



Annual Activity Report 2021

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.'

'I hereby certify that the information provided in Section 1 of the present Annual Activity Report and in its annexes is, to the best of my knowledge, accurate and complete.'

Brussels, 01 April 2022

(Signed)

Sabine Henzler

¹ 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: [Eurobarometer](#)

Baseline (2019)	Interim Milestone ⁽²⁾ (2022)	Target (2027)	Latest known results (year)
43% (EU27)	Increase	Increase	45%

Specific objective 7.1: The JRC supports evidence-informed policymaking through creating and managing high-quality and fit-for-purpose scientific knowledge

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

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 (2022)	Target (2024)	Latest known results (2021)
46%	> 40%	> 40%	47% ³

Result indicator: Field-weighted citation index of peer-reviewed publications

Source of the data: Abstract and citation database of peer-reviewed literature Scopus®

Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
2	> 2	> 2	2.27 ⁴

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 (year)
340	> 300	> 300	417

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 23/02/2022. At time of extraction, 2021 was still marked as incomplete therefore data may vary.

⁴ Data extracted on 23/02/2022. At time of extraction, 2021 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 (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
88%	> 80%	> 80%	94%






Result indicator: Level of satisfaction with timeliness of science services








Source of the data: JRC customer survey






Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
86%	>80%	>80%	87%










Main outputs in 2021:







New policy initiatives




Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Related to GO1 – European Green Deal			
 Macro-economic analysis of mitigation policies (Revision of the EU Emissions trading directive)	Study delivered	Q2	Q2
 Assessment of the distributional impact of the Carbon Border Adjustment Mechanism (Carbon Border Adjustment Mechanism)	Study delivered	Q2	Q2
 Economic analysis of mitigation policies - Development of scenarios for GHG emissions (Effort sharing regulation)	Study delivered	Q2	Q2
 Data analysis to assess the impact of existing energy efficiency legislation and identify suitable new policies (Revision of the energy performance of buildings directive and Energy Efficiency Directive)	Study delivered	Q4	Q4
 Data assessment and evaluation of the Global Covenant of Mayors and Regional Covenant (Revision of the energy performance of buildings directive and Energy Efficiency Directive)	Report published	Q4	Q4

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
 Assessment of ICT and data centres energy use and carbon emission and recommendation for decarbonisation (Revision of the energy performance of buildings directive and Energy Efficiency Directive)	Report published	Q4	Q4
 Tests, scenario building, verification of baseline reference emissions (Revision of the Regulation setting CO2 emission performance standards for new passenger cars and for new light commercial vehicles)	Report published	Q2	Q2
 Tax and social benefit modelling (Revision of the Energy Tax Directive)	Report published	Q2	Q2
 Distributional impacts of energy/carbon taxation and climate policies (Revision of the Energy Tax Directive)	Report published	Q2	Q2
 Support to the implementation of the key environmental product policies (Sustainable products policy initiative, including a revision of the Eco-design Directive)	Study delivered	Q4	Q4
 Methodology to define 'substantial contribution' to an environmental objective and for setting technical screening criteria for the development of the EU Taxonomy for the environmental objectives related to water, circular economy, pollution and biodiversity (Proposal of a EU Ecolabel of retail Financial products)	Report published	Q3	Delayed to Q4 2022
 Minimum criteria and reference levels for good ecosystem status (Minimising the risk of deforestation and forest degradation associated with products placed on the EU market)	Report published	Q2	No input requested for CWP item.

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
 Economic modelling of policy scenarios (Action Plan for the development of organic production: on the way to 2030)	Report published	Q1	Delayed to 2022 Report on marketing standards for food products
 Socio-economic modelling of zero pollution policies (Zero pollution action plan for water, air and soil)	Report published	Q2	Cancelled.
 Modelling the environmental footprint of zero pollution policies (Zero pollution action plan for water, air and soil)	Report published	Q2	Delayed to Q2 2022
 Analysis of the coherence of EU policies with the zero pollution strategy (Zero pollution action plan for water, air and soil)	Report published	Q2	Delayed to Q4 2022
 Analysis of the implication of Connected and Automated Mobility (Revision of the Directive on Intelligent Transport Systems, including a multimodal ticketing initiative)	Report published	Q3	Q2 Cybersecurity challenges in the uptake of artificial intelligence in autonomous driving
 Assessment of the impacts of railway networks (EU 2021 Railway Corridor Initiative)	Report published	Q3	Cancelled.
 Combined T-NET & POTEnCIA scenario analysis (Revision of the Regulation on the trans-European transport network (TEN-T))	Study delivered	Q3	Q3
 Assessment of emissions performance, accuracy and stability of portable emission measurement systems as well as on-road currently unregulated pollutants (Development of post-Euro 6/VI emission standards for cars, vans, lorries and buses)	Report published	Q4	Q4 Real Driving Emissions (RDE): 2020 assessment of Portable Emissions - Measurement Systems (PEMS) measurement uncertainty
 JRC support to the CAP (Farm to Fork Strategy)	Report published	Q3	Q3
 Effect and impact of different FoP nutrition labelling schemes (Farm to fork strategy)	Study delivered	Q3	Cancelled

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
 Publication of the Best Available Techniques (BAT) Reference (BREF) document for the ferrous metal processing industries (FMP BREF) and of the related Commission Implementing Decision containing the BAT conclusions	Report (BREF) and Commission Implementing Decision (BAT conclusions) published	Q4	Delayed. The revised FMP BREF is currently being finalised based on the outcome of the Industrial Emissions Directive Forum meeting of 17/12/2021. The revised FMP BREF can only be published shortly after the FMP BAT conclusions are published on to the OJEU which is anticipated to take place in Q3/Q4 2022
Related to GO2 – A Europe fit for the digital age			
 Analysis of B2G and B2B data sharing of the economics or sharing of data in some industrial sectors (Data Act).	Report published	Q4	Data Act has been delayed to Feb2022. Partial work in support has been also delivered in 2019 and 2020, completed by reports published in Q3 and Q4 2021.
 Online surveys on working conditions (Platform workers)	Report published	Q4	Delayed to Q4 2022 due to COVID-19 pandemic.
 Analysis of the industrial ecosystems for defence, space and security (Action plan on synergies between civil, defence and space industries)	Report published	Q1	The work in 2021 focussed on preparing the Observatory of Critical Technologies.
 Assessment of the fiscal and economic impact of a digital tax (Digital levy)	Report published	Q1	Policy initiative on hold.
Related to GO3 – An Economy that works for people			
 Analysis of risks to the financial system and of policy options. (Revision of the bank crisis management and deposit insurance framework)	Report published	Q4	Q3
 Study on social-tech ventures and start-ups. (Action plan implementing the European Pillar of Social Rights)	Report published	tbc	cancelled
 The Future of the Welfare State in Europe. (Action plan on implementing the European Pillar of Social Rights; Action Plan for the social Economy)	Report published	tbc	Postponed to Q4 2022
 Analysis of green bonds and green bond markets. (Establishment of an EU Green Bond Standard)	Report published	Q2	Q2

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
 Tests on the performance framework 2021-2027 using data from the current MFF. (Communication on the performance framework 2021-2027)	Report published	Q3	Cancelled (data not available).
 Conceptual framework and analysis of multidimensional inequalities in Europe (Action plan on implementing the European Pillar of Social Rights; Action Plan for the social Economy)	Report and policy briefs published	Q3	Q3
 Analysis of companies' turnover for establishing a threshold for the compulsory notification of takeovers by foreign investors (Proposal for a Regulation of the European Parliament and of the Council on foreign subsidies distorting the internal market).	Report delivered	Q2	Q2
Related to GO4 – A stronger Europe in the world			
 Societal impacts of a changing Arctic; Indicators for Arctic resilience and sustainable development. (Joint Communication on the Arctic)	Report published	Q4	Delayed Q2 2022
Related to GO5 – Promoting our European way of life			
 Framework for education for environmental sustainability (Recommendation for education in environmental sustainability)	Report accepted	Q4	Published Q1 2022
 Enhancement of the European Cancer Information System as a common interactive space for European population-based cancer registries (European Health Data Space - EHDS)	ECIS (European Cancer Information System) in the EHDS	Q4	The childhood cancer section was released and added to the EHDS Q4

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
 Development of a common interactive space for European rare disease registries (European Health DataSpace)	EU Rare Diseases Platform in the EHDS	Q4	Q4 Enhancement of the Directory of Registries (ERDRI.dor), main building block of the EU Rare Diseases Platform and inclusion of additional RD registries from across Europe in the EHDS
Related to G06 – A new push for European democracy			
 Multithematic quantitative territorial analysis territorial on inequalities across the EU and their impact on health, ageing, urban-rural divide, migrants' integration, and provide medium to long-term demographic foresights (Long-term vision for rural areas)	Report published	Q4	3 policy briefs published
 Demographic Landscape of EU Territories) (Long-term vision for rural areas)	Report published	Q4	Q2
External communication actions			
Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Flagship reports	Number of mentions in the media monitoring	10	11
The #EUKnowledge4SDGS campaign	Number of readers / listeners of the launch event	100	Communication campaign limited to the launch of the Knowledge Centre ⁵
	Number of contacts made during the campaign	50	
	Number of visits of the dedicated website	50	
	Number of mentions in the media monitoring	10	

⁵ 'Contributions to the Sustainable Development Goals Achievement. JRC is responsible for the following outputs:

- Competence Frameworks (with EAC)
- Knowledge Centre for Bioeconomy with a Bioeconomy Monitoring System
- SDGs App – new initiative – Lead DG: JRC
- Place-based innovation for SDGs: EU Cities for SDGs and Smart Specialisation Strategies for Sustainability – new initiative – Lead DG: JRC
- SDGs Better Regulation Tool – new initiative – Lead DG: JRC

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Launch of the Knowledge Centre on Cancer	Number of mentions in the media monitoring	10	30
Launch of the EU observatory on Deforestation and Forest Degradation	Number of mentions in the media monitoring	10	Launch was cancelled. No communication events
Launch of the Annual Foresight Report	Number of mentions in the media monitoring	10	57
	Number of interactions (cumulative for all above outputs)	45 000	24 260
	Number of mentions	17 m	11 m
JRC monthly newsletter	Number of subscribers	26 500	27 276
Commissioner's monthly newsletter	Number of subscribers	4 200	5 020
Science Flash For You national newsletters	Number of subscribers	5 000	6 112
Knowledge Centre on Earth Observation	Launch event	Q1	Launched in Q2 Participants 1 472
Other important outputs			
Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Technical assessment of nuclear energy with respect to the 'do no significant harm' criteria of Regulation (EU) 2020/852 ('Taxonomy Regulation')	Report published	Q2	Q2
Analysis of socioeconomic impacts of narrowing the gender pay gap as a result of pay transparency measures (Directive on equal pay)	Study delivered	Q1	Q1
Bibliometric Analysis of JRC's research performance	Report published	Q4	Q4
Case studies of the impact of JRC's policy support	Completed case studies	30	Q4 50 case studies
Environmental footprint of products and organisations	Report published	Q4	
Model-based estimations of GDP and employment associated to EU exports, including estimates of COVID-19 effects, by countries and sectors	Report published	Q4	Q4
New Eurostat's official Global Value Chains database (FIGARO) - Launch of the database in a wide event in Brussels by Eurostat	Database published	Q2	Q2

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Copernicus2.0: product development, quality control and assurance, and uptake enhancement (F4P)	Report published; KCEO website live	Q4	KCEO website live in Q2. The report mentioned has been delayed: there has been a delay in the delivery/ transmission of the data to be assessed from the Copernicus Climate Change Service (C3S)
Contribution to European and International standardisation for Solar Photovoltaics	Annual report published	Q4	Delayed Q2 2022
CENELEC / IEC individual standards	Publication	Q3	Contributions to photovoltaic standards completed Q3
Statistical Report on animal used for scientific purpose	Study included in COM SWD reporting on the implementation of Directive 2010/63	Q2	Q3
Contribution to Guidance Document on Defined Approaches for Skin Sensitisation	Adopted by the OECD	Q3	Q2
Test Guidelines and Guidance Documents for regulatory safety testing of nanomaterials	Test Guidelines and/or Guidance Documents delivered and/or accepted by OECD	Q4	Q4
Development and improvement of the current 'COVID-19 In Vitro Diagnostic Devices and Test Methods	Report delivered	Q3	Q4
Development of an in silico Omicron specific test method and validity confirmation	Product delivered	Q4	Q4
European Guidelines and Quality Assurance Scheme for breast Cancer Screening , Diagnosis and Care	Product delivered	Q1	Q2
SELFIE ⁶ for teachers	Official launch	Q4	Q4
Model-based forecasts/nowcasts and assessment of macro-economic drivers and outlook (European Semester)	Report published	Q2 and Q4	Q2 and Q4
Energy and Industry Geography Lab	Launch	Q4	Q4
Contribution to the European Systemic Risk Board climate project team	Report	Q3	Q3

⁶ Self-reflection on Effective Learning by Fostering the use of Innovative Educational technologies

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Measuring and monitoring absolute poverty (ABSPO)", in collaboration with DG EMPL	Report	Q4	Q4
Analysis of financial integration within EU, Indicator of Home Bias (dashboard for monitoring of Capital Markets Union)	Report	Q1	Q3
Flagship report on values and identities	Report published	Q2	Q3
Foresight report 2021	Publication	Q2	Q3
China 2.0 Flagship report	Report published	Q3	Delayed Q2 2022
Publication of a call for proposals for the New European Bauhaus	Call published	Q3	Q3
15 certified reference materials in support of the Commission's policy areas were released.	Certification reports published	Q4	Q4
EU wide comparison of quality related characteristics of branded food products. Part 2 – Sensory testing	Report published	Q1	Q1
Results of an EU wide coordinated control plan to establish the prevalence of fraudulent practices in the marketing of herbs and spices	Report published	Q4	Q4
Database, interactive tool and background documents for the Resilience Dashboard of the European Commission	On-line + reports	Q4	Q4
3 reports on SDG localisation	Published	Q3	Q3
JRC-OECD report 'Access and Cost of Education and Health Services Preparing Regions for Demographic Change	Published	Q2	Q2
Development of a new methodological approach for Smart Specialisation for Sustainable Development Goals	3 reports published	Q4	Q4
UN Guidebook, background paper and progress report published in cooperation with JRC	Publication	Q4	Q4
Shaping and securing the EU's Open Strategic Autonomy by 2040 and beyond (Annual Strategic Foresight Report)	Publication	Q3	Q3
European Cybersecurity Atlas	Launch	Q1	Q1

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Implementation of the Digital Platform for the Conference on the Future of Europe	Digital Platform Launched	Q2	Q2
Competence Centre on Participatory and Deliberative Democracy	Competence Centre Launched	Q4	Q4
Flagship report on values and identities	Report published	Q2	Q4
Atlas of Demography	Published	Q2	Q2
Foresight report 2021	Publication	Q2	Q4
Education for Climate Coalition Digital Online Community Platform	Platform Launched		Q4
Information Kit on the Cities Mission and Climate neutrality application framework and evaluation methodology	Publication	Q4	Q4
Foreign Direct Investment (FDI) Bulletin	Bulletins published	Q1, Q2, Q3	Q1, Q2, Q3

Table A1. Research metrics of the JRC and the comparators for 2014-2020. Data retrieved 21 October 2021.

