European Commission

Management Plan 2024

DG JOINT RESEARCH CENTRE

Contents

Introduction

The Joint Research Centre (JRC) provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society. As a service independent from national and private interests, the JRC builds trust by providing evidence to support policies at all stages of the policymaking cycle – from anticipation and design to implementation, monitoring and evaluation. It supports and brings together Commission services to make sense of increasingly complex societal challenges. Together with policymakers the JRC analyses knowledge needs, frames research questions and provides tailor-made solutions. The JRC also connects policymakers to a broad range of external stakeholders and to citizens.

Our purpose
The JRC provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.
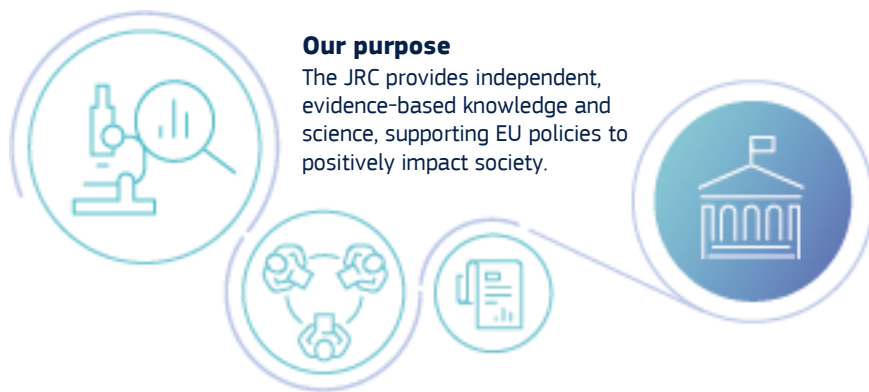
The JRC operates a wide spectrum of scientific facilities and laboratories spread over five member states and six sites (Brussels and Geel in Belgium, Petten in the Netherlands, Karlsruhe in Germany, Ispra in Italy, and Seville in Spain) with a total workforce of around 3000.

This management plan (MP) defines the activities planned for 2024, following the structure of the multi-annual objectives of the strategic plan. It reflects the priority actions identified in the 2024 Commission work programme.

The JRC's research programme and the other activities described in the Strategic plan 2020-2024 contribute to the European Commission General Objective 7 **'A modern, high performing and sustainable European Commission'**, and aim to enhance the image and impact of the European Union through solid evidence-informed policy making. The priorities and specific mandates given to the JRC by the Commission have been translated into specific objectives (Figure 1).

In 2024, the JRC will support almost all Commission services and policies with its scientific analysis. There will be a particular focus on the work related to the green and digital transition (for example, through the new EU's Innovation Centre for Industrial Transformation and Emissions), the recovery and resilience, and the strategic autonomy of the European Union.

The further development of the New European Bauhaus (NEB) remains a priority in 2024. The New European Bauhaus Facility that will implement the NEB initiative in an impactful and efficient manner from 2025 onwards will be further defined. The JRC will also take part in various NEB-related projects and together with DG RTD organise the New European

Bauhaus Festival showcasing regenerative and circular approaches to construction and architecture and shedding light on new design processes and the innovative use of bio-based materials.

The JRC will step up its work on foresight, to enable the Commission to anticipate emerging policy challenges and prepare accordingly, in particular in view of the next College. For the next mandate, the JRC will run an anticipatory exercise looking at high impact emerging and potentially disruptive policy issues that should matter to the new Commission. The aim of this exercise will be to identify key areas that are likely to shape the new political agenda as well as those that should not fall into political 'blind spots'. This exercise responds to the one of the recommendations of the recently finalised interim evaluation of the JRC activities under Horizon Europe and Euratom 2021 – 2025, namely that *'the JRC should use its foresight competences to help prepare the political agenda for the next College and the societal challenges which the research programmes in the next financing period could focus on'*.

The interim evaluation panel of external experts and academics from different European universities stressed the positive evolution of the work performed by the JRC, and considered the new way of working with the policy DGs – through the portfolio approach – as a promising way forward to tackle the future challenges in a more holistic way. In 2024, this approach will be further deepened in the frame of the preparation of the JRC Work Programme 2025-2027.

Our work will also focus on strengthening our engagement with stakeholders in Member States, EU regions, and countries associated to Horizon Europe. The co-operation will be implemented through a series of targeted actions under three strategic objectives: reinforcing support to EU policy and political priorities; increasing awareness and visibility of JRC scientific and capacity building support to evidence informed policymaking and national science-for-policy ecosystems; and fostering JRC's scientific excellence.

The nuclear strategy will affect the future activities under the decommissioning and waste management programme. In 2024, efforts to further reduce the nuclear liabilities on several sites will continue (specific objectives 1.1 and 1.2).

Finally, in 2024 the JRC will engage in internal discussions to optimise its ability to allocate resources to priorities and to streamline and integrate its work better.

For details on the main outputs, please see the next sections and the performance tables in Annex.

PART 1. Delivering on the Commission's priorities: main outputs for 2024

A.   EUROPEAN COMMISSION GENERAL OBJECTIVE 7

Figure 1 provides an overview of how the JRC's specific objectives relate to the Commission General Objectives (GO).

Figure 1. JRC support to Commission general objective 7. All JRC contributions to evidence-based policymaking are described under one specific objective (7.1). Given that the JRC manages sites and infrastructures, a specific objective (7.2) has been defined related to the goals of the JRC Strategy 2030. For its mandate to support intellectual property (IP) management in the Commission, a specific objective (7.3) has been defined.

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

This objective covers the JRC support to the Commission Work Programme initiatives, as well as scientific excellence, impact and efficiency; responding to crisis and emergencies; working with stakeholders and communication.

Scientific excellence, impact and efficiency

Scientific excellence is crucial for achieving the vision and mission of the JRC. In 2024, the JRC will implement the recommendations from the ex post and interim evaluations of the JRC under Horizon 2020, Horizon Europe and Euratom research and training programmes, that were completed in 2022 and 2023. As a result of these evaluations, the JRC will in 2024 further implement the data strategy (e.g. require publication of datasets alongside the research papers), and introduce more systematic self-assessments of JRC portfolios.

In order to maximise impact of its work the JRC will focus its resources on the activities that are most impactful and it will strive for an early involvement in the priority setting among policy DGs. The new portfolio structure, introduced in its Work programme 2023-2024, was a key step to ensure in particular better integration of the JRC's work across scientific and policy domains in order to maximise support for anticipating new challenges, developing policies, monitoring their implementation and optimal use of its resources. Thanks to this integrated approach, the JRC will support policymakers in a more coordinated way to respond to the complex, increasingly interrelated and sometimes unprecedented challenges that Europe is facing. In 2024, the JRC will further deepen the portfolio approach, especially in the preparation of its next Work Programme.

In 2024, the JRC will carry out case studies on the impact of JRC research and systematically collect feedback from its partners, stakeholders and external experts. With 65 case studies completed between 2021 and 2023, the aim is to complete another set of 7 impact studies in 2024.

At the same time, in 2024, the JRC Panel on evaluating JRC scientific excellence will follow up on the recommendations made in the 2023 report on JRC's scientific excellence and further study how JRC scientific excellence impacts policy support.

The JRC has implemented a comprehensive framework on Scientific Integrity and Research Ethics (SIRE), encompassing procedures and guidelines, to ensure high standards and independence in its research. Essential elements incorporated in the SIRE framework are a Scientific Integrity Officer, an Editorial Review Board, a Research Ethics Board, and Guidelines for Responsible Conduct of Research. In 2024 the JRC Scientific Committee, Editorial Review Board and Research Ethics Board will revise the SIRE framework and assess the need for further guidelines and training on responsible conduct of research, thus implementing and improving the editorial review and research ethics procedures. In addition, a potential collaboration with the European Network on Research Integrity Organisations will be explored. Initiatives to raise awareness on research ethics related to various scientific activities will be taken into consideration.

Responding to crisis and emergencies

We are in a time of crisis, economic uncertainty and diverse shocks. **Russia's war of aggression against Ukraine** is testing Europe's economic and social resilience at a moment

when it is undergoing profound transformations. In this context, the JRC will keep gearing its analytical capacity to the biggest evidence needs, in concertation with the Commission services responsible for developing new policies.

Under these circumstances, sufficient situational awareness becomes crucial to take timely and effective decisions. The JRC's **European Crisis Management Laboratory** (ECML) will monitor the ongoing natural/man-made disasters as well as the conflict hot spots at global level, thus ensuring a daily critical situational overview to all services of the Commission including its Emergency Response Coordination Centre, notably with regard to the activations of the Union Civil Protection Mechanism. Via its science-based analyses, maps and alerting platforms, such as the Global Disaster Alert and Coordination System, the ECML will make sure to inform in a timely manner the global humanitarian and civil protection community, for their prompt mobilisation when requested by the affected countries. At the same time the ECML will continue its research in the area of innovative solutions for broader crisis management, including the use of Artificial Intelligence for an effective information management in times of crises.

As there is a need to put together information from various alert systems and to start working on a common situational awareness picture at Commission/EU level, the JRC will in 2024 support further development of a common dashboard of alerts or forecasting systems. This **central common dashboard – ARGUS** will pick on the signals that we already have, connecting the dots that are already in our systems.

