Payable-DK 0.00 0.00 0.00 0.00
Uncalled Capital - UK 361.51 361.51 0.00 132.11 0.00 132.11 493.62 361.51 132.11
COF-Payable-BE 0.00 0.00 0.00 0.00
Contribution cofinancement - BE 0.00 0.00 0.00 0.00
COF-Payable-FR 0.00 0.00 0.00 0.00 0.00 0.00
Contribution cofinancement - ES 0.00 0.00 0.00 0.00
Bank Intere Secu Stabex 0.76 0.76 0.76 0.76
COF-Payable-CH 0.00 0.00 0.00 0.00
Losses on realisation of trade debtors -0.20 -0.20 -0.20 -0.20

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Total DG FEDF	2,539.82	2,525.78	14.04	77.61	17.15	60.45	2,617.43	2,542.94	74.50
Manual liaison account EEAS/FEDF	5.41	5.41	0.00				5.41	5.41	0.00
EX Diff/Ajustement Realised (losses)				5.06	0.00	5.06	5.06	0.00	5.06
EX Diff/Ajustement Realised (gains)				-8.23	0.00	-8.23	-8.23	0.00	-8.23
Contribution cofinancement - DE				0.00		0.00	0.00		0.00
Co-financing Contribution Payable ST-EIB				0.00		0.00	0.00		0.00
COF-Payable-Australia				0.00		0.00	0.00		0.00
Current Account-DG BUDG-SWIFT				0.00		0.00	0.00		0.00
Différences constatées lors de l'encaissement d'OR				0.00	0.00	0.00	0.00	0.00	0.00
Co-financing Contribution Payable ST-USAID				0.00		0.00	0.00		0.00
COF-Payable-RO				0.00		0.00	0.00		0.00
Contribution cofinancement - PL				0.00		0.00	0.00		0.00
Recettes diverses à imputer				-0.07		-0.07	-0.07		-0.07
COF-Payable-IT				0.00		0.00	0.00		0.00
COF-Payable-AT				0.00		0.00	0.00		0.00
PF Not Migrated - Initial Upload				0.00		0.00	0.00		0.00
Contribution cofinancement - DK				0.00		0.00	0.00		0.00
Bank interests Congo to allocate				-0.02		-0.02	-0.02		-0.02
COF-Payable-DE	1.42	1.42	0.00	0.00	0.00	0.00	1.42	1.42	0.00
COF-Payable-CZ				0.00		0.00	0.00		0.00
Bank Interest				2.49		2.49	2.49		2.49
Bk Intere Spe Congo Fund				0.00		0.00	0.00		0.00
COF-Payable-NL				0.00		0.00	0.00		0.00
Miscellaneous income				0.00 2.45		2.45	2.45		0.00 2.45
COF-Pavable-PT				0.00		0.00	0.00		0.00
Uncalled Capital - Croatia EU flight contributions from other EU bodies	5.63	5.63	0.00	2.03 0.00	0.00	2.03 0.00	7.66 0.00	5.63	2.03 0.00

TABLE 8 : FINANCIAL IMPACT OF EX-ANTE AND EX-POST CONTROLS in for EDF

Nil

TABLE 9: AGEING BALANCE OF RECOVERY ORDERS AT 31/12/2022 for EDF

Number at 1/1/2022	Number at 12/31/2022	Evolution	Open Amount (Eur) at 1/1/2022	Open Amount (Eur) at 12/31/2022	Evolution

TABLE 10 :Recovery Order Waivers >= 60 000 € in 2022 for EDF						
	Waiver Central Key	Linked RO Central Key	RO Accepte d Amount (Eur)	LE Accoun t Group	Commissio n Decision	Comments
Total	DG JRC					
. 5141			1]		
Num	ber of RO waivers					

TABLE 11 : Negotiated Procedures in 2022 for EDF

Negotiated Procedure Legal base	Number of Procedures	Amount (€)
Total		

TABLE 12 : Summary of Procedures in 2022 for EDF

Procedure Legal base	Number of Procedures	Amount (€)
Total		

TABLE 13 : BUILDING CONTRACTS in 2022 for EDF

Legal Base	Procedure subject	Contract Number	Direct or Specific?	Contractor Name	Contract Subject	Contracted Amount (€)

TABLE 14 : CONTRACTS DECLARED SECRET in 2022 for EDF						
Legal Base	Direct or Specific?	LC Date	Contract Number	Contract Subject	Contracted Amount (€)	

TABLE 15 : FPA DURATION EXCEEDS 4 YEARS FOR EDF DG JRC

Nil

ANNEX 4: Financial scorecard

DG JRC

The Annex 4 of each Commission service summarises the annual result of the standard financial indicators measurement. Annexed to the Annual Activity Report 2022, 10 standard financial indicators are presented below, each with its objective and result for the Commission service and for the EC as a whole (for benchmarking purposes)⁵:

- Commitment Appropriations (CA) Implementation
- CA Forecast Implementation
- Payment Appropriations (PA) Implementation
- PA Forecast Implementation
- Global Commitment Absorption

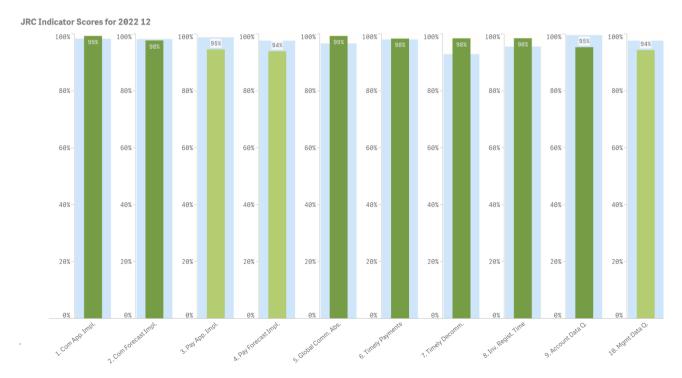
- Timely Payments
- Timely Decommitments
- Invoice Registration Time
- Accounting Data Quality
- Management Data Quality

For each indicator, its value (in %) for the Commission service is compared to the common target (in %). The difference between the indicator's value and the target is colour coded as follows:

- 100 >95% of the target: dark green
- 95 >90% of the target: light green
- 90 >85% of the target: yellow
- 85 >80% of the target: light red
- 80 0% of the target: dark red

The Commission services are invited to provide commentary for each indicator's result in the dedicated comment section below the indicators scores as this can help the reader to understand the Commission's service context. In cases when the indicator's value achieves 80% or less of the target, the comment becomes mandatory.

The detailed definitions of the indicators are available on the internal DG BUDG site (BudgPedia) and managed by unit BUDG.C5 Financial Reporting.



Indicator	Objective	Comment ⁶	JRC Score	EC Score
1. Commitment Appropriations Implementation	Ensure efficient use of commitment appropriations expiring at the end of Financial Year		99%	98%
2. Commitment Forecast Implementation	Ensure the cumulative alignment of the commitment implementation with the commitment forecast in a financial year		98%	98%
3. Payment Appropriations Implementation	Ensure efficient use of payment appropriations expiring at the end of Financial Year		95%	99%
4. Payment Forecast Implementation	Ensure the cumulative alignment of the payment implementation with the payment forecast in a financial year		94%	98%
5. Global Commitment Absorption ⁷	Ensure efficient use of already earmarked commitment appropriations (at L1 level)		99%	97%
6. Timely Payments	Ensure efficient processing of payments within the legal deadlines		98%	98%
7. Timely Decommitments	Ensure efficient decommitment of outstanding RAL at the end of commitment		98%	93%

⁶ An explanation behind the indicator result can be provided, e.g. the comment about the achievement itself, reference to the whole Commission performance (better or worse), reasons behind this achievement. The comment is mandatory for the 'Timely payments' indicator. For the rest of indicators the comment is mandatory only if the score is equal or below the target of 80%.

⁷ Due to technical limitation: 1. the indicator does not take into account the Com L1 Consumption between the FDC ILC date and the FA FDI allowed as an exception in the external actions for Com L1 of type GF, i.e. with Financing Agreement, under the FR2018 Article 114.2. 2. it is technically not possible to exclude the decommitment of RAL (C8) which is subsequently recommitted for a new purpose. As a result, the actual Indicator score may be slightly higher than the one reported for DGs using the GF commitments.

	life cycle		
8. Invoice Registration Time	Monitor the accounting risk stemming from late registration of invoices in the central accounting system ABAC	98%	95%
9. Accounting Data Quality	Ensure the good data quality of ABAC transactions with the focus on fields having a primary impact on the accounts	95%	100%
10. Management Data Quality	Ensure the good data quality of ABAC transactions with the focus on fields having a primary impact on the management decisions	94%	98%

ANNEX 5: Materiality criteria

Since 2019⁸, a *de minimis* threshold for financial reservations has been introduced. Quantified annual activity report 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.

The objectives of the internal control system are defined in the Financial Regulation (cf. Art. 36). The Authorising Officer by Delegation (AOD) needs to define specific management targets and, in particular, needs to have objective criteria **for determining which weaknesses** should be subject to a formal reservation to his/her declaration.

The JRC considers weaknesses to be either of a quantitative nature i.e. significant errors affecting legality and regularity of the underlying transactions, or of a qualitative nature. Qualitative weaknesses might arise from significant control system weaknesses, significant reputational events which materialised, insufficient audit coverage and/or inadequate information from internal control systems, critical issues reported by the European Court of Auditors (ECA), the Internal Audit Service (IAS) or the European Anti-Fraud Office (OLAF).

The materiality criteria related to the JRC's budget and operations are applied to the results of *ex ante* and *ex post* controls, exception reporting, reports from authorising officers by sub-delegation, reports from authorising officers in other DGs managing budget appropriations in cross-delegation and work done by the IAS and other auditing bodies as well as feedback during the self-assessment of internal control.

Determining specific materiality criteria involves making a judgment in both **qualitative and quantitative terms**.

In **qualitative** terms, when assessing the significance of any weaknesses, the JRC takes the following factors into account:

- the nature and scope of the weakness,
- the duration of the weakness,
- the existence of compensatory measures (mitigating controls which reduce the impact of the weakness),
- the existence of effective corrective actions to correct the weaknesses (action plans and financial corrections) which have had a measurable impact.

⁸ Agreement of the Corporate Management Board of 30/4/2019.

In **quantitative** terms, to make a judgment on the significance of a weakness, the JRC **quantifies** the potential financial impact ('monetary value of the identified problem'/'amount considered erroneous'/'the amount considered at risk') in monetary terms.

The following three types of reservations may be associated with the activities of the JRC in case the thresholds set by the materiality criteria are exceeded. Events with a reputational impact for the JRC are assessed by taking into account the nature of the impact on reputation, the breadth of awareness of the event and the duration of impact on reputation.

1. Materiality criteria for making a reservation in the context of financial management

The voted budget in commitments managed directly by the JRC each year is around EUR 416 million. Around 59% of the budget is dedicated to staff costs. The remainder is dedicated to site and infrastructure management and to operational expenses e.g. purchasing equipment. According to the DG Budget guidance⁹, any DG with a programme affected by errors for which the financial exposure from the amount at risk is above the materiality threshold of 2% of the relevant related payments should make a reservation.

The reservations may be associated with the following financial management activities:

Payment processing in which significant amounts of funds are inappropriately paid to beneficiaries. These include payments to staff and/or ineligible payments to suppliers.

Procurement activities which result in a significant loss of funds from the JRC budget. Such activities may be associated with distortion of market conditions and not opening up the market to competition.

Favouring third parties to work with the JRC in the context of its contractual income operations where for example insufficient amounts are charged by the JRC for its services.