Entity	Publications	Field-weighted Citation Impact	Output in Top 1% Citation Percentiles (%)	Output in Top 10% Citation Percentiles (%)	Publications in Top 1% Journal Percentiles by SJR (%)	Publications in Top 10% Journal Percentiles by SJR (%)
International Institute for Applied Systems Analysis	2463	2.74	7.9	38	14.6	59.4
Joint Research Centre	8019	2.32	4.7	27.4	6.1	44
University of Oxford (UK)	107781	2.32	4.2	24.1	9.8	52.4
University of Cambridge (UK)	86611	2.16	4.4	25.8	9.7	52.7
Argonne National Laboratory (US)	18742	2.05	5.2	28.2	10.5	61.1
Max Planck Society (DE)	94178	1.93	4.3	28	8.9	53.3
CSIRO (AU)	26952	1.86	3.4	23.6	6.8	48
Oak Ridge National Laboratory (US)	21448	1.74	3.8	23.5	8.5	54.6
Austrian Institute of Technology	3576	1.6	1.7	13.2	2.1	27.5
CEA (FR)	49869	1.56	2.6	19.4	5.5	45.3
INRAE (FR)	52964	1.56	2.4	21	4.9	48.4
United States Environmental Protection Agency	7566	1.56	2.8	23	3.9	43.8
National Institute of Standards and Technology (US)	15664	1.52	2.9	18.4	6.5	46.4
Netherlands Organisation for Applied Scientific Research	6453	1.47	1.6	15.4	3.9	39.7
RIKEN (JP)	24907	1.44	3.1	21.1	6.4	51
National Research Council of Italy	77776	1.4	1.7	18.2	3.7	37.9
VTT Technical Research Centre of Finland Ltd.	6118	1.4	1.5	13.9	2.8	34.2
Chinese Academy of Sciences	373969	1.37	2.9	20.7	4.7	38.2
CNRS (FR)	338646	1.36	1.9	16.9	4.9	42.5
Fraunhofer Society (DE)	31982	1.28	1.1	10.1	2.8	28.4
National Physical Laboratory (UK)	3259	1.14	1.4	13.2	3.4	34.2

Specific objective Specific objective 7.2: The JRC supports evidence-informed policymaking through creating and managing high-quality and fit-for-purpose scientific knowledge

Related to spending programme(s): Horizon Europe and 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 (31/12/2021) ⁷
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	No change in 2021 as no major refurbishments or new constructions were finalised. - Reduction of the energy consumption of buildings (kWh/sqm) 2020: -14,34 % (baseline 2018).
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	The total increase of surface compliant with energy standards is 2.62 %. 90 310 sqm (54 % of built surface area) are not compliant with energy standards according to Directive 2012/27/EU. The thermal insulation of buildings 69C and 58C have been completed. The delivery of building 102, compliant with nearly zero-energy concept for 9378 sqm of heated surface, also participated to the improvement at site level. - Reduction of the energy consumption of buildings (kWh/sqm) 2020: -9,76 % (baseline 2018).
Karlsruhe: 31 637 sqm (77% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	Increase of 3% of surface compliant with energy standards	Limited progress with the installation of technical infrastructures. Handover to the Commission delayed because of underperforming contractor; negotiations ongoing. - Reduction of the energy consumption of buildings (kWh/sqm) 2020: -11,38 % (baseline 2018).
Petten: 19 981 sqm (100% of built surface area) not compliant with energy standards according to	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

⁷ According to the Guidance note on the Directive 2012/27/EU on energy efficiency, amending Directives 2009/125/EC and 2010/30/EC, and repealing Directives 2004/8/EC and 2006/32/E Section C.10, “the main principle laid down by the Directive is that the amount of energy savings obtained under the ‘alternative’ approach must be equivalent to the energy savings obtained through the 3% renovation rate (‘default’ approach).” The trends in energy performance at all sites shows clear savings in this direction.

Directive 2012/27/EU		Label B. - Reduction of the energy consumption of buildings (kWh/sqm) 2020: -25 % (baseline 2018).
Seville: 7 698 sqm (100% of built surface area) not compliant with energy standards according to Directive 2012/27/EU	+3% (pending confirmation from the landlord)	Directive 2012/27/EU is not applicable as the building is not owned by the Commission. It is in the list of protected real estate by the Municipal Authority. - Reduction of the energy consumption of buildings (kWh/sqm) 2020: -6,13 % (baseline 2018).

Main outputs in 2021:

Other important outputs

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Brussels: In collaboration with DG HR.DS and OIB, to open to the staff the Garden area at CDMA building	If feasible for security and safety reasons, to open the area	100%	The project has been abandoned due to safety and security reasons
Geel: Upgrade ICT network		100% conventional network	Installed 100% of the hardware
		25% security network	Installed 100% of the hardware
Geel: Renovation high and low voltage electrical installations	High voltage building 100	100%	100%
Ispra: Refurbishment of tri-generation plant	Award and signature of the contract	100% (PPAG 02/2021)	100%
	Construction of the hosting building	Start 09/2021	Detailed design completed. Preparatory works started.
Ispra: Construction of the INS3L facility (Ispra Nuclear Safeguards, Security and Standardisation Laboratory)	Construction of facility	Start in Q1	The project has been delayed pending the finalisation of the new JRC Euratom strategy
Ispra: Construction of the Citizen Space	% completion	100%	70%. Delivery estimated to July 2022.

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Ispra: Renovation of the sewage system	Sewage Lines Via Francia towards Via Irlandia	100%	Phase 1 from roundabout Via Germania to Via Irlanda 75% considering that the asphalt cannot be finalised in this period of the year. Phase 2 from roundabout Via Germania to main entrance, delivery estimated to October 2022.
	Sewage Line Via Esperia	100%	100%
	Sewage Line Via Francia towards Via Estonia	Project design by Q4	Preliminary design completed.
Karlsruhe: Construction of nuclear facility 'Wing M' including hot laboratories	Finalise the negotiations with the contractors	Contractors to restart the construction works	Negotiations with WEG, Züblin and SEAR are still ongoing (80% done); Revision of specifications for retendering are on the way (25%)
Karlsruhe: Renovation of Wing A	Preparation of feasibility study	Q4	Preparation of the Technical specification 100 % Tender procedure started in 2021
Karlsruhe: Renovation of nuclear ventilation of Wing B	Preparation of feasibility study	Q3	Feasibility study completed and released , results available 100%
Karlsruhe: Preliminary study for the construction of Be@Home ⁸	Decision to launch the preliminary study	Q2	Decision not finalised yet ⁹
Petten: Construction of a new Site Access and Security Centre	Project relaunched	Engineering delivered Q2 Launch of tender procedure Q3	85% Engineering for the security elements of the New Entrance Building construction took some additional months. Tender documents close to finalisation and building permit submitted by 31.12.21
Petten: New fence	Progress as planned	Contract award	The project has been postponed to 2022.
Seville: Architectural Contest new office building	Awards and signature of contracts	Q2	100%

⁸ Be@home is a new building with a multidisciplinary scope devoted to outreaching, training and education activities

⁹ The plan is being discussed at the senior management level and has not yet been approved yet.

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Seville: Enlargement of premises to cover current needs (+300 m2 - maximum available , including office furniture)	% of progress of the project	100%	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 ⁽¹⁰⁾ (2022)	Target (2024)	Latest known results (31/12/2021)
0	70%	100%	76% 30 DGs have introduced assets.

Main outputs in 2021:

Other important outputs

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Patent and trade mark strategy for the Commission	Delivery of a draft strategy Launch of an interservice group	Q2 Q3	The topic has been divided in two: one strategy for patents (and limited to JRC) and one for trade marks. The targets have not been met. The TM strategy will be started this year; for the JRC patent strategy a draft bench marking study was made in 2021, yet to be published.
Raising awareness on Intellectual Property (IP)	Number of staff trained	Maintain at least 2020 results	930, 33% more than in 2020

¹⁰ The column should be deleted if only short-and medium term (less than 3 years) targets are set.

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
with Commission staff	New support materials (templates, articles checklists etc.) uploaded on IP website	Two new materials by Q4	Template for a publishing licence; New e-learning on IP and procurement
		Number of visits to website/ number of page views to exceed the figures of 2020	6.333 (4,075 in 2020) unique visits, corresponding to 15,998 page views (16,278 in 2020): significant increase in visits, slightly less page views.
IP software policy for the Commission (cooperation with DG DIGIT)	Commission decision is adopted	Q4	Commission decision adopted and published in December 2021
Standard contractual clauses for data acquisition agreements by the Commission	Set of standard clauses available to EC services, via BUDGWEB or otherwise	Q2	Draft under discussion; implementation foreseen Q1 2022

General objective 1: A 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 (2018)	Interim Milestone ⁽¹¹⁾ (2022)	Target (2030)	Latest known results (year)
-23%	-20%	-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)

¹¹ 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.

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 (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
44%	77%	100%	44%

Result indicator: Progress of characterisation and removal of legacy Low Level Waste (LLW) at JRC Karlsruhe

Source of the data: JRC internal indicator

Baseline (2019)	Interim Milestone (2022)		Target (2024)		Latest known results (2021)	
	Declaration	Removal	Declaration	Removal	Declaration	Removal
0%	60%	50%	85%	75%	26%	20%

Result indicator: Progress of waste management and removal in JRC Petten

Source of the data: JRC internal indicator

Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
0%	30%	60%	1%

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 (2021)
0%	10%	50%	5%

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 (2021)
Ispra	0%	11%	20%	7%
Karlsruhe	0%	4%	7%	2%

Main outputs in 2021:

Other important outputs

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Preparation for removal of nuclear material at JRC Geel	Transport mode, containers and timeline defined	Q4	Expected Q2/2022
Establish a FWC to remove and dispose historical waste at JRC Petten	Contractual arrangement with NRG finalised	Q3	Contract ready for signature (expected Q1/2022)
Update declaration of LLW legacy packages at JRC Karlsruhe	% updated waste package declarations	85%	85%
Implementing licensing and authorisation process for decommissioning of ESSOR reactor at JRC Ispra	Decommissioning plan updated and submitted to national authority	Q2	Waiting for feedback from national authority
Supercompaction treatment of waste at JRC Ispra	Definition of the of the first batch of historical waste for supercompaction	Q1	Completed
	Authorisation to transfer the first batch to supercompaction plant	Q4	Pending approval from national authority expected 2022
Transfer and storage of waste to Interim Storage Facility (ISF) at JRC Ispra	Refurbishment of ISF and testing relevant systems completed	Q3	Delayed Q2/2022

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

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

Result indicator: Initiatives on decommissioning knowledge and experience dissemination

Explanation: This indicator measures the progress in the dissemination of knowledge and experience in nuclear decommissioning. Measurement unit is related to the achievement of pre-defined milestones

Source of the data: JRC internal indicator

Baseline (2019)	Interim Milestone (2022)	Target (2024)	Latest known results (2021)
Preliminary concept for a knowledge dissemination centre	Platform for dissemination of knowledge and experience in decommissioning operational	Established set of initiatives and network of partners/contributors	Prototype of the platform for dissemination of knowledge available

Main outputs in 2022:

Other important outputs

Output	Indicator	Target	Latest known results (situation on 31/12/2021)
Platform for dissemination of knowledge on operational nuclear decommissioning	Prototype available	Q4	Completed

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 1: OUTTURN ON COMMITMENT APPROPRIATIONS IN 2021 (in Mio €) for DG JRC					
			Commitment appropriations authorised	Commitments made	%
			1	2	3=2/1
Title 01 Research and Innovation					
01	01 01	Support administrative expenditure of the "Research and Innovation" Cluster	150.82	109.68	72.72 %
	01 02	Horizon Europe	123.47	43.32	35.08 %
	01 03	Euratom Research and Training Programme	38.15	9.11	23.87 %
	01 20	Pilot projects, preparatory actions, prerogatives and other actions	450.50	51.28	11.38 %
Total Title 01			762.95	213.39	27.97 %
Title 02 European Strategic Investments					
02	02 04	Digital Europe programme	1.20	1.20	100.00 %
Total Title 02			1.20	1.20	100.00 %
Title 03 Single Market					
03	03 02	Single Market Programme	0.05	0.05	100.00 %
Total Title 03			0.05	0.05	100.00 %
Title 04 Space					
04	04 02	Space programme of the Union	20.56	20.56	100.00 %
Total Title 04			20.56	20.56	100.00 %
Title 06 Recovery and Resilience					
06	06 05	Union Civil Protection Mechanism (rescEU)	3.00	3.00	100.00 %
	06 06	EU4Health Programme	0.00	0.00	0.00 %
	06 07	Emergency support within the Union	1.20	1.20	100.00 %
Total Title 06			4.20	4.20	100.00 %
Title 08 Agriculture and Maritime Policy					
08	08 02	European Agricultural Guarantee Fund (EAGF)	8.65	8.63	99.75 %
Total Title 08			8.65	8.63	99.75 %
Title 09 Environment and Climate Action					
09	09 02	Programme for the Environment and Climate Action (LIFE)	0.00	0.00	0.00 %
Total Title 09			0.00	0.00	0.00 %
Title 12 Security					
12	12 01	Support administrative expenditure of the "Security" cluster	2.27	2.15	94.96 %
	12 04	Nuclear Safety and decommissioning including for for Bulgaria and Slovakia	30.98	30.62	98.85 %
Total Title 12			33.24	32.77	98.58 %
Title 15 Pre-accession Assistance					