In 2024, the JRC will step up its effort to support the **strategic autonomy** of the European Union with research on critical raw materials, supply chains for the twin transition, energy security including nuclear safety and security aspects, food security and foreign direct investment screening. The JRC will also look at the competitiveness implications of the new Economic Security agenda, to ensure that the objectives of open strategic autonomy also contribute to the strengthening of its industrial base. Through the Observatory of Critical Technologies, co-led with DG DEFIS, the JRC will continue contributing to building Europe's economic security in the strategic sectors of space and defence. The JRC will also engage with the Member States and the regional risk groups to ensure a secure energy supply.

The threat on **nuclear safety and CBRN** (chemical, biological, radioactive, nuclear materials and agents) triggered by Russia's war of aggression against Ukraine led to considerable concerns. The JRC expertise and support is used to address these concerns. The JRC is reprioritising its activities, in particular on modelling of nuclear accidents and related matters, and nuclear safety assessments of incidents (Tchernobyl, Zaporizhzhia and other Ukrainian NPPs and nuclear facilities, including nuclear waste). In collaboration with the Ukraine Technical Support Organisation, the JRC analyses experiences from operation of nuclear power plant under war conditions started. Together with the Western European Nuclear Regulators Association, the JRC develops closer collaboration on nuclear emergencies and modelling of nuclear accidents. Moreover, the JRC organises a benchmark exercise within the European Community Urgent Radiological Information Exchange framework to compare source term and dispersion modelling with the objective to discuss emergency response approaches in the different member states. In 2024, the JRC will work with Ukraine and other

partners from GUAM countries (Georgia, Ukraine, Azerbaijan, Moldova) on nuclear security. It will host two researchers from Kharkiv Institute of Physics and Technology at JRC Karlsruhe. It will also step up its technical and analytical support to DG TRADE, DG FISMA and SG by actively contributing to the amendments of the sanctions taken in response of Russia's war of aggression against Ukraine, including technical annexes, analyses of sanctions circumvention and contribution to awareness raising visits to third countries.

In the frame of the **Disaster Risk Management Knowledge Centre** (DRMKC), the JRC will work with the Member States to implement the science pillar of the Union Civil Protection Knowledge Network and integrate it into the foundations of the DRMKC. The JRC's early warning systems, such as for floods, wildfires and droughts, crop yield forecasting and agricultural production anomaly detection and the global disaster alert and coordination systems will continue to help Members States and third countries prepare for disasters and manage crises worldwide. Special focus will be given to promoting and organising capacity development initiatives on communicating science as well as on the application of scientific outcomes in policymaking and operations. This should not only enable an effective communication between different stakeholders but also support creation of a robust feedback mechanism.

The JRC will support, from the socio-economic perspective, the monitoring of the implementation of the national **recovery and resilience plans** and will contribute to the European Semester. The JRC's contributions will range from ad-hoc technical/analytical contributions like EUROMOD-based analyses of tax-benefit reforms in Member States to the investigation of key socio-economic issues and the narrative of the Semester Country Reports. The Global Multi-Country model, a macro-economic model co-developed by DG ECFIN and the JRC, will provide insights on drivers of economic fluctuations, support the forecast analysis and perform downside risks scenarios, while the JRC's inflation forecast will provide valuable information, a solid starting point, and timely updates that support the EU forecasting process. Moreover, since 2023, the JRC produces the Annex on "Resilience" for the Semester Country Reports for all 27 Member States. The Annex is based on the JRC's Resilience Dashboards which has become the reference tool for monitoring resilience. The 2024 Spring Package will see the second edition of the Resilience Annex.

Last but not least, in 2024 JRC will contribute to building a stronger European Health Union and improving EU preparedness for future health crises by collaborating with DG HERA on foresight on technologies for mitigating the transmission of airborne pathogens.

Working with stakeholders
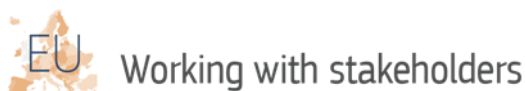
The JRC is focused on stakeholder value and uses its convening power for better integrated EU policies and policymaking.

The year 2024 is a key year to activate the JRC purpose, ambitions and value propositions as reaffirmed in the revitalised JRC 2030 strategy, in particular, with regard to the JRC's commitment towards an increased openness to engage with partners. Underpinning this commitment is the creation and management of a functional and sustainable system of

external relations. In order to fulfil its mission, the JRC collaborates with a well-identified ecosystem of strategic stakeholders.

The strategic cooperation will notably concern:

- **The Commission services**. The JRC will continue the dialogue with clusters of Commission services. The portfolios of the work programme will be an important vehicle to further enhance the cooperation and communication with other Commission services. They will also allow a better integration across scientific and policy domains in order to maximise support for anticipating new challenges, developing policies and monitoring their implementation and impact.

- **Inter-institutional cooperation**. The JRC will organise various cooperation activities with the newly elected Parliament, such as presentations to relevant Committees, a workshop with the newly elected Panel for the Future of Science and Technology, and visits to JRC sites organised for relevant Committees and intergroups. In 2024, the JRC will make presentations to various Council working parties, organise a working breakfast with Members of the Research Working Party, and organise a visit of the group of young scientists to Ispra.

- **Stakeholders in Member States, EU regions, and countries associated to Horizon Europe**. The co-operation will be implemented through a series of targeted actions under three strategic objectives: 1) reinforcing support to EU policy and political priorities; 2) increasing awareness and visibility of JRC scientific and capacity building support to evidence informed policymaking and national science-for-policy ecosystems; 3) fostering JRC's scientific excellence. Planned actions include missions and official visits to Member States by DG and DDGs, high-level bilateral meetings, high-level conferences, joint events, visits, technical support projects, capacity building workshops and training courses, and exchanges. The JRC will also provide access to data at country and regional level and to models, and facilitate the exchange of expertise, knowledge and best practices.

- The JRC will engage with **academic institutions** to train doctoral candidates at the science-policy interface.

- Continuation of an active dialogue with the **JRC Board of Governors**, will provide the JRC with guidance in scientific, technical and financial management. In parallel, JRC will also actively engage with the network of National Contact Points in Member States and associated countries. The network will inform public entities and scientific communities about JRC's latest initiatives, events and opportunities and foster the contacts and collaboration between the JRC and relevant stakeholders in their country.

- The JRC will pursue its active engagement in **international cooperation**, which opens access to scientific excellence, advanced knowledge, scientific infrastructure, networks, ideas and talents. In particular, the JRC will strengthen its cooperation with its priority partners at national level, including the USA, Japan, South Africa, India, Brazil, at regional level, including the African Union and the Community of Latin American and Caribbean States, and in support of global priorities with multilateral

organisations, in particular the United Nations and the OECD. Several Steering Committees under bilateral agreements will take place in 2024, in particular, with the US National Oceanic and Atmospheric Administration, the Brazilian Ministry of Science and Technology, as well as the European Organization for Nuclear Research.

- The **EU Academy**, a modern, scalable e-learning platform, is available to all EU Institutions for hosting, managing and monitoring pedagogical content, with the main objective of reaching out policy makers, regions and the public at large in Europe. In October 2023, the platform celebrated two major milestones of 750 000 learner accounts and 1.5 million enrolments, figures that are expected to reach 2 million and 3.5 million respectively by the end of 2024.

Communication

As the science and knowledge service of the European Commission, the JRC's communication activities aim to:

- support the JRC's strategic objectives with the communication toolkit focusing on the JRC's value offer rooted in anticipation, integration and impact,

- position the JRC as a world-class scientific organisation among policymakers, research partners, potential job applicants and other stakeholders,

- bridge science and policymaking by communicating scientific findings in an understandable way, in support of EU policymaking, and

- facilitate dialogue and staff engagement within the JRC.

To reach these aims, the JRC will make full use of a diverse portfolio of communication and dissemination channels, ranging from events targeting policymakers, to a rich online offering of news, virtual content and social media. It will apply innovative methods of communicating and engaging with the JRC's priority target audiences for strategic communication.

The JRC will continue to work closely with other Commission services, including policy-focused Directorates-General and the Directorate-General for Communication, involving the Commission Representations in the Member States, to foster the JRC's ecosystem for evidence-informed policymaking and to increase the reach of JRC communication.

The JRC will leverage the unique opportunities presented by its world-class scientific infrastructure for on-site and virtual visits and events to highlight the contribution of its scientific work to stakeholders. It will also hold the Resonances IV NaturArchy exhibition at the Art Centre for digital cultures and technology in Brussels to explore contemporary societal concerns with a transdisciplinary approach and trigger systemic change in support of the Green Deal.

Following the launch of the new intranet at the end of 2023, the JRC will further invest in developing and optimising the site for better internal communication and better integration in the Commission's intranet.

Key priorities in 2024 will be to:

- continue the shift towards a proactive and strategic approach, relying on the JRC communication priorities,

- run a rolling mid-term planning process for strategic communication, in close internal coordination with other JRC and policy DG communication teams,

- make best use of all available communication channels, in particular social media to increase the reach out to public administrations in the Member States and other stakeholders within the EU and internationally,

- further develop one single JRC communication community,

- offer training opportunities to scientific staff on communication and dissemination techniques,

- support the JRC's new approach to policy support via work programme portfolios with communication advice and activities,

- manage and further develop the new intranet based on Sharepoint Online, for more structured communication and better integration in the Commission's intranet, and

- launch new initiatives to measure the efficacy and impact of the JRC's communication initiatives.

Supporting the Commission's political priorities and the 2024 Commission work programme

The JRC will support new initiatives and will monitor the implementation of initiatives adopted in the first years of the Commission's mandate. Below are examples of the JRC support to the 2024 Commission work programme (CWP) and other important initiatives.