Reputational events creating lasting damage related to financial operations, including procurement. Reservations will be made if serious cases of fraud occur during the processing of financial transactions.

⁹ 'Guidance on the calculation of error rates, the financial exposure as amount at risk, the materiality for a potential reservation and the impact on the AOD's declaration'

2. Materiality criteria for making a reservation in the context of the core activities of the JRC

As the science and knowledge service of the Commission, the JRC has the responsibility to support EU policies with independent evidence throughout the whole policy cycle. Events that risk significantly undermining the credibility and or impartiality of the JRC's scientific results and outputs would be considered as significant reputational events which have materialised that could lead to a reservation being made. This is relevant in cases where such operations would lead to lasting damage to the Commission's image or serious breaches on provisions of the Treaty.

The JRC is accountable for a wide range of administrative and support services. Events that damage the reputation of the European Commission in the long term associated with mismanagement and/or malpractice of the JRC in particular when legal provisions are not respected, would lead to a reservation being made.

The JRC has important responsibilities to ensure the safety and security both of its staff and the population in areas around the research centres. Reputational events occurring as a consequence of serious negligence, breaches in the application of safety legislation or mismanagement, would lead to a reservation being made.

If the JRC was the subject of litigation and subsequently lost a legal case the matter would be assessed to determine whether the reputation of the European Commission had been significantly and adversely affected in the long term, this would lead to a reservation being made.

3. Materiality criteria for making a reservation in the context of control systems weaknesses and auditing activities

The JRC works to ensure that the Commission's internal control framework is implemented effectively. Should one control principle not be sufficiently well implemented, or should there be a serious error in the application of any of the control principles, or any critical issue reported by OLAF, a reservation would be made.

The JRC is periodically audited by the IAS and the ECA. These bodies issue recommendations scaling from critical to important. In the case of critical recommendations or in the case of a number of 'very important' recommendations creating a combined effect on the state of internal control, a reservation would be envisaged; if the identified weaknesses led to a significant loss of funds or caused lasting damage to reputation, then a reservation should be made. In any case, if the JRC did not, or could not, appropriately address a critical recommendation, or the combined effect of a number of recommendations, rated 'very important', or for which there is a significant delay in the implementation of the action plan, a reservation would be made.

ANNEX 6: Relevant Control System(s) for budget implementation (RCSs)

RCS: Procurement in direct management mode

Stage 1 - Procurement

A - Planning

Main internal control objectives: Ensuring that the decision to tender is optimal

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
	Preparation of detailed procurement planning and regular follow-up via Public Procurement Management Tool (PPMT)	Coverage : 100 % of the forecast procurements > EUR 15 000	Effectiveness: <u>Benefits</u> : Rejection of unjustified purchases, avoidance of litigation and compliance with Financial Regulation and Procurement rules
The needs are not well defined (operationally and economically) and that the decision to procure was inappropriate	Note to AO(S)D on justification (economic, operation) for launching a procurement process	Coverage : 100% of the forecast procurements	Efficiency: Number of procedures closed during the year:
	Preparation of detailed procurement planning and regular follow-up via PPMT	Coverage : 100 % of the forecast procurements > EUR 15 000	252 Average cost per tender: Cost of control on procurement (EUR 3 523 482) / number of procedures closed during the year (252) = EUR 13 984 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 523 482) / Total contract value (EUR 265 780 000) = 1.33 %
Discontinuation of the services provided or delays/extra work in the project execution due to a late contracting	Continuous monitoring during the call for tender procedure for successful award of the contract and close monitoring of contract execution.	Coverage : All key procurement procedures having significant impact on the objectives of the DG	

B - Needs assessment & definition of needs

Main internal control objectives: Ensuring that the call for tender is optimally done

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
The best offer/s are not	Financial circuit (OVA and or AOS approval and supervision of specifications)	Coverage: 100 % of the specifications are scrutinised Depth: Determined by the amount and/or the impact on the objectives of the DG if it goes wrong	Effectiveness: <u>Benefits</u> : Rejection of unjustified purchases, avoidance of litigation and compliance with Financial Regulation and Procurement rules Efficiency:
	Additional controls namely by procurement staff above the financial threshold of EUR 15 000	Coverage: 100 % of procedures > EUR 15 000	Number of procedures closed during the year: 252 Average cost per tender: Cost of control on
submitted due to inadequate market analysis and / or poorly defined technical specifications	Public Procurement Advisory Group (PPAG) – <i>ex ante</i> control	Coverage : Threshold (100 % > EUR 500 000 and 100 % of negotiated > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000) Depth : Depends on the sensitivity Risk based approach focused in particular on the selection criteria	procurement (EUR 3 523 482) / number of procedures closed during the year (252) = EUR 13 984 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 523 482) / Total contract value (EUR 265 780 000) = 1.33 %

C - Selection of the offer & evaluation

Main internal control objectives: Ensuring that the selection of the contractor is optimal

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
	Opening committee and evaluation committee	Coverage : 100 % of the offers analysed Depth : all documents transmitted	Effectiveness: <u>Benefits:</u> Rejection of unjustified purchases, avoidance of litigation and compliance with
	Public Procurement Advisory Group <i>ex ante</i> control	Coverage: Threshold (100 % \geq EUR 500 000 and 100 % of negotiated > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000)	Financial Regulation and procurement rules Efficiency: Number of procedures closed during the year: 252
The most promising offer not being selected, due to a biased, inaccurate or 'unfair' evaluation		Depth : In terms of justification of the draft award decision	Average cost per tender: Cost of control on procurement (EUR 3 523
process			482) / number of procedures closed during the year (252) = EUR 13 984
	Opening and evaluation committees' declaration of absence of conflict of interest and confidentiality	Coverage : 100 % of the members of the opening and the evaluation committees	Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 523 482)) / Total contract value (EUR 265 780 000) = 1.33 %
Inconsistency between the signed contract, the specifications, the offer, the conclusion of the evaluation committee and the awarding decision	Verification by procurement officers and financial verifying agents and authorising officers	Coverage : 100 % checked	Effectiveness: <u>Benefits:</u> avoid contracting with 'excluded' suppliers that would not be able to fulfil
	Exclusion criteria documented	Coverage : 100 % checked Depth: required documents provided are consistent	the contract requirements Efficiency: Number of procedures closed during the year: 252
	Public Procurement Advisory Group <i>ex ante</i> control	Coverage : Threshold (100 % ≥ EUR 500 000 and 100 % of negotiated	Average cost per tender: Cost of control on

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
		 > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000) Depth: Depends on the sensitivity risk-based approach focused in particular on the selection criteria 	procurement (EUR 3 523 482) / number of procedures closed during the year (252) = EUR 13 984 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 523 482)) / Total contract value (EUR 265 780 000) = 1.33 %

Stage 2 - Financial transactions

Main internal control objectives: Ensuring that the implementation of the contract is in compliance with the signed contract

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
Contractor does not comply with the offer done / signed contract	Monitoring respect of contractual provisions	Coverage : 100 % monitored Depth : Follow-up of the deadlines and the deliverables mentioned in the contract	Effectiveness: <u>Benefits:</u> Detect error before payment, sound financial management and respect of contractual provisions Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 5 948 901) / number of financial transactions (24 409) = EUR 244 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on the financial circuit: EUR 5 948 901) / value of payment executed (EUR 256 570 000) = 2.32 %
	Conform to the fact	Coverage : 100 % of transactions	Effectiveness : <u>Benefits:</u> avoid paying undu
Amount paid is disconnected from the quality and the timing of the deliverables	Financial circuit: all steps financial and operational	Coverage: 100 % controlled Depth: check of all required documents in the contract	amounts Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 256 566
	Signature at higher senior management level for amounts > EUR 139 000	Coverage: 100 % of transactions > EUR 139 000 Depth: The depth depends on the risk criteria	198) / number of financial transactions (24 409) = EUR 244 Economy (costs):
	Sensitive functions	Coverage: AOSDs and OIAs mainly	Estimation of cost of operational and financial staff involved Cost of control on the financial circuit: EUR 5 948 901) / value of payment executed (EUR 256 566 198) = 2.32 %

Amount paid is disconnected from the quality and the timing of the deliverables	Close monitoring of every step in the payment process, in particular payment delays	Coverage : 100 % of transactions	Effectiveness: <u>Benefits</u> : Sound financial management and respect of contractual provisions Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 5 948 901) / number of financial transactions (24 409) = EUR 244 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on the financial financial financial
			Cost of control on the financial circuit: EUR 5 948 901) / value of payment executed (EUR 256 566 198) = 2.32 %

Stage 3 – Supervisory measures

Main internal control objectives: Ensuring that any weakness in the procedures (tender and financial transactions) is corrected

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
An error or non-compliance with regulatory and contractual provisions, including technical specifications, or a fraud is not prevented, detected or corrected by <i>ex ante</i> control, prior to payment	<i>Ex post</i> controls on procedures / contractors	ls on ontractors Depth: Review of the procedures implemented (procurement and financial	Effectiveness: Detected error rate from <i>ex</i> <i>post</i> controls: value of error(s) / total value of payments checked Benefits: Irregular payments detected, issues are followed and addressed and
	Whistle blowing (after yearly reporting of awarded contractors)	Coverage : Potentially 100 %	improvement of processes and procedures
Management of the procurement is not improved in general	Review of <i>ex post</i> results	Coverage : 100 % at least once a year Depth : Look for any systemic problem in the procurement procedure and in the financial transaction procedure and any weakness in the selection process of the <i>ex post</i> controls	Economy (costs): Estimation of cost of staff involved mainly linked to <i>ex</i> <i>post</i> controls Costs <i>ex post</i> controls / total value of transactions checked by <i>ex post</i> controls EUR 82 607/ EUR 35 908 086 = 0.23%

	Review of exception reporting	Coverage : 100 % at least once a year Depth : Look for any weakness in the procedures (procurement and financial transactions)	Costs <i>ex post</i> controls / total number of transactions checked by <i>ex post</i> controls EUR 82 607/ 182 = EUR 454
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RCS: Managing Income from Competitive Actions

This RCS applies to income generated by the JRC through providing, under contract, scientific and technical services to customers both within and outside the European Institutions.

Stage 1 - Contract Proposal Phase

Main internal control objectives: Ensuring the JRC only commits to revenue generating operations through competitive contracts when appropriate

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
The risk of carrying out projects which are not in line with the JRC work programme and which do not meet customer expectations, might lead to reputational issues.	Risk assessment carried out on each competitive project proposal and reviewed by management Project check list for each competitive project proposal is subject to management review.	Coverage : 100 % (risk assessment and project check list for all projects proposals). Depth : All documents transmitted	Effectiveness Benefits: Only project proposals with an acceptable level of risk and which are in line with work programme which could meet customer expectations are accepted. JRC contractual cashing (in %) - up to 15 % of the institutional budget: 26.31 % Economy (costs): Estimated time taken by responsible scientist and management to prepare and review risk assessment against project proposal value. Cost of control on competitive project proposals / Total contractual project forecast value: 0.040 % Cost of control on competitive project proposals / Number of proposals selected during the year: 196.25 EUR per project (all proposals past management review)

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	For all competitive project proposals – high level management review and hierarchical validation	Coverage: 100 % (all competitive project proposals). Depth: May be determined by the amount and/or the impact on the objectives of the JRC if it goes wrong	Effectiveness <u>Benefits:</u> Only competitive project proposals with an acceptable level of risk and which are in line with work programme which could meet customer expectations are accepted. Efficiency: Estimated time taken by each actor in the management review procedure. Economy (costs):
			level management review / Total contractual project proposal: 0.30 % Cost of control on competitive project proposals / Number of proposals selected during the year : 147.19 EUR per project (all proposals past management review) Effectiveness <u>Benefit:</u> Reduced risk of financial loss due to
Financial loss due to underestimation of cost of deliverables	Approval of Cost Evaluation Form by Head of Unit. 50 % up-front payment is requested on all TPW contracts.	Coverage : 100 % (All cost evaluation forms authorised by the Unit Head)	Efficiency Estimated time taken by financial officers to request and monitor TPW up-front payment against project value Economy (costs): Estimated time for Unit head to approve the project proposal cost evaluation.
Financial risk on Third	Checking and follow-up of	Coverage : 100 % check of	Cost of control for Cost Evaluation Forms/ Value of cost evaluation form: 0.010 % Cost of control for Cost Evaluation Forms/Numebr of competitive project proposal: 49.06 EUR per project
Party Work (TPW) contracts	receipt of up-front payment	receipt of TPW up-front	Effectiveness Page 68 of 115

 risk of non-payment by 	by financial officers	payments.	Rate of default (if any) on
third parties			TPW contracts: 0
			Benefit: reduced risk from
			third party default
			Feenemy (secto): Fatimated
			Economy (costs): Estimated
			time taken by financial
			officers to request and
			monitor TPW up-front
			payment against project
			value
			Cost of control for up-front
			payment / Project value of all
			TPW contracts: 0.02 %
			Cost of control for up-front
			payment/Number of TPW
			contractual project proposal:
			98.13 EUR per project
L	1	1	I

Stage 2 - Contract Proposal Phase

Main internal control objectives: Ensuring all contractual contracts signed by the JRC for the provision of scientific/technical services meet the appropriate contract standards.

