Management Plan 2023

DG RESEARCH AND INNOVATION

Contents

Introduction

This Management Plan defines **the most important outputs of the Directorate-General Research and Innovation for 2023** to deliver on the objectives set in the Strategic Plan 2020-2024. It follows the structure of the Strategic Plan of the DG and reflects the priority actions identified in the Commission work programme for 2023.

The mission of the Directorate-General for Research & Innovation is to design and implement R&I policies and programmes in collaboration with Member States, international partners, stakeholders and citizens. These policies and programmes, supported by investment and relevant regulation, **deliver new knowledge and game-changing innovation for EU priorities, notably the green and digital twin transformation**.

We aim to have **a high scientific, technological and societal impact**, built on scientific evidence and strong input from citizens. The DG operates in an ethically robust, effective and efficient manner and keeps a strong focus on the European added value.

Faced with long-term social and economic effects of the **global pandemic** as well as **Russia's war of aggression against Ukraine**, our **vision** remains unchanged: **a sustainable, safe, fair and prosperous future for the people and the planet**, based on solidarity and respect for common European values.

In 2023, the DG will continue to contribute to the **six headline ambitions of President von der Leyen** and play an important role in strengthening a modern, high performing and sustainable European Commission**.**

The DG will continue the implementation of **Horizon Europe, which has a budget of EUR 95.5 billion** for the period 2021-2027. This budget **includes EUR 5.4 billion from the Next Generation EU instrument**, particularly to support the green transition and digital transformation, recovery from **the COVID crisis**, preparedness and **resilience** as well as to foster **job creation** and develop the **EU's growth potential**. The budget is used **to support research and innovation including technological, social, and public sector innovation** across the European Union and Associated Countries, being paid directly to researchers, innovators and research institutions in the Member States and Associated Countries. The Programme is implemented directly by the Commission or through funding bodies designated by it.

DG R&I will drive, facilitate and **co-create** the **Horizon Europe strategic plan 2025-2027** through wide consultation. It will also proceed with the **review of EU missions' areas** and the assessment of the EU Missions: 2023 will be a key year for delivering on EU Missions, which are designed **to solve major societal challenges** (fighting cancer, adapting societies to climate change, protecting oceans, greening cities and ensuring healthy soils and food). In addition, the DG will launch the preparation of **the second wave of impact-driven European Partnerships** creating critical scales of investment **to**

support the green and digital transition while reinforcing the resilience of the EU. The implementation of Horizon Europe will continue with a particular focus on **enhancing synergies** between programmes and instruments at EU, national and regional level to maximise the collective impact. As a keystone for all these political objectives, DG R&I will continue to support world-class frontier research in Europe through the premier European funding organisation for excellent frontier research, the **European Research Council (ERC)**.

The implementation of the new European Research Area (ERA) will remain a key priority to enhance R&I investments in Member States and to support necessary reforms of national and regional R&I ecosystems. The new ERA supported by the implementation of the ERA policy agenda will continue to boost competitiveness, decrease the innovation gap in the EU and coordination R&I investments and reforms. In order to support Member States to engage successfully in these initiatives and define and implement a joint EU R&I agenda, a number of **bilateral enhanced dialogues with Member States** will be taking place. Furthermore, DG R&I will continue working towards **the European framework for Research Careers**, allowing to hasten brain circulation and create new career opportunities for researchers, especially among the young ones.

Innovation is the European reply to reduce greenhouse gas emissions, to make our economies more digital and to guarantee Europe's food, energy and raw materials security. Thanks to its **New European Innovation Agenda,** a priority of Commissioner Gabriel, Europe aims to be positioned at the forefront of the new wave of deep tech innovation and start-ups.

Also health initiatives remain crucial priorities for DG R&I: To support the research on Cancer the DG will continue the implementation of the **European Beating Cancer Plan**, in synergy with the **EU Mission on Cancer**. It will also further contribute to the **European Health Data Space,** supporting innovation in health data tools and services.

DG R&I will also continue to contribute to the implementation of **the ERA policy agenda on gender equality, the Gender Equality Strategy 2020-2025** and an expert group on **the impact of Covid-19 on gender equality in R&I and on women researchers' careers**.

At the international level, DG R&I will coordinate and monitor the delivery of **the EU's Global Approach to Research and Innovation** across the Commission and with the Member States. This document will be prepared in close cooperation with Member States's experts in the ERA subgroup on the Global Approach.

An **external communication strategy** will accompany policy development culminating with the **European Research and Innovation Days**. The 2023 edition of the event will gather stakeholders, citizens and policymakers to shape the R&I landscape, working across policies, spurring innovation and triggering investments **in a reshaped and renewed version**.

THE R&I POLICY FOR ACCELERATING TRANSITIONS IN EUROPE

DG R&I SPECIFIC OBJECTIVES TO THE COMMISSION'S HEADLINE AMBITIONS ([1])

GENERAL OBJECTIVE 1:
A EUROPEAN GREEN DEAL

Specific objective 1.1: High-quality science, knowledge and innovative solutions support climate policies and help to preserve biodiversity, ecosystem and natural resources

Specific objective 1.2: Mainstreaming of the public and private research and innovation investments for climate actions strengthens the European Green Deal's impact

Specific objective 1.3: Co-creation of Horizon Europe and its missions and partnerships increases awareness of the key role of research and innovation for achieving climate neutrality

GENERAL OBJECTIVE 2:
A EUROPE FIT FOR THE DIGITAL AGE

Specific objective 2.1: High-quality science, knowledge and innovative solutions facilitate a digital transition in Europe, including a new European approach to Artificial Intelligence

Specific objective 2.2: The revitalised European Research Area sets directions for societal, economic and ecological transitions in Europe and contributes to spreading excellence, closing research and innovation gap and working out a common global response to emerging challenges

Specific objective 2.3: Research and innovation actions and the European Innovation Council in particular support development and scaling-up of SMEs with breakthrough and disruptive technologies