 The European Green Deal

- **2040 climate target.** In 2024 the JRC will follow up on its analyses based on its climate and energy modelling suite, carried out in support of the impact assessment for the 2040 climate target plan. These analyses will be prepared in view of future legislative initiatives as needed by DG CLIMA and DG ENER.

  The JRC will use a range of specialised techniques to contribute to the optimisation of safety and security aspects of nuclear technologies. These include the long-term operation of existing nuclear power plants, development of Small Modular Reactors and other innovative nuclear systems, nuclear fuel cycle and recycling, waste management and disposal, and other non-power nuclear applications.

The JRC will establish the Risk Data Hub as the central repository for multi-hazard risk information and for harmonised disaster loss data. The JRC will also deliver Climate Change Risk Index for early warning, based on quantitative analysis.

- **Initiative for water resilience.** The JRC will carry out a scenario analysis to identify solutions. It will carry out a legislative review of the applicable rules across the Member States. It will assess water demand for energy based on the Target Climate Plan 2040 results, and together with DG RTD and the Union for the Mediterranean, oversee the community of practice on the Water, Energy, Food and Ecosystem Nexus in the Mediterranean. The JRC will run a water resilience experiment focusing on producing and combining qualitative and quantitative knowledge on water through a design and behavioural process to promote a holistic, systemic and cross-cutting approach to the topic of water in the European Commission.

- In 2024, the JRC will review the rules for the carbon accounting in the life cycle of products as part of revision of **Commission Recommendation 2279/2021 on the use of the Environmental Footprint methods**. This will include development and review of rules for accounting impacts related to water consumptions in the life cycle of products and services and to foster an efficient use of water resources.

- In support to the **Industrial Carbon Management Strategy**, the JRC will analyse the optimal configuration of the transport network which will transport CO_2 from capture to storage locations.

- **EU Blue Economy**. With its focus on decarbonisation, the JRC will carry out an EU-wide analysis of the various blue economy sectors.

A Europe fit for the digital age

- **EU space law**. The JRC will provide expert analysis and contribute to technical aspects of the EU regulatory framework for space traffic management. It will carry out technical analysis and tools for accurate prediction of satellite orbits and trajectories of space debris to avoid collision. In addition, the JRC will provide expert analysis and contribute to the Inter-Service Sub-Group for the EU Space Law.

- **Strategy on space data economy**. In cooperation with Eurostat, the JRC will develop the methodology and produce the EU Space Economy accounts. It will also provide a list of NACE/CPA codes identifying the goods and services integrating the EU Space Economy.

An economy that works for people

- **EU biotech and biomanufacturing initiative**. The JRC will analyse Member States' strategies and investment in biotech, mapping the main industrial players and technological capabilities and technological transfer challenges. Linked to

biotechnologies, the JRC will support DG RTD in a joint risk assessment with Member States on critical technologies.

- **Advanced materials for industrial leadership**. The JRC will support DG RTD in the preparation of the package by providing knowledge and examples of substitution capabilities of critical raw materials with advanced materials in clean energy technologies. It will also provide insights on challenges and opportunities of advanced materials, as well as input for prioritisation of sectors and materials on which urgent action should be taken. A comprehensive study on challenges and opportunities and substitution capabilities for selected clean energy technologies will be produced in 2024.

- **Commission Recommendation establishing a European assessment framework for 'safe and sustainable by design' chemicals and materials.** The JRC will develop a safe and sustainable by design framework. It will develop and test new methods to assess the safety and sustainability of advanced materials and chemicals.

A stronger Europe in the world

- **Communication on pre-enlargement reforms and policy reviews**. The JRC will carry out scenario modelling for DG AGRI. It will contribute to establishing the environmental baselines for accessing countries in areas with binding legislation. In the field of innovation, the JRC will provide technical support to design and implement smart specialisation strategies in the EU Enlargement and Neighbourhood region.

- **Joint Communication on a strengthened partnership with Africa**. The JRC will develop a soil health dashboard for Africa and deliver an assessment of conflict risks in African countries, as part of the Global Conflict Risk Index.

- In 2024 the JRC will support the establishment of **'Science, Technology and Innovation (STI) for SDGs' roadmaps**. The roadmaps will be developed for six African countries based on a stakeholder-led multi-disciplinary approach addressing localised sustainability challenges through fostering innovation investments and nurturing innovation ecosystems and talents. This approach focuses on the prioritisation of STI areas for public and private investment based on analysis of economic, social and environmental benefits, consideration of existing innovation capacities and resources, and stakeholder expectations.

- **European defence industrial strategy.** On the basis of findings of the Observatory of Critical Technologies, the JRC will support DG DEFIS in compiling technology roadmaps to remedy undesired non-EU dependencies in critical defence technologies.

- The JRC will support DG TRADE on the monitoring of the **EU strategic trade control**'s harmonised implementation by the 27 Member States by providing capacity building, technical and analytical contributions, tools and guidelines.

Promoting our European way of life

- The JRC will support the implementation of the **New Pact on Migration and Asylum** by developing new capabilities for situational awareness, early warning and forecasting. The JRC will analyse irregular migration and practices within Member States, with a view to improve the EU's return effectiveness. Furthermore, the JRC will support the Commission's operational action advancing the EU's collective response to migration challenges through identification of the drivers facilitating targeted action in countries of origin.

A new push for European democracy

- To help fulfil the President's strong pledge for an institution capable to engage citizens in the political debate, the JRC's Competence Centre on Participatory and Deliberative Democracy will provide direct support, capacity building, and methodological toolboxes and protocols for **citizen engagement** initiatives, to be deployed, inter alia, in support of the Horizon Europe Missions.

Better Regulation

In the frame of **better regulation** and **collaborative policymaking**, the JRC will support the Secretariat-General on the better regulation agenda. It will provide DGs with advice and tools to ensure an efficient, transparent, inclusive, and evidence-informed policymaking process. For example, in 2024 the JRC will give methodological advice, training and tools to policy DGs for evaluations and impact assessments (see Figure 2).
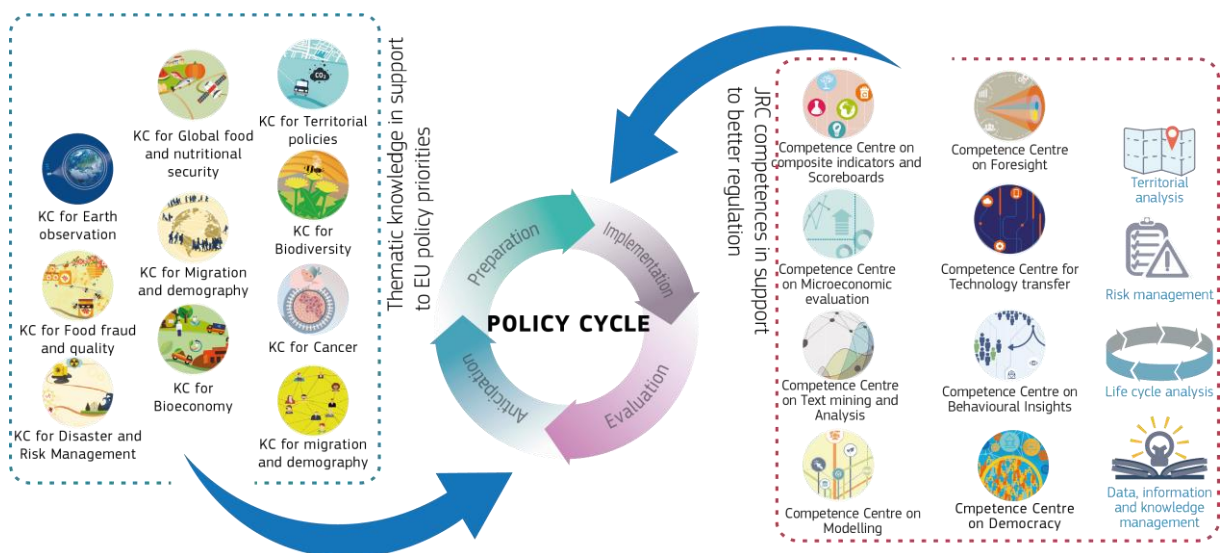

Figure 2. Examples of JRC's role in support to the policy cycle. The various competence and knowledge centres in the JRC provide competences and thematic knowledge to the policy cycle.

In 2024, the **SOCRATES software** will be further promoted in the impact assessments to help increase policymakers' understanding of the main features of the problem at hand, such

as key assumptions, degree of uncertainty, robustness of results and social defensibility of the policy options etc. The **MIDAS** (Model inventory and knowledge management) system will be updated to ensure all models supporting the Commission's policymaking during an impact assessment are properly documented. The **Evidence Transparency Service** operated by the OP and the JRC will help to ensure that evidence used in impact assessments and evaluations is easier to identify, access, retrieve and (re)use.

In 2024, the JRC **Competence Centre on Composite Indicators and Scoreboards** will help advance the Commission's work on designing the Sustainable and Inclusive Wellbeing Dashboard. It will also provide scientific evidence for the monitoring framework for the twin transition of Small and Medium Enterprises in the EU and the monitoring framework for the EU regions social progress and wellbeing.

The JRC **Competence Centre on Microeconomic Evaluation** will participate in all upstream meetings with the Regulatory Scrutiny Board and offer help on plans for the collection of or access to appropriate data for monitoring and evaluation. It will carry out analytical work of the strategic evaluations of the Commission. It will offer regular capacity building activities to the rest of the Commission, Member States and other EU institutions on counterfactual impact evaluation methods.