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
Inappropriate contract wording may expose the JRC to additional liability.	Wherever possible standard templates are used. All contracts are checked and verified by the competitive financial officers and in particular for any deviation from standard clauses, and for any non-standard clauses an opinion of the legal unit may be sought.	Coverage : 100 % (all contracts reviewed at the level of the competitive financial officers).	Effectiveness Benefit: The JRC is not exposed to any additional liability Economy (costs): Estimated time taken for the competitive financial officers to verify all contracts. Cost of control for contract checking/ Total value of contracts signed: 0.02 % Cost of controls for contract checking / Number of contracts signed: EUR 98.13
Failure to properly forecast revenue in the associated initial Forecast of Revenue (FOR) may result in inadequate credit	All FORs are checked by the Financial Initiating Agent (FIA), verified by a financial verifying agent (FVA) and authorised by the	Coverage : 100 % as all FOR are checked, verified and authorised (Financial Circuits).	Effectiveness <u>Benefit:</u> Elimination of errors on FOR, respect of financial circuits.

commitments being available.	authorising officer (AOS) who is also responsible for the legal commitment (i.e. signing the contract).	Depth : The depth depends on the risk criteria	Efficiency Estimated time of staff involved, (FIA; FVA & AOS).
			Economy (costs): Cost of control for FOR checking/ Total value of FORs signed: 0.04 %
			Cost of control for FOR checking/ number of FORs: EUR 147.19

Stage 3 - Contract implementation phase

Main internal control objectives: To guarantee the correct financial management of all revenue generating operations through competitive contracts

Main risks It may happen (again) that	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
that Failure to cash appropriately might lead to financial and reputational	Budget consumption is verified by the competitive financial officers (FIAs) prior to billing the customer. All Recovery Orders (ROs) are checked by FIA against contract and budget consumption, verified both by the FVA and authorised by the AOS.	Coverage : 100 % (all ROs are checked, verified and authorised). – Financial circuits Depth : The depth depends on the risk criteria	Effectiveness Benefit: Correct billing of customers, sound financial management and respect of contractual provisions. Efficiency Time taken by, FIA, FVA and AOS to verify ROs against the total value of ROs issued. Economy (costs): Time taken by, FIA, FVA and AOS to verify ROs against the total value of ROs issued. Cost of controls on RO / Total value of recovery orders issued: 0.06 %
loss.	Independent audits are systematically carried out For Framework Programme (FP) contracts with a reimbursable value > EUR 325 000	Coverage: Independent audits of FP contracts with a reimbursable value > EUR 325 000 Depth: The depth depends on the risk criteria	Effectiveness Benefit: reduced risk of errors for contracts with a reimbursable value > EUR 325 000, system improvements and compliance with FP provisions. Efficiency Time to provide audit certificate Economy (costs) Costs of audits / Total value of contractual projects audited: 0.15 %
Risk of late interest payments and discontinuity of business because contractor fails to deliver due to delayed payments.	Close monitoring of every step in the revenue process, including competitive cashing rates	Coverage : 100 % of RO transactions	Effectiveness Benefits: Sound financial management and respect of contractual provisions JRC competitive cashing (in %) - up to 15 % of the institutional budget: 26.31 %

			Efficiency Estimated time of staff involved, (FIA; FVA & AOS). Economy (costs): Estimated time of staff involved, (FIA; FVA & AOS).
			Effectiveness
Incorrect implementation of procedures and work instructions for competitive activities, resulting in a lack of harmonisation across the JRC	<i>Ex post</i> control exercise, analysing 16 randomly chosen contracts out of a pool of living and recently closed contracts	A comprehensive review of the correct application of procedures and work instructions to a randomly selected group of contracts covering all JRC sites.	Benefit: Increased harmonisation of competitive contract management across the JRC sites Efficiency Estimated time of staff involved Economy (costs) Estimated time of staff involved EUR 8 365
			Cost of <i>Ex post</i> control / Total Value of contractual cashing: 0.01%

ANNEX 7: Specific annexes related to "financial management"

1. Sound financial management

Objective: The JRC is using innovative, trusted digital solutions for better policy-shaping, information management and administrative processes to forge a truly digitally transformed, user-focused and data-driven Commission.

Indicator 1: Estimated risk at closure Source of data: DG BUDG and internal reports

Baseline	Target	Last known value
(2019)	(2024)	(31/12/2022)
< 0.5%	< 2% of relevant expenditure	< 0.5%

Main outputs in 2022:				
Description	Indicator	Target	Latest known results	
Effective controls: Legal and regular transactions	Risk at payment	Remains < 2 % of relevant expenditure	0.5%	
	Estimated risk at closure	Remains < 2 % of relevant expenditure	0.45% Despite the fact that the JRC's detected error rate is 0 % it has estimated its average error rate to be 0.45% net of expected future corrections (0.05%), which is a more conservative and prudent approach.	
	Proportion of exceptions	Remains < 1 % of number of transactions	0.44%	
	Share of procurement procedures receiving a positive opinion from the Public Procurement Advisory Group (PPAG)	Remains ≥ 95 % screened by PPAG	97%	
Effective controls: safeguarded assets	The tri-annual inventory – scanning of movable assets on each JRC site	+/-90% of assets tracked during each physical inventory exercise.	+/-90 ¹⁰	

¹⁰ 2021 Annual Report on Asset Management as 2022 report will be finalised after the JRC AAR 2022

Description	Indicator	Target	Latest known results
Efficient controls	Timely payment	Percentage of payments (in value) made within legal time limits (remains ≥ 93%)	98 %
Economical controls	Overall estimated cost of controls	<4% of funds managed	3.71 %
	Cost of supervisory measures (<i>ex post</i> controls)	Remains < 0.4 % of <i>ex post</i> value controlled	< 0.4%

Main outputs in 2022:

The overall financial performance for the JRC for 2022 has once again been excellent, also as a result of the continuous monitoring and improvements carried out throughout the year. This has been confirmed by DG BUDG in its year-end flash report where the JRC has scored high in all financial indicators used to measure financial performance.

Average payment times reached 97.5% within the required payment delay. This continues the excellent progress achieved in the previous year.

The development of the JRC's **License to Buy** has been completed and approved by the JRC's senior management team for implementation on 1st January 2023. Operational staff will obtain a personal document attesting that they took the minimum training and adequately passed knowledge tests prior to their further involvement, as of 1 April 2023, in procurement, contract management or handling of experts.

PPMT is now compulsory for all procedures using eSubmission as well as very low value procedures. PPMT saw the preparation and launch of more than 1,300 procedures above EUR 15,000 and more than 3,000 very low value procedures.

PPMT offers the latest BUDG templates for invitation letters (all EU languages), tender specifications (EN, FR, IT), declaration on honour (all EU languages) and draft framework contract for services (EN, FR, DE, IT, NL, ES, PT). The generation of contract award notices and corrigenda has been enhanced and procedure officers/managers are notified of the next steps to take for the preparation of notices or eTendering calls for tenders.

eSubmission now supports the most common procedure types: open, restricted, competitive procedure with negotiation, negotiated without prior publication, negotiated low/middle value, design contest. 2022 saw eSubmission receive almost 6,700 tenders. Important improvements were introduced to the opening and evaluation and the use of eSubmission for submitting/receiving tenders/submissions for specific contracts under jrc_aar_2022_annexes Page 74 of 115

framework contracts was reinforced (available previously only for external actions and pilot FWCs in common provisions).

The **contract management** solution now offers support for specific contracts under all types of framework contracts. It is actively used by RELEX family (INTPA, NEAR, FPI) and on a pilot basis by JRC, RTD and REFORM. More than 2000 specific contracts have been signed using the system so far.

The scope of **Inventory and Logistics Management** has been defined based on the SUMMA pilots with the three agencies and harmonisation of existing processes in the major management centres.

2. Table Y on the estimated 'cost of controls' at Commission level

Table Y on the estimated 'cost of controls' at Commission level- Overview of JRC's estimated cost of controls at Commission (EC) levelEXPENDITUREThe absolute values are presented in EUR

JRC	Ex ante controls***		Ex post controls		Total			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Relevant Control System (RCS) / Other as defined in Annex 6 of the AAR*	EC total costs	related payments Made	Ratio (%)** <i>(a)/(b)</i>	EC total costs	total value verified and/or audited	Ratio (%) <i>(d)/(e)</i>	EC total estimated cost of controls (a)+(d)	Ratio (%)** (g)/(b)
Procurement and financial transactions	9,424,760.00€	256,566,197.94 €	3.67%	82,607.00€	35,908,065.00€	0.23%	9,507,367.00€	3.71%
OVERALL total estimated cost of control at EC level for expenditure	9,424,760.00€	256,566,197.94€	3.67%	82,607.00€	35,908,065.00€	0.23%	9,507,367.00€	3.71%
NON-EXPENDITURE ITEMS **	***							
JRC	Ex ante controls***		Ex post controls			Total		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Relevant Control System (RCS) / Other as defined in Annex 6 of the AAR*	EC total costs	related amounts	Ratio (%)** <i>(a)/(b)</i>	EC total costs	total value verified and/or audited	Ratio (%) <i>(d)/(e)</i>	EC total estimated cost of controls (a)+(d)	Ratio (%)** (g)/(b)
	Only applicable for DGs with non-expenditure items							
Income from Competitive Actions	259,016.00€	126,609,764.00€	0.20%	8,635.00€	99,694,437.00€	0.01%	267,651.00€	0.21%

* if the control costs are not attributable to a single RCS and may relate to a 'mix' of expenditure, revenue, assets/liabilities, etc, they may be grouped

** ratio possibly "Not Applicable (N/A)", e.g. if a RCS specifically covers an Internal Control Objective such as safeguarding sensitive information, reliable accounting/reporting, etc

*** any 'holistic' control elements (e.g. with 'combined' ex-ante & ex-post characteristics) can be reported in the ex-ante column provided that a footnote clarifies this (their nature + their cost). Example: MS system audits in shared management.