15	15 01	Support administrative expenditure of the "Pre-accession Assistance" cluster	0.00	0.00	0.00 %
Total Title 15			0.00	0.00	0.00 %
Title 20 Administrative expenditure of the European Commission					
20	20 04	Information and communication technology related expenditure	0.40	0.40	100.00 %
Total Title 20			0.40	0.40	100.00 %
Total Excluding NGEU			831.26	281.20	33.83 %

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

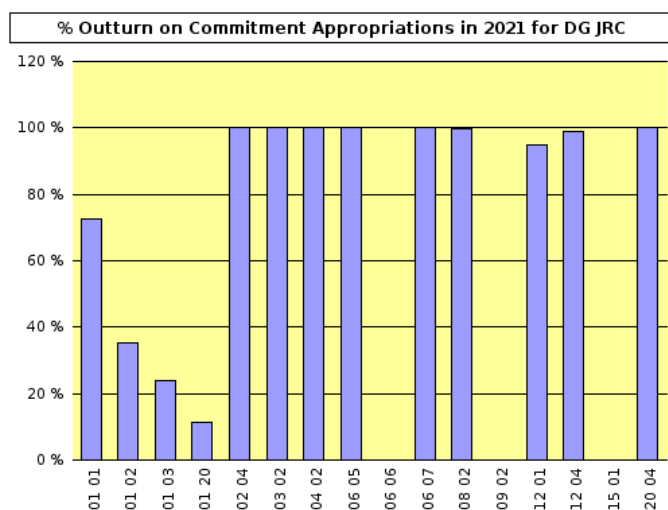


TABLE 2: OUTTURN ON PAYMENT APPROPRIATIONS in 2021 (in Mio €) for DG JRC					
			Payment appropriations authorised *	Payments made	%
			1	2	3=2/1
Title 01 Research and Innovation					
01	01 01	Support administrative expenditure of the "Research and Innovation" Cluster	229.01	102.27	44.66 %
	01 02	Horizon Europe	128.43	43.40	33.79 %
	01 03	Euratom Research and Training Programme	38.01	10.92	28.72 %
	01 20	Pilot projects, preparatory actions, prerogatives and other actions	331.69	40.00	12.06 %
Total Title 01			727.15	196.59	27.04%
Title 02 European Strategic Investments					
02	02 04	Digital Europe programme	0.00	1.90	0.00 %
Total Title 02			0.00	1.90	0.00%
Title 03 Single Market					
03	03 02	Single Market Programme	3.21	3.21	100.00 %
Total Title 03			3.21	3.21	100.00%
Title 04 Space					
04	04 02	Space programme of the Union	18.97	18.96	99.92 %
Total Title 04			18.97	18.96	99.92%
Title 06 Recovery and Resilience					
06	06 05	Union Civil Protection Mechanism (rescEU)	1.28	1.28	100.00 %
	06 06	EU4Health Programme	0.01	0.01	89.36 %
	06 07	Emergency support within the Union	0.17	0.17	100.00 %
Total Title 06			1.46	1.46	99.92%
Title 08 Agriculture and Maritime Policy					
08	08 02	European Agricultural Guarantee Fund (EAGF)	9.06	8.72	96.31 %
Total Title 08			9.06	8.72	96.31%
Title 09 Environment and Climate Action					
09	09 02	Programme for the Environment and Climate Action (LIFE)	0.96	0.96	100.00 %
Total Title 09			0.96	0.96	100.00%
Title 12 Security					
12	12 01	Support administrative expenditure of the "Security" cluster	2.27	0.19	8.34 %
	12 04	Nuclear Safety and decommissioning including for for Bulgaria and Slovakia	31.66	27.83	87.90 %
Total Title 12			33.92	28.02	82.59%
Title 15 Pre-accession Assistance					
15	15 01	Support administrative expenditure of the "Pre-accession Assistance" cluster	0.00	0.00	0.00 %
Total Title 15			0.00	0.00	0.00%
Title 20 Administrative expenditure of the European Commission					
20	20 04	Information and communication technology related expenditure	0.40	0.12	29.44 %

Total Title 20	0.40	0.12	29.44%
Total Excluding NGEU	795.14	259.94	32.69%
Total DG JRC	795.14	259.94	32.69 %

* 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).

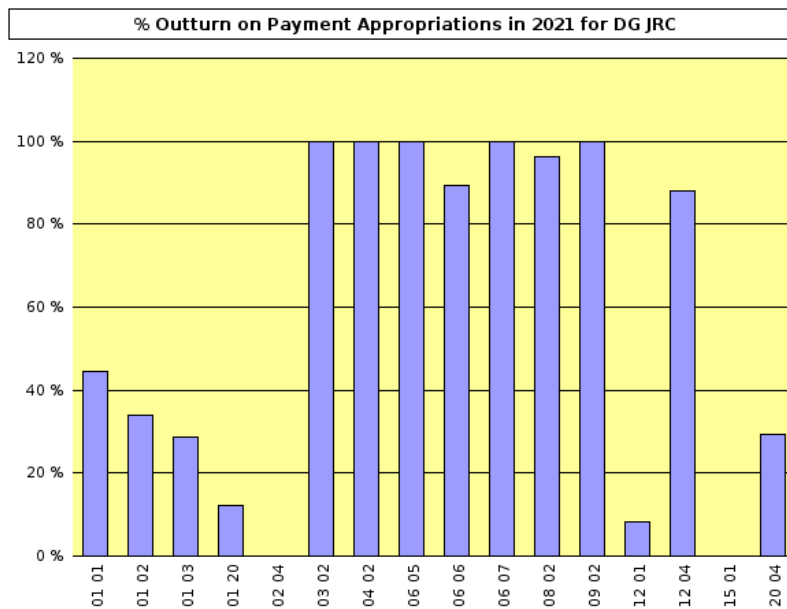


TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			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	109.68	44.26	65.42	59.64%	14.25	79.67	81.62
	01 02	Horizon Europe	43.32	11.15	32.17	74.25%	11.72	43.89	46.11
	01 03	Euratom Research and Training Programme	9.11	2.15	6.96	76.42%	4.82	11.78	14.08
	01 20	Pilot projects, preparatory actions, prerogatives and other actions	51.28	21.65	29.63	57.78%	6.39	36.02	28.93
Total Title 01			213.39	79.22	134.17	62.88%	37.18	171.36	170.74
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
02	02 04	Digital Europe programme	1.20	0.00	1.20	100.00%	1.40	2.60	3.36
Total Title 02			1.20	0.00	1.20	100.00%	1.40	2.60	3.36
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
03	03 02	Single Market Programme	0.05	0.00	0.05	100.00%	0.35	0.39	3.56
Total Title 03			0.05	0.00	0.05	100.00%	0.35	0.39	3.56
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
04	04 02	Space programme of the Union	20.56	1.82	18.74	91.16%	4.46	23.21	22.34
Total Title 04			20.56	1.82	18.74	91.16%	4.46	23.21	22.34
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									

			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
06	06 05	Union Civil Protection Mechanism (rescEU)	3.00	1.28	1.72	57.37%	0.00	1.72	0.00
	06 06	EU4Health Programme	0.00	0.00	0.00	0.00%	0.83	0.83	0.83
	06 07	Emergency support within the Union	1.20	0.17	1.03	85.99%	0.00	1.03	0.00
Total Title 06			4.20	1.45	2.75	65.55%	0.83	3.58	0.83
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
08	08 02	European Agricultural Guarantee Fund (EAGF)	8.63	5.07	3.56	41.22%	0.11	3.67	3.93
Total Title 08			8.63	5.07	3.56	41.22%	0.11	3.67	3.93
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			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)	0.00	0.00	0.00	0.00%	1.07	1.07	2.03
Total Title 09			0.00	0.00	0.00	0.00%	1.07	1.07	2.03
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									
			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
12	12 01	Support administrative expenditure of the 'Security' cluster	2.15	0.19	1.96	91.22%	0.00	1.96	0.00
	12 04	Nuclear Safety and decommissioning including for for Bulgaria and Slovakia	30.62	5.59	25.03	81.75%	36.65	61.69	62.21
Total Title 12			32.77	5.78	27.00	82.37%	36.65	63.65	62.21
TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC									

			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
15	15 01	Support administrative expenditure of the 'Pre-accession Assistance' cluster	0.00		0.00	0.00%	0.00	0.00	0.00
Total Title 15			0.00		0.00	0.00%	0.00	0.00	0.00

TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC

			Commitments to be settled				Commitments to be settled from financial years previous to 2020	Total of commitments to be settled at end of financial year 2021	Total of commitments to be settled at end of financial year 2020
Chapter			Commitments	Payments	RAL	% to be settled			
			1	2	3=1-2	4=1-2/1	5	6=3+5	7
20	20 04	Information and communication technology related expenditure	0.40	0.12	0.28	70.56%	0.00	0.28	0.00
Total Title 20			0.40	0.12	0.28	70.56%	0.00	0.28	0.00
Total Excluding NGEU			281.20	93.45	187.76	66.77%	82.06	269.81	269.01

Total for DG JRC	281.2	93.45	187.76	66.77 %	82.06	269.81	269.01
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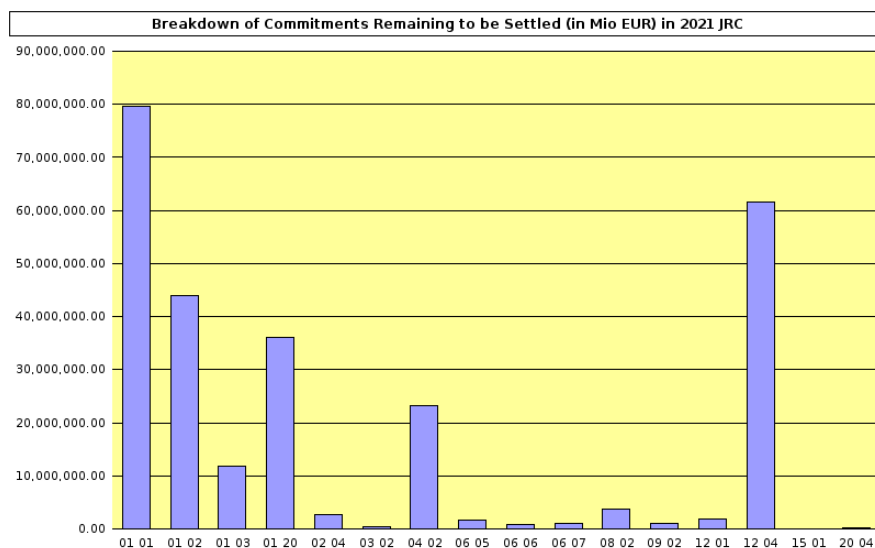


TABLE 4 : BALANCE SHEET for DG JRC

BALANCE SHEET	2021	2020
A.I. NON CURRENT ASSETS	245,247,115.05	228,997,501.08
A.I.1. Intangible Assets	9,687,344.68	1,105,997.14
A.I.2. Property, Plant and Equipment	235,541,897.63	227,873,631.20
A.I.6. Non-Cur Exch Receiv & Non-Ex Recoverab	17,872.74	17,872.74
A.II. CURRENT ASSETS	- 1,505,421,365.14	- 1,340,625,849.73
A.II.2. Current Pre-Financing	5,988,327.37	6,985,447.72
A.II.3. Curr Exch Receiv & Non-Ex Recoverables	- 1,569,826,941.71	- 1,406,755,142.43
A.II.4. Inventories	58,350,460.87	59,077,971.45
A.II.6. Cash and Cash Equivalents	66,788.33	65,873.53
ASSETS	- 1,260,174,250.09	- 1,111,628,348.65
P.I. NON CURRENT LIABILITIES	- 2,404,642,703.09	- 2,393,145,088.50
P.I.2. Non-Current Provisions	- 2,404,638,860.07	- 2,393,141,245.48
P.I.3. Non-Current Financial Liabilities	- 3,843.02	- 3,843.02
P.II. CURRENT LIABILITIES	- 44,407,777.91	- 43,039,103.52
P.II.2. Current Provisions	- 35,274,508.97	- 33,286,304.60
P.II.3. Current Financial Liabilities	-	-
P.II.4. Current Payables	- 9,123,927.96	- 9,743,511.19
P.II.5. Current Accrued Charges & Defrd Income	- 9,340.98	- 9,287.73
LIABILITIES	- 2,449,050,481.00	- 2,436,184,192.02
NET ASSETS (ASSETS less LIABILITIES)	- 3,709,224,731.09	- 3,547,812,540.67
P.III.2. Accumulated Surplus/Deficit	6,069,562,804.76	5,644,273,549.61
Non-allocated central (surplus)/deficit*	- 2,360,338,073.67	- 2,096,461,008.94
TOTAL DG JRC	-	-

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.

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

TABLE 5 : STATEMENT OF FINANCIAL PERFORMANCE for DG JRC

STATEMENT OF FINANCIAL PERFORMANCE	2021	2020
II.1 REVENUES	- 108,873,396.84	- 95,766,659.31
II.1.1. NON-EXCHANGE REVENUES	- 1,096,072.92	- 21,893.15
II.1.1.6. RECOVERY OF EXPENSES	- 1,096,072.92	- 19,332.13
II.1.1.8. OTHER NON-EXCHANGE REVENUES		- 2,561.02
II.1.2. EXCHANGE REVENUES	- 107,777,323.92	- 95,744,766.16
II.1.2.2. OTHER EXCHANGE REVENUE	- 107,777,323.92	- 95,744,766.16
II.2. EXPENSES	270,396,866.95	521,055,914.46
II.2. EXPENSES	270,396,866.95	521,055,914.46
II.2.10. OTHER EXPENSES	151,956,045.79	422,974,711.93
II.2.2. EXP IMPL BY COMMISS&EX.AGENC. (DM)	117,181,346.25	95,923,066.03
II.2.6. STAFF AND PENSION COSTS	1,257,695.61	2,152,079.35
II.2.8. FINANCE COSTS	1,779.30	6,057.15
STATEMENT OF FINANCIAL PERFORMANCE	161,523,470.11	425,289,255.15

It should be noted that II.2.10 OTHER EXPENSES includes the impact on the Statement of Financial Performance of the change of estimation of the Decommissioning Provision. 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	2021	2020
OB.1. Contingent Assets	16,882,098.43	15,629,816.95
GR for other	-	-
GR for performance	13,835,236.53	12,608,825.05
GR for pre-financing	3,046,861.90	3,020,991.90
OB.2. Contingent Liabilities	2,800,000.00	2,860,000.00
OB.2.7. CL Legal cases OTHER	2,800,000.00	2,860,000.00
OB.3. Other Significant Disclosures	28,744,035.57	24,549,857.21
OB.3.3.7. Other contractual commitments	27,793,971.90	22,978,723.66
OB.3.5. Operating lease commitments	950,063.67	1,571,133.55
OB.4. Balancing Accounts	14,661,937.14	11,780,040.26
OB.4. Balancing Accounts	14,661,937.14	11,780,040.26
OFF BALANCE	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.