GENERAL OBJECTIVE 3:
AN ECONOMY THAT WORKS FOR PEOPLE

Specific objective 3.1: Research and innovation actions, increased R&I investments and the R&I component of the European Semester boost economic growth and jobs creation

GENERAL OBJECTIVE 4:
A STRONGER EUROPE IN THE WORLD

Specific objective 4.1: Regional research and innovation strategies and broader association policy contribute to promoting common European R&I values and creating a global Research and Innovation Space

GENERAL OBJECTIVE 5:
PROMOTING OUR EUROPEAN WAY OF LIFE

Specific objective 5.1: Research and innovation develop and deploy solutions, technologies and innovations to tackle emerging threats and improve crisis preparedness

Specific objective 5.2: Research and innovation support the European health initiatives, including the European plan to fight cancer

GENERAL OBJECTIVE 6:
A NEW PUSH FOR EUROPEAN DEMOCRACY

Specific objective 6.1: European research and innovation support citizens' involvement, social inclusion and equalities in Europe, including through communication of the European R&I added value

GENERAL OBJECTIVE 7:
A MODERN, HIGH PERFORMING AND SUSTAINABLE EUROPEAN COMMISSION

Specific objective 7.1: The Common Implementation Centre and the Common Policy and Programming Centre provide user-friendly services and tools to the European Commission for effective and efficient planning, programming and implementation of the Research and Innovation Framework Programme and other EU programmes

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([1])   According to the Strategic Plan 2020-2024 of DG Rresearch and Innovation

PART 1. Delivering on the Commission's priorities: main outputs for 2023

General objective 1: A EUROPEAN GREEN DEAL

The three following specific objectives, with relevant results indicators reflected in the annex (performance table, p.41), cover the broad spectrum of Research & Innovation activities contributing to the 'European Green Deal'.

Specific objective 1.1: High-quality science, knowledge and innovative solutions support climate policies and help to preserve biodiversity, ecosystem and natural resources

Tackling climate and environmental challenges is one of the key priorities of the EU. With the European Green Deal the EU Member States commit to turn Europe into the first climate-neutral continent by 2050. Research and Innovation are key drivers of the green transition, and many initiatives led by DG R&I concentrate on this area.

A Communication on the revamp of the **Strategic Energy Technology plan (SET-plan)** is planned for beginning 2023. In collaboration with DG ENER and JRC, DG R&I will follow-up on the revamped SET Plan to ensure a revitalized contribution to the Commission's priorities such as **the Green Deal and REPowerEU**. DG R&I will implement part of the Strategic Research and Innovation Agenda (SRIA) of the **ERA Pilot on Green Hydrogen,** as well as further implement the measures to be proposed in the Communication on the revamp of the SET-Plan. These actions will be carried out notably through the amending the **Clean Energy Transition Partnership (CETP)**, which will also support the implementation of the revamped SET-Plan.

As part of the **REPowerEU plan**, DG R&I will implement thee R&I actions of the **EU Solar Energy strategy**. The first one is the support to the R&I dimension of the Solar Alliance. The **EU Solar Photovoltaic Industry Alliance** proposed in the strategy will support new, more efficient, and more sustainable technologies through the Horizon Europe and InvestEU programmes and Cohesion Funds. The second action is the implementation of the **Solar Flagship projects** in the Cluster 5 part of the Horizon Europe 'main' Work Programme 2023-2024. The Solar Flagship covers a portfolio of projects in the field of photovoltaics (PV), concentrated solar power (CSP-) and solar thermal technologies, with a planned EU contribution of EUR 144 million. The third action is the **development of a strategic R&I agenda** on solar energy technology in the ERA framework, following the REPowerEU plan and the EU strategy on solar energy. This action, in close collaboration with Member States and Associated Countries, will build on the most recent Strategic Research and Innovation Agendas (SRIAs) in solar energy research that have been elaborated under the SET-Plan, as well as the preparation of a new co-programmed partnership on solar energy with industry.

DG R&I will contribute to the **EU zero pollution ambition**, part of the implementation of the **Chemicals Strategy for Sustainability** that aims to better protect citizens and the

environment from harmful chemicals, and boost innovation by promoting the use of safer and more sustainable chemicals. DG R&I and DG ENV will draft a **joint report** about the 2022 Commission Recommendation's on the implementation of a European framework for the **design and assessment of chemicals and materials** as safe and sustainable[2]. Furthermore, DG R&I will publish an **R&I report on Key Performance Indicators** to monitor the funding landscape for the implementation of the 2022 Strategic Research and Innovation Plan for safe and sustainable chemicals and materials. It will also present a Policy Brief from the **European Human Exposome Network**, a major cluster – initiated by DG R&I – of EU R&I funded projects. The Policy brief will focus on the **Exposome research** and its contribution to support policy frameworks addressing the impacts of pollution on human health.

On the basis of the Materials 2030 Manifesto and of the strategic materials agenda that will be presented by stakeholders in March 2023, DG R&I will develop a plan to coordinate the R&I efforts on **advanced materials** to drive R&I for future markets (innovation markets). It will be relevant for different parts and clusters of Horizon Europe, as well as for national and industrial R&I programmes. DG R&I will contribute to the Communication accompanying the **Critical Raw Materials Act** . A systematic approach on enhanced circularity and responsible practices by Industry will not only provide a good solution to reduce the environmental impact generated by materials, but also boost economic growth and reduce local dependencies on imported raw materials.

FOOD 2030

DG R&I will update the Food 2030 initiative and support the Farm to Fork Strategy through dedicated actions of Horizon Europe. In March, the DG will organise a targeted workshop for stakeholders.
In October, a high-level Food 2030 Conference will showcase achievements towards future R&I orientations for sustainable food system transformation.