**** These include revenue operations (e.g. assigned revenue, fines, interest); assets (e.g. (in)tangible or financial assets, inventories, treasury) and financial liabilities or 'off balance sheet' items (e.g. employee benefits, guarantees offered or other commitments)

Procurement in direct management mode

The JRC has defined efficiency measures for the controls associated with the three main stages, the first 2 stages performed *ex ante* and the third stage, *ex post*:

The JRC has defined efficiency measures for the controls associated with the three main stages, the first 2 stages performed *ex ante* and the third stage, *ex post*:

- For procurements, an estimated EUR **3 523 842** were invested in controlling 252 procurement procedures for contracts with a total value of EUR **265 780 000**. Thus **1.33** % of the total contract value was dedicated to control. This covers all types of procurement, ranging from low-value contracts, for example purchase of low-value laboratory equipment, to high value extremely complicated contracts such as nuclear decommissioning. The JRC considers that the necessity of these controls is undeniable, because as shown by the risks outlined in Annex 6 (RCS No 1), a significant proportion of the appropriations would be at risk if they were not in place.
- For financial circuits an estimated EUR 5 948 901 was invested in controlling 24
 409 financial transactions worth EUR 256 566 198. Thus 2.32 % of the total payment amount was dedicated to control.
- Overall, the total cost of control for procurement and financial transactions EUR 9
 424 743 plus horizontal controls EUR 500 000 is EUR 9 924 743, 3.9 % of total payment value for 2022.

Revenue operations through contractual activities

For the contract proposal phase, an estimated EUR 100 873 was invested in evaluating the cost of the projects, in assessing the risks, in overall checking and reviewing at different level of responsibility for 257 contractual project proposals with a total value of EUR 126 609 764. Thus, 0.080 % of the total contractual project proposal value was dedicated to carrying out such controls with a cost of EUR 392.50 per proposal.

The estimated total amount is broken down:

- EUR 50 436 for risk assessment and overall checking (0.040 % of the total competitive project value and EUR 196.25 per project);
- EUR 12 609 for cost evaluation form (CEF) checking (0.010 % of the total competitive project value and EUR 49.06 per project proposal);
- EUR 37 827 for high-level management reviewing (0.030 % of the total competitive project value and EUR 147.19 per project proposal).

The third party work (TPW) type of contracts incurred an estimated additional amount of EUR 2.551 for requesting up-front payments. Thus, 0.002 % of the total competitive project jrc_aar_2022_annexes Page 78 of 115

proposal value was dedicated to carrying out such controls with a cost of EUR 98.13 per projects. In previous years, until 2019, this percentage was calculated against the value of TPW project proposals, but it appears more meaningful calculating it as a percentage of the total value of all the contractual project proposals. The latter additional cost has led effectively to no default on TPW contracts.

For the contract preparation phase, an estimated EUR 25 218 was invested in reviewing the contract wording and ensuring these are in line with standard clauses, which represents 0.02 % of the competitive project proposal value with a cost of EUR 98.13 per project. For the financial circuits carried out on forecasting of revenue, an estimated EUR 63 983 was invested in controlling 374 forecasts of revenue (FORs and deFORs) worth EUR 136 999 745.54. Thus, 0.04 % of the total forecast of revenue amount was dedicated to control with an estimated cost of EUR 147.19 per FOR transaction.

For the contract implementation phase, an estimated EUR 63 291 was invested in monitoring budget consumption of the contractual contracts and reviewing a number of 430 recovery orders (ROs) issued worth EUR 101 454 201.11. Thus, 0.06 % of the total amount of RO issued was dedicated to controls.

When required, an independent auditor carries out *ex ante* audits on Framework Programme (FP) Indirect Action contracts with a reimbursable direct cost higher than EUR 325 000. Each audit has a fixed cost of EUR 1 875 (including 25 % overheads for H2020 indirect actions) and the total costs of the audits in 2022 amounted to EUR 11 250 representing 0.15 % of the value of competitive projects audited.

In 2022, an estimated EUR 8 635 was used to deliver an *ex post* control process to review 16 contracts representing 0.01 % of the cashed income from competitive contracts.

ABB Activities	Description	Payment appropriations (in EUR)
01 01; 01 02	Support expenditure for Horizon Europe; Horizon Europe	275,277,000
01 01; 01 03	Support expenditure for the Euratom Research and Training Programme; Euratom Research and Training Programme	107,138,880
01 20	Pilot Projects, Preparatory Actions	200,000

Table 7.1. Financing sources for 2022.

12 01 and 12 04 03	Support expenditure for the nuclear safety and decommissioning; JRC Decommissioning and Waste Management Programme	32,110,000	
20 04	Information Systems	6,676,045	
EFTA States Contribution		6.719.,929	
Voted budget (tota	l of above 6 headings)	428,121,854	
External assigned revenue	Supplementary credits from Association Agreements to H2020 and Euratom	8,456,728	
	Contractual income	99,694,437	
Internal assigned rev	6,886,906		
Co- and cross- delegations	Co-delegations	28,840,338	
received[1]	Cross delegations	800,000	
Grand total finar payments ^{[2] [3]}	572,800,263		
<u></u>		<u>5</u>	
[1]	More information on co- and cross-delegations can be found in Annex 10.1.		
[2]	This total does not include appropriations carried over from		

<u><</u>	This total does not include appropriations carried over from
	previous exercises nor the High Flux Reactor (HFR)
	appropriations.

Image: 3This total includes the salary budgets of the JRC staff
(officials, contract staff and seconded national experts).

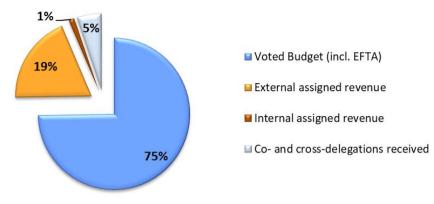


Figure 7.1 Financing sources in payment appropriations

1. Credits cross-sub-delegated and co-delegated

Cross-sub-delegations received

The JRC received in 2022 a cross sub-delegated authority to use the budgetary resources of other Directorates General and services of the Commission.

DG/Service	Associated budget in 2022 (C1 commitment accepted) In EUR 1 000s	Nature of cross-delegated service
DG DEFIS	800	Observatory of Critical Technologies OCT

Cross-sub-delegations given

The JRC has provided no cross sub-delegations to other Directorate Generals of the European Commission in 2022.

Co-delegations

The JRC has put in place co-delegations type I and type II¹¹ (art. 3.2 of the Internal Rules) with other Directorates-General of the European Commission for the following budget lines:

- 01.010113 'Other management expenditure for "Horizon Europe'
- 01.010213 'Other management expenditure for the "Euratom Research and Training Programme" Direct research'
- 01.010112 'External personnel implementing "Horizon Europe"

¹¹ In accordance with Art. 3.2 of the Internal Rules (Decision C(2015) 1423 final of 05/03/2015 on the Internal Rules on the implementation of the general budget of the European Union (European Commission section) for the attention of the Commission department)

- 01.010212 'External personnel implementing "Euratom Research & Training Programme'
- 01.020270 'Non-nuclear direct actions of the Joint Research Centre'
- 01.030300 'Nuclear direct actions of the Joint Research Centre'
- 02.040502 'Deployment / Interoperability'
- 02.049901 'Completion of previous programmes in the field of interoperability solutions for public administrations, businesses and citizens (ISA) (prior to 2021)'
- 03.020101 'Operation and development of the internal market of goods and services'
- 03.029905.01' Completion EFTA'
- 03.020500 'Producing and disseminating high quality statistics on Europe'
- 04.020200 'Copernicus'
- 04.029902 'Completion of the "European Earth Observation Programme (Copernicus)" (2014 to 2020)'
- 05.080300 'Restructuring of systems for agricultural surveys'
- 06.050100 'CEMS (Copernicus Emergency Management Service)'
- 06.069901 'Completion of previous public health programmes (prior to 2021)'
- 06.070100 'Emergency Support Instrument (COVID-19) for 2021.'
- 08.020603 'EAGF Operational technical assistance'
- 08.040200 'EMFF Operational expenditure under direct and indirect management'
- 09.020300 'Climate change mitigation and adaptation'
- 09.029901 'Completion of previous programmes in the field of environment and climate action (LIFE) (prior to 2021)'
- 09.020100 'Nature and biodiversity'
- 15.010101 'Support expenditure for the "Neighbourhood, Development and International Cooperation Instrument'
- 20.040100 'information Systems'

Table 7.2. Co-delegations type I and type II.

DG/Service	Associated budget in 2022 (C1 commitment accepted) In EUR 1 000s	Nature of the Co-Delegated Service
DG AGRI	3246	Assigned to Directorate D for the Control with Remote Sensing Programme – Acquisition of satellite imagery under the Control with Remote Sensing (CwRS) work programme and Land Parcel Identification Quality Assurance (LPIS QA).
DG AGRI	2153	Assigned to Directorate D for AGRI4CAST project – Implementation of the Operational MARS Crop Yield Forecasting System, The project results in the production of monthly MARS Bulletins, bi-weekly briefings on agro-meteorological conditions to AGRI, and additional ad-hoc analyses upon request.
DG BUDG	3132	Contribution of the JRC to DG BUDG for services related to ABAC and the development of SUMMA.

DG CLIMA	72	Assigned to Directorate D for Workshops on LULUCF in the context of the FORMONPOL AA
DG CLIMA	0	Assigned to Directorate D for Project 'LUCAS Samples'.
DG COMM	5	Contributions from operational programmes to corporate communication
DG DIGIT	6903	Contribution of the JRC to DG DIGIT for IT services foreseen in the MoUs, contributions from operational programmes to the co- financing of corporate IT and for the development of the e- Procurement.
DG DIGIT	0	Assigned to Directorate B for European Location Intelligence and Technological Enablers (ELITE) and Common Services Platform (Re3gistry and Validator)"
DG DGT	43	Contribution of the JRC to DG DGT Translation Services.
DG ECHO	4000	Assigned to Directorate D for ' CEMS (Copernicus Emergency Management Service'.
DG ENV	0	Assigned to Directorate D for Project 'LUCAS samples - Analysis'
DG ESTAT	102	Assigned to Directorate D for Project 'LUCAS samples - Analysis'
DG ESTAT	40	Contribution of the JRC to DG ESTAT for the purchase and annual update of geographic database
DG GROW	0	Assigned to Directorate C for VELA Laboratories
DG DEFIS	16132	Assigned to Directorates D, E and I for the programme 'Copernicus'
DG HR	4736	Contribution to the cost of activities managed by DG.HR.AMC8 (stagiares and grant holders salaries and administration, training and recruitment) and costs for the research budget contributing to the building costs in Brussels.
DG HR	74	The JRC social costs in Ispra managed by the Medical Services.
DG HR	749	Contribution to the cost of the Medical Services in the sites.
DG MARE	0	Assigned to Directorate D - Contribution to the Scientific, Technical and Economic Committee for Fisheries (STECF).
DG NEAR	0	Assigned to Directorate A for the 'TAC – Travel Accommodation and Conference facility for Western Balkans and Turkey'.
DG RTD	3450	Contributions for the development of the e-Procurement.
DG SANTE	0	Assigned to Directorate F; Coordination of expert panels in the field of medical devices in the context of CECP and PECP.
DG SANTE	0	Assigned to Directorate D; Emergency Support Instrument (COVID-19) for 2021.
OIB	1148	Contribution to the Ispra costs related to canteen & cafeteria, childcare and lodging managed by OIB and costs for the research budget contributing to the building costs in Brussels.
PO	966	Contribution of the JRC to the Publication Services.
SCIC	100	Contribution of the JRC the SCIC Conferences Services.