TABLE 6: AVERAGE PAYMENT TIMES in 2021 for JRC

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	16091	15639	97.2 %	15.0	452	2.81 %	43.21681	2,866,115	1. %
60	367	366	99.7 %	27.1	1	0.27 %	76	13,717	0. %
89	1	1	100.0 %	19				-	0. %
90	2	2	100.0 %	20.5				-	0. %

Total Number of Payments	16461	16008	97.25 %		453	2.75 %		2,879,832	1. %
Average Net Payment Time	16.04			15.27			43.28918		
Average Gross Payment Time	18.68			17.78			50.66225		

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	38	1140	6.93 %	16461	27,772,383	10.48 %	265,068,706

Late Interest paid in 2021			
DG	GL Account	Description	Amount (Eur)
JRC	65010000	Interest expense on late payment of charges	206.84
JRC	65010100	Interest on late payment of charges New FR	- 290.02
			- 83.18

TABLE 7 : SITUATION ON REVENUE AND INCOME in 2021 for DG JRC								
Chapter	Revenue and income recognized			Revenue and income cashed from			Outstanding balance	
	Current year RO	Carried over RO	Total	Current Year RO	Carried over RO	Total		
	1	2	3=1+2	4	5	6=4+5		
30	Revenue from staff	50,716,795		50,716,795	50,716,795		50,716,795	0
42	Fines and penalties	74,462	0	74,462	16,237	0	16,237	58,225
60	Single market, innovation and digital	52,077,821	0	52,077,821	49,195,602	0	49,195,602	2,882,218
64	Security and defence	491,778	0	491,778	491,778	0	491,778	0
66	Other contributions and refunds	3,250,306	0	3,250,306	2,923,874	0	2,923,874	326,433
67	Completion for outstanding recovery orders prior to 2021	52,696,569	4,466,415	57,162,985	49,232,968	3,947,166	53,180,135	3,982,850
Total DG JRC		159,307,731	4,466,415	163,774,146	152,577,254	3,947,166	156,524,420	7,249,726

**TABLE 8 : RECOVERY OF PAYMENTS in 2021 for DG JRC
(Number of Recovery Contexts and corresponding Transaction Amount)**

INCOME BUDGET RECOVERY ORDERS ISSUED IN 2021	Irregularity		Total undue payments recovered		Total transactions in recovery context (incl. non- qualified)		% Qualified/Total RC		
	Year of Origin (commitment)	Nbr	RO Amount	Nbr	RO Amount	Nbr	RO Amount	Nbr	RO Amount
2014					1	17151			
2018					1	11566			
2019					4	359476			
2020	1	900	1	900	4	63770	25%	1%	
2021					8	8673			
No Link					50	1180192			
Sub-Total	1	900	1	900	68	1640828	1%	0%	

EXPENSES BUDGET	Irregularity		OLAF Notified		Total undue payments recovered		Total transactions in recovery context (incl. non-qualified)		% Qualified/Total RC	
	Nbr	Amount	Nbr	Amount	Nbr	Amount	Nbr	Amount	Nbr	Amount
INCOME LINES IN INVOICES										
NON ELIGIBLE IN COST CLAIMS										
CREDIT NOTES							1065	10,544,506		
Sub-Total							1065	10,544,506		

GRAND TOTAL	1	900			1	900	1133	12,185,334	0.09%	0.01%
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TABLE 9: AGEING BALANCE OF RECOVERY ORDERS AT 12/31/2021 for DG JRC

	Number at 1/1/2021	Number at 12/31/2021	Evolution	Open Amount (Eur) at 1/1/2021	Open Amount (Eur) at 12/31/2021	Evolution
2010	1	1	0 %	945	729	-23 %
2015	1		-100 %	30,996		-100 %
2019	6	3	-50 %	579,991	512,120	-12 %
2020	56	2	-96 %	3,863,159	6,400	-100 %
2021		31			6,730,477	
	64	37	-42 %	4,475,090	7,249,726	62 %

TABLE 10 :Recovery Order Waivers >= 60 000 € in 2021 for DG JRC

Waiver Central Key	Linked RO Central Key	RO Accepted Amount (Eur)	LE Account Group	Commission Decision	Comments
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Total DG JRC	
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Number of RO waivers	
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TABLE 11 : Negotiated Procedures in 2021 for DG JRC**External Procedures > € 20,000**

Negotiated Procedure Legal base	Number of Procedures	Amount (€)
Annex 1 - 39.1 (a) - Services entrusted to public-sector bodies or non-profit institutions or organisations	1	295,000.00
Total	1	295,000.00

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	1	312,000.00
Annex 1 - 11.1 (b) - Artistic/technical reasons or exclusive rights or technical monopoly/captive market	16	11,637,903.42
Annex 1 - 11.1 (c) - Extreme urgency caused by unforeseeable events not attributable to the contracting authority	2	209,350.00
Total	19	12,159,253.42

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

Of the sixteen notified as 1.11.1(b) for reasons of “technical monopoly” nine 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 apart 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.

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

Finally, two procedures related to the JRC support to combat the covid epidemic and one was the subject of an exception, as the authorising officer decided that the purchase did not “fit” with the current Financial Regulations This exception has been registered.

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 2021 for DG JRC**External Procedures > € 20,000**

Procedure Legal base	Number of Procedures	Amount (€)
Negotiated procedure without prior publication (Annex 1 - 11.1)	1	295,000.00
Negotiated procedure with single tender (Annex 1 - 39.1)	1	295,000.00
Total	2	590,000.00

Internal Procedures > € 60,000

Procedure Legal base	Number of Procedures	Amount (€)
Competitive dialogue - Follow-up of an open/restricted procedure where only irregular/unacceptable tenders have been submitted (Annex 1 - 12.1 (a))	1	2,000,000.00
Competitive procedure with negotiation (Annex 1 - 12.1)	2	4,334,116.80
Negotiated procedure middle value contract (Annex 1 - 14.2)	51	5,858,604.21
Negotiated procedure without prior publication (Annex 1 - 11.1)	21	12,474,253.42
One-step procedure based on a call for expressions of interest - Vendors' list (Annex 1 - 13.3 (b) (i))	2	242,280.00
Open procedure (FR 164 (1)(a))	52	115,285,964.52
Restricted procedure without Dynamic purchasing system (FR 164 (1)(b))	8	9,246,754.20
Total	137	149,441,973.15

TABLE 13 : BUILDING CONTRACTS in 2021 for DG JRC

None

TABLE 14 : CONTRACTS DECLARED SECRET in 2021 for DG JRC

Legal Base	LC Date	Contract Number	Contract Subject	Contracted Amount (€)
Annex 1 - 11.1 (i) - Secret contract or contract requiring special security measures	06/05/2021	CCR.J.C941186	FS - INM CONDITIONING PROCESS STUDY SWEDEN	60,000.00
Annex 1 - 11.1 (i) - Secret contract or contract requiring special security measures	01/07/2021	CCR.J.C941469	SUPPORT TO REMEDIATION WORKS	145,000.00
Annex 1 - 11.1 (i) - Secret contract or contract requiring special security measures	07/12/2021	CCR.J.C941583	FS - INM INTERIM LONG-TERM STORAGE STUDY	170,000.00
		3		375,000.00

TABLE 15 : FPA duration exceeds 4 years - DG JRC

None

Annex 3 Financial Reports - for EDF - Financial Year 2021

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 1: OUTTURN ON COMMITMENT APPROPRIATIONS until 2021 (in Mio €) for DG JRC							
EDF N°	Budget item		Cumulative Commitment appropriations authorised	Commitment appropriations authorised in the year	Cumulative Commitments made	Commitments made in 2020	%
			1		2		3=2/1
11	Cotonou	Intra-ACP allocations			0.62	-0.38	
Total					0.62	-0.38	

TABLE 1: OUTTURN ON PAYMENT APPROPRIATIONS until 2021 (in Mio €) for DG JRC					
EDF N°	Cumulative Payments appropriations authorised	Payment appropriations authorised in the year	Cumulative Payments made	Payments made in 2020	%
	1		2		3=2/1
11			0.62		
			0.62		

TABLE 1: OUTTURN ON PAYMENT APPROPRIATIONS until 2021 (in Mio €) for DG JRC							
EDF N°	Agreement	Instrument	Cumulative Payments appropriations authorised	Payment appropriations authorised in the year	Cumulative Payments made	Payments made in 2020	%
			1		2		3=2/1
11	Cotonou	Intra-ACP allocations			0.62		
					0.62		

TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC								
EDF N°	Commitments outstanding at the end of previous				Commitments of the current year			Total commitm. outstanding at the end of the year
	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	
	1	2	3	4=1+2-3	5	6	7=5-6	
11	0.38	-0.38		-0.00				-0.00
	0.38	-0.38		-0.00				-0.00

TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €)									
EDF N°	Commitments	Contracted	Payments	% to be settled	to be settled at end 2020	to be settled at end 2019	RAL Evolution		
	1	2	3	4 = 3/1	5 = 1-3	6	5-6	(5-6)/5	
11	0.62	0.62	0.62	100.00%	0.00	0.38	-0.38	-100.00%	
	0.62	0.62	0.62	100.00%	0.00	0.38	-0.38	0.00%	

TABLE 3 : BREAKDOWN OF COMMITMENTS TO BE SETTLED AT 31/12/2021 (in Mio €) for DG JRC										
EDF N°	Agreement	Instrument	Commitments	Contracted	Payments	% to be settled	to be settled at end 2020	to be settled at end 2019	RAL Evolution	
			1	2	3	4 = 3/1	5 = 1-3	6	5-6	(5-6)/5
11	Cotonou	Intra-ACP allocations	0.62	0.62	0.62	100.00%	0.00	0.38	-0.38	-100.00%
			0.62	0.62	0.62	100.00%	0.00	0.38	-0.38	0.00%

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 2021 for FEDF

Revenue Type	RO created during 2021			RO created before 2021			Total		
	Issued	Cashed	Open amount	Open amount at the beginning 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	12.66	0.42	5.91	9.36	0.10	9.15	22.02	0.52	15.06
Revenue Decreasing Consumption	222.84	65.34	30.85	38.95	14.10	16.53	261.79	79.43	47.37
Uncalled Capital - DE	2,181.46	905.51	185.22	0.00	0.00	0.00	2,181.46	905.51	185.22
Uncalled Capital - SI	23.80	9.88	2.02	0.00	0.00	0.00	23.80	9.88	2.02
Uncalled Capital - SP	840.84	349.03	71.39	0.00	0.00	0.00	840.84	349.03	71.39
Uncalled Capital - FIN	159.96	66.40	13.58	0.00	0.00	0.00	159.96	66.40	13.58
Uncalled Capital - LV	12.31	5.11	1.05	0.00	0.00	0.00	12.31	5.11	1.05
Uncalled Capital - CY	11.83	4.91	1.00	0.00	0.00	0.00	11.83	4.91	1.00
Interest on prefinancement	0.03	0.02	0.00	-0.00	0.00	0.00	0.03	0.02	0.00
Interest EIB				0.00		0.00	0.00		0.00
Uncalled Capital - PT	126.86	52.66	10.77	0.00	0.00	0.00	126.86	52.66	10.77
Uncalled Capital - NL	506.34	210.18	42.99	0.00	0.00	0.00	506.34	210.18	42.99
Uncalled Capital - SK	39.87	16.55	3.39	0.00	0.00	0.00	39.87	16.55	3.39
Contribution cofinancement - IT				0.00		0.00	0.00		0.00
Uncalled Capital - SE	311.55	129.32	26.45	0.00	0.00	0.00	311.55	129.32	26.45
Uncalled Capital - FR	1,888.15	783.76	160.31	0.00	0.00	0.00	1,888.15	783.76	160.31
Uncalled Capital - LU	27.04	11.22	2.30	0.00	0.00	0.00	27.04	11.22	2.30
COF-Payable-Canada				0.00		0.00	0.00		0.00
Uncalled Capital - BE	1,451.64	142.97	-868.79	0.00	0.00	0.00	1,451.64	142.97	-868.79
Uncalled Capital - RO	76.12	31.60	6.46	0.00	0.00	0.00	76.12	31.60	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				-2.45		-2.45	-2.45		-2.45
Uncalled Capital - BG	19.23	9.62	0.00	0.00	0.00	0.00	19.23	9.62	0.00
Uncalled Capital - AT	254.14	105.49	21.58	0.00	0.00	0.00	254.14	105.49	21.58
Virements à reputer				-0.41		-0.41	-0.41		-0.41
Uncalled Capital - DK	209.93	87.14	17.82	0.00	0.00	0.00	209.93	87.14	17.82
Uncalled Capital - IT	1,328.19	551.32	112.77	0.00	0.00	0.00	1,328.19	551.32	112.77
Uncalled Capital - EE	9.15	3.80	0.78	0.00	0.00	0.00	9.15	3.80	0.78
Uncalled Capital - LT	19.16	7.95	1.63	0.00	0.00	0.00	19.16	7.95	1.63
Uncalled Capital - IE	99.65	41.36	8.46	0.00	0.00	0.00	99.65	41.36	8.46
COF-Payable-LU				0.00	0.00	0.00	0.00	0.00	0.00
Uncalled Capital - PL	212.78	88.32	18.07	0.00	0.00	0.00	212.78	88.32	18.07
Bank interests Stabex to allocate				-0.76		-0.76	-0.76		-0.76
Uncalled Capital - MT	4.03	1.67	0.34	0.00	0.00	0.00	4.03	1.67	0.34
COF-Payable-SE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Default Interest on Claims				-4.09		-4.09	-4.09		-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	65.14	27.04	5.53	0.00	0.00	0.00	65.14	27.04	5.53
Interest on late payments Contribution				1.78		1.78	1.78		1.78
Uncalled Capital - GR	159.78	66.32	13.57	0.00	0.00	0.00	159.78	66.32	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	0.00	0.00
Manual liaison account BG32/FEDF	3.27	1.64	0.00	0.00	0.00	0.00	3.27	1.64	0.00
Uncalled Capital - CZ	84.53	35.09	7.18	0.00	0.00	0.00	84.53	35.09	7.18
COF-Payable-DK	2.15	1.07	0.00	0.00	0.00	-0.00	2.15	1.07	-0.00
Uncalled Capital - UK	1,555.93	645.86	132.11	0.00	0.00	0.00	1,555.93	645.86	132.11
COF-Payable-BE	0.60	0.30	0.00	0.62	0.62	0.00	1.22	0.92	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	23.87	9.91	2.03	0.00	0.00	0.00	23.87	9.91	2.03
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				2.48		2.48	2.48		2.48
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	0.00	0.00
COF-Payable-DE	15.14	7.57	0.00	0.00		0.00	15.14	7.57	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				0.00		0.00	0.00		0.00
Contribution cofinancement - PL				0.00		0.00	0.00		0.00
COF-Payable-RO	0.15	0.08	0.00				0.15	0.08	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
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)									
EX Diff/Ajustement Realised (losses)									
Total DG FEDF	9,056	4,476	37	48	14.8	25.1	9,105	4,491	61.9