The **EU Policy Lab** applies collaborative, systemic and forward-looking approaches bringing the JRC scientific knowledge into EU policymaking. Its work is articulated around three complementary dimensions: 1) foresight, 2) behavioural insights and 3) design for policy.

1. The JRC **Competence Centre on Foresight** develops different methods and tools to make foresight practically useful for decision-making processes. In 2024, work will use foresight techniques to boost European capacity for innovation, through potential future developments and risks they could entail. Building on existing work, attention will be given to the possible policy implications of technological advances.

2. In 2024, the **JRC Competence Centre on Behavioural Insights** will examine fairness of AI-supported decisions in hiring and lending. It will also assess sufficiency of soft rules to avoid discrimination in AI use. Furthermore, it will examine the role of generative AI in secondary education and enrich the collection of behavioural insights through a newly-built JRC-owned *i-bex* platform, to inform EU policies, especially in the fields of AI, energy, environment and health.

3. The **design team** runs qualitative research, asks fundamental questions, challenges assumptions and tests ideas that can lead to innovative solutions to tackle complex questions. In 2024, it will run a Water Resilience Experiment project, design a harmonised labelling system across the EU, and carry out work on fair AI.

Finally, better regulation aims at **cutting reporting obligations with a view to reduce the reporting burden by 25%**, in particular for (small) businesses and improved

competitiveness. The JRC provides policy support but does not develop policies or manage funding programmes. Its work does not directly impose reporting obligations on businesses or national administrations. Because of that the JRC's plan to simplify and rationalise the reporting requirements and reduce related burden on businesses and/or national administrations provides an overview of JRC's actions contributing to this effort. This includes adapting the AI tool 'Semantic Text Analyser' to recognise reporting obligations so that it can support regulatory DGs by screening the acquis with first results validated with partner DGs in 2024. The JRC may also carry out or support studies focused on stakeholders reporting improvements in specific sectors and propose concrete measures to deploy AI for reporting requirements rationalisation.

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

Unlike most other Commission services, the JRC owns buildings and related infrastructures on five Commission sites (Geel, Ispra, Karlsruhe, Petten and Seville[1]) and is directly in charge of managing them. Support services include all activities related to infrastructure development and maintenance, energy and water management, logistics, transport, and certain aspects of safety, security and environmental protection. The JRC Strategy 2030 sets as a goal 'an internationally recognised, modern, safe and secure infrastructure for the JRC, which creates a positive working environment'.

The JRC is committed to further reducing the energy consumption of its infrastructure and the carbon footprint of its activities. In fact, the JRC has exceeded the 15% target on reduction of electricity and gas consumption, achieving a 26% reduction.[2] In 2024, the JRC will continue to improve its energy performance and building rationalisation as part of its strategy on sustainability, climate, environmental protection and energy transition. Key infrastructure investments have been identified to reach the long-term goals, as well as initiatives to raise awareness through behavioural insight and adoption of digital solutions. The JRC is committed to providing:

- Compliant and secure infrastructure and installations (e.g. construction of a new security entrance building and restoration of the perimeter fences in Petten).

- Smart eco-friendly sites, with focus on improving energy efficiency of buildings, and increase production of clean energy on-site (e.g. increase of 480 kWp of Photovoltaic panels in Ispra and study for installation of Photovoltaic panels in Geel).

- Modern fit for purpose infrastructures covering the refurbishment of office and scientific buildings – fostering innovation implementing the New European Bauhaus initiative (e.g. refurbishment of conference centre in Geel and design of the new office building in Seville according the New European Bauhaus).

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[1] Rented building

[2] This is applicable to the period between August 2022 and March 2023 in comparison to the average of the last 5 years during the same reference period.

- Timely delivered and efficient site services.

The JRC will continue to provide open access to selected physical research infrastructures to the research community, public authorities, SMEs and industry (³) to enhance scientific knowledge dissemination, boost competitiveness, bridge the research-industry gap, provide training and capacity building and bridge the innovation gap. JRC will continue to further develop the concept of living labs as policy sandbox.

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

The EU owns many intangible assets, protected by intellectual property (IP) rights, ranging from publications to software, datasets, technical inventions, or signs. In their daily work, Commission staff may have to use IP assets, owned by third parties. The Commission aims to facilitate further use (and reuse) of EU owned IP assets and to ensure compliance use of third party owned assets by Commission staff. As rules on IP are not always straightforward or easy to understand, it is necessary to give clear guidance on the management of IP assets to Commission staff, thus contributing to a modern, high performing and sustainable European Commission.

In 2024, and together with the IP correspondents' network and Legal Service, the JRC will further facilitate appropriate IP management at the Commission, alleviate administrative burden in relation to IP procedures, and provide standard clauses and templates. It will continue its IP management awareness raising activities, the promotion of the EURECA (EU intellectual property resource catalogue), IP management platform and the provision of legal advice on matters related to IP rights.

B.   EUROPEAN COMMISSION GENERAL OBJECTIVE 1

Figure 3 provides and overview of how the JRC is structuring its work and setting specific objectives in support to Commission GO1.

(³)   Since 2017, a total of 314 proposals were selected for open access. During this time, more than 200 proposals for accessing the JRC research infrastructure were signed, resulting in more than 430 users receiving the access.

Commission General Objective 1

the European Green Deal

JRC Specific objectives

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

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

Figure 3. JRC support to Commission general objective 1.

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

Decommissioning and waste management are an integral part of the life-cycle of the JRC's nuclear research facilities. They fulfil the aim of returning the land used to a 'green-field status'. The nuclear Decommissioning and Waste Management Programme (D&WMP) of the JRC entails a complex set of specific activities and projects with related objectives.

The JRC's decommissioning activities are included in an instrument under the Multiannual Financial Framework 2021-2027, the 'Nuclear Safety and Decommissioning Programme'. The establishment of JRC Directorate J dedicated to these activities, separate from research activities, facilitates the implementation of the programme in line with its operational character.

Different levels of implementation characterise the situation at the four nuclear sites of the JRC. In Ispra, most of the nuclear facilities ceased to operate before 1999 and there is a well-established organisational structure implementing the programme, while establishment of such a structure in the remaining JRC sites is being prepared. The objectives include safe conservation, pre-decommissioning, decommissioning and waste management covering a variety of obsolete large installations.

In 2024, progress in Ispra on the three main work streams (nuclear material and waste management, as well as decommissioning) will include:

- starting the decommissioning of two facilities: old liquid effluents treatment station (STRRL) (license obtained in 2023) and hot-cell laboratory (LCSR) (license expected at the beginning of 2024),
- preparing pre-decommissioning operational plans for the nuclear research reactor – ESSOR, having already submitted the decommissioning plan in 2023,
- submitting license closure of cyclotron,

- progressing with the projects on irradiated nuclear material off-site storage and fresh material alienation,
- launching the waste treatment process by metal melting,
- completing the retrieval facility for buried drums and tendering the construction of the grouting station, and
- signing the contract and starting the design phase for the incineration of the bituminised drums.

In Karlsruhe, further preparation of glove boxes for dismantling, increasing amount of low-level waste characterised and a mid-term planning of the decommissioning of the facilities to be phased out after transfer to the new experimental Wing M will start. The long term decommissioning and site remediation cost assessment for the Karlsruhe site should be updated.

In Petten, the implementation of concrete projects within the framework contract with the Dutch operator (Nuclear Research and Consultancy group) to remove and dispose the historical waste still present on site, started in 2023 and an additional set of historical wastes will be disposed of in 2024. A new project for waste disposal of non-irradiated material will be established. The strategic assessment of possible scenarios for the practical implementation of the HFR decommissioning should be finalised.

In Geel, based on the established inventory of nuclear material, further options for removal and/or disposal of the material will be investigated. Other expected progress will include further preparation of glove boxes for dismantling and increasing amount of low-level waste characterised.

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

Knowledge sharing is the second component foreseen in the Commission proposal for the nuclear D&WMP of the JRC under the new Multiannual Financial Framework 2021-2027. The main activities for 2024 will be increasing the production and sharing of knowledge products (such as information materials) from 7 to 10 and continuing the progressive consolidation of a dissemination platform. The signature of a dedicated framework contract will provide the necessary support to the JRC during the implementation of these activities.

An assessment of intrasite (Karlsruhe and Geel) knowledge management methodology and practice for decommissioning and waste management projects will be performed, and topical inter-site knowledge sharing and dissemination and be set up.

PART 2. Modernising the administration: main outputs for 2024

The internal control framework (⁴) supports sound management and decision-making. It notably ensures that risks to achieve the objectives are taken into account and reduced to acceptable levels through cost-effective controls.

The JRC has established an internal control system tailored to its particular characteristics and circumstances. The effective functioning of the JRC's internal control system will be assessed throughout the year and be subject to a specific annual assessment covering all internal control principles.

A. Human resource management

The JRC aims to recruit, train, motivate and retain highly qualified staff to ensure the effective and efficient operation of the DG, as well as the promotion of equal opportunities and diversity. In line with the Commission's HR Strategy, the JRC has developed its 'HR Pathways', setting the main priorities for HR and people management for the coming years. Better workforce planning, improving recruitment, attracting more talent, increasing diversity, staff development and enhancement of the JRC sites are the cornerstones of this plan. In addition, the JRC equality-mainstreaming plan addresses how the JRC, as an organisation, applies the highest standards in terms of equality for its staff, and supports diversity and inclusion.