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[2]   COM(2022)8854 of 8 December 2022

Moreover, in support of the Food 2030 initiative, a new strategic **Food 2030 report** and **Sustainable Food Systems Partnership will be launched in 2023**. The DG will work on aligning and leveraging R&I investments amongst stakeholders (in particular Member States) via the **Standing Committee of Agricultural Research (SCAR)**, and through strategic and thematic working groups. To strengthen national strategies for the Farm to Fork Strategy implementation, the DG will also assist Member States in empowering their science-policy interface.

In 2023, DG R&I will move the **EU Bioeconomy Policy** forward to unlock the full potential of the bioeconomy in support of the European Green Deal. The DG will publish a document on the **next steps of the EU Bioeconomy Policy**, highlighting key areas and activities that the EU Bioeconomy Policy will focus on. The work will be done in cooperation with Member States through the European Bioeconomy Policy Forum, to support the Council Conclusions on the bioeconomy under the Swedish presidency. Moreover, the DG will launch a scoping study to look at gaps for **bioeconomy stakeholder involvement**, for which it will work in close cooperation with other services, and will continue the cooperation with the Joint Research Centres' Knowledge Centre for Bioeconomy.

In 2023 DG R&I will represent the EU for the finalisation of the multi-year 6th Assessment Cycle of the **Intergovernmental Panel on Climate Change (IPCC)**. The DG will promote the dissemination of the latest IPCC findings among EC services as the most authoritative source of knowledge on climate change, and an important contribution towards evidence-based policy making. The ex-post analysis of the latest reports with a view to identify research gaps will help maximize the impact of EU funded research and its contribution to accelerating climate action.

DG R&I will represent the EU at the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)**. DG R&I will promote the dissemination of scientific evidence on biodiversity among EC services. The EU long-term strategic biodiversity research agenda, set by DG R&I and hosting conclusions from the consultation on the renewed roadmap on nature-based solutions, ensures that EU biodiversity R&I delivers benefits beyond Horizon Europe, in complementarity with national and global efforts.

Launched by DG R&I as part of the Circular Economy Action Plan, the **Circular Cities and Regions Initiative (CCRI)** is an example of a scheme that combines Horizon Europe's investment in demonstration projects, European Investment Bank (EIB)'s investment in market projects, and complementary technical assistance, which is provided by the EIB advisory services and by a network of collaborating external organisations. The **Hubs4Circularity** initiative fosters the industrial dimension of the CCRI though industrial symbiosis based on an optimized, collaborative, cross-sectorial exploitation of resources along the value chains of different industries in a local ecosystem.

Specific objective 1.2: Mainstreaming of public and private research and innovation investments for climate actions strengthens the European Green Deal's impact

DG R&I will support the implementation of the **Climate Adaptation Strategy** by mobilizing and mainstreaming R&I on climate adaptation across various sectorial and thematic areas for smarter, faster and more systemic adaptation. Particular focus will be placed on **synergies with the Mission Adaptation to Climate Change** to accelerate action in the face of rapidly increasing climate risks in Europe and globally. DG R&I will also organise the **6th European Climate Change Adaptation (ECCA) conference**, a flagship biannual event that brings together the European scientific community with practitioners and decision-makers, willing to accelerate the transfer of knowledge from R&I into policy and practice.

REPowering the EU with **Hydrogen Valleys**

© FCH 2 JU, 2021.
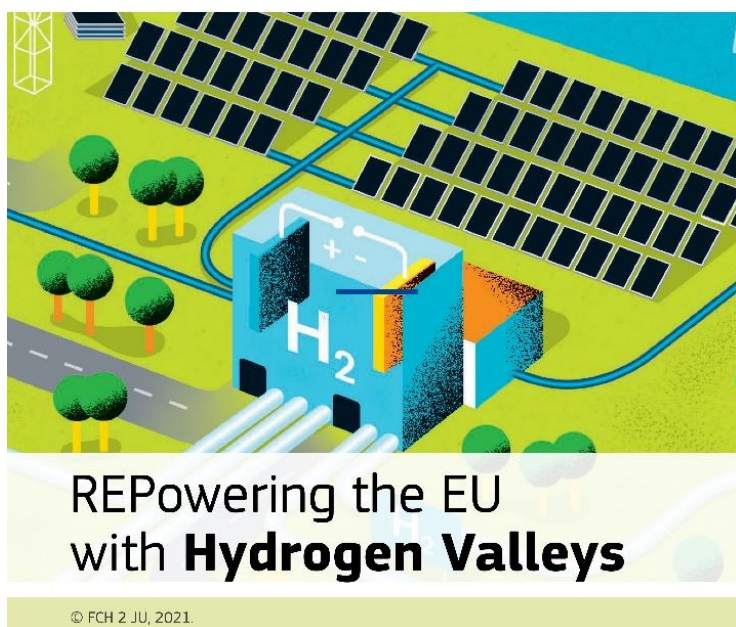
DG R&I will develop a **roadmap on hydrogen valleys,** which will support the first bricks of a network of hydrogen valleys, adjusted to local availability of renewable energy sources and building on the multi-sector use of green hydrogen, contributing to the New European Innovation Agenda. It will notably target those regions not yet hydrogen friendly, to allow for a full EU coverage, with a view to further link these nodes through green corridors. This roadmap will include results from projects financed by the **Clean Hydrogen Joint Undertaking** on hydrogen valleys, e.g. with the additional €200 million for this topic following the REPowerEU plan, whose implementation is closely monitored by DG R&I.

In line with the **Joint Communication on the EU external energy engagement in a changing world**[3], DG R&I will continue to coordinate Mission Innovation as a whole. DG R&I supports **the seven Mission Innovation Missions** which have concrete deliverables for 2023. In particular, DG R&I will continue to co-lead the Mission Innovation Mission on Clean Hydrogen and the Urban Transitions Mission.

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[3]   JOIN(2022) 23 final of 18 May 2022

INDUSTRIAL STRATEGY

In 2023, DG R&I will provide input to the transition pathways for industrial ecosystems (textiles and chemicals). The energy intensive industries represented through Process4Planet, which develops technologies for climate neutrality, are key for advancing the green industrial transition.
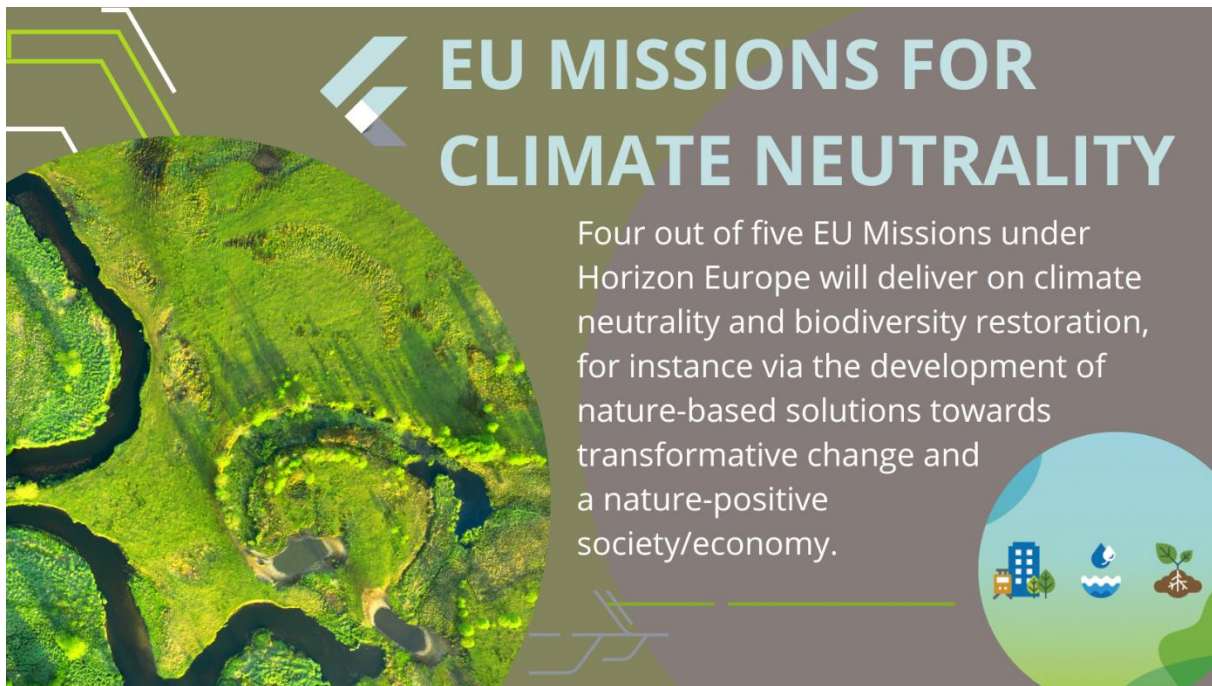
The partnership Made in Europe will also help to accelerate the green and digital transition of the EU manufacturing ecosystem, which accounts for approximately 25% of the total EU-27 GHG emissions.

For energy intensive industries DG R&I will also establish a **Transition Charta**, which will pool voluntary commitments on a joint-up innovation and investment pipeline across national, European and other international programmes. Aim of the Charta is to incentivise industrial lighthouse investments and to de-risk 'First of a Kind' (FOAK) installations, in order to accelerate the industrial transition in the current energy price and supply crisis, and to stay on track for the Green Deal. This initiative will be supported through a **Mutual Learning Exercise (MLE)** and through the **Policy Support Facility** to help Member States to develop national roadmaps for the decarbonisation of energy-intensive industries, and a **community of practice** producing guidelines to speed up relevant permit procedures for FOAK industrial installations. DG R&I will further support international activities such as the Net Zero Industries mission of Mission Innovation 2.0 and via other relevant international fora.

Specific objective 1.3: Co-creation of Horizon Europe and its missions and partnerships increases awareness of the key role of research and innovation for achieving climate neutrality

Three planetary crises – **climate change, biodiversity loss and pollution** -, that jeopardize health, food, our economy and ultimately the future of Humanity, are interlinked and exacerbating each other.

EU MISSIONS FOR CLIMATE NEUTRALITY

Four out of five EU Missions under Horizon Europe will deliver on climate neutrality and biodiversity restoration, for instance via the development of nature-based solutions towards transformative change and a nature-positive society/economy.

The Mission on **Adaptation to Climate Change** will further strengthen the commitment of regions and communities, making key structures operational, consult on and review its implementation. In 2023, the Mission Adaptation will ramp up its activities with the launch of the **implementation platform** – which will start providing services to the regions and local authorities that signed the Mission's Charter. The engagement with regions, local authorities and Friends of the Mission (businesses, NGOs) will deepen through the creation of the **new Community of Practice** and tailored events aiming at taking stock of the progress (in particular, the 2023 Mission's Forum). The Mission will also deploy its first Mission projects.

The Mission **Restore our Ocean and Waters** has started rolling out 'lighthouses' in major sea and river basins: the Atlantic-Arctic basin, the Mediterranean Sea, the Baltic and North Sea, as well as the Danube river basin. In 2023 the lighthouses will start functioning as a hub that will develop, demonstrate, and deploy new solutions, and each of them will focus on one specific objective under the Mission Ocean and Waters. It brings together efforts across programmes and instruments, across sectors and at EU, national, regional and local level, ranging from R&I to deployment, investment and regulation. It therefore aligns with other public funding sources at national and regional levels. The Mission will bring together relevant Member States, and other partners, through a **political implementation Charter,** to which partners' commitments will continue in 2023. Through the Charter the partners will commit to cooperating and aligning resources to achieve the Mission objectives. All key stakeholders from public and private sectors have been invited to submit to the Charter the programmes, policies and initiatives that aim at reaching the objectives of the Mission.

In close cooperation with other DGs such as DG MOVE, DG ENER, DG ENV, REGIO, JRC and CINEA, DG R&I will continue to implement the actions of the **Climate-Neutral and Smart Cities** Mission. These will include the support of the **100 cities** selected to become climate

neutral by 2030 and the implementation of the actions selected under the Missions part of the Horizon Europe 'main' Work Programme 2021-2022, as well as the preparation of the first actions under the Missions part of the Horizon Europe 'main' Work Programme 2023-2024.

In 2023 DG R&I will launch the preparation of the **second wave of co-funded and co-programmed European Partnerships** and it will work on the strategic definition of the future **Research Fund for Coal and Steel programme** (RFCS) 2023-2024, launch two "big tickets" calls and the 2023 annual call.

In line with the Horizon Europe legal base, the Commission will proceed with the **assessment of EU Missions** and **review of Mission areas** to take stock on their selection process, governance, budget, focus and progress to date and inform their future. A report by the Commission in 2023 will cover this exercise and the **review of articles 185 and 187 TFEU partnerships areas**.

DG R&I is planning **several external communication actions** to promote the R&I policies contributing to the EU Green Deal priority. The DG will actively promote the EU Missions, and highlight the vital role of R&I on food systems, clean energy and climate change adaptation through events, social media highly-impactful contents and media outreach.

General objective 2: A EUROPE FIT FOR THE DIGITAL AGE

The three following specific objectives, with relevant results indicators reflected in the annex (performance table, page 48), cover the broad spectrum of R&I activities contributing to the 'Europe fit for the Digital Age'.

Specific objective 2.1: High-quality science, knowledge and innovative solutions facilitate a digital transition in Europe, including a new European approach to Artificial Intelligence

The New European Innovation Agenda

2023 is a year when the New European Innovation Agenda will come to an active implementation phase. In close coordination with Member States, Associated Countries and stakeholders, and in other DGs, the Agenda will deliver on a number of critical actions.

To improve **access to funding for deep-tech scale-ups** in the EU (flagship 1), a Pilot **European innovation gender and diversity index** will be launched. A **guidance on regulatory sandboxes** will be prepared and an **Innovation Procurement Specialist Advisory Service** will be launched to develop **experimentation spaces and innovation procurement** (flagship 2). In order to accelerate and **strengthen innovation across European innovation ecosystems** addressing also the **innovation divide** (flagship 3), the implementation modalities of **regional deep-tech valleys** will be developed in preparation of its launch in early 2024; a one-stop-shop for innovation ecosystem's players

-**Innospace**- will be established. Regarding fostering and retaining **deep-tech talents** (flagship 4), an innovation internship scheme will start while the WomenTechEU will continue targeting early-stage women-led deep tech startups. Finally, the improvement of **innovation policy making tools** (flagship 5) will be co-designed and coordinated in the EIC Forum.

The close cooperation with the **Coalition of the Willing** and their created common platform where stakeholders would contribute to the implementation of the New European Innovation Agenda with the specific pledges will further enhance the stakeholders buy-in of the initiative.

DG R&I will lead various initiatives with regards to the digital age

In 2023 the Mission 'Restore Our Ocean and Waters by 2030' continues the work to develop and build a core infrastructure of the **Digital Twin of the Ocean (EU DTO),** with a prototype to be delivered by end 2024 as announced by President von der Leyen. The EU DTO relies on the contribution of different EU programmes, namely Horizon Europe, European Maritime, Fisheries and Aquaculture Fund (EMFAF), Copernicus and Digital (DEP), with the ultimate aim of making the DTO coherent with the Destination Earth initiative and with the aim of delivering a public service enabling an ocean digital ecosystem.

The **Knowledge Centre on Earth Observation** is a Commission's initiative to maximise the policy uptake of products and outcomes provided by EU funded activities, including HE projects and the EuroGEO initiatives. A research agenda will be developed by conducting in depth assessments of services and underlying research needed for the support of EU policies and by establishing practices to translate policy needs into concrete requirements for EO based, digital products, and services. Results will also feed into the Earth Systems Science Initiative with European Space Agency (ESA) and the Destination Earth science plan.

"We invest in leading infrastructures with support from programmes such as Horizon Europe or Copernicus, providing geospatial information to promote innovation and protect our planet. With the creation of the Earth Observation Knowledge Center, our ambition is to optimize the provision of accurate and reliable data and information on environmental issues, agriculture, climate change challenges, security."

European Commission

Mariya Gabriel
Commissioner | Innovation, Research, Culture, Education and Youth

@GabrielMariya

The Commission will establish a **European Collaborative Cloud for Cultural Heritage (ECCCH)**, as a follow-up of the Recommendation on a common European Data Space for Cultural Heritage. The construction of the platform will be initiated, along with a series of actions under the leadership of Commissioner Gabriel to build high-level political support among member states and a wide stakeholder community.

2023 will also be the year for the development of a policy roadmap on the use of Artificial Intelligence for Research and Innovation (AI4R&I).

The main goal is to increase the technological, economic and societal impact of R&I through the smart and responsible use of Artificial Intelligence (AI). An increasing number of research and innovation activities can and should benefit from the capabilities provided by AI to open new opportunities and achieve objectives that could not be possible (or extremely costly) without this technology.

DG Research and Innovation has a specific mandate in relation with AI and its use in R&I as a key disrupting technology in the coming years. **The focus is on the applications of AI in research and innovation rather than in the further development of AI itself.** For example, getting demographers or biologists or mathematicians, as well as entrepreneurs to make more and better use of AI in their research and start-ups.

Specific objective 2.2: The revitalised European Research Area sets directions for societal, economic and ecological transitions in Europe and contributes to spreading excellence, closing research and innovation gap and working out a common global response to emerging challenges

In the context of the implementation of the **ERA Policy Agenda 2022-2024[4]** in close coordination with Member States, Associated Countries and stakeholders through the ERA Forum (a Commission expert group) and the European Research Area and Innovation Committee (ERAC, a Council preparatory body), the following priorities and key deliverables will be pursued in 2023:

Foster the **open sharing of knowledge and the reuse of research outputs** (ERA action 1), through the deployment of core components and services of the **European Open Science Cloud (EOSC)**, and the establishment of a monitoring mechanism and publication of a catalogue of Open Science best practices. There will be also a mapping of the current state of development and diversity of **scientific publishing** in Europe and roadmap for extending the Open Research Europe publishing platform to beneficiaries beyond EC programmes.

Regarding the Reform of the **research assessment system** with a view to improving quality, performance and impact (ERA action 3), the **coalition of European research**

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[4] As part of the Council conclusions on the governance of the ERA (26/11/2021)

funders and research performers will roll out its activities for collaboration and mutual learning, and national events will address barriers to reform**.**

A **European monitoring system** will be developed to safeguard the **freedom of scientific research** in Europe (ERA action 6).

RESEARCH CAREERS

To promote attractive and sustainable research careers, balanced talent circulation and mobility across countries, disciplines and sectors (ERA action 4), a **European Framework for Research Careers** will be developped and the **R&I Careers Observatory** will be established along with the ERA Talent Platform

The support for the uptake of the **European Competence Framework for Researchers** and the development of the **ERA Talent Platform** will contribute to the **European Year of Skills** and bring researchers closer to the labour market demand for highly-skilled talents. The Commission will analyse options towards a **European partnership for researchers** in support of researchers, their careers aiming at linking different initiatives and focusing on **young innovative and entrepreneurial talent** at the early stage of their careers.

In order to improve the sustainability, accessibility and resilience of **Research Infrastructures** (ERA action 8), the European **Charter for Access to Research Infrastructures** will be revised, recommendations will be prepared on more effective and synergetic use of different funding sources and a new **methodology for updating the ESFRI Roadmap will be developed.** Furthermore, following the discussions held on the topic during the Competitiveness Councils under the FR and CZ Presidencies, the ERA Action 12 will continue to develop its activities related to **Technology Infrastructures.**

Also, two major conferences will be organised in the second half of 2023: one kick-starting the discussion on the future ERA policy agenda 2025-2027; and another on the new widening measures under Horizon Europe, and their effectiveness in contributing to the ERA policy agenda and the New European Innovation Agenda.

Finally, in order to establish an efficient and effective **ERA monitoring mechanism** a **scoreboard, dashboard and policy platform will be launched.**

In 2023, DG R&I will also lead the development of **Science for policy (S4P) initiatives** under ERA, which will bring research outcomes funded under Horizon 2020 and Horizon Europe that address existing and emerging challenges to policy makers via deliberate processes and/or purpose built platforms. The DG will stimulate discussion and policy development in Member States to strengthen their science for policy ecosystems, in close collaboration with the Council Presidencies. It will mobilise its Independent Advisory Expert Groups, such as the Group of Chief Scientific Advisors (GCSA) and the European Group on Ethics in Science and New Technologies (EGE).

Specific objective 2.3: Research and innovation actions and the European Innovation Council in particular support development and scaling-up of SMEs with breakthrough and disruptive technologies

The DG will be working closely with EISMEA in order to ensure the timely adoption of the European Innovation Council **work programme 2024** and the implementation of the **European Innovation Council 2023 and European Innovation Ecosystems 2023-2024 work programmes.**

The DG will continue to oversee the restructuring of the EIC Fund in the context of the implementation of the EIC Accelerator blended finance under indirect management and will oversee the implementation of the contribution agreement relating to the EIC Fund.

Support to **access to finance** will be ensured through the policy steer, coordination and monitoring of **Invest EU** related operations (incl. Green Transition product supporting the Green Premium Agreement) and the continuous implementation of the **structured dialogue with the EIB** (incl. establishment of financial instruments supporting EU missions, Partnerships and other thematic priorities).

General objective 3: AN ECONOMY THAT WORKS FOR PEOPLE

The following specific objective, with relevant result indicators reflected in the annex (performance table, page 51), covers the broad spectrum of R&I activities contributing to the 'Economy that works for the people' objective.

Specific objective 3.1: Research and innovation actions, increased R&I investments and the R&I component of the European Semester boost economic growth and jobs creation

The DG will continue to contribute to **NextGenerationEU** implementation and to **the European Semester**, through the timely monitoring and analysis of R&I related investments and reforms **in RRPs (Recovery and Resilience Plans)** in order to ensure their appropriate implementation according to the agreed milestones and targets. Work will focus also on the preparation, analysis and launch of the R&I dimension of **the 2023 spring package (including, possible R&I Country Specific Recommendations and R&I coverage in country reports**) by preparing in addition an R&I-specific annex on innovation for all the Country Reports as well as contribution to the annexes related to the green transition, energy and territorial cohesion. When relevant, specific R&I sections in the country reports as well as the proposal and drafting of related Country Specific Recommendations will be prepared. This activity will be closely coordinated by -SG-RECOVER and DG ECFIN. Relevant input on the R&I dimension in the **ASGS 2024** (Annual Sustainable Growth Survey) will be prepared with an input paper focused on the role of R&I

EUROPEAN AND REGIONAL INNOVATION SCOREBOARD 2023

DG R&I will publish the 2023 editions of the European Innovation Scoreboard and the Regional Innovation Scoreboard. The Scoreboards provide a comparative analysis of the innovation performance of the EU Member States, their regions and other European and selected third countries with the aim to support with evidence the design, implementation and monitoring of innovation policies.

in the Annual Sustainability Growth Survey.

DG R&I will continue providing **economic and statistical analysis to support policy initiatives of the Commission** on a range of topics related to R&I policy, such as the green and digital transitions, transformative R&I policies, technological sovereignty, innovative capacity, productivity and business dynamism, also in relation to Horizon Europe and its future. These analyses will be valorised and disseminated through publications in the R&I paper series of DG R&I and will feed into the **preparation of the 2024 edition of the Science, Research and Innovation Performance of the EU report,** which will start in Q2 2023. These activities will be underpinned by the work of the **ESIR High Level Expert Group**, exploring the ways to boost European R&I policy's capacity to deploy innovative solutions, technologies and frameworks **to deal with future crises**. **Additional exploratory studies** will improve the evidence base for policy interventions related to the objectives of the new European Innovation Agenda. DG R&I will also support **foresight activities** that inform the future of the EU, including European R&I policy.

EUROPEAN UNION

"The new European Innovation Agenda will ensure innovators, start-ups and scale-ups, their innovative businesses to become global innovation leaders. Together, we will make Europe the global powerhouse for deep-tech innovations and startups."

Mariya Gabriel
Commissioner | Innovation, Research, Culture, Education and Youth

#EUinnovates   #HorizonEU

In cooperation with the JRC, DG R&I will publish **the 20th edition of the EU Industrial R&D Investment Scoreboard**. The analysis of company data on 90% of private R&D investments in the EU and worldwide will shed light on the positioning of Europe's industry among the largest corporate R&D investors worldwide. Special attention will be given **to the effect of disruptions such as the pandemic and the impact of the energy crisis** in the wake of the war in Ukraine on R&D investments and the twin transitions.

To better accompany deep tech and clean technologies in reaching the market, **guidance on the use of experimentation, test beds and regulatory sandboxes** will be issued, in line with **the Innovation and REPowerEU Communication** and relevant EU policy objectives. It will be based on successful past examples at EU and national level. **Policy experimentation** will be used to generate insights on how these flexible approaches can feed into EU policy tools and be diffused via R&I funding instruments.

In order to support Member States, **enhanced R&I policy dialogues** have been established and will continue in 2023, in addition **to 3 Policy Support Facility Country** (peer reviews) exercises and 5 PSF Challenge exercises (mutual learning exercises) which will be launched. **Countrypedia**, the tool to better engage with Member States, will be continuously improved.

DG R&I will further intensify and implement **Knowledge Valorisation by developing Codes of Practice.** These codes are practical guidance that aim to help R&I actors in their daily tasks. Two codes have already been developed so far, on Intellectual Asset Management and on Standardisation, and DG R&I plans to create another two more codes in 2023: a Code on industry-academia co-creation and a Code on participatory values creation. The first will facilitate knowledge sharing and valorisation of R&I results, matching the supply and demand for innovation while the second will address the way citizens and the civil society is engaged in participatory approaches together with researchers, innovators and policy makers. An awareness raising campaign, including a Tour of the Capitals of the EU, will be launched to communicate the Guiding Principles on Knowledge Valorisation while a Mutual Learning Exercise (MLE) with Member States will address key elements of Knowledge valorisation.

The Commission will establish a **new collaborative platform**, as a follow-up of recital 25 of the Horizon Europe Regulation and the Commission Green Paper 'Unlocking the potential of cultural and creative industries'. The platform will foster a culture and creativity driven European innovation ecosystem.

As part of the Euratom Research & Training programme for the period 2021-2025 complementing Horizon Europe ('the Euratom programme'), DG R&I will further work on the implementation of the **EUROfusion European Partnership**. The DG will also implement the **Euratom programme work programme 2023-25**, in which EUR 150 Million will be dedicated to safety of nuclear power plants and future SMRs (Small Modular Reactors), waste management, radiation protection, other nuclear applications, education and training. DG R&I will draft the **Staff Working Document on the ex-post evaluation** of the

Euratom programme 2014-2020([5]), carrying on an evaluation of the rationale, implementation and impacts required by the Programme's legal basis. In 2023 the Euratom programme will support the **European Partnership for Radiation Protection Research** (PIANOFORTE) that will contribute to improving the protection of the public, workers and patients including from medical exposure to ionizing radiation. It will also publish the strategic research agenda in the field of **medical applications of ionizing radiation** and related **radiation protection** (EURAMED Rocc-N-Roll project). Based on broad stakeholder input and consultation, a roadmap will integrate views, identify synergies and prioritize the areas of radiation protection, health research and digitization.

Furthermore, related to the Euratom Research & Training Programme, DG R&I will prepare a **declaration on 'EU Research and Innovation on Small Modular Reactors 2030'**, which will be launched at an event in March 2023. This declaration should support the deployment of Small Modular Reactors and their commercialisation, where DG R&I closely collaborates with DG ENER and DG GROW.

Related to the **international dimension of the Euratom programme**, DG R&I will continue to collaborate on fission and fusion research with international partners (e.g. USA, Japan, Korea), with the International Atomic Energy Agency and the Nuclear Energy Agency under the Organisation for Economic Co-operation and Development.

DG R&I will continue promoting the initiatives under the priority 'An economy that works for the people' through **several external communication actions**. The DG will highlight the impact of R&I policies on supporting a sustainable and inclusive growth, among other, through the publication of the European Innovation Scoreboard and the launch of the cultural and creative industries collaborative platform.

([5]) The Staff Working Document will cover the period 2014-2020, in which there were two Euratom Research and Training Programmes complementing Horizon 2020 (one for 2014-2018, and the other for 2019-2020)

General objective 4: A STRONGER EUROPE IN THE WORLD

The following specific objective, with relevant result indicators reflected in the annex (performance table, page 54), covers the broad spectrum of R&I activities contributing to the Commission's headline ambition 'A Stronger Europe in the World'.

Specific objective 4.1: Regional research and innovation strategies and broader association policy contribute to promoting common European R&I values and creating a global Research and Innovation Space

R&I GLOBAL APPROACH

DG R&I will coordinate and monitor the delivery of the **EU's Global Approach to R&I** across the Commission and with the Member States. The DG will publish the first report on implementation of the Global Approach, reflecting the international dimension of Horizon Europe. It will also put forward a proposal for a **European Science Diplomacy Agenda**, as set out in the Council conclusions of 28 September 2021. The two documents will be prepared in cooperation with Member States' experts in the ERA subgroup on the Global Approach.

The DG will continue the work on the multilateral dialogue on **the fundamental R&I principles and values for international cooperation** with Member States, Associated countries and third countries with which the Union has a Science and Technology Agreement in place. A series of working level thematic meetings on the individual principles and values set out in the Global Approach will be organised. Progress will be reviewed through at least two stock-taking meetings held at senior level. The DG will ensure coordination between this work stream and the related activities carried out in the framework of the G7, during Japan's G7 Presidency in 2023.

Bilateral and multilateral cooperation with strategic partners around the world will continue, through policy dialogues and targeted actions under Horizon Europe Work Programmes. Attention will be paid to limitations to participation in Horizon Europe when this is justified in the Union's interest. The DG will also ensure a coordinated approach in multilateral R&I initiatives, such as **the All-Atlantic Ocean Research Alliance, Mission Innovation and the Global Innovation Platform**. As a follow up of the milestone Declaration of the All-Atlantic Ocean Research and Innovation Alliance Declaration in 2023 the working modalities of the Alliance will be worked out, allowing also the further

expansion of the Alliance with new Atlantic countries, entities and actors adhering to the vision of the Declaration. An implementation roadmap will be created in 2023 that will ensure the focus and priorities of the implementation of this Alliance, where the EU priorities will be aligned and support the goals and activities of the Atlantic-Arctic Lighthouse of Mission 'Restore our Ocean and Waters by 2030' from an international perspective with key Atlantic players such as Argentina, Brazil, Canada, South Africa or the US.

The DG will further develop and reinvigorate relations with **the United States**, through the renewal of the EU-US Science & Technology Agreement for a further period of five years in areas of common interest, as follow-up to the most recent Joint Consultative Group meeting in October 2022. In particular, DG R&I will enhance its collaboration with the US under the EU-US Trade and Technology Council, the EU-US Energy Council and the new Green Tech Alliance.

As regards **China**, the DG will aim to further advance on the EU-China Joint Roadmap for Future Science, Technology and Innovation Cooperation, focussing on reaching a level playing field and reciprocity in innovation. The progress made so far justifies working with China on areas of mutual interest that have a research dimension, hence the focus will be on implementing the EU-China Flagships on climate change and biodiversity and on food, agriculture and biotechnologies.

Association is the closest form of **cooperation in Science, Technology and Innovation (STI)** with countries outside the European Union. In 2023, the Commission will continue the **association process** with the newcomer category ''d'' countries, such as **Canada and New Zealand** where the goal is to have both Agreements negotiated, signed and entered into application. It is also planned to possibly open formal negotiations with Japan and South Korea.

Conducting regular **R&I dialogues with Associated Countries** (Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, North Macedonia, Norway, Serbia, Tunisia, Turkey, and Ukraine) will be continued through Joint R&I Committee meetings organised under the Association Agreements as well as regular working level exchanges. These meetings will provide an opportunity to address Commission priorities such as **the green and digital transition**, the objectives of the new **European Research Area**, and the key principles and values in R&I cooperation.

The R&I dimension of the Eastern Partnership (EaP) aims at boosting the innovation capacities of EaP partners by intensifying their integration with the EU R&I systems. To achieve this, **Top Ten Targets and five R&I post-2020 priorities** were incorporated in 2021 in the EaP's revised architecture. As regards the Top Ten Target "500 000 SMEs (20% of all SMEs in the region) supported", an increased successful participation of the five EaP Partner countries in all funding instruments of the EIC by at least 6% should be achieved by the end of 2023. As regards the five post-2020 priorities, the EaPs Partner countries should have achieved by the end of 2023: (1) an increase of their R&I spending from the national

GERD by at least 20 % (an increase by 50% is expected by the end of 2025); (2) an increase of their participation in Horizon Europe by at least 10%; (3) activities implemented by their Governments aiming to involve civil society in R&I actions; (4) an increase by at least one point for their performance under the Global Innovation Index (an increase it by 3 points is expected by the end of 2025); and (5) measurable improvements as regards smart specialisation and technology transfer.

In line with the Comprehensive Strategy for **Africa**, cooperation will be strengthened by the envisaged agreement on the African Union (AU)-EU joint Innovation Agenda. The objectives of the Agenda are to transform EU and AU innovative capacities into sustainable jobs and growth, focussing on public health, green transition, innovation, and technologies and capacities for science. In line with **the Hydrogen Strategy**, the DG will continue the dialogue with **the African Hydrogen Partnership**. The DG will promote synergies with the Global Europe – NDICI programme for Africa and the South Mediterranean as well.

The DG will support the implementation of the Union for the **Mediterranean** R&I Declaration 2022 and the three R&I Roadmaps on health, renewable energy and climate. In particular, the aim will be to establish targeted actions under a 'Mediterranean Initiative' in Horizon Europe. The DG will also work for the continuation of the Partnership for R&I in the Mediterranean Area **(PRIMA)** after 2024.

Increased regional cooperation with **the Community of Latin American and Caribbean States (CELAC)** will also take shape through implementation of the EU-CELAC Strategic Roadmap for Research and Innovation with the four priorities of global challenges, researcher mobility, research infrastructures and innovation. The DG will organise an EU-CELAC Senior Officials Meeting under the Joint Initiative for Research and Innovation in the second half of the year.

The Group on Earth Observations (GEO) is in a critical phase defining its post 2025 goals and renewing its value proposition. EU is full member of GEO and supports a number of initiatives and the development of the GEOSS (EO system of systems). The Commission will strengthen its role in GEO, in cooperation with member states and take advantage of the opportunities provided through GEO to enhance the exploitation of European Earth observations assets (like Copernicus) to support evidence-based decision making at all levels, local, regional, and global, and foster international cooperation on sustainable development, climate action and disaster risk reduction.

In 2023, **communication activities** will support the implementation of the EU's Global Approach to Research and Innovation across the Commission and with the Member States with the publication of the first report and the announcement of the **European Science diplomacy Agenda**. Strengthening the Comprehensive Strategy for Africa, **