**TABLE 8 : RECOVERY OF PAYMENTS in for EDF for DG JRC
(Number of Recovery Contexts and corresponding Transaction Amount)**

Year of Origin (commitment)	Total undue payments recovered		Total transactions in recovery context (incl. non-qualified)		% Qualified/Total RC	
	Nbr	RO Amount	Nbr	RO Amount	Nbr	RO Amount
Sub-Total						

EXPENSES BUDGET	Irregularity		OLAF Notified		Total undue payments recovered		Total transactions in recovery context (incl. non-qualified)		% Qualified/Total RC	
	Nbr	Amount	Nbr	Amount	Nbr	Amount	Nbr	Amount	Nbr	Amount
INCOME LINES IN INVOICES										
NON ELIGIBLE IN COST CLAIMS										
CREDIT NOTES										
Sub-Total										

GRAND TOTAL										
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TABLE 9: AGEING BALANCE OF RECOVERY ORDERS AT 31/12/2021 for EDF for DG JRC

	Number at 01/01/2021	Number at 31/12/2021	Evolution	Open Amount (Eur) at 01/01/2021	Open Amount (Eur) at 31/12/2021	Evolution

TABLE 11 : NEGOTIATED PROCEDURES IN 2021 FOR EDF DG JRC

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

TABLE 13 : BUILDING CONTRACTS in 2021 for EDF DG JRC

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

TABLE 14 : CONTRACTS DECLARED SECRET in 2021 for EDF DG JRC

Legal Base	Direct or Specific?	LC Date	Contract Number	Contract Subject	Contracted Amount (€)
Nil					

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

None

ANNEX 4: Financial Scorecard

The Annex 4 of each Commission service summarises the annual result of the standard financial indicators measurement. Annexed to the Annual Activity Report 2021, 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)¹²:

- | | |
|--|---|
| <ul style="list-style-type: none"> - Commitment Appropriations (CA) Implementation - CA Forecast Implementation - Payment Appropriations (PA) Implementation - PA Forecast Implementation - Global Commitment Absorption | <ul style="list-style-type: none"> - Timely Payments - Timely Decommitments - Invoice Registration Time - Accounting Data Quality - Management Data Quality |
|--|---|

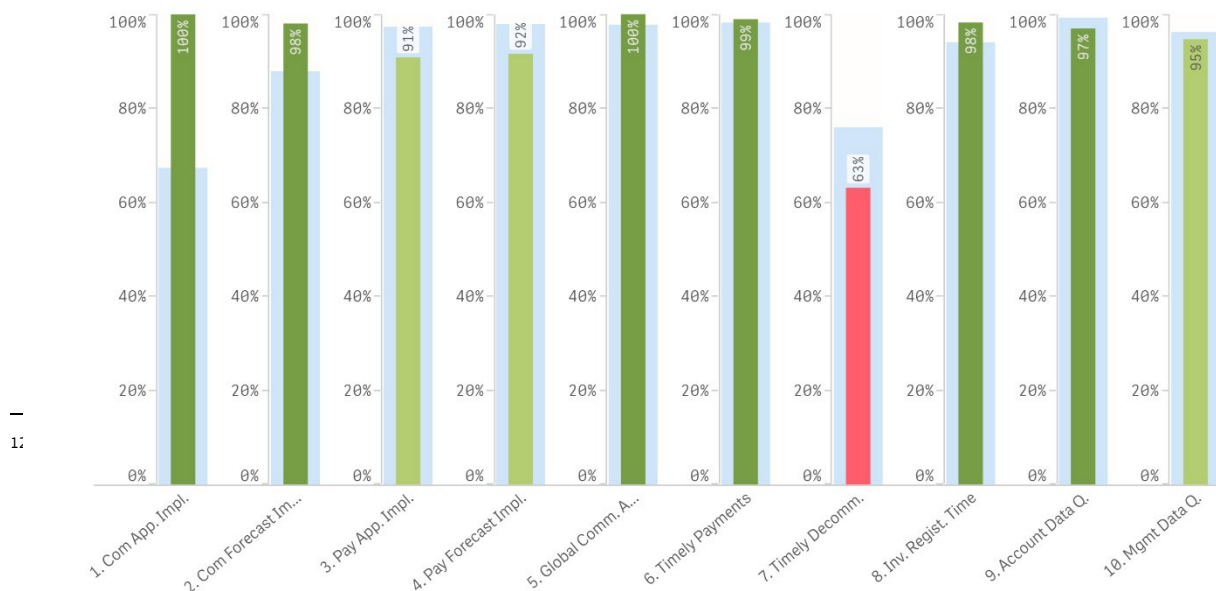
For each indicator, its value (in %) for the Commission service is compared to the common target (in %). The difference between the indicator's value and the target is colour coded as follows:

- 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.

JRC Indicator Scores 2021



¹²For each indicator the light blue bar denotes the EC Score.

Indicator	Objective	Comment ¹³	JRC Score	EC Score
1. Commitment Appropriations Implementation	Ensure efficient use of commitment appropriations expiring at the end of Financial Year		100%	67%
2. Commitment Forecast Implementation	Ensure the cumulative alignment of the commitment implementation with the commitment forecast in a financial year		98%	88%
3. Payment Appropriations Implementation	Ensure efficient use of payment appropriations expiring at the end of Financial Year		91%	97%
4. Payment Forecast Implementation	Ensure the cumulative alignment of the payment implementation with the payment forecast in a financial year		92%	98%
5. Global Commitment Absorption ¹⁴	Ensure efficient use of already earmarked commitment appropriations (at L1 level)		100%	98%
6. Timely Payments	Ensure efficient processing of payments within the legal deadlines	This indicator increased by 3% in comparison to last year.	99%	98%
7. Timely Decommitments	Ensure efficient decommitment of outstanding RAL at the end of commitment life cycle	This indicator takes into account 953 commitments with a delayed decommitment. During the course of 2021 as a result of the COVID pandemic certain delays in execution of these operational contracts were experienced. 70% of these delayed de-commitments were for less than 5.000 euro each. In 2022 the JRC will monitor the expected execution of these operational contracts and will update the FDIs accordingly.	63%	76%

¹³ 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%.

¹⁴ Due to technical limitation, 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. As a result, the actual Indicator score may be slightly higher than the one reported for DGs using the GF commitments.

8. Invoice Registration Time	Monitor the accounting risk stemming from late registration of invoices in the central accounting system ABAC		98%	94%
9. Accounting Data Quality	Ensure the good data quality of ABAC transactions with the focus on fields having a primary impact on the accounts		97%	99%
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		95%	96%

ANNEX 5: Materiality criteria

Since 2019¹⁵, a *de minimis* threshold for financial reservations has been introduced. Quantified AAR reservations related to residual error rates above the 2 % materiality threshold, are deemed not substantial for segments representing less than 5 % of a DG's total payments and with a financial impact below EUR 5 million. In such cases, quantified reservations are no longer needed.

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.

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.

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

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 401 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 guidance¹⁶, 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.

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.

¹⁶ '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'

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)
The needs are not well defined (operationally and economically) and that the decision to procure was inappropriate	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
	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: 274
	Preparation of detailed procurement planning and regular follow-up via PPMT	Coverage: 100 % of the forecast procurements > EUR 15 000	Average cost per tender: Cost of control on procurement (EUR 3 556 153) / number of procedures closed during the year (274) = EUR 12 979
	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 submitted due to inadequate market analysis and / or poorly defined technical specifications	Financial circuit (OVA and or AOS approval and supervision of specifications)	<p>Coverage: 100 % of the specifications are scrutinised</p> <p>Depth: Determined by the amount and/or the impact on the objectives of the DG if it goes wrong</p>	<p>Effectiveness: <u>Benefits:</u> Rejection of unjustified purchases, avoidance of litigation and compliance with Financial Regulation and Procurement rules</p>
	Additional controls namely by procurement staff above the financial threshold of EUR 15 000	Coverage: 100 % of procedures > EUR 15 000	<p>Efficiency: Number of procedures closed during the year: 274</p>
	Public Procurement Advisory Group (PPAG) – <i>ex ante</i> control	<p>Coverage: Threshold (100 % > EUR 500 000 and 100 % of negotiated > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000)</p> <p>Depth: Depends on the sensitivity Risk based approach focused in particular on the selection criteria</p>	<p>Average cost per tender: Cost of control on procurement (EUR 3 556 153) / number of procedures closed during the year (274) = EUR 12 979</p> <p>Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 556 153) / Total contract value (EUR 152 500 000) = 2.33 %</p>

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)
The most promising offer not being selected, due to a biased, inaccurate or 'unfair' evaluation process	Opening committee and evaluation committee	<p>Coverage: 100 % of the offers analysed</p> <p>Depth: all documents transmitted</p>	<p>Effectiveness: <u>Benefits:</u> Rejection of unjustified purchases, avoidance of litigation and compliance with Financial Regulation and procurement rules</p> <p>Efficiency: Number of procedures closed during the year: 274</p> <p>Average cost per tender: Cost of control on procurement (EUR 3 556 153) / number of procedures closed during the year (274) = EUR 12 979</p> <p>Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 556 153) / Total contract value (EUR 152 500 000) = 2.33 %</p>
	Public Procurement Advisory Group <i>ex ante</i> control	<p>Coverage: Threshold (100 % \geq EUR 500 000 and 100 % of negotiated > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000)</p> <p>Depth: In terms of justification of the draft award decision</p>	
	Opening and evaluation committees' declaration of absence of conflict of interest and confidentiality	<p>Coverage: 100 % of the members of the opening and the evaluation committees</p>	
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	<p>Coverage: 100 % checked</p>	<p>Effectiveness: <u>Benefits:</u> avoid contracting with 'excluded' suppliers that would not be able to fulfil the contract requirements</p> <p>Efficiency: Number of procedures closed during the year: 274</p> <p>Average cost per tender: Cost of control on procurement (EUR 3 556 153) / number of procedures closed</p>
	Exclusion criteria documented	<p>Coverage: 100 % checked</p> <p>Depth: required documents provided are consistent</p>	
	Public Procurement Advisory Group <i>ex ante</i> control	<p>Coverage: Threshold (100 % \geq EUR 500 000 and 100 % of negotiated > EUR 60 000) and random sampling (others > EUR 60 000 < EUR 500 000)</p>	

Main risks It may happen (again) that...	Mitigating controls	Coverage, frequency and depth of controls	Cost-Effectiveness indicators (three E's)
		Depth: Depends on the sensitivity risk-based approach focused in particular on the selection criteria	during the year (274) = EUR 12 979 Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on procurement (EUR 3 556 153) / Total contract value (EUR 152 500 000) = 2.33 %

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	<p>Coverage: 100 % monitored</p> <p>Depth: Follow-up of the deadlines and the deliverables mentioned in the contract</p>	<p>Effectiveness: <u>Benefits:</u> Detect error before payment, sound financial management and respect of contractual provisions</p> <p>Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 5 855 573) / number of financial transactions (21 538) = EUR 272</p> <p>Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on the financial circuit: EUR 5 855 573 / value of payment executed (EUR 259 944 665) = 2.25 %</p>
Amount paid is disconnected from the quality and the timing of the deliverables	Conform to the fact	Coverage: 100 % of transactions	Effectiveness: <u>Benefits:</u> avoid paying undue amounts
	Financial circuit: all steps financial and operational	<p>Coverage: 100 % controlled</p> <p>Depth: check of all required documents in the contract</p>	Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 5 855 573) / number of financial transactions (21 315) = EUR 272
	Signature at higher senior management level for amounts > EUR 139 000	<p>Coverage: 100 % of transactions > EUR 139 000</p> <p>Depth: The depth depends on the risk criteria</p>	Economy (costs): Estimation of cost of operational and financial staff involved
	Sensitive functions	Coverage: AOSDs and OIAs mainly	Cost of control on the financial circuit: EUR 5 855 573 / value of payment executed2 (EUR 259 944 665) = 2.25 %
Amount paid is disconnected from the quality and the timing of	Close monitoring of every step in the payment process, in particular	Coverage: 100 % of transactions	Effectiveness: <u>Benefits:</u> Sound financial management and respect of

the deliverables	payment delays		<p>contractual provisions</p> <p>Efficiency: Average cost per payment and cost over annual amount disbursed:(EUR 5 855 573) / number of financial transactions (21 315) = EUR 272</p> <p>Economy (costs): Estimation of cost of operational and financial staff involved Cost of control on the financial circuit: EUR 5 855 573 / value of payment executed (EUR 259 944 665) = 2.25 %</p>
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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	<p>Coverage: Risk-based percentage or financial controllers check each other's work once a year</p> <p>Depth: Review of the procedures implemented (procurement and financial transactions)</p>	<p>Effectiveness: Detected error rate from <i>ex post</i> controls: value of error(s) / total value of payments checked</p> <p>Benefits: Irregular payments detected, issues are followed and addressed and improvement of processes and procedures</p>
	Whistle blowing (after yearly reporting of awarded contractors)	Coverage: Potentially 100 %	Economy (costs): Estimation of cost of staff involved mainly linked to <i>ex post</i> controls
Management of the procurement is not improved in general	Review of <i>ex post</i> results	<p>Coverage: 100 % at least once a year</p> <p>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</p>	<p>Costs <i>ex post</i> controls / total value of transactions checked by <i>ex post</i> controls</p> <p>EUR 80 556/ EUR 43 131 279 = 0.19%</p>
	Review of exception reporting	<p>Coverage: 100 % at least once a year</p> <p>Depth: Look for any weakness in the procedures (procurement and financial transactions)</p>	<p>Costs <i>ex post</i> controls / total number of transactions checked by <i>ex post</i> controls</p> <p>EUR 80 556/ 187 = EUR 430</p>