In 2023, the JRC adopted Learning and Development Key Focus Areas for 2023-2024. In 2024, the JRC will continue implementing this plan, including developing its talent management and career development programmes to cover strategically important competence areas. This will include the development of a corporate learning path on science & research. The successful JRC Accelerated Talent Management programmes will continue as a main learning and development objective. Although open to all AD staff with management potential, particular priority will be given to encourage female participants.

For recruitment, actions planned aim to attract highly skilled and qualified staff at all JRC sites, to enhance diversity of JRC staff, focusing mainly on gender balance and geographical diversity. This will be done through:

- increased outreach (e.g. via an "ambassador" programme, use of social media, attendance of career fairs, revamping of our recruitment website and improving our recruitment process and communication with applicants, etc.),
- awareness raising amongst our selection panels and managers of the importance of improving diversity as well as systematic and detailed reporting on our progress in reaching diversity targets. Particular attention will be given to enhancing the gender balance of potential future management staff through recruitment and selection.

(⁴)   [Communication C(2017)2373 – Revision of the Internal Control Framework](#)

- launching a specialist AD competition for research in early 2024 with recruiting starting before the end of 2024.
- With programmes such as the Collaborative Doctoral Partnerships, the Exploratory Research Programme and the Centre for Advanced Studies, the JRC is complementing its competence base with motivated experts, postdoctoral researchers and doctoral candidates from specific thematic fields relevant for upcoming science and policy challenges.

In October 2023, 34% of JRC management and 24.96% of all JRC staff were from underrepresented countries (the latter up from 24.42% at the start of 2023).

In 2024, we will continue to actions highlighted above, to attract more geographically diverse colleagues, as well as monitor and report on the progress of diversity within the JRC staff.The JRC currently has 26 female middle managers (40%), a significant increase in comparison to the baseline of 1 December 2019 when it had 14 (22%). At the end of 2023, the JRC has already made 8 first female appointments to a middle management position (target of 10 by end 2024) and by the end of 2024, the JRC will meet its target. As soon as the target is reached, JRC will continue to ensure a balanced approach in the appointment of new Heads of Unit, in line with the SEC(2023)200 guidelines. In addition to the local talent Management Programme mentioned above, the JRC will actively participate in the corporate Female Talent Development Programme of DG HR. In line with the Commission Decision of 30/09/2020 regarding complementary measures to improve gender equality at management level, JRC has appointed a deputy to the Director for each of its Directorates apart from one. In addition, the JRC continues to select and appoint deputy Heads of Unit to ensure each Unit will have a deputy following the adoption of the new organisation structure, respecting gender balance.

The 2023 Commission-wide staff opinion survey will be followed up on the basis of action plans, elaborated in collaboration with staff to enhance the positive trend in staff engagement and maintain the high level of staff wellbeing. The aim is to further improve e.g. the staff engagement index (baseline 71% in of the internal Pulse survey of 2022) and any other weak areas which may be revealed by the survey. The survey will also give us feedback on staff's satisfaction with our work under the HR Pathways, and will help us adjust our focus, if needed. We will also continue to work on the organisational culture – including managerial culture - through regular Townhall Meetings, Culture Club Coffees and Leadership Sessions.

The Visiting Researcher Programme is the JRCs sabbatical scheme, allowing JRC scientists to visit other research institutions for a duration of up to three months, to gain fresh knowledge that represents added value for JRC in addition to motivating staff. By working with artists, curators and designers, the JRC scientists engage in transdisciplinary thinking to address complex issues.

B.   Sound financial management

During 2024, the JRC will continue the initiative of mandatory or highly recommended training as a prerequisite for the appointment of operational actors in the financial and procurement processes. A set of training sessions delivered by JRC specialised trainers

covering EU procurement, contract management, fraud in procurement, roles of actors, rules and processes for operational staff is in place and will be continuously updated and improved during the year, to ensure non-specialists have acquired a minimum level of knowledge and judgement to suitably carry out their tasks when using EU money.

The training suite will be delivered online. Some trainings will also be available in streaming. Each of the courses will be followed by a multiple choice questionnaire that will require at least 70% to pass. A 'license to buy' will only be issued once the candidate has shown they have understood the training as attested by passing the tests. The license is modular so that actors can increase the scope as they wish and it is mandatory for Technical responsible and operational initiating agents involved in procurement. In 2024, the possibility to integrate the "License to Buy" in EU Learn will be explored.

In 2024, the JRC will continue work on major procurement projects (e.g. planned outputs in annex under Specific Objective 7.2) while also reinforcing its internal control systems.

The eProcurement programme continues to gather pace as digitalisation of the procurement and contract management becomes more developed. The eProcurement will be integrated into SUMMA by the end of 2024 and hands on training in the JRC will be foreseen throughout the year for both financial and operational actors on both corporate systems. Please see section F for further information on the eProcurement programme.

C.   Fraud risk management

Fighting fraud is a top priority for the JRC. The JRC anti-fraud strategy (AFS), last revised in 2021, and related action plans have been designed, implemented and assessed to ensure a zero-tolerance-approach. The JRC AFS is currently being updated and its approval is anticipated by the end of 2024. The JRC also provides technical and scientific support to other Commission DGs in their fight against fraud in cooperation with OLAF.

The current JRC anti-fraud strategy is written in accordance with the Commission AFS (CAFS) and focuses on two of the CAFS prioritised objectives; 'data collection and analysis' and 'coordination, cooperation and processes'. Its aim is to achieve a good governance structure with clear roles and defined methodology for data analysis and information exchanges, covering both financial and non-financial aspects. As all actions in the 2022 JRC AFS action plan have been completed and five of them are continuous (e.g., regular trainings for financial agents, implemented tools and procedures, improved reporting, etc.), the scope of the revision of the JRC Action Plan is limited to the incorporation of the new actions of the revised CAFS Action Plan, launched by OLAF in July 2023. This concerns in particular work on the continued development of data analysis tools for improved detection of fraud, in cooperation with OLAF and DG TAXUD (action 26 for which the JRC has a lead role) as well as supporting actions linked to the Arachne tool development and interoperability (actions 1 and 2 for which JRC supports [5]). Moreover, there are continuous actions through the 'Scientific Integrity and Research Ethics framework', such as ethics reviews of projects in the JRC's Work Programme,

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[5]   See: https://anti-fraud.ec.europa.eu/system/files/2023-07/cafs-action-plan-2023-rev-swd_en_0.pdf

and internal reviews of drafts of scientific publications. The JRC fraud-prevention governance document has been revised accordingly.

The JRC will also participate in specific OLAF subgroups, providing its expertise in data analysis and indicator definition, especially in the context of research, trainings, and management system integration. Relations with other services through the FPD Network will continue to ensure cooperation also on training supply and fraud risk assessment and management.

D. Digital transformation and information management

Digital transformation

The JRC ICT strategy aims at focusing JRC resource on the specific support required by research and innovative activities. For this purpose, after a year of intensive preparation, the physical network management will be handed over to DIGIT. This was indeed a precondition for allowing the deployment of Welcome to JRC sites. The corporate Welcome offer has been adapted in 2023 to JRC specificities and will be progressively deployed in 2024.

As the EC Digital Workplace is designed for standard business activities, the JRC has designed and implemented, in 2023, a second domain able to host the specific projects and ICT services required by the JRC scientists. This environment, called Delta, will be fully ready in 2024 and the migration from the existing legacy JRC domain will start in 2024. The Delta domain will host in particular virtualisation services allowing JRC scientists to access specialised environment from a simple laptop in a rapid and flexible way.

The JRC has reinforced its internal governance to increase further its digital culture. A Digital Executive Committee has been created end 2023 to supervise ICT, data-related and website/knowledge management domains. Each of these domains will have their own internal governance but the new committee will insure coherence between the three domains.

The JRC ICT strategy will be updated to cope with the rapidly evolving ICT landscape, in particular to embrace new emerging trends, to offer efficient ICT solutions to JRC scientists, and to allow JRC to fully play its role in helping Policy DGs to design and monitor EC policies.

In 2024, the JRC aims at consolidating the GPT@JRC prototype as a long-term service hub for generative AI models focused on the scientific needs of JRC. It will also provide services to scientific projects and information systems to implement advanced AI-powered features.

The JRC will upgrade its ESRA application to help DG HR and EPSO to deal with recruitment until a new corporate solution will be implemented.

Information and IT security rules

In 2024, JRC will further increase its investment in ICT security by improving its ICT security capability and maturity. This will involve implementing specific actions outlined in the European Commission IT Security Strategy 2023-2024, which have been allocated to the JRC and the JRC Local Informatics Security Officer. These actions include: assessing the implementation of the security controls outlined in the JRC IT security plans to ensure their effectiveness, and contributing to the Commission's corporate ICT Security awareness-raising campaign. Additionally, the JRC will create hosting guidelines to help project managers better understand ICT security constraints. It will also take advantage of upcoming opportunities, such as its new Scientific Delta domain, to strengthen its IT security posture.

Data, information and knowledge management

The JRC will implement its Data Strategy, with focus on five areas – culture, community, governance, support and infrastructure – in which there are several initiatives ongoing:

Domain	2024 Initiatives
Culture	1. A roadmap of outreach activities to target different audiences inside the JRC from scientists using data to newcomers to managers. 2. Ensure that, where possible, data used by JRC publications are published together with the manuscripts and are available in the JRC data catalogue. This will mean establishing an integrated process for manuscripts and their underlying data.
Community	3. Connection between communities of practitioners, which are segregated today by the different data platforms they use.
Governance	4. Alignment of governance between IT and Data bodies.
Support	5. Support to facilitate the acquisition of data assets from third parties that the organisation needs to carry out its scientific activities.
Infrastructure	6. Setup of a working environment with the required security measures to be able to process sensitive non-classified (SNC) data.