The JRC has put in place co-delegations Type III (art. 3.2 of the Internal Rules) with other Directorates-General of the European Commission for the following budget lines:

- O1.010111 'Expenditure related to officials and temporary staff implementing Horizon Europe — Direct research'
- 01.010211 'Expenditure related to officials and temporary staff implementing the Euratom Research and Training Programme Direct research'
- 01.010113 'Other management expenditure for "Horizon Europe'
- 01.010213 'Other management expenditure for the "Euratom Research and Training Programme" Direct research'
- 01.010112 'External personnel implementing "Horizon Europe"
- 01.010212 'External personnel implementing "Euratom Research & Training Programme'
- 01.020270 'Non-nuclear direct actions of the Joint Research Centre'
- 01.030300 'Nuclear direct actions of the Joint Research Centre'
- 12.040300 'JRC Decommissioning and Waste Management Programme'

Table 7.3. Co-delegations type III.

DG/Service	Associated budget in 2022 (C1 commitment accepted) In EUR 1 000s	Nature of co-delegated service
DG HR	0	Payments of Interim staff in Brussels
РМО	0	Payments of core and contractual staff expenditure and AGM payments

2. Expenditure operations

The JRC carries out its expenditure operations through procurement operations. An internal control template covering JRC's procurement is available in Annex 6 of this AAR.

The table below depicts the type of procurement procedures larger than EUR 60 000 carried out during 2022.

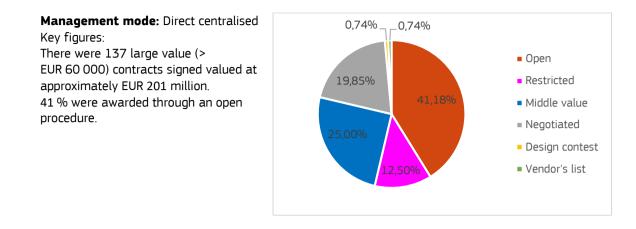


Figure 7.2. Procurement procedures (> EUR 60 000) contracted in 2022.

3. Revenue operations

The JRC has a mandate to carry out revenue generating operations through competitive activities, which is set out in a series of Council Decisions and Resolutions:

- The Council Resolution of 29 June 1988 introduced the concept of competitive activities performed by the JRC for third parties and in support of the Commission. It clearly differentiated between the JRC's institutional task of executing specific research programmes and its work for 'other Commission services and for third parties'.
- The Council Decision of 3 May 1989 formalises the concept of the JRC performing third party and support to the Commission activities and clearly indicates that this will be 'against payment'.
- The idea is further developed in the Council Resolution of 29 April 1992 in which the Council indicates that it 'considers that the JRC should further optimize the use of available staff and equipment in fields where it has the competence and should, in addition to its task of executing specific research programmes and exploratory research, seek to pursue its work of providing services'.
- In the Council Conclusions of 26 April 1994 on the role of the Joint Research Centre the Council reaffirms that the JRC must 'pursue and reinforce its move towards a more contractual approach on the basis of a genuine customer/contractor relationship' according to a set of guidelines provided in annex to the conclusions.

Competitive activities may be defined as the provision by the JRC of scientific and technical services to other bodies both within the European Institutions and for third parties. They generate internal assigned revenues [art. 21(2)(g) FR 2018] which automatically make available supplementary appropriations [art. 22(2) FR 2018], Three distinct types of competitive activities exist:

1. Support to Commission services

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Support actions carried out by JRC for other Commission services for work that is additional or complementary to its institutional work programme. An administrative arrangement (AA) is negotiated with the other Commission DG setting out the legal, financial and technical framework of the support to be offered.

2. Indirect actions within the scope of the research framework programmes

Indirect actions are calls for proposal launched by the research family DGs, or their agencies, within the scope of research framework programmes. The JRC participates under the same conditions and with the same rights and obligations as any other research body.

3. Third party work

Third party work is carried out for clients outside the Commission and in accordance with the Council Decision of 1989 and with Article 183 FR and Article 256 RAP for the JRC, allowing the JRC to provide services to third parties.

Support to Commission services is the main source of income and recovery orders issued to these services are subject to verification and approval. Furthermore, the paying Commission services can perform additional verification or audits on financial reports submitted by the JRC. With respect to indirect actions, an independent auditor verifies the financial statements prior to submission for reimbursement. During 2022, the independent auditor certified 6 financial statements submitted to the policy DGs, for a total amount of EUR 7.62 million. None of these independent controls unveiled errors with impact on legality and regularity of the revenue transactions

According to the Financial Regulation, the commitment appropriations inscribed for administrative agreements with other Commission Services are valid for 5 years. In 2022, EUR 128.8 million has been generated in such commitment appropriations valid for 5 years. During the same period EUR 83.8 million has been used. The remaining appropriations have to be used within the next 4 years and any unspent appropriations will be cancelled at the beginning of 2027. The JRC monitors the annual utilisation of these funds through a specific reporting tool. Figure 7.2 depicts the competitive income cashed during 2022, the type and their value.

Management mode: Direct centralised 1.05%_ 1.40% 7.78% Key figures: Indirect actions EUR 99.7 million of competitive income cashed in 2022. Support to Commission services are the Third party works main source of competitive income (89.77 % of the value of the competitive Support to the income cashed in 2022). Third party Commission works, Indirect actions and Licenses&Royalties, respectively, Licenses and represented 7.78%, 1.40 % and 1.05 % rovalties of the competitive income cashed in 2022.

Figure 7.3. Competitive income cashed by the JRC in 2022

The additional income generated through competitive activities is used for purchasing scientific equipment and services, hiring temporary staff, and for financing part of the JRC's infrastructure used for these tasks. An internal control template covering the JRC's income from contractual activities is available in Annex 6.

1. JRC financial circuits and segregation of duties¹²

The financial circuits in the JRC are based on the 'four eyes principle', which ensure that, before any operation is authorised, all aspects of the operation (both operational and financial) are verified by at least one member of staff other than the person who initiated the operation. The type of financial circuits chosen is determined by the nature of the financial transaction which is undertaken, as well as by geographical considerations. Circuit 1 is the model which is used for the majority of transactions at the JRC, in which there is a clear segregation between the operational and financial roles, respectively, and financial agents are hierarchically independent from the authorising officer.

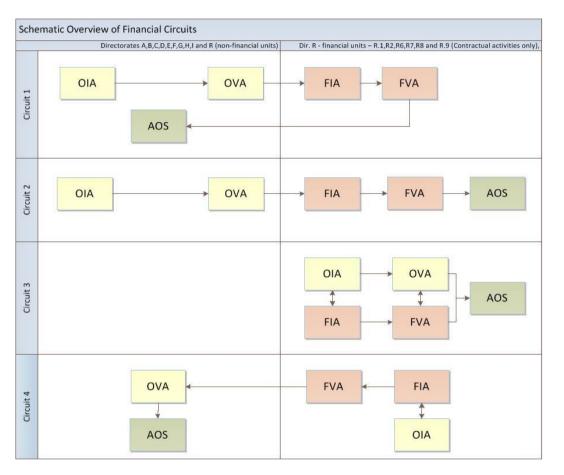
Basic principles

- Four eyes principle/Segregation of duties: the initiating and verifying function on one side, and the initiating and authorising function on the other side, can never be combined (Art. 74.5 FR).
- Independence of the verifier: the person executing the verifying function for an operation cannot be in a subordinated role to the person who initiates this operation (Art. 74.5 FR).
- Single signature: except in well-defined cases (as defined in Art. 29 IR) the budgetary and legal commitment relating to the same transaction has to be signed by the same authorising officer.

¹² Extract from the 'JRC Financial Circuits and Segregation of Duties'

Basic circuits

The AOD may decide on the financial circuit(s) to be applied for the transactions under his/her responsibility taking in consideration the nature of the financial transaction or geographical issues. In any event, all staff having the role of financial agents (FIA and FVA) are based in the financial units of Directorate A and R. A schematic representation of the JRC circuits can be shown as follows:



Circuit 1 is the most used circuit at the JRC. FIA/FVA are hierarchically independent from the AOS. It concerns transactions relating to:

- Scientific activities;
- Site management such as infrastructure and maintenance;
- Decommissioning activities;
- Centrally managed operations such as training, informatics, or communication;
- Income-generating transactions forecasts of revenue, recovery orders) not related to the JRC contractual activities.

In case of transactions < EUR 140 000 for commitments and < EUR 500 000 for payments involving two or more units from the same directorate, the AOS will be the Head of the Unit in which the OIA is placed. The other Heads of Unit are to be appropriately involved in the workflow.

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In case of transactions involving two or more actions with budget lines from different Directorates the AOS will be the Director (Directorate R).

Circuit 2 is used when the operational actors are situated in a different unit than the financial actors, the AOS being a hierarchical superior to the FIA and the FVA. It can cover the following transactions:

- Activities involving more than one directorate, where OIA and OVA are situated in directorates other than the Resources Directorate.
- Low-risk transactions (e.g. validation of payment orders for reimbursement of candidates/experts).

Circuit 3 is applied where all operational and financial initiating and verifying functions are carried out within one or more financial units within Directorate R, the AOS being the hierarchical superior of the operational and/or financial agents. It may cover the following transactions:

- Activities on administrative or staff-related budget lines.
- Activities of primarily technical nature on scientific budget lines
- Activities of primarily technical nature related to revenue
- Open labs recovery orders.
- Payments made via the AGM system on commitment appropriations generated by DG JRC Competitive Activities: In this special case, the OIA and FIA functions are performed by the PMO, the FVA function is performed on a sample basis (set in the AGM system). The AOS function is carried out by the JRC Budget Execution unit (JRC.R.8).

Depending on the risk involved as well as the complexity of the transaction being processed, this circuit allows a minimum of two persons: one combining the OIA/FIA responsibilities, and a second one combining the OVA/FVA/AOS responsibilities.

Circuit 4 is the model that is used for Income-generating transactions related to the JRC specific Competitive activities foreseen in the Financial Regulation (Art. 12-30-145-152-160-167-176 FR)

In this model, the FIA and OIA responsibilities are combined in the Financial Units, while the OVA role remains in the operational side and the AOS is the hierarchical superior of the OVA.

In some cases, an additional verification function may be carried out by an agent from a different unit.

Changes to authorised sub-delegations

DG JRC new financial circuits were updated in 2021 to simplify the financial management, while keeping in place the responsibility that is linked to the function of Authorising Officer by Subdelegation (AOS) and with a strict respect of the legal and regulatory framework.

- alignment of threshold limits of Heads of Unit and Deputy Heads of Unit with the threshold for procurement (EUR 139.000).
- many other changes have been introduced to align the financial circuits to DG JRC range of activities, among which the introduction of AGM payments in the third financial circuit, the specification of the DHoU role, the introduction of the ABAC simplified workflows for the financial units.

2. Accounting controls

The main aim of accounting controls is to assure the quality and reliability of the accounts and underlying transactions through methodical checks on the accounting records (data) and timely communication and correction of the errors. The controls carried out in 2022 have followed the Annual Accounting Quality Plan, sent to DG BUDG along with the Accounting Risk analysis. The controls performed are additional to the ex-ante controls performed by Financial Verifying Agents and Sub Delegated Authorising Officers on each transaction, in compliance with the Financial Regulation.

The controls on the General Ledger (GL) account of invoices were performed periodically according the Accounting Quality plan. A vast majority of invoices is subject to one of the following controls: operational/administrative coherence, Legal Entity default GL, greatest amounts checked, asset risk-based analysis, random sample. The errors detected are either corrected in ABAC or by means of an accounting adjustment at the year end.

In February 2022, after the Accounting closure and the related accounting adjustment, a random stratified sample was extracted representing 40% of the amount of invoices and internal documents received. The errors detected on the sample —not corrected neither in ABAC or by means of an accounting adjutment— have been duly extrapolated leading to an estimated accounting error rate of 0,67%, thus confirming the reliability of the accounts.The only type of error detected is related to a wrong GL account within the administrative expense category. No other type of error has been detected (e.g. asset expensed; GL account belonging to another category (operational vs. administrative).