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)
<p>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.</p>	<p>Risk assessment carried out on each competitive project proposal and reviewed by management</p> <p>Project check list for each competitive project proposal is subject to management review.</p>	<p>Coverage: 100 % (risk assessment and project check list for all projects proposals).</p> <p>Depth: All documents transmitted</p>	<p>Effectiveness <u>Benefits:</u> Only project proposals with an acceptable level of risk and which are in line with work programme which could meet customer expectations are accepted.</p> <p>JRC contractual cashing (in %) – up to 15 % of the institutional budget: 24.63 %</p> <p>Economy (costs): Estimated time taken by responsible scientist and management to prepare and review risk assessment against project proposal value.</p> <p>Cost of control on competitive project proposals / Total contractual project forecast value: 0.042 %</p> <p>Cost of control on competitive project proposals / Number of proposals selected during the year: 190.00 EUR per project (all proposals past management review)</p>
	<p>For all competitive project proposals – high level management review and hierarchical validation</p>	<p>Coverage: 100 % (all competitive project proposals).</p> <p>Depth: May be determined by the amount and/or the impact on the objectives of the JRC if it goes wrong</p>	<p>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.</p> <p>Efficiency: Estimated time taken by each actor in the</p>

			<p>management review procedure.</p> <p>Economy (costs): Total cost of control of high-level management review / Total contractual project proposal: 0.032 %</p> <p>Cost of control on competitive project proposals / Number of proposals selected during the year : 142.50EUR per project (all proposals past management review)</p>
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)	<p>Effectiveness <u>Benefit:</u> Reduced risk of financial loss due to overspending on contractual contracts</p> <p>Efficiency Estimated time taken by financial officers to request and monitor TPW up-front payment against project value</p> <p>Economy (costs): Estimated time for Unit head to approve the project proposal cost evaluation.</p> <p>Cost of control for Cost Evaluation Forms/ Value of cost evaluation form: 0.011 %</p> <p>Cost of control for Cost Evaluation Forms/Numebr of competitive project proposal: 47.50 EUR per project</p>
Financial risk on Third Party Work (TPW) contracts – risk of non-payment by third parties	Checking and follow-up of receipt of up-front payment by financial officers	Coverage: 100 % check of receipt of TPW up-front payments.	<p>Effectiveness Rate of default (if any) on TPW contracts:0 <u>Benefit:</u> reduced risk from third party default</p> <p>Economy (costs): Estimated time taken by financial officers to request and monitor TPW up-front payment against project value</p> <p>Cost of control for up-front payment / Project value of all TPW contracts: 0.08 %</p>

			Cost of control for up-front payment/Number of TPW contractual project proposal: 95.0 EUR per project
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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).	<p>Effectiveness <u>Benefit:</u> The JRC is not exposed to any additional liability</p> <p>Economy (costs): Estimated time taken for the competitive financial officers to verify all contracts.</p> <p>Cost of control for contract checking/ Total value of contracts signed: 0.02 %</p> <p>Cost of controls for contract checking / Number of contracts signed: EUR 95.0</p>
Failure to properly forecast revenue in the associated initial Forecast of Revenue (FOR) may result in inadequate credit commitments being available.	All FORs are checked by the Financial Initiating Agent (FIA), verified by a financial verifying agent (FVA) and authorised by the authorising officer (AOS) who is also responsible for the legal commitment (i.e. signing the contract).	<p>Coverage: 100 % as all FOR are checked, verified and authorised (Financial Circuits).</p> <p>Depth: The depth depends on the risk criteria</p>	<p>Effectiveness <u>Benefit:</u> Elimination of errors on FOR, respect of financial circuits.</p> <p>Efficiency Estimated time of staff involved, (FIA; FVA & AOS).</p> <p>Economy (costs): Cost of control for FOR checking/ Total value of FORs signed: 0.04 %</p> <p>Cost of control for FOR checking/ number of FORs: EUR 142.50</p>

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)
Failure to cash appropriately might lead to financial and reputational loss.	<p>Budget consumption is verified by the competitive financial officers (FIAs) prior to billing the customer.</p> <p>All Recovery Orders (ROs) are checked by FIA against contract and budget consumption, verified both by the FVA and authorised by the AOS.</p>	<p>Coverage: 100 % (all ROs are checked, verified and authorised). – Financial circuits</p> <p>Depth: The depth depends on the risk criteria</p>	<p>Effectiveness Benefit: Correct billing of customers, sound financial management and respect of contractual provisions.</p> <p>Efficiency Time taken by, FIA, FVA and AOS to verify ROs against the total value of ROs issued.</p> <p>Economy (costs): Time taken by, FIA, FVA and AOS to verify ROs against the total value of ROs issued.</p> <p>Cost of controls on RO / Total value of recovery orders issued: 0.06 %</p>
	Independent audits are systematically carried out For Framework Programme (FP) contracts with a reimbursable value > EUR 325 000	<p>Coverage: Independent audits of FP contracts with a reimbursable value > EUR 325 000</p> <p>Depth: The depth depends on the risk criteria</p>	<p>Effectiveness <u>Benefit:</u> reduced risk of errors for contracts with a reimbursable value > EUR 325 000, system improvements and compliance with FP provisions.</p> <p>Efficiency Time to provide audit certificate</p> <p>Economy (costs) Costs of audits / Total value of contractual projects audited: 0.19 %</p>
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	<p>Coverage: 100 % of RO transactions</p>	<p>Effectiveness Benefits: Sound financial management and respect of contractual provisions</p> <p>JRC competitive cashing (in %) - up to 15 % of the institutional budget: 25.03 %</p> <p>Efficiency Estimated time of staff involved, (FIA; FVA & AOS).</p>

			Economy (costs): Estimated time of staff involved, (FIA; FVA & AOS).
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.	<p>Effectiveness <u>Benefit:</u> Increased harmonisation of competitive contract management across the JRC sites</p> <p>Efficiency Estimated time of staff involved</p> <p>Economy (costs) Estimated time of staff involved EUR 8 360 Cost of <i>Ex post</i> control / Total Value of contractual cashing: 0.01%</p>

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 (2019)	Target (2024)	Last known value (31/12/2021)
< 0.5%	< 2% of relevant expenditure	< 0.5%

Main outputs in 2021:

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	0.46%
	Share of procurement procedures receiving a positive opinion from the Public Procurement Advisory Group (PPAG)	Remains ≥ 95 % screened by PPAG	96%
Efficient controls	Time-to-pay	Percentage of individual payments made within legal time limits (remains ≥ 93%)	97.3% A much higher value than the target and a 4% improvement over 2020
Economical controls	Overall estimated cost of controls	<6% of funds managed	3.83 %
	Cost of supervisory measures (<i>ex post</i> controls)	Remains < 0.4 % of <i>ex post</i> value controlled	< 0.4%

Main outputs in 2021:

The overall financial performance for the JRC for 2021 has been excellent, based on our “continuous improvement” and fine-tuning approach. There was a steady increase in consumption levels across the board throughout the year. Average payment times reached 97.3% within the required payment delay. This is more than a 4% improvement compared to the previous year.

Progress on implementation of the eProcurement Programme, for which the JRC is the Business Domain Owner, has continued in 2021. The ITCB endorsed the eProcurement Programme Charter 2021-2025 in its June meeting. Very good progress has been made in the ePreparation phase where PPMT (Public Procurement Management Tool), the JRC-developed ePreparation solution, is now used not only by all the Commission DGs and Executive Agencies but also by many regulatory agencies. Onboarding of other EU Institutions and bodies interested in the suite will continue during the course of 2022.

In addition, other related eProcurement IT tools such as eTendering and eSubmission delivered according to expectations. This allowed solid integration across the front-end of the eProcurement business domain.

Harmonisation and the achievement of substantive efficiency gains are key expected deliverables of the eProcurement Programme. These objectives have been clearly achieved during the pre-award phase of the procurement cycle where IT solutions have been identified and implemented and processes and templates harmonised.

Further efforts will be needed in 2022 and 2023 in the post-award phases of the proposed suite to increase the pace towards completion.

The JRC was also active on the Commission-wide stage providing the lead author for a report on simplification of financial transactions and procurement where one of the main recommendations – on “regularisation” which was already in place at JRC level since 2020 was agreed by DG BUDG and announced at Commission-level in December 2021.

Regularisation required the receipt of contracts signed by both parties following the end of the covid crisis. The JRC made a calculated risk assessment and issued a number of Notes in 2020 and 2021 to derogate from this requirement for “low risk” tender documents and contracts. This proposal was one of the main recommendations in the simplification report and was accepted and consequently implemented by DG BUDG, who increased the scope of application so implementing even further real efficiency gains.

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

Table Y - Overview of DG's/EA's estimated cost of controls at Commission (EC) level:

The absolute values are presented in EUR

EXPENDITURE

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 (%)** (a)/(b)	EC total costs	total value verified and/or audited	Ratio (%) (d)/(e)	EC total estimated cost of controls (a)+(d)	Ratio (%)** (g)/(b)
Procurement and Financial Transactions	9,411,726 €	259,944,665 €	3.62%	80,556 €	43,131,279 €	0.19%	9,492,282 €	3.65%
	- €	- €	0.00%	- €	- €	0.00%	- €	0.00%
Horizontal Activities	208,575 €	- €	0.00%	254,925 €	- €	0%	463,500 €	0%
	- €	- €	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%	- €	- €	0.00%	- €	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%
OVERALL total estimated cost of control at EC level for expenditure	9,620,301 €	259,944,665 €	3.70%	335,481 €	43,131,279 €	0.78%	9,955,782 €	3.83%
SHARED/POOLED CONTROL ACTIVITIES (RTD & REA)								
Common Audit Service (only DG RTD)	- €	- €	0.00%	- €	- €	0.00%	- €	0.00%
Validation services (only REA)	- €	- €	0.00%	- €	- €	0.00%	- €	0.00%
Expert management (only REA)	- €	- €	0.00%	- €	- €	0.00%	- €	0.00%

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 (%)** (a)/(b)	EC total costs	total value verified and/or audited	Ratio (%) (d)/(e)	EC total estimate d cost of controls (a)+(d)	Ratio (%)** (g)/(b)
Only applicable for DGs with non-expenditure items								
	- €	- €	N/A	- €	- €	N/A	- €	N/A
Assigned revenue from competitive activities Art 21(2)(g)	292,048 €	147,212,527 €	0.20%	8,360 €	10,699,808 €	0.08%	300,408 €	0.20%
	- €	- €	N/A	- €	- €	N/A	- €	N/A
	- €	- €	N/A	- €	- €	N/A	- €	N/A

* 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*:

- For procurements, an estimated EUR **3 556 153** were invested in controlling 274 procurement procedures for contracts with a total value of EUR **152 500 000**. Thus **2.33** % 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 5 855 573 was invested in controlling **21 538** financial transactions worth EUR **259 994 665**. Thus **2.25** % of the total payment amount was dedicated to control.
- Overall, the total cost of control for procurement and financial transactions EUR 9 492 282 plus horizontal controls EUR 463 500 is EUR 9 955 782, 3.83 % of total payment value for 2021.

Revenue operations through contractual activities

For the contract proposal phase, an estimated EUR 123 880 was invested in evaluating the cost of the projects, in assessing the risks, in overall checking and reviewing at different level of responsibility for 326 contractual project proposals with a total value of EUR 147 212 527. Thus, 0.084% of the total contractual project proposal value was dedicated to carrying out such controls with a cost of EUR 380 per proposal.

The estimated total amount is broken down:

- EUR 61 940 for risk assessment and overall checking (0.042 % of the total competitive project value and EUR 190.0 per project);
- EUR 15 485 for cost evaluation form (CEF) checking (0.011 % of the total competitive project value and EUR 47.50 per project proposal);
- EUR 46 455 for high-level management reviewing (0.032 % of the total competitive project value and EUR 142.50 per project proposal).

The third party work (TPW) type of contracts incurred an estimated additional amount of EUR 950 for requesting up-front payments. Thus, 0.001 % of the total competitive project proposal value was dedicated to carrying out such controls with a cost of EUR 95.00 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 30 970 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 95.0 per project. For the financial circuits carried out on forecasting of revenue, an estimated EUR 63 983 was invested in controlling 349 forecasts of revenue (FORs and deFORs) worth EUR 148 227 827.12 . Thus, 0.04 % of the total forecast of revenue amount was dedicated to control with an estimated cost of EUR 142.50 per FOR transaction.

For the contract implementation phase, an estimated EUR 62 130 was invested in monitoring budget consumption of the contractual contracts and reviewing a number of 436 recovery orders (ROs) issued worth EUR 99 502 367.64. 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 2021 amounted to EUR 9 375 representing 0.2 % of the value of competitive projects audited.

In 2021, an estimated EUR 8 360 was used to deliver an *ex post* control process to review 16 contracts representing 0.01 % of the cashed income from competitive contracts.

Table 7.1. Financing sources for 2021.

ABB Activities	Description	Payment appropriations (in EUR)
01 01; 01 02	Support expenditure for Horizon Europe; Horizon Europe	275,207,877
01 01; 01 03	Support expenditure for the Euratom Research and Training Programme; Euratom Research and Training Programme	109,944,091
01 20	Pilot Projects, Preparatory Actions	655,540
12 01 and 12 04 03	Support expenditure for the nuclear safety and decommissioning; JRC Decommissioning and Waste Management Programme	33,355,000
20 04	Information Systems	8,591,493
EFTA States Contribution		6,610,557

Voted budget (total of above 6 headings)		434,364,558
External assigned revenue	Supplementary credits from Association Agreements to H2020 and Euratom	7,527,605
	Contractual income	94,860,968
Internal assigned revenue		5,138,945
Co- and cross-delegations received ^[1]	Co-delegations	35,217,556
	Cross delegations	0
Grand total financing sources 2021 in payments^{[2] [3]}		577,109,632

^[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 previous exercises nor the High Flux Reactor (HFR) appropriations.