The JRC will contribute to the implementation of the **2023-2024 Rolling Action Plan for Data, Information, and Knowledge Management** at the Commission. In the context of the DataStrategy@EC action plan, the JRC is leading the Data Advisory service action. In 2024, it will continue with its two main functions of knowledge hub and support provider.

In the frame of the **Centre for Organisational Transformation** - a cross-DG initiative led to strengthen capacity and provide support for collaboration, knowledge sharing and management, the JRC will in 2024 lead the effort to ensure that the Centre's work and advice is informed by cutting-edge research on organisational transformation. It will focus on key deliverables such as upskilling middle and senior managers, and growing the M365 Champions etc. It will also focus on enriching the **Country Knowledge Portal** with additional country intelligence and improving its functionalities and set up 27 country-specific communities to allow for more targeted country knowledge exchanges.

With regards to the policy on **record and archives management** (e-Domec), the JRC will continue providing staff with the necessary knowledge to manage the life cycle of electronic files and records. Within the scope of the **Digital preservation strategy** and relevant action plan, with the objective to set up appropriate retention period and the subsequent actions to be taken for those systems whose content is qualified as record, the JRC will continue the inventory of the preservation needs of current Information Systems and of any new Information System, directly from the inception phase.

Data protection

The JRC strives to ensure rigorous implementation of personal data protection (PDP) rules. The awareness raising campaign by the JRC Data Protection Coordinator (DPC) will continue in 2024. A mandatory newcomers' PDP presentation and training sessions on key data protection issues in research fields will be available. In 2024 all JRC staff will be expected to have completed one of the available PDP trainings. The JRC aims at keeping its data protection records up to date and fully compliant with the Regulation.

E. Sound environmental management

The JRC will continue to implement the Greening the Commission Communication and thus contribute to the Commission's overall efforts. The JRC will pursue its multi-annual programmes, seeking to reduce resources consumption as exposed in the EMAS ([6]) Global Annual Action Plan and in line with the JRC local site development plans.

On **buildings and working space**, the JRC will continue to assess and reduce energy use for scientific and administrative activities. The JRC will renovate / build sustainable buildings ([7]), optimise / renovate installations ([8]), replace outdated technical installations and substitute fossil fuels with renewable energy sources ([9]).

On **staff and experts business travel**, in addition to the corporate measures already decided at Commission level for budget reduction, the JRC will continue to assess its missions profile and perform an ex-post monitoring for staff travels (via MIPS) to take stock of the progress made. The JRC will also implement the principles from the SG/DG HR Guidance note on business travel and external experts' travel following the pledge to reduce travel-related

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([6]) The EU Eco-Management and Audit Scheme (EMAS) is a premium management instrument developed by the Commission for companies and other organisations to evaluate, report, and improve their environmental performance. EMAS is formalised in Regulation (EC) No 1221/2009.

([7]) Planned for 2024: refurbishment buildings 040 and 050 in Geel, refurbishment buildings 36 and 48 in Ispra, completing of Wing M in Karlsruhe, new entrance building in Petten, implementing New European Bauhaus principle for deep renovation building 010 in Geel and for designing the new office building in Seville.

([8]) Planned for 2024: optimising of the ventilation running conditions in Karlsruhe and Ispra, of the Energy Management Systems of buildings in Ispra, of the HVAC; replacement of electrical cabinets and cablings; monitoring the correct application of the Energy Saving Decree and encouraging the building Landlord to make energy-saving investments and actions in Seville.

([9]) It is foreseen to install a further 480 kW of photovoltaic panels in 2024 in Ispra and around 400 kW (1000 photovoltaic solar panels) in Geel – study phase underway, installation planned for 2024-2025.

emissions (e.g. use of mixed meeting mode, favouring greener travel alternatives) and raise staff awareness of this issue.

On **greener mobility**, the JRC will increase the number of on-site services bicycles (expanding the bike fleet by 10 new units in Ispra) and related infrastructure (e.g. bike shelters, paths) - a survey was carried out to gather comments from staff; maintain fleet of hybrid/electric service cars (a new tender for the purchase of electric vehicles is planned for 2024, subject to budget approval) and installation of electric charging poles in Geel.

In the context of the **greening of the Commission**, the JRC will promote a circular economy (e.g. reuse of stationary through the Stationary Corner, donation of PCs in Ispra); continue to raise awareness on green public procurement; implement actions to preserve biodiversity ([10]).

The JRC will pursue its efforts to disseminate best practices and environmental outcomes of scientific initiatives among its staff and the Commission EMAS Network and will encourage the organisation of events in accordance with EC Guidelines on sustainable events. In 2024, the JRC Environment communication pages will be moved from Connected to SharePoint Online.

F.   Initiatives to improve economy and efficiency of financial and non-financial activities

A new working group has been set-up in the Support Services Directorate of the JRC tasked with analysing and coming up with proposals to optimise both financial and non-financial activities and resources. This initiative aims to improve efficiency and help ensure tasks are correctly prioritised and that innovative approaches facilitate our new ways of working. The working group will, amongst others, review a number of the JRCs financial working instructions with a view to updating and wherever possible simplifying them further to improve the operations of the JRC and the financial support provided in the spirit of doing the right things and doing things right. By early March 2024 the working group aims to have a finalised list of proposed actions to implement.

In addition the Financial Services unit in the JRC will continue to deliver hands on financial and procurement trainings to both financial and operational colleagues. They will also continue to run financial, operational and contractual activities networks to share experiences and best practices across the JRC and to continue to professionalise our financial and operational communities aimed at achieving greater efficiencies.

One of the strategic objectives of the eProcurement programme, for which the JRC acts as Business Domain Owner, is to achieve synergies and efficiencies across the European Commission including the JRC. This is achieved by simplifying, harmonising, modernising and digitising the procurement processes. During 2024 the programme aims to further roll-out the eContracting support for framework and direct contracts allowing for electronic signature

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([10])   Planned for 2024: campaign of awareness of on-site plants and of textile collect in Seville, biodiversity mapping tool and action to protect bats in Geel, creation of an area for stag beetles, insect hotels and flower meadows to attract pollinators in Ispra as part of the Europe Science Experience, removal of invasive species in Natura 2000 in Petten.

by both the contracting authority and the contractor, creating greater efficiency in the management of contracts. The eProcurement solution is continuously undergoing improvements and this will continue also in 2024. These improvements aim to give users more flexibility and greater efficiency. The eProcurement will be fully integrated into SUMMA by the end of 2024 and will also provide support for inventory and logistics management which is significant in the JRC.

The JRC invests in working practices and expertise in order to continuously improve services to partners, customers and stakeholders. The JRC runs an integrated management system (IMS) compliant with the requirements of ISO 9001:2015 (quality) and the Commission's Internal Control Framework. The JRC is certified for ISO9001 as a multi-site organisation, and on 4 of its sites for ISO 45001. The JRC is verified for the Eco-Management and Audit Scheme (EMAS) regulation. In addition, specific activities are accredited for ISO 17020 (inspection body), ISO 17025 (calibration and testing laboratory), ISO 17034 (reference material producer), ISO 17043 (proficiency test provider) as proof of competence.

Maintaining certifications, accreditations and verifications, require regular visits of external certification or accreditation bodies to audit state of the practice. In 2024, re-certification or surveillance audits are planned for the JRC as multi-site organisation and for the ISO45001 management systems in Geel, Karlsruhe, Petten and Ispra. On all sites, verification audits for EMAS are scheduled. Accreditation audits are organised covering various activities in line with the relevant ISO170xx standard. In view of continuous improvement, certification towards other standards (ISO 27001 – IT systems) are considered.

ANNEX: Performance tables – main outputs for 2024

Part 1 – Delivering on the Commission's priorities

Items in the table marked with the icon ![icon] refer to JRC contributions to policy initiatives led by other DGs.