It is important to highlight that all the errors mentioned above are of an accounting reclassification error and which do not lead to irregular payments.

Directorate-General for Budget (DG BUDG)'s validation of JRC local system, started in December 2020, lead to 5 recommendations. The JRC has prepared an action plan which is expected to be completed by June 2022.

3. *Ex post* supervisory controls

JRC's *ex post* controls strategy is implemented using a representative stratified sampling methodology at site/sector level (1 file for payments lower than EUR 1 000; 2 to 4 files for payments between EUR 1 000 and EUR 15 000; 4 to 6 files for payments between EUR 60 000; 4 to 6 files for payments between EUR 60 001 and EUR 14 000; 3 to 5 files for payments above EUR 140 000 and 2 files for payments corresponding to the 10 highest value time). The sampling is done at site level, i.e., Geel, Petten, Karlsruhe, Seville and Ispra. The two sectors in Ispra are subject to the review of two additional *ex post* controllers, since the importance in size and the number of files sampled.

In 2022, *ex post* controls were carried out on 112 payments¹³ and 70 associated procurement files related to legal commitments (including specific contracts on framework contracts) entered in the course of the year.

The findings relate mainly to the lack of certain formalisation aspects in the finalisation of the procedures, which did not lead to a financial loss for the JRC. In few *saisines a posteriori* situations, of a small financial value, the budgetary commitment was made after the legal commitment. The JRC's detected error rate is 0 % confirming the trend of the past years and indicating that there are no issues concerning the JRC's procurement and payments activities. The *ex post* findings have been discussed with the units concerned and an agreement on the findings was reached. Corrective actions will be taken and the formalisation aspects noted from the *ex post* supervisory controls will be included as part of the ongoing training courses and lessons learnt, thus leading to continuous improvement in the procurement process.

4. Exception reporting

Control overrides or deviations from standard policies and procedures are tracked and recorded in the register of exceptions. The exceptions reported were mainly associated with decisions to deviate from the original contract provisions i.e. extension of contract duration or derogation to procedures. Decisions taken by the management which led to exceptions were justified in terms of operational objectives, e.g. business continuity or efficiency. The non-compliance events were in their vast majority associated with saisine a posteriori situations where the budgetary commitment was made after the legal commitment.

¹³ Includes payments carried out by JRC using cross sub-delegations received.

3. Related to 'Audit observation and recommendations'

3.1 Fraud prevention

Objective: The risk of fraud is minimised through the application of effective anti-fraud measures and the implementation of the Commission Anti-Fraud Strategy (CAFS)¹⁴ aimed at the prevention, detection and correction¹⁵ of fraud

Indicator: Implementation of the actions included in the JRC anti-fraud strategy over the whole strategic plan lifecycle

Source of data: JRC indicator

Baseline 2020	Target (2024)	Latest known results 31/12/2022
100%	100%	90% of actions for 2022 done
(former AFS)	(new AFS)	(1 action postponed to 2023) ¹⁶

Main outputs in 2022:

Description	Indicator	Target	Latest known results
Awareness-raising in the area of anti-fraud and ethics	Ethical climate rating (based on internal control implementation survey)	4/5	4/5 (data 2019) ¹⁷
Contribute to the strategic monitoring of the Commission's anti-fraud activities through reporting on the follow-up of the financial recommendations issued by OLAF	Percentage of recommendations implemented	100%	100%
New internal control strategy	Approved by DG	Q3 2023	Postponed to 2023 ¹⁸

¹⁴ Communication from the Commission 'Commission Anti-Fraud Strategy: enhanced action to protect the EU budget', COM(2019) 196 of 29 April 2019 – 'the CAFS Communication' – and the accompanying action plan, SWD(2019) 170 – 'the CAFS Action Plan'.

¹⁵ Correction of fraud is an umbrella term, which notably refers to the recovery of amounts unduly spent and to administrative sanctions.

¹⁶ The missing action is linked to the analysis of anti-plagiarism tools and it requires additional analysis due to the security restrictions on the use of the IT servers. The implementation of the missing action is in progress and its completion is expected for 2023.

¹⁷ No internal control survey in 2022

¹⁸ The new internal control strategy is already drafted, however additional input is needed from the review of business processes in 2023 following the re-organisation of January 2022..

Results achieved during the year thanks to the anti-fraud measures in place:

- 65% of newcomers participated to ethics and integrity sessions, 17 financial officers attended the training 'Zero tolerance to fraud', designed with OLAF and the JRC financial department. 41 managers participated to the 'JRC Ethics awareness session for Managers'.
- The JRC's framework for scientific integrity and research ethics (SIRE) was in 2022, for the first time, fully operational, with ethics screening of all JRC projects and peer review of JRC's scientific output. The SIRE framework was successfully embedded into the scientific project management cycle. Following a case where JRC widely disseminated non-peer-reviewed research without notifying readers on the non-peer-reviewed status of the research, a new guideline was developed by the JRC Scientific Committee on "Dissemination of non-peer-reviewed research", to complement the JRC's series of guidelines for responsible conduct of research. In addition, the intranet page dedicated to SIRE was revamped to promote an internal culture that proactively supports the framework.
- JRC participated to specific OLAF subgroups, sharing its experience in data analysis and indicators definition, especially in the context of research, trainings, and management system integration.
- The JRC assessed the risk of fraud in the context of its process-based risk management exercise: activities and operations assessed to be potentially at a higher risk of fraud are subject to more in-depth monitoring and control.
- In the course of 2022, the JRC received a Report of OLAF concluding that fraud had been committed by an external contractor which had been engaged by the JRC under three procurement contracts. Several different measures were taken by the JRC to ensure the effective follow-up to the recommendation of OLAF that the JRC should recover the contractual sums paid. The case does not impact the JRC assurance. No cases involving the JRC were issued by the Investigation and Disciplinary Office (IDOC) or the European Public Prosecutor's Office (EPPO).

3.2 IAS audits

No new IAS audits were finalised in 2022, except for a multi-DG audit on performance framework for research¹⁹, to which the JRC was associated in its role of advising DGs on indicators for the MFF, which however did not result in any recommendations for the JRC.

¹⁹ Lead audited service: Directorate-General for Research and Innovation

A sole audit is under implementation, the audit on JRC's support to EU policy and knowledge management, which was issued prior to the reference period. It included one very important recommendation on definition of priorities, identification of needs and assessment of requests, under IAS review, which the JRC addressed by organising cluster meetings with policy DGs, revising the work programme planning process and setting up a system to get a systematic and structured overview of requests. Out of the other four recommendations, all rated important, stemming from this audit, one is also pending IAS review and three are under implementation.

In total, the IAS completed the review of 19 recommendations implemented by the JRC, 16 of which submitted during the previous reporting year, thus closing the six relevant audits.

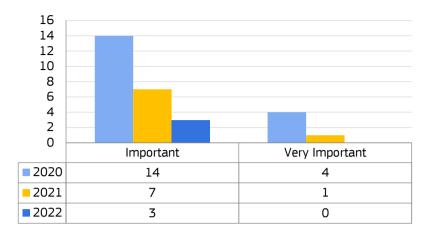
Table 7.6 01/01/2022-31/03/2023 – Recommendations under implementation, closed and under IAS review with rating I (important), VI (very important)

Audit title		der entation		sed AS ²⁰	Under IAS review ²¹	
	I	VI		VI		VI
JRC support to EU policy and knowledge management	3	-	-	-	1	1
IT governance and project management practices and procedures	-	-	2	1	1	-
Decommissioning & waste management programme implementation	-	-	-	-	1	-
Scientific project management	-	-	2*	1*	-	-
Intellectual property rights	-	-	1*	-	-	-
Recruitment of temporary scientific staff	-	-	2*	-	-	-
Site management & infrastructure support services	-	-	2*	2*	-	-
Accounting of assets	-	-	3*	1*	-	-
(multi-DG) Commission's strategy for data, information and knowledge management	-	-	2*	-	-	-
Tatal	3	-	14	5	3	1
Total		3	1	9		4

Figure 7.3. Recommendations under implementation (3-year evolution)

 ²⁰ Because assessed as adequately and efficiently implemented. Those marked with an asterisk (total 16) were submitted for review by JRC in 2021, then closed by IAS in 2022

²¹ Declared implemented by the JRC following completion of the agreed mitigating actions, submitted to the IAS for review and currently pending the IAS conclusion which could be to either close the recommendation or re-open it (and, if VI, optionally downgrade it to I) if not considered adequately/efficiently implemented



3.3 ECA audits

During 2022, the JRC:

- continued its contribution as an associated DG, together with other Commission services, to the implementation of the recommendations of SR 33/2018 'Combating desertification in the EU: a growing threat in need of more action', SR 23/2018 'Air pollution: Our health still insufficiently protected', SR 04/2020 'Using new imaging technologies to monitor the Common Agricultural Policy steady progress overall but slower for climate and environment monitoring' for which a number of recommendations have been implemented as planned.
- There are no pending recommendations where the JRC is a lead service.

List of special reports and reviews issued by ECA in 2022 in which the JRC was associated DG

Name of the audit/review	Recommendations for the JRC
Special report 09/2022: Climate spending in the 2014-2020 EU budget: Not as high as reported	-
Special report 13/2022: Free movement in the EU during the COVID-19 pandemic – Limited scrutiny of internal border controls, and uncoordinated actions by Member States	-
Special report 15/2022: Measures to widen participation in Horizon 2020 were well designed but sustainable change will mostly depend on efforts by national authorities	-
Special report 18/2022: EU institutions and COVID-19: Responded rapidly, challenges still ahead to make the best of the crisis-led innovation and flexibility	1
Special report 16/2022: Data in the Common Agricultural Policy – Unrealised potential of big data for policy evaluations	2

Special report no 17/2022: External consultants at the European Commission – scope for reform	-
Special report 14/2022: The Commission's response to fraud in the Common Agricultural Policy – Time to dig deeper	-
Special report 22/2022: EU support to coal regions – Limited focus on socio-economic and energy transition	-

Ongoing audits and reviews involving the JRC

Name of the audit/review
Agricultural soils and manure management
Blue energy
Becoming the World's second biggest battery producer by 2024
Climate targets
Biofuels
CO2 from cars
Digitalisation of EU funds (review)
Smart cities
EU Emergency Trust -Fund for Africa

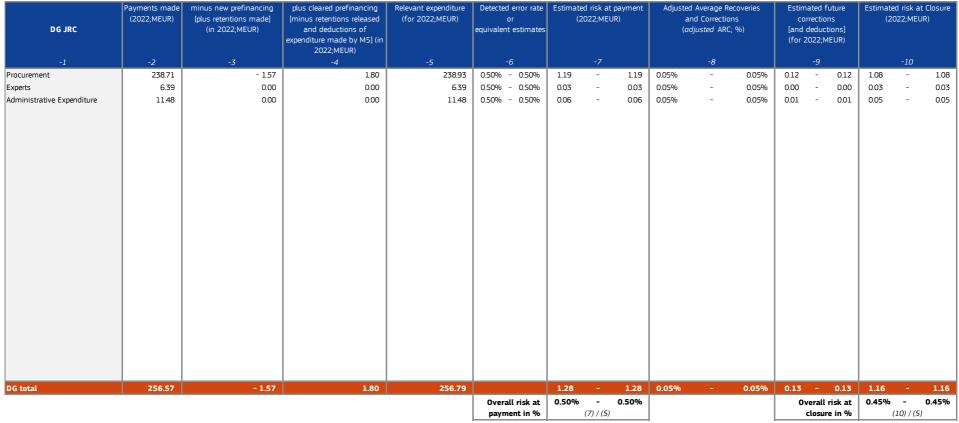
ANNEX 8: Specific annexes related to "Assessment of the effectiveness of the internal control systems"

ANNEX 9: Specific annexes related to 'Control results' and 'Assurance: Reservations'

4. Annex related to "Control results" - Table X: Estimated risk at payment and at closure

Table X : Estimated risk at payment and at closure

Table X : Estimated risk at payment and at closure - Estimated risk at payment and at closure



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JRC	Payments made (2022;MEUR)	minus new prefinancing [plus retentions made] (in 2022;MEUR)	plus cleared prefinancing [minus retentions released and deductions of expenditure made by MS] (in 2022;MEUR)		Detected error rate or equivalent estimates	Estimated risk at payment (2022;MEUR)	Adjusted Average Recoveries and Corrections (<i>adjusted</i> ARC; %)	Estimated future corrections [and deductions] (for 2022;MEUR)	Estimated risk at Closure (2022;MEUR)
-1	-2	-3	-4	-5	-6	-7	-8	-9	-10
Total EDF	0.00	0.00	0.00	0.00					

Notes to the table X

(1) Relevant Control Systems [if possible] differentiated per relevant portfolio segments and at a level which is lower than the DG total

(2) Payments made or equivalent, e.g. expenditure registered in the Commission's accounting system, accepted expenditure or cleared pre-financing. In any case, this means after the preventive (ex-ante) control measures have already been implemented earlier in the cycle.