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

Table 7.2. Overall conclusion table.

Risk-type /activities	Procurement (e.g. minor or major values)	Revenue operations through contractual activities	Non Current Assets & Inventories	Independent info from auditors (IAS, ECA) on assurance or on new/overdue critical recommendations available?	Any reservation?
totals (coverage)	EUR 144 331 645 ¹⁷	EUR 94 860 968 ¹⁸	EUR 303 597 576	Yes	No

¹⁷ For the purposes of cost of controls the total amount includes all payments initiated and verified at JRC level. This is different from the figure for payments in the 'summary key data' which only considers payments authorised by the JRC.

¹⁸ This value represents the revenue cashed from contractual activities in 2020, which is an amount different from the total revenue and income cashed reported in Annex 3 Table 7. The latter includes other revenue sources (such as HFR related) and other contributions and refunds received.

ICO-related indicators available	RER est. 0.5%, CES = yes, AFS = OK	RER est. 0.5%, CES = yes, AFS = OK	Clean Mngt Decl., SAI = OK, TFV = yes	no critical issue	
ICO – Internal Control Objective RER – Residual Error Rate CES – Cost-Effectiveness of Controls AFS – Anti Fraud Strategy			SAI – Safeguarding Assets & Information TFV – True and Fair View = Reliable Reporting		

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

Cross-sub-delegations received

The JRC received in 2021 no cross sub-delegated authority to use the budgetary resources of other Directorates General and services of the Commission.

Cross-sub-delegations given

The JRC has provided no cross sub-delegations to other Directorate Generals of the European Commission in 2021.

Co-delegations

The JRC has put in place co-delegations type I and type II¹⁹ (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"
- 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)'

¹⁹ 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)

- 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 7.4. Co-delegations type I and type II.

DG/Service	Associated budget in 2021 (C1 commitment accepted) In EUR 1 000s	Nature of the Co-Delegated Service
DG AGRI	7560	Assigned to Directorate D for the Control with Remote Sensing Programme – Acquisition of satellite imagery under the 2019 Control with Remote Sensing (CwRS) work programme and Land Parcel Identification Quality Assurance (LPIS QA).
DG AGRI	1080	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	20	Contribution of the JRC to DG BUDG for services related to ABAC and the development of SUMMA.
DG CLIMA	0	Assigned to Directorate D for Project 'LUCAS samples – Analysis'.
DG COMM	14	Contributions from operational programmes to corporate communication
DG DIGIT	13420	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	1200	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	3000	Assigned to Directorate D for ' CEMS (Copernicus Emergency Management Service)'.
DG ENV	0	Assigned to Directorate D for Project 'LUCAS samples – Analysis'
DG ESTAT	48	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	20561	Assigned to Directorates D, E and I for the programme 'Copernicus'
DG HR	3407	Contribution to the cost of activities managed by DG.HR.AMC8 (stagiaires and grant holders salaries and administration, training and recruitment) and costs for the research budget contributing to the building costs in Brussels.
DG HR	200	The JRC social costs in Ispra managed by the Medical Services.
DG HR	696	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	3261	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	1200	Assigned to Directorate D; Emergency Support Instrument (COVID-19) for 2021.
OIB	785	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	184	Contribution of the JRC to PO Publication 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:

- 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 7.5. Co-delegations type III.

DG/Service	Associated budget in 2021 (C1 commitment accepted) In EUR 1 000s	Nature of co-delegated service
DG HR	0	Payments of Interim staff in Brussels
PMO	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 2021.

Management mode: Direct centralised

Key figures:

There were 136 large value (> EUR 60 000) contracts signed valued at approximately EUR 149 million.

35 % were awarded through an open procedure.

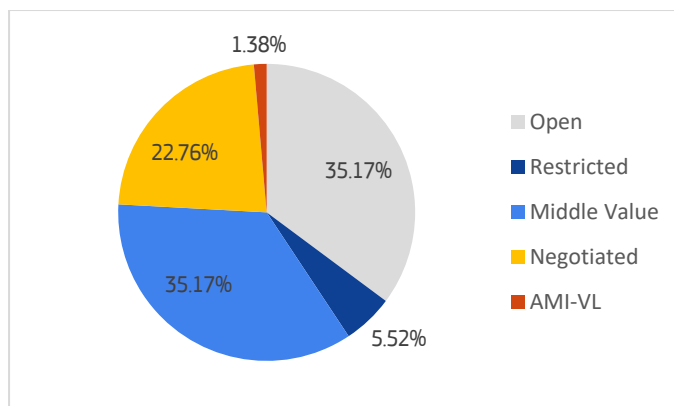


Figure 7.1. Procurement procedures (> EUR 60 000) contracted in 2021.

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

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 2021, the independent auditor certified 5 financial statements submitted to the policy DGs, for a total amount of EUR 4.93 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 2021, EUR 18.8 million has been generated in such commitment appropriations valid for 5 years. During the same period EUR 88.8 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 2026. The JRC monitors the annual utilisation of these funds through a specific reporting tool.

Figure 7.2 depicts the competitive income cashed during 2021, the type and their value.

Management mode: Direct centralised

Key figures:

EUR 94.9 million of competitive income cashed in 2021.

Support to Commission services are the main source of competitive income (.

85.79 % of the value of the competitive income cashed in 2021). Third party works, Indirect actions and Licenses&Royalties, respectively, represented 9.59%, 4.24 % and 0.38 % of the competitive income cashed in 2021.

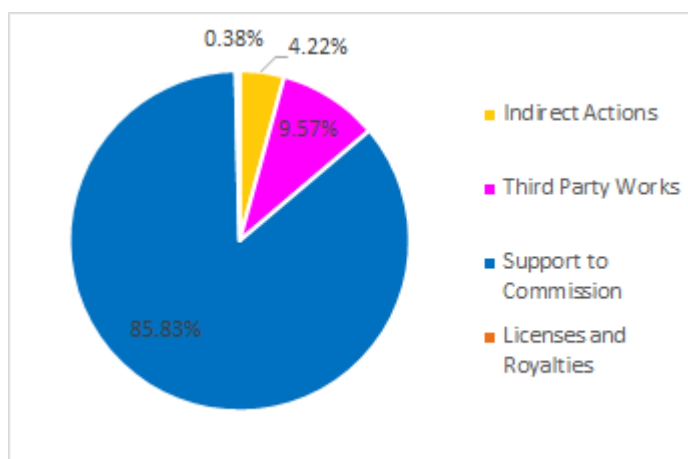


Figure 7.2. Competitive income cashed by the JRC in 2021.

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 duties²⁰

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.

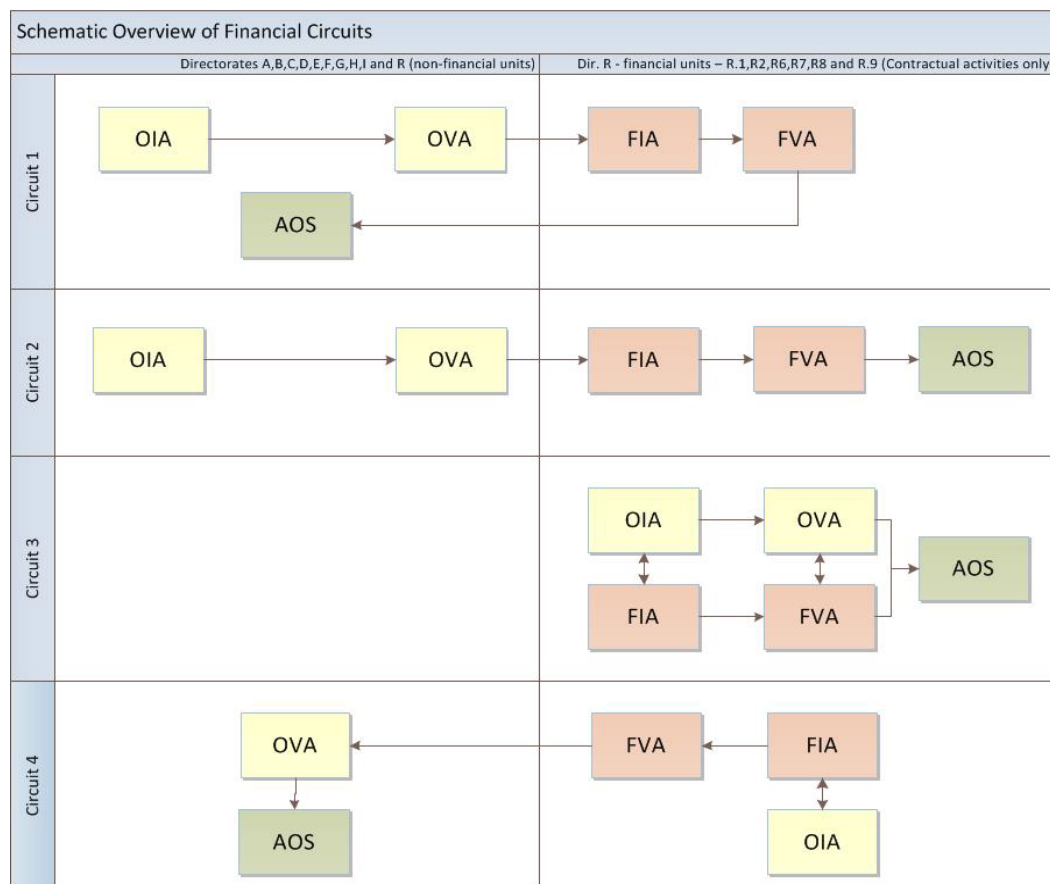
Basic principles

- 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.

Basic circuits

²⁰ Extract from the 'JRC Financial Circuits and Segregation of Duties'

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.

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

In 2021 the DG JRC new financial circuits have been updated 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 2021 have followed the Annual Accounting Quality Plan, sent to DG BUDGET 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 adjustment— 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 15,001 and EUR 60 000; 4 to 6 files for payments between EUR 60 001 and EUR 139 000; 3 to 5 files for payments above EUR 139 000 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 2021, *ex post* controls were carried out on 112 payments²¹ and 75 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.

²¹ Includes payments carried out by JRC using cross sub-delegations received.

3) Related to 'Audit observation and recommendations'

2.1. 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) ²² aimed at the prevention, detection and correction ²³ 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 31/12/2020	
100% (former AFS)	100% (new AFS)	90% of actions for 2021 done (1 action postponed to 2022) ²⁴	
Main outputs in 2021:			
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) ²⁵
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	Q4	Postponed to 2022 ²⁶

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

²² 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'.

²³ Correction of fraud is an umbrella term, which notably refers to the recovery of amounts unduly spent and to administrative sanctions.

²⁴ 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 2022.

²⁵ No internal control survey in 2021

²⁶ The new internal control strategy is already drafted, however additional input are needed from the current JRC organisational process improvement exercise.

- 77% of newcomers participated to ethics and integrity sessions, 20 financial officers attended the new training 'Zero tolerance to fraud', designed with OLAF and the JRC financial department. Around 15 managers participated to the the 'JRC Ethics awareness session for Managers'.
- The JRC 'Scientific integrity framework' and 'research ethics board' are being reinforced and a new set of guidelines and tools for responsible conduct of research has been embedded into the scientific project management cycle. In addition, the intranet page dedicated to 'Scientific integrity and research ethics' was completely revamped to promote an internal culture that proactively supports this 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.
- At the end of 2021, one case of potential fraud on external contract management was investigated by OLAF. The related report is being finalised. Several corrective measures were taken in a timely manner and 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).

2.2. IAS audits

Detailed information on IAS audits finalised during the reporting period, for which action plans have been accepted. The JRC has implemented the action plans for the two first audits and IAS assessment is pending. The implementation of the action plan for the 3rd one is ongoing.

1. Accounting of assets in the JRC, resulting in one very important recommendation about documentation, guidance and methodology of the accounting control process, which the JRC addressed by completing the existing guidelines.
2. (Multi-DG audit) Commission's strategy for data, information and knowledge management. This audit did not formulate any very important recommendations for the JRC but only two important ones.
3. JRC's support to EU policy and knowledge management, where one very important recommendation was identified on definition of priorities, identification of needs and assessment of requests, which the JRC addresses by continuing having meetings at DGs' level, revising the related processes and setting up a requests' system.

One audit issued prior to the reference period, the audit on IT governance and project management practices and procedures in the JRC, is still under implementation and on time.

Table 7.6. IAS audit reports and recommendations' rating 01/01/2021-31/03/2022.

Audit title	Recommendations by rating	
	Very important (VI)	Important (I)
Accounting of assets	1	3
Commission's strategy for data, information and knowledge management (multi-DG)	0	2
JRC support to EU policy and Knowledge Management	1	4
Data protection (multi-DG)	0	0
Total	2	9

Table 7.7. State of play as at 31/03/2022 of recommendations implemented²⁷ and submitted to the IAS for review.

Audit title	Important	Very important	Closed by the IAS	Under IAS review
Scientific project management	3	1	1 ²⁸	3
Intellectual property rights	1	0	0	1
Decommissioning & Waste Management programme implementation	1	1	1 ²⁹	1
Recruitment of temporary scientific staff	2	1	1 ³⁰	2
Site management & infrastructure support services	3	2	1 ³¹	4
IT governance and project management practices and procedures in JRC	0	1	1	0
Accounting of assets	3	1	0	4
Commission's strategy for data, information and knowledge management (multi-DG)	2	0	0	2
Competitive activities	1	0	1	0
Total	16	7	6	17
Grand total implemented and submitted to the IAS for review	23			

²⁷ Implemented' means that the JRC has completed all mitigating actions agreed and has submitted these actions to the IAS for review. The outcome of the IAS review could be:

- a) to close the recommendation as adequately and efficiently implemented,
- b) to reopen it as non-efficiently implemented,
- c) to reopen and downgrade it (applicable to 'very important recommendations' only).