General objective 7: A modern, high performing and sustainable European Commission

Specific Objective: 7.1 To support evidence-informed policymaking through creating and managing high-quality and fit-for-purpose scientific knowledge

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

Main outputs in 2024:

New policy initiatives

Output	Indicator	Target
Related to GO1		
Support to impact assessment based on climate and energy modelling suite (2040 climate target)	Submitted to lead DG	Q1
Support to impact assessment by analysing the 2040 climate targets impacts on critical/strategic materials demand for the key clean energy technologies (2040 climate target)	Submitted to lead DG	Q1
Support to impact assessment – scenario design and reality check of land-use scenarios with CBM model (2040 climate target)	Submitted to lead DG	Q1
Preparation of Climate Change Risk Index for early warning (2040 climate target)	Submitted to lead DG	Q1
Study on the water-energy nexus (Initiative for water resilience)	Submitted to lead DG	Q1
Study on the evolution of the extent and the investment requirements of a trans-European CO2 transport network	Study published	Q1
Water resilience scenario analysis: towards solutions based on case studies	Study published	Q3
Related to GO2		
A list of NACE/CPA codes identifying the goods and services integrating the EU Space Economy (EU space law)	Submitted to lead DG	Q1

Output	Indicator	Target
Development of Annex of the EU space law concerning environmental footprint (EU space law)	Submitted to lead DG	Q1
Development of methodologyand producting the EU space economy accounts (Strategy on space data economy)	Submitted to lead DG	Q1
Related to GO3		
Study – Substitution of critical with advanced materials in energy transition technologies (Advanced materials for industrial leadership)	Study published	Q4
Related to GO4		
Science, technology and innovation for Sustainable Development Goals Roadmaps for six African countries (Joint Communication on a strengthened partnership with Africa)	Roadmaps formulated	Q4
Assessment of conflict risks in African countries (Joint Communication on a strengthened partnership with Africa)	Submitted to lead DG	Q2
Support to technology roadmaps to remedy undesired non-EU dependencies in critical defence technologies (European defence industrial strategy)	Submitted to lead DG	Q1
Related to GO6		
Scenario modelling for DG AGRI (Communication on pre-enlargement reforms and policy reviews)	Submitted to lead DG	Q2
External communication actions		
Output	**Indicator**	**Target**
News announcements and research updates	Number of views	≥350 on average, for items with over 10 views
Social media	Total combined followers on LinkedIn, X (former Twitter), Instagram, Facebook (baseline: 203K on 1 October 2023)	223 000
JRC monthly newsletter	Number of subscribers Opening rate	≥27 000 Above industry standard (19.4%)
JRC Events	Overall satisfaction of participants	Above 4 (1 to 5 scale)

Other important outputs

Output	Indicator	Target
Development of soil organic carbon baselines and policy brief for DG CLIMA	Report published	Q2
Launch of the JRC counter drone living lab	Living lab launched	Q4
Review of rules for the carbon accounting in the life cycle of products	Submitted to lead DG	Q2
Review of rules for accounting impacts related to water consumptions in the life cycle of products and services and to foster an efficient use of water resource	Submitted to lead DG	Q4
Development of Framework on Safe and Sustainable by Design in support of Commission Recommendation	Report published	Q4
How to contribute to EU open strategic autonomy through Ecodesign product-specific measures in the context of ESPR regulation – A methodological approach	Report published	Q3
Development of a Soil Health Dashboard for Africa	Submitted to lead DG	Q4
Opening of EU reference laboratories for high-risk in vitro diagnostics	Start of operation	Q4
Training programme for customs laboratories on the analysis and identification of new psychoactive substances and precursors	Launch of programme	Q1
Report – An information-based risk analysis IT tool protecting the European food systems	Technical report published	Q1
2024 Startup Village Forum	Event organised	Q3 – Q4
Launch of the Rural toolkit	Launch of the toolkit	Q1
New European Bauhaus Festival	Event organised	Q2
Report summarising the insights gained during a Horizon Scanning process on potential future developments and risks they could entail	Technical report published	Q3
Study examining whether AI-supported decisions in hiring and lending are fair	Study published	Q3
Study examining the role of generative AI in secondary education.	Study published	Q3
Report on future risks	Technical report published	Q1
Report on future of democracy	Technical report published	Q4

Output	Indicator	Target
Report: Public spaces as spaces for citizen engagement. Building partnerships to democratise science and policy	Technical report published	Q4
Report: Building capacity for evidence-informed policymaking in governance and public administration in a post-pandemic Europe	Technical report published	Q4
Technical Support Instrument Country Final Reports for Czechia, Estonia, Greece, Lithuania, and the Netherlands on Building capacity for evidence-informed policymaking in governance and public administration in a post-pandemic Europe	Technical report published	Q3
Report: El ecosistema de asesoramiento científico y técnico a las políticas públicas en España (English version)	Technical report published	Q3
Report: L'expertise scientifique et l'éclairage des politiques publiques en France (English version)	Technical report published	Q3
Report: Monitoring framework for the twin transition of Small and Medium Enterprises in the EU	Technical report published	Q3
Report: Monitoring framework for the EU regions social progress and wellbeing	Technical report published	Q3
Study on the interlinkages between the monitoring frameworks and indicator targets used in the EC policymaking process	Study published	Q4
Putting Science into Standards Workshop: Report on circular technologies in construction	Technical report published	Q2
Science for Policy in Europe – Building forward better science for policy ecosystems in Europe	Event organised	Q4
Report: Analytical methods to measure microplastics in drinking water: Review and evaluation of methods	Technical report published	Q2
Science for Policy Report: Guidance for the implementation of the Delegated Act on a methodology for measuring microplastics in drinking water	Report published	Q2
JRC-HERA Report: Foresight on technologies for mitigating the transmission of airborne pathogens	Technical report published	Q2

Output	Indicator	Target
Foresight report addressing JRC nuclear safety related knowledge and infrastructure	Technical report published	Q4
Global Multi-country model-based macroeconomic analysis in support of European Economic Forecasts	Submitted to lead DG	Q1, Q2, Q3, Q4
Foresight report addressing perspectives of Small Modular Reactors	Technical report published	Q4
Report on the Support to Nuclear Compliance Assurance portfolio's annual meetings	Technical report published	Q4
Report of the nuclear foresight workshop on Shaping the Future for Nuclear Safety, Security and Safeguards: Factors, Forces and Challenges	Technical report published	Q2
Policy round table on integrated renovation of buildings	Event organised	Q1
New European Bauhaus self-assessment tool for buildings and living spaces	Handbook and tool published	Q4
New European Bauhaus Investment Guidelines (co-developed with the European Investment Bank and Joint Assistance in Supporting Projects in European Regions)	Guidelines published	Q2
2024 Zero Pollution Monitoring and Outlook Report	Report published	Q4
27 Resilience Annexes in European Semester Country Reports	Reports published	Q2
2024 EU Blue Economy Report	Report Published	Q3
Competence building through the Exploratory Research (ER) Programme	% of thematic priority areas addressed with Exploratory Research projects	70%
	Number of running ER projects	> 10
	JRC scientific staff actively involved in the exploratory Research community (ER&CAS) Programmes	> 3%
Projects of the Centre of Advanced Studies (CAS)	Number of implemented CAS projects	3
	Number of high-level experts engaged with CAS	>15
Science and Art (SciArt) exhibition on the topic of NaturArchy with co-created Science and Art Installations on the Green Deal	Number of SciArt works/installations realised	>10

Output	Indicator	Target
Average participation in outreach events	Number of participants	> 50
Open Access to JRC research infrastructures (RI)	Number of RIs engaged in the Open Access to JRC research programme	>17
	Percentage of access delivered in the Open Access to JRC research programme	20%

General objective 7: A modern, high performing and sustainable European Commission

Specific Objective: 7.2 The JRC operates modern, sustainable and open research facilities

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

Main outputs in 2024:

Other important outputs

Output	Indicator	Target
Geel: Refurbishment and adaptation of the conference centre following the New European Bauhaus approach	Procurement Procedure Immobiliere	Q1 100% Q4
Geel: Refurbishment Non-Nuclear laboratories and offices B040 including insulation of the outer walls of B040	% completion laboratories and offices % completion insulation works	100% Q2 100 % Q2
Geel: Refurbishment insulation building B050	% design and procurement	100 % Q4
Geel: Study and installation of Photovoltaic panels on site	% study and procurement	100% Q4
Geel: Renewal transformers buildings 200 and 110	% completion	100% Q4
Ispra: Construction of the tri-generation plant	% completion	90% Q4
Ispra: Installation of 480 kW photovoltaic panels on several buildings	% completion	100% Q4
Ispra: Building 48 office block complete renovation	% completion	100% Q4
Ispra: Multipurpose learning and ICT hub complete renovation	% completion	50 % Q4

Output	Indicator	Target
Ispra: Renovation of the sewage system. Construction of the new connection lines from Via Francia towards waste-water treatment plant. Final working designs of the lines under Via Lussemburgo.	% completion	100% Q4
Karlsruhe: New nuclear research facility 'Wing M'	Complete the procurement and award of contract for the technical installations, including Building Procedure to European Parliament	100% Q3 and Q4
Karlsruhe: Refurbishment of infrastructure components to ensure continuity of operation	Complete procurement and award of contract for glove box exhaust air pipes	100% Q4
Petten: Construction of a new entrance building	Signature of contract (including 'building procedure') and commencement of works	100% Q4
Petten: New fence	Complete the procurement and award of contract	100% Q2
Petten: Renovation and improvement of waste and chemical storage	Design and tender documents completion and acceptance Public Procurement Management Tool, tender procedure and signature	100% Q2 100% Q4
Seville: New Commission building	Building Project Construction Design Real state Procedure	100% Q2 100% Q4
Seville: Consolidation of Dynamic Workspaces (meeting A30)	% completion	100% Q2
Seville: Renegotiation and signature of new rental contract of the Expo Building	% completion	100% Q4

General objective 7: A modern, high performing and sustainable European Commission

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, Euratom

Main outputs in 2024:

Other important outputs

Output	Indicator	Target
Improve the accessibility of the information provided in the new webpage of the Central IP Service	Number of visits to the new website	Q4, increase number of visits compared to 2023

Output	Indicator	Target
Raising awareness on IP management with Commission staff	Number of staff trained	Maintain 2023 results (657 staff members)
Deliver guidelines on the use of images/illustrations in work of the EC, including references to image rights.	Document discussed and approved in IP Network meeting	Q2
Deliver and continuously update a guidance document on intellectual property aspects of using and developing AI tools, including raising awareness on the topic	Adoption of the document in the Information Management Steering Board