In all cases of Co-Delegations (Internal Rules Article 3), "payments made" are reported by the Delegated DGs. For Cross-SubDelegations (Internal Rules Article 12), the reporting remains with the Delegating DGs.

(3) New pre-financing actually paid by out by the department itself during the financial year (i.e. excluding any pre-financing received as a transfer from another department). as per note 2.5.1 to the Commission annual accounts thus excluding "Other advances to Member States" which are covered on a purely payment-made basis (note 2.5.2). Pre-financing paid/cleared" are always covered by the Delegated DGs, even for Cross-SubDelegations.

Retentions: in Cohesion, the 10% retention applied during the year.

(4) Pre-financing actually cleared during the financial year (i.e. their 'delta' in the Financial Year 'actuals', not their 'cut-off' based estimated 'consumption').

Retentions: in Cohesion, the retentions released during the year by the Commission.

(5) For the purpose of equivalence with the ECA's scope of the EC funds with potential exposure to legality & regularity errors (see the ECA's Annual Report methodological Annex 1.1), our concept of "relevant expenditure" includes the payments made, subtracts the new pre-financing paid out [& adds the retentions made], and adds the pre-financing actually cleared [& subtracts the retentions released; and any deductions of *expenditure made by MS*] during the FY. This is a separate and 'hybrid' concept, intentionally combining elements from the budgetary accounting and from the general ledger accounting.

(6) In this column, we disclose the detected error rates or equivalent estimates. [Equivalents might be e.g. the "adjusted error rates", AGRI, or the "residual total error rates", REGIO, EMPL, MARE. In other cases, e.g. DEVCO and NEAR, they are derived by a backwards calculation based on results from the residual error rate studies; i.e. by adding the estimated future corrections (if not assumed to be zero) to the risk at closure.]

For low-risk types of expenditure, where there are indications that the equivalent error rate might be close to 'zero' (*e.g. administrative expenditure, operating contributions to agencies*), the rate which should be used is 0.5% as a conservative estimate, unless the DG has a more precise estimate based on evidence.

(8) The adjusted average recovery and corrections percentage is [mostly / to some extent] based on the 7 years historic Average of Recoveries and financial Corrections (ARC), which is the best available indication of the corrective capacity of the ex-post control systems implemented by the DG over the past years. The AOD [*has adjusted or replaced*] this historic average [*from ... to ...*] to take into account any ex-ante elements, one-off events, (partially) cancelled or waived Recovery Orders, and other factors

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from the past years that would no longer be relevant for the current programmes (e.g. higher ex-post corrections of previously higher errors in earlier generations of grant programmes, current programmes with entirely ex-ante control systems) or that corresponded to exceptional situations in order to come to the best and most conservative estimate of the ex-post future corrections to be applied to the reporting year's relevant expenditure for the current programmes. [+ *summarize here the approach taken by the DG*]. [*This may include considering less and more recent years than the full 7-years-period* [*e.g. AGRI, MARE, DEVCO, NEAR*], *using an alternative estimation basis* [*e.g. AGRI, REGIO, EMPL, Research family*], or even assuming that the ex-post future corrections would be 0.0% [*e.g. DGs with entirely ex-ante control systems*].]

(9) For some programmes with no set *closure* point (e.g. EAGF) and for some multiannual programmes for which corrections are still possible afterwards (e.g. EAFRD and ESIF), all corrections that remain possible are considered for this estimate.

ANNEX 10: Reporting – Human resources, digital transformation and information management and sound environmental management

5. Human resources

Objective: The JRC employs a competent and engaged workforce and contributes to gender equality at all levels of management to effectively deliver on the Commission's priorities and core business

Indicator: Number and percentage of first female appointments to middle management positions

Source of data: SEC(2020)146

Baseline	Target	Last known result
2019	(2022) + (2024)	(2022)
14 female middle managers (22%)	2022: 12 ²² first female appointments to middle management by 31/12/2022 ²³	3 first female appointments in 2022 - 8 in total since the target set ²⁴

Indicator: JRC staff engagement index

Source of data: Commission staff surveys 2018 and 2021

Baseline	Target	Last known result
(2019)	(2022)	(2022)
67%	At least 67% and maintain above the Commission average (72% in 2021)	71%

Main outputs in 2021:							
Description	Indicator	Target	Latest known results				
1. Improving female represe	. Improving female representation in middle management						
Promotion of female representation in middle management	Number of internal female candidates applying for middle- management positions	At least 1 female applicant per middle management vacancy	9 vacancies published, all with female candidates				

²² The target has been updated from 11 to 12 first female appointments to middle management in 2022, as one female Head of Unit opted out from her management position

²³ SEC(2020) 146 – the target will be revised and extended for the period 2023-2024 by January 2023

²⁴ 4 more first female appointments were initiated in Q1 2023, thus reaching the target

Description	Indicator	Target	Latest known results					
	Number of awareness- raising activities to improve female representation in middle management	At least 2 activities	Talent management programme for potential female managers; presentations during JRC Career days					
2. Enhancing staff engagement								
Completion of follow-up on staff opinion survey 2021	Launch new working groups to act on the results of the 2021 staff survey	Q2	Follow-up action plan proposal completed					
Implement JRC Career Development Package	Implement JRC Career development actions, targeting both permanent staff and contract agents	At least 2 info sessions for all staff	Dedicated sessions on this organised during the JRC Career Days.					
Continue local talent management programme	Continue the launch of the new programme with special focus on female AD staff with management potential as well as the inclusive programme for AD7+ staff	Q2	Completed					
Development of staff in deputy Heads of Unit and team leaders positions	Number of participants in targeted events (trainings, workshops) Satisfaction rate	> 30 participants	33 participants in the dedicated programme					
7 411 11		> 75%						
3. Attracting and retaining c	-	15						
Recruitment of scientists at post-doc and expert levels for exploratory research (CAS & ER)	Number of scientists applying to vacancy calls at postdoc and expert level	> 15	33					
Doctoral students pursue their PhD at JRC in cooperation with academic institutions Doctoral students pursue their PhD at JRC in	Number of doctoral students co-supervised by the JRC through the CDP scheme (counting students at either JRC or high education institutions)	> 30	43					
cooperation with academic institutions	Minimum number of PhD students under the CdP scheme residing at JRC	>25	37					
Alumni network	Website active and up to date	Updated with information at least once per week (52/year)	Lower frequency*					

Description	Indicator	Target	Latest known results
	Activities between alumni and JRC (workshop, seminars, lectures), to exchange information	1 annual workshop 4 seminars	1 ²⁵ 4

*Alumni Community page was updated at lower frequency and weekly meetings with the Alumni Core group were held for exchange of information on the new platform. While exploring the setup of a new community webpage, information was posted in irregular intervals on the old community page and instead regular, weekly meetings with the core group were held.

²⁵ Annual workshop, focusing on "Women in Science"

6. Digital transformation and information management

Objective: The JRC is using innovative, trusted digital solutions for better policy-							
shaping, information management and administrative processes to forge a truly digitally							
transformed, user-focused and data-driven Commission.							
Indicator 1: Degree of implementation of the digital solution modernisation plan							
Source of data: JRC internal indicator							
Baseline		Target Last known value			vn value		
(2020)		(2024)		(31/12/2	2022)		
50%		85%		60%			
Indicator 2: Percenta	age of JR	C's key data assets for whi	ch co	orporate	principles for data		
governance have beer	n implem	nented					
Source of data: JRC	internal	indicator					
Baseline		Target		Last know			
(2020)		(2024)		(31/12/2	2022)		
45%		100%		60%			
Indicator 3: Percenta	age of st	aff attending awareness ra	ising	activitie	es on data protection		
compliance							
Source of data: JRC	internal	indicator					
Baseline		Target		Last known value			
(2020)		(2024)		(31/12/2022)			
40%		100%		60%			
Indicator 4: Degree of	of impler	mentation of the eProcurem	nent	solution			
Source of data: JRC	internal	indicator					
Baseline		Target		Last known value			
(2020)		(2024)		(31/12/2022)			
40%		90% 4		45%	45%		
Indicator 5: Degree of	of impler	mentation of the JRC ICT ar	chite	ecture			
Source of data: JRC	internal	indicator					
Baseline		Target		Last know			
(2020)		(2024)	(31/12/2		2022)		
35%		100%		50%			
Main outputs in 202	22:						
Description	Indicator		Targ	jet	Latest known results		
Specific actions		d security, virtual desktop	Q4		In Q4 - security plans 85		
_		icture, consolidated IT	nsolidated IT		% completed, virtual		
implementation of the JRC ICT architecture					desktop infrastructure in production		
Data Advisory Service	Fully ope	erational data advisory service	Q4		Established in Q2 2021		
		•					

Description	Indicator	Target	Latest known results
Implementation of the corporate principles for data governance for the JRC key data assets	Percentage of implementation of the corporate principles for data governance for JRC key data assets	50%	50%
EC Data Advisory service	Consolidated Data Advisory service (specifically this includes re-enforced communication on the data advisory offer and a published knowledge base)	Q4	Done
JRC research data repository	Operational JRC research data repository established	Q4	Delayed until 2023
Data owners and data stewards for JRC key data assets	Percentage of JRC key data assets for which data owners and data stewards have been communicated their tasks and responsibilities set in the EC data governance and policies.	100%	Delayed to Q1 2023
Data owners and data stewards job description	Formal job description (including responsibilities) that can be applied to data owners and data stewards	Q4	Done
Steps in data management processes in place	Processes and guidelines for sharing, use, and preservation are established.	Q4	Done
One-Stop Shop for Collaboration	Percentage of customers that are satisfied or very satisfied with the One- Stop Shop service	85%	89%
Provide training and	Total number of participants/year	200	115
capacity building for Commission researchers and policymakers	Proportion of participants recommending course to colleagues	85%	81%
In the frame of Science4Policy -provide e-learning to researchers on EU Academy platform	Total number of participants enrolled/year	300	1100
Develop tailored training	New training courses and tools	3	n/a*
and tool box on clear writing at the science- policy interface	Coaching sessions on flagship reports	3	n/a*
Management of KM Platforms	Number of new Knowledge services embedded in the Knowledge4Policy platform	100%	n/a*
Awareness raising activities on data protection compliance among JRC staff	Percentage of staff reached by the awareness raising activities	>80%	60%
Compliance with the e- Domec policy	Percentage of new registered Ares documents with the option 'sensitive personal data' flagged	30% increase by Q4 2022	49% of 2022 documents bear the flag (4% in 2021)

Description	Indicator	Target	Latest known results
EU Academy - Develop and deliver a platform release for hosting of a wide variety of e- learning content	Number of JRC courses on platform	> 50	56 courses*
PSIS (Standardisation) - Organise a workshop bringing scientists, policy makers, industry and experts from different disciplines together	Workshop organisation	At least 1	1 workshop "Data quality requirements for inclusive and trustworthy AI"
	Minimum number of participants	> 50	178 participants

ICT architecture

A number of projects were defined and, in 2022, concrete results were achieved for an improved security of the JRC network. (reinforced system security evaluations, consolidation of existing specific JRC networks, design of a single scientific domain), the availability of an application development platform, and a virtual desktop facility (as an alternative to powerful workstations and for isolated development environments). The effort will be followed in 2023 with the deployment of the single scientific domain and the first phase of the deployment of Welcome in collaboration with DIGIT. The consolidation of the ICT scientific infratstructures will continue as agreed with each JRC Directorate.