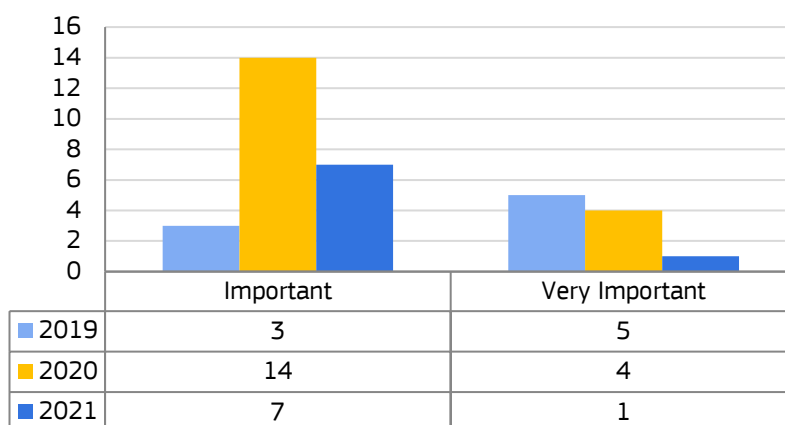
²⁸ An 'important' one

²⁹ A 'very important' one

³⁰ A 'very important' one

³¹ An 'important' one

Figure 7.3. Recommendations to be implemented³²



2.3. ECA audits

During 2021, 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’ and SR 23/2018 ‘Air pollution: Our health still insufficiently protected’ 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 2021 in which the JRC was associated DG

Name of the audit/review	Recommendations for the JRC
Special Report 07/2021: EU space programmes Galileo and Copernicus: services launched, but the uptake needs a further boost	1 ³³
Special Report 16/2021: Common agricultural policy and climate: half of EU climate spending but farm emissions are not decreasing	1 ³⁴
Special Report 21/2021: EU funding for biodiversity and climate change in EU forests: positive but limited results	2 ³⁵
Special Report 20/2021: Sustainable water use in agriculture: CAP funds more likely to promote greater rather than more efficient water use	-
Review on EU public health response to COVID-19	-

³² Including those recommendations for which the action plan is under preparation or pending IAS approval

³³ The JRC will support other EC services (DG DEFIS) in the implementation of this recommendation

³⁴ The JRC will support other EC services (DG AGRI) in the implementation of this recommendation

³⁵ The JRC will support other EC services (DG ENV) in the implementation of this recommendation

Ongoing audits and reviews involving the JRC

Name of the audit/review
Horizon 2020 widening
Coal regions in transition
External consultants
Resilience of the EU Institutions and bodies
Free movement during the Covid-19 crisis
Agricultural soils and manure management
Fraud and CAP
DG AGRI big data
Blue energy
EU's battery value chain
Follow-up of SR No 14/2018 The EU Chemical, Biological, Radiological and Nuclear Centres of Excellence: more progress needed
Follow-up of SR No 23/2018 Air pollution

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

Not applicable.

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

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

Table X : Estimated risk at payment and at closure

JRC	"payments made" (FY; EUR)	<i>minus</i> new prefinancing [<i>plus</i> retentions made] (in FY; EUR)	<i>plus</i> cleared prefinancing [<i>minus</i> retentions released and deductions of expenditure made by MS] (in FY; EUR)	= "relevant expenditure " (for the FY; EUR)	Detected error rate or equivalent estimates	estimated risk <i>at payment</i> (FY; EUR)	Adjusted Average Recoveries and Corrections (<i>adjusted</i> ARC; %)	estimated future corrections [and deductions] (for FY; EUR)	estimated risk <i>at closure</i> (FY; EUR)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
RCS1 - Procurement	259.94	- 0.28	0.64	260.30	0.50%	1.30	0.05%	0.13	1.17
EDF - European Development Fund	0.62	0.00	0.00	0.62	0.50%	0.00	0.05%	0.00	0.00
DG total	260.56	- 0.28	0.64	260.92		1.30	0.05%	0.13	1.17
					Overall risk at payment in %	0.5%		Overall risk at closure in %	0.45%
Total EDF	0.62	0.00	0.00	0.62					

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 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

1) 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 2019	Target (2022)	Last known result (2021)	
14 female middle managers (22%)	11 first female appointments to middle management by 31/12/2022 ³⁶	5 first female appointments achieved at the end of 2021.	
Indicator: JRC staff engagement index			
Source of data: Commission staff surveys 2018 and 2021			
Baseline (2019)	Target (2022)	Last known result (2021)	
68%	At least 68% and maintain above the Commission average (72% in 2021)	71% - preliminary results (EC average 72%)	
Main outputs in 2021:			
Description	Indicator	Target	Latest known results
1. Improving female representation in middle management			
Promotion of female representation in middle management	Number of awareness-raising activities to improve female representation in middle management	At least 2 activities	Diversity and inclusion working group (linked to 2018 staff survey) published their conclusions and recommendations Working group on equality launched Training on unconscious bias and anti-harassment offered in the training catalogue JRC Square on equality and inclusion Promotion of JRC as equal opportunity employer during the JRC Career Day (19/11)

³⁶ SEC(2020) 146 – the target will be revised and extended for the period 2023-2024 by January 2023

Description	Indicator	Target	Latest known results
2. Enhancing staff engagement			
Completion of follow-up on staff opinion survey 2018	Repeat communication of follow up actions of the 2018 survey before the launch of the new 2021 Survey	Q2	Communication on the outcome of the 2018 survey available on Connected from Q2
Revamped staff mobility package	Implement updated staff mobility package	Q2	Formal launch delayed until Q4, using the JRC Career day (19/11 part of the Commission Career week), as opportunity to present the Updated Career development package to all staff
Staff and management guidance and support during (and after) Coronavirus crisis (confinement and de-confinement phases)	Overall satisfaction rate with JRC-specific communication and guidance	> 75%	78% of JRC staff reported neutral to very positive impact of the pandemic on the relation with their manager (compared to 74% Commission average – April pulse survey)
Relaunch of local talent management programme	Revision of last programme and launch of a new programme with special focus on female AD staff with management potential	Q2	First programme launched in May 2021
Development of staff in deputy Heads of Unit and team leaders positions	Number of participants in targeted events (trainings, workshops)	> 30 participants	Specific deputy head of unit workshop was further delayed due to the continued pandemic
	Satisfaction rate	> 75%	
3. Attracting and retaining competent scientific staff			
Recruitment of scientists at postdoc and expert levels for exploratory research	Total number of applicant to a ER/CAS job position divided by the number of vacancies (under the programmes ER/CAS)	> 20	18
Doctoral students pursue their PhD at JRC in cooperation with academic institutions	Number of doctoral students co-supervised by the JRC through the CDP scheme (counting students at either JRC or High education institutions)	> 30	28

2) 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 (2018)	Target (2024)	Last known value (31/12/2021)
38%	85%	60 %

Indicator 2: Percentage of JRC's key data assets for which corporate principles for data governance have been implemented

Source of data: JRC internal indicator

Baseline (2019)	Target (2024)	Last known value (31/12/2021)
35%	100%	55%

Indicator 3: Percentage of staff attending awareness raising activities on data protection compliance

Source of data: JRC internal indicator

Baseline (2018)	Target (2024)	Last known value (31/12/2021)
35%	100%	55%

Indicator 4: Degree of implementation of the eProcurement solution

Source of data: JRC internal indicator

Baseline (2018)	Target (2024)	Last known value (31/12/2021)
10%	90%	40%

Indicator 5: Degree of implementation of the JRC ICT architecture

Source of data: JRC internal indicator

Baseline (2018)	Target (2024)	Last known value (31/12/2021)
10%	100%	40%

Main outputs in 2021:

Description	Indicator	Target	Latest known results
Specific actions contributing to the implementation of the JRC ICT architecture	Improved security, application development platform, sharing and collaboration services, virtual desktop infrastructure, consolidated IT assets inventory)	Q4	Security plans progressing, Application development platform in production, virtual desktop infra delayed till Q2 2022, all ICT systems in Govis2

Description	Indicator	Target	Latest known results
Data Advisory Service	Fully operational data advisory service	Q4	Established in Q2 2021
EC-wide data catalogue	EC data catalogue established	Q4	Interim solution established in Q4 2021. DIGIT is preparing a final solution for 2023
JRC data repository	Operational JRC data repository established	Q4	Delayed to Q4 2022
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 identified (related to SP indicator 'Percentage of JRC key data assets for which corporate principles for data governance implemented').	100%	100%
One-Stop Shop for Collaboration	Percentage of customers that are satisfied or very satisfied with the One-Stop Shop service	85%	85%
Provide training and capacity building for Commission researchers and policymakers	Total number of participants	500	350 ³⁷
	Proportion of participants recommending course to colleagues	85% would recommend to colleagues	85%
In the frame of Science4Policy -Provide e-learning to researchers	Total number of participants enrolled	300	1015
	Total number of participants having finished the course	200	266
e-Learning training on EU Academy platform	Number of JRC courses developed	> 15	26
Develop tailored training and tool box on clear writing at the science-policy interface	New training courses and tools	3	
	Coaching sessions on flagship reports	3	
Management of KM Platforms	Number of new Knowledge services embedded in the Knowledge4Policy platform	100%	100%
Awareness raising activities on data protection compliance among JRC middle management	Percentage of staff reached by the awareness raising activities	100%	95%
In the context of 'Putting Science into Standards', organise a workshop	Organisation of the workshop	By Q4	PSIS Workshop Organ on Chip held on 28-29 April 2021

³⁷ There are two reasons for not reaching the target of 500 participants: The roll out of the training course for policymakers after the pilot was delayed, COVID-19 slowed down the training pace for the Sci4Pol course for JRC researchers.

Description	Indicator	Target	Latest known results
involving several stakeholders and experts	Minimum number of participants	50	250 participants
Stimulating trans-disciplinary thinking and innovation through shared projects between artists and scientists	Number of artists and scientists participating to a summer school	35	Summer school was postponed to 2022 due to COVID-19 pandemic
	Number of new art and science collaboration projects	10	

3) 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 JRCs sites participating in Eco-Management and Audit Scheme (EMAS) on specific core parameters. These are Geel (Belgium), Petten (Netherlands), Seville (Spain), Karlsruhe (Germany), and Ispra (Italy).

Source of data: [Environmental Statement](#) / JRC

Baseline (2018 ³⁸)	Milestone (2020)	Target (2024)	Last known value ³⁹ (31/12/2021)
Energy consumption of buildings (MWh / person)			
Petten 10.1%	-5%	Achieve greater reduction	-21.2%
Geel 3.7%	-5%		-6.8%
Seville -24.7%	-5%		+31.9%
Karlsruhe 14.1% ⁴⁰	-8%		+8.4%
Ispra -4.9%	-5.6%		-9.1%
Water use (m ³ / person)			
Petten -28.2%	-5%	Achieve greater reduction	-51%
Geel -16.6%	-5%		-32.8%
Seville -32.6%	-5%		-44.6%
Karlsruhe -9.1%	-5%		-19.6%
Ispra 8.8%	-5%		-26.6%

³⁸ Performance trend (%) since 2014, in 2018

³⁹ Provisional data, not validated by auditors. Performance trend (%) compared to 2014.

⁴⁰ JRC Karlsruhe will not set up targets per persons for energy consumption and CO₂-emissions. Due to the nature of the site and the past and current infrastructure measures, targets for these parameters are not significant. The floor space is the most important indicator and this is independent from the number of staff and it is only based on technical and regulatory requirements and scientific activities.

Baseline (2018 ³⁸)	Milestone (2020)	Target (2024)	Last known value³⁹ (31/12/2021)
Office paper consumption (sheets / person / day)			
Petten -39.4%	-9%	Achieve greater reduction	-74.8%
Geel -35%	-5%		-74.5%
Seville 1.7%	-5%		-81%
Karlsruhe -39.4%	-20%		-77.5%
Ispra -26.2%	-20%		-68.8%
CO ₂ emissions from buildings (tonnes / person)			
Petten -69.6%	-7%	Achieve greater reduction	-79.8%
Geel -74%	-5%		-67.2%
Seville -26.2%	-5%		-56%
Karlsruhe 11.1% ⁴⁰	-5%		-15.9%
Ispra -5.3%	-5.6%		-13.3%
Non hazardous waste generation (tonnes / person)			
Petten 9.3%	-5%	Achieve greater reduction	+222.9% ⁴¹
Geel -74%	-5%		-53.2%
Seville 40.6%	-5%		-54.5%
Karlsruhe -20.1%	-5%		-44.4%
Ispra 11.1%	NA		-17.1%

Main outputs in 2021:

Description	Indicator	Target	Latest known results
Reduce energy consumption	Increase number of buildings insulated	Depending on 2021 budget allocation	Thermal insulation of two buildings in Ispra. Some buildings have a high level of insulation, which challenges continuous improvement.
	Reduced comfort hours during summer and winter holidays	Continuous	Confirmed
	Replacing old energy consuming equipment by new high performance equipment	Continuous	Confirmed
Energy efficiency in laboratories to reduce the energy consumption	Increase the number of smart metering	Continuous	Confirmed
Renewable energy systems	Increase installed capacity	30% for the electrical production	13% The remaining planned PV installations have been postponed

⁴¹ Petten: More waste produced in 2021 due to some construction work (e.g., removal of two cranes) and the cleaning of roofs and solar panels.

Description	Indicator	Target	Latest known results
			<p>to 2022 due to abnormal market conditions (e.g., lack of products, important inflation).</p> <p>This result for the JRC sites corresponds to an increase of 19% for Ispra. This site foresees an increase of the installed capacity in 2022, which will exceed the current target of 30%.</p> <p>Proper maintenance of existing photovoltaic facilities in Petten.</p>
Electrification of service car fleet	Reduce the CO ₂ emissions of car fleet	5%	>5%
Bikes	Increase number of service bikes	20%	Action delayed to 2022 but justified by low staff presence in the buildings in 2021. Number of bikes surpasses the actual needs.
Elimination of single use plastics	Replace old vending machines	50%	62%
Waste sorting	Increase waste sorting stations	10%	161%
Water consumption	Periodic analysis of water consumption of buildings	Continuous	Confirmed
Paper consumption	Deploy electronic signature for all JRC AoSs	100%	100% E-signature and e-workflow have been implemented for several IT platforms.
Green public procurement	% of environmental criteria introduced into tender contracts where feasible	100%	100% where applicable.
Staff awareness actions about sustainable commuting during EU Mobility week and VeloMai corporate events	Number of staff informed	All staff in JRC sites informed	Information also posted on Connected, therefore available to the staff at each site.
Staff awareness actions about waste reduction and sorting in line with the corporate EMAS waste reduction campaign	Number of staff informed	All staff in JRC sites informed	Information also posted on Connected, therefore available to the staff at each site.

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

Not applicable

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

Not applicable

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

Not applicable

ANNEX 14: Reporting on the Recovery and Resilience Facility

Not applicable