Number of trainings given | Q1- Q4 |

General objective 1: The European Green Deal
Specific Objective: 1.1 Establish links and tools for nuclear decommissioning knowledge sharing and dissemination with stakeholders in the Member States *Related to spending programme(s): Horizon Europe, Euratom*

Main outputs in 2024:

Other important outputs

Output	Indicator	Target
Ispra site		
Metal melting treatment of waste	Preparation of the first batch	Q4
Management of the bituminised drums waste stream	Signature of incineration framework contract

Submission of operational plan for incineration | Q1

Q4 |
Management of the bituminised drums waste stream	Commission bituminised drums retrieval facility	Q1
Construction of a new grouting station	Launch call for tender	Q2
Decommissioning of nuclear research reactor ESSOR	Submission of operational plans for pre-decommissioning activities and removal of activated components from the pond	1 in Q2, 1 in Q4
Cyclotron decommissioning	Submitting the decommissioning application	Q1
Old liquid effluents treatment station (STRRL) decommissioning	Submission of operational plan for dismantling obsolete components	Q1
Karlsruhe site		
Decrease number of historical low level backlog waste at JRC Karlsruhe site	Removing 30% of drums	Q4
Petten site		
Preparation of specific contract for the disposal of non-irradiated material	Signature of the specific contract(s)	Q2 (1 contract)

Q4 (2 contracts) |

Output	Indicator	Target
Assessment of possible scenarios for the practical implementation of the HFR decommissioning	Delivery of the Strategic Report	Q4
Geel site		
Decommissioning of obsolete Glove boxes Building 040	Signature of a contract for dismantling and disposal of glove boxes	Q3

General objective 1: The European Green Deal

Specific Objective: 1.2 Establish links and tools for nuclear decommissioning knowledge sharing and dissemination with stakeholders in the Member States

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

Main outputs in 2024:

Other important outputs

Output	Indicator	Target
Preparation and dissemination of knowledge products	10 knowledge products distributed on the platform (4 from JRC)	3 in Q2 and 7 in Q4
Decommissioning knowledge management	Signature of a framework contract for decommissioning knowledge management	Q3
Methodology and best practices for clearance procedures of radioactive material and removal of non-radioactive material from dismantling activities at JRC sites	Internal Workshop Report and recommendations	Q2 Q3

Part 2 – Modernising the administration

A. Human resource management

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.

Main outputs in 2024:

Output	Indicator	Target
1. Improving female representation in middle management		
Promotion of female representation in middle management	Number of internal female candidates applying for middle management positions	At least 1 female applicant per middle management vacancy

Output	Indicator	Target
	Number of JRC pre-management women benefitting from a talent management course to prepare them for management	At least 10 women
2. Enhancing staff engagement		
Follow-up to Staff Opinion Survey 2023	Measures adopted as follow-up to the staff opinion survey	At least 5 measures
	Raise awareness of staff on staff opinion survey outcomes and follow-up	At least one Townhall Meeting
JRC Career Development Package	Further promote local and corporate career development offer to staff	At least one Townhall Meeting
Organisation of staff exchanges around the topic of culture	Organise of JRC Culture Club Coffees	At least 5 events
3. Attracting and retaining competent scientific staff		
Attracting scientists for Contract Agent positions	Number of applicants to vacancies in scientific Directorates	Increase by 5% compared to 2022
Establishing a reserve list (officials, AD) of experts in science & research	Number of laureates on reserve list	>300
Recruitment of scientists at post-doc and expert levels for exploratory research (CAS & ER)	Number of scientists applying to vacancy calls at postdoc and expert level	> 15
Doctoral students pursue their PhD at JRC in cooperation with academic institutions	Number of doctoral students co-supervised by the JRC through the Collaborative Doctoral Partnership scheme (counting students at either JRC or high education institutions) or other schemes to be developed	> 25
Alumni network	Website active and up to date	Updated with information at least once per week (52/year)
	Activities between alumni and JRC (workshop, seminars, lectures), to exchange information	1 annual workshop

B. Sound financial management

Objective: The authorising officer by delegation has reasonable assurance that resources have been used in accordance with the principles of sound financial management and that cost-effective controls are in place which give the necessary guarantees concerning the legality and regularity of underlying transactions.

Main outputs in 2024:

Output	Indicator	Target
	Estimated risk at payment	remains < 2 % of relevant expenditure

Output	Indicator	Target
Effective controls: Legal and regular transactions	Estimated risk at closure	remains < 2 % of relevant expenditure ([11])
	Proportion of exceptions	remains < 1 % of number of transactions
	Share of procurement procedures receiving a positive opinion from the Public Procurement Advisory Group (PPAG)	remains ≥ 95 % screened by PPAG
Effective controls: Safeguarded assets	The tri-annual inventory – scanning of movable assets on each JRC site	+/-90% of assets tracked during reach physical inventory exercise
Efficient controls	Timely payments	remains ≥93% of payments (in value) made on time
Economy of controls	Overall estimated cost of controls	remains < 4% of funds managed
	Cost of supervisory measures (ex-post controls)	remains < 0.4 % of ex-post value controlled

C. Fraud risk management

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) ([12]) aimed at the prevention, detection and correction ([13]) of fraud.

Main outputs in 2024:

Output	Indicator	Target
Anti-fraud action plan	a. Revision and adoption of the JRC's Anti- Fraud Strategy	Q4
	b. Implementation of the new JRC's Anti-Fraud Action Plan.	Q4

([11]) No representative error rate for Horizon Europe will be available in 2024 as the ex-post audit campaign for the Programme will start end of 2023 and first audit results are expected end 2024

([12]) Communication from the Commission 'Commission Anti-Fraud Strategy Action plan – revision 2023 COM(2023) 405 of 11 July 2023 –'the Communication on the 2023 revision' – and the accompanying document, SWD(2023) 245 – 'the revised Action Plan'.

([13]) Correction of fraud is an umbrella term, which notably refers to the recovery of amounts unduly spent and to administrative sanctions.

D. 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

Main outputs in 2024:

Output	Indicator	Target
Migration of JRC to Welcome	80 % of users migrated	Q4
Migration of JRC specific information systems and ICT services to the Delta domain	40 % of services and information systems	Q4
Digital Culture In the framework of the integrated JRC Digital Governance, setting up of ICT solution design services to help project managers designing new ICT systems in line with JRC and EC rules and objectives.	Creation of the service	Q3
Seamless Digital Environment Creation of JRC hosting guidelines to help JRC project managers to properly plan the deployment of their new ICT solution keeping, in particular cloud approaches in mind	Publication of JRC hosting guidelines	Q2
Implementation of the corporate principles for data governance.	Percentage of implementation of the corporate principles for data governance for the JRC key data assets	80%
Outreach activities to target different audiences inside the JRC	1 data event with participants from all sites. Present data services in each site.	Q1-Q4
Connect different analytical communities for knowledge sharing.	2 BDAP user group meetings in the year 3 events within the community of practice for AI at the JRC	Target by 2024: 100%
Alignment between data and IT actors on files where both topics mater.	Relevant files jointly submitted to the Digital ExCo.	100%
Provision of support to JRC staff to acquire data in a coordinated way.	A data acquisition service pilot established	Q4
Environment for the analysis of Sensitive Non-Classified data on the JRC Big Data Analytics Platform.	Availability for end users.	Q1
Awareness raising activities on data protection compliance among JRC staff	Percentage of staff reached by the awareness raising activities	100%
Assessment of preservation needs of new Information Systems	Percentage of new Information Systems developed by JRC in 2024	100%

Output	Indicator	Target
Inventory of preservation needs of legacy information systems	Percentage of legacy information systems with preservation needs inventoried	>75%

E. Sound environmental management

Objective: The JRC takes account of the environmental impact of its day-to-day actions, taking measures to reduce the impact of the administration work, supported by their respective EMAS Correspondents or EMAS Site Coordinators.

Main outputs in 2024:

I. More efficient use of resources (energy, water, paper)

Output	Indicator	Target (2019 as baseline)
Efficient maintenance of the existing installations and increase installed capacity of photovoltaic panels	Electrical capacity of photovoltaic panels	+100% compared to 2019 (1130 kW in 2019, expected 2250 kW in 2024)
Analysis of water consumption of buildings	Periodic analysis of the consumption	At least once a year
Staff awareness actions to reduce energy and/or water use in the framework of EMAS corporate campaigns	Information posted on JRC intranet	Q4

II. Reducing CO2, equivalent CO2 and other atmospheric emissions

Output	Indicator	Target
Optimise and gradually reduce CO_2 emissions from staff business travel (data provided by PMO in MIPS)	CO_2 (t) emissions from staff business travel	Reduce CO_2 emissions linked to staff travel by 50% compared to 2019
Increase the number of service bikes	Number of new bikes	+10% compared to 2021
Staff awareness actions about sustainable commuting during EU Mobility Week and VeloMai corporate events	Information posted on the JRC intranet	Q2

III. Reducing and management of waste

Output	Indicator	Target
Staff awareness actions about waste reduction and sorting in line with the corporate EMAS waste reduction campaign	Information posted on the JRC intranet	Q4

IV. Promoting green public procurement (GPP)		
Output	**Indicator**	**Target**
Maintain the existing alert system through Public Procurement Management Tool to automatically assess which procurement is to be analysed for GPP criteria	Implementation of GPP criteria or environmental specifications, where possible	100%
V. Supporting biodiversity		
Output	**Indicator**	**Target (2019 as baseline)**
Action to preserve and improve biodiversity, such as insect hotels, planting trees, etc.	Number of actions	+21%