ICT Programme Office

Furthermore, the ICT Programme Office has coordinated the following activities: declaration in GovIS2 of the planned IT budget for 2022 and 2023, drafting of the ICT Work Plan 2022, Europa Activity Report 2021, review of the JRC presence on the Europa Web Platform service, phase 2 of the IT Legacy exercise, JRC Analytics migration to Europa Analytics, GovIS2 trainings and opening to a wider community of users, recommendation on IT risks management related to the IAS Audit on IT project management.

The ICT Programme Office also collaborated intensively with other Commission services such as the IT Investments Team of DIGIT and the Web Request Team of DG COMM, and with other Commission DGs where JRC is the provider or secondary owner of information systems.

Data Advisory service

In 2022, the DA service has been consolidated, including by sharing the knowledge base and contributing to the implementation of the EC data governance and policies. Efforts were also focused on reinforcing awareness raising and outreach, as well as on collaborating with other services (regulatory reporting community, HR, Better Regulation Transparency Support Service, etc.). The deliverables set for 2022 were all met in due time and new deliverables for 2023 have been set. The DA service action contributes to the digital strategy objective of enhancing openness and transparency within the EC. In addition, the JRC will continue to support operationalising the DataStrategy@EC action plan, e.g., in the area of Data Analytics and Business Intelligence (BI@EC strategic approach).

JRC Data Strategy

Throughout 2022, several events were organised that aim at fostering a culture of data sharing and data literacy and, by that, contribute to the JRC Data Strategy initiatives on Data Culture. The mentioned events included the JRC data 'show and tell' event, a data session in the context of the Science Summit of June 2022, and trainings on intellectual property applied to data.

EU Academy

In 2022, the number of content items hosted on the platform rose from 113 to almost 1,200 (x10), the publisher community transformed into a vibrant learning space for 444 aspiring publishers from 45 EU Services, of which 70 are publishing in the EU Academy production environment, and 216 are testing content in the training environment. The EU Academy welcomed a total of 512,525 unique visitors (with 35% return rate) who collectively registered a total of 11,271,664 page views. These visitors draw from 193 countries (up from 169 in 2021). 14 EU Services committed to co-own and co-finance the platform future and a further 11 Services are expected to on-board in 2023. As the single hub for learning material for EU institutions, the EU Academy effectively reduces costs for the Commission and is an effective multiplier for outreach across different communities and networks. In particular, with having the ERASMUS+ community on board, policy making has been made more accessible for the younger generation.

Also, the platform answered customer requests for innovation by introducing multiple new features - new content types (assessments, micro-learnings), user scoping, multilingual editors, and more than 500 further features, tweaks and improvements. More than 50 technical workshops with platform, content and API customers were held, more than 75 training events (quick start trainings and course clinics combined) hosted.

*due to reorganisation

7. Sound environmental management

Objective: The JRC takes full account of its environmental impact in all its actions and actively promotes measures to reduce the related day-to-day impact of the administration and its work

Indicator 1: Sustainability in the Commission

Five JRC sites are participating in the Eco-Management and Audit Scheme (EMAS). These are Geel (Belgium), Ispra (Italy), Karlsruhe (Germany), Petten (The Netherlands), and Seville (Spain).

Baseline		Target	Last known value	
(2018 ²⁶)		(2024)	(31/12/2022 ²⁷)	
Energy consu (MWh / perso	mption of buildings n):			
Geel	3.7%	Achieve greater reduction	-26.7%	
Ispra	-4.9%		-31.7%	
Karlsruhe	14.1% ²⁸		0.8%	
Petten	10.1%		-26.8%	
Seville	-24.7%		-26.9%	
Water use (m	³ / person):			
Geel	-16.6%	Achieve greater reduction	-20.7%	
Ispra	8.8%		-32.5%	
Karlsruhe	-9.1%		-20.1%	
Petten	-28.2%		-45.5%	
Seville	-32.6%		-42.7%	
Office paper consumption (sheets / person / day):				
Geel	-35%	Achieve greater reduction	-71.6%	
Ispra	-26.2%		-65.3%	
Karlsruhe	-39.4%		-60.7%	
Petten	-39.4%		-71.1%	
Seville	1.7%		-54.9%	

Source of data: European Commission Environmental Statement

²⁶ Performance trend (%) since 2014, in 2018. The adopted EMAS Global Annual Action Plan 2023 implies a change of baseline from 2014 to 2019 to better align with the Commission's Communication on Greening.

²⁷ Estimations and/or provisional data, not yet validated by auditors.

²⁸ JRC Karlsruhe does not set per capita targets for the indicators "energy consumption of buildings" and "CO₂ emissions from buildings" due to the nature of its activities and the past/current infrastructure measures. The floor space is to be considered as the important indicator, independent of the number of persons, and only in relation to technical and regulatory requirements and scientific activities.

Baseline (2018 ²⁶)				Last known value (31/12/2022 ²⁷)		
CO ₂ emissions from buildings (tonnes / person):						
Geel -74% Ispra -5.3% Karlsruhe 11.1% Petten -69,6%)	Achieve greater redu	lction	Not yet ava -47.0% -17.7%	ailable	
Seville -26.2%				-82.3% -52.8%		
Non hazardous waste generation (tonnes / person):						
Geel -39%		Achieve greater redu	iction	-62.4% -49.1%		
Ispra 11.1% Karlsruhe -20.1%				-21.9%		
Petten 9.3%	-			-61.9%		
Seville 40.6%				36.4%		
Main outputs in 20	22:					
I. More efficient us	e of re	sources (energy,	water, pa	aper)		
Description	Indic	ator	Target		Latest known results	
		trical capacity of tovoltaic panels	respect of 2019		+44% compared to 2019 Some projects postponed to 2023	
Analysis of water consumption of buildings	At le	east yearly follow up	Q4		Done by Q4	
Reduction of paper consumption by deploying electronic signature of contracts for all JRC Authorising Officer by Subdelegation		tronic signature loyed	Q4		Done by Q4	
Staff awareness actions about resources' efficienc during spring corporate events		rmation posted on nected	Q2		Confirmed. Information published on the JRC "Connected" intranet, accessible to staff at each site	
II. Reducing CO ₂ , equivalent CO ₂ and other atmospheric emissions						
Output Indicato		or	Target		Latest known results	
Increased number of service bikes	Numb	er of new bikes	+12% ³¹ of 2	021 results ³	² +1% ³³ compared to 2021	

²⁹ Subject to 2022 budget allocation

³⁰ Baseline 2019: 1130 kWp (Geel: 0 – Ispra: 740 kWp – Karlsruhe: 0 – Petten: 390 kWp – Seville: 0)

Output	Indicator	Target	Latest known results	
Efficient maintenance of the current fleet of electric and hybrid cars and increased number of these vehicles	Number of new electric and hybrid cars	+72% ³⁴ of 2019 results ³⁵	+64% compared to 2019	
Staff awareness actions about sustainable commuting during EU Mobility week and VeloMai corporate events	Information posted on Connected	Q2	Confirmed. Information published on the JRC "Connected" intranet, accessible to staff at each site	
III. Reducing and ma	nagement of waste			
Output	Indicator	Target	Latest known results	
Staff awareness actions about waste reduction and sorting in line with the corporate EMAS waste reduction campaign	Information posted on Connected	Q4	Confirmed. Information published on the JRC "Connected" intranet, accessible to staff at each site	
IV. Promoting green	public procurement (GPP)		
Output	Indicator	Target	Latest known results	
Maintain the existing alert system through the PPMT (Public Procurement Management Tool) to automatically assess which procurement is to be analysed for GPP criteria	Implementation of GPP criteria or environmental specifications, where applicable	100%	100%, where applicable	
V. Supporting biodiversity				
Output	Indicator	Target	Latest known results	
Actions to improve biodiversity, such as insect hotels, planting trees, etc.	Number of actions	+50% ²⁹ of 2019 results ³⁶	+33% compared to 2019	

Note: The data shown are provisional and/or estimates. They should therefore be treated with caution.

In 2022, the JRC has:

 Implemented a number of measures to optimise and/or reduce energy consumption at the various sites (e.g. reducing the temperatures for heated buildings and/or of ventilation outside operational hours, when applicable). In particular, the JRC

³¹ Subject to 2022 budget allocation

³² Baseline 2021: 288 (Geel: 90 - Ispra: 140 - Karlsruhe: 18 - Petten: 40 - Seville: 0)

³³ Obsolescence or disappearance of bikes; Ongoing analysis on future planning and management of service bikes (Ispra)

³⁴ Subject to 2022 budget allocation

³⁵ Baseline 2019: 39 (Geel: 1 - Ispra: 37 - Karlsruhe: 0 - Petten: 1 - Seville: 0)

³⁶ Baseline 2019: 15 (Geel: 1 - Ispra: 10 - Karlsruhe: 0 - Petten: 2 - Seville: 2)

has worked to **reduce energy loads in laboratories** (e.g. shutting down of some equipment in the Petten laboratories, optimising of temperatures for VELA experiments in Ispra);

- Replaced fossil with **renewable energy sources** (38% increase of the photovoltaic energy production in Ispra in 2022 with respect to 2021);
- Continued **insulation of buildings** (e.g. thermal insulation of building 48 ongoing in Ispra, study for renovation/insulation of building 40 in Geel);
- Promoted **sustainable transportation** by replacing part of the service car fleet with hybrid and electric cars (e.g. replacing two petrol service cars by electric cars in Karlsruhe);
- In the case of non-owned buildings, **encouraged the owner to carry out environmental improvements** (e.g. reducing comfort hours, assessing the feasibility of installing photovoltaic panels and carrying out an energy audit in Seville);
- Supported the actions launched by the Office for Infrastructure and Logistics (OIB) in Brussels;
- Improved the **sustainability of its events**. The 'JRC Virtual Picnic' event won the first prize in the 2022 EMAS sustainable event competition³⁷. In addition, sustainable practices for events are spread across the various sites (e.g. the Annual Research Conference 2022 co-organised by the JRC in an environmentally friendly manner in Seville³⁸).

³⁷ JRC Environment : JRC Virtual Picnic wins 1st p... | Connected Commission (europa.eu)

³⁸ JRC Directorate B - Growth and Innovation : ARC... | Connected Commission (europa.eu)

ANNEX 11: Implementation through national or international public-sector bodies and bodies governed by private law with a public sector mission (if applicable)

ANNEX 12: EAMR of the Union Delegations (if applicable)

ANNEX 13: Decentralised agencies and/or EU Trust Funds (if applicable)

ANNEX 14: Reporting on the Recovery and Resilience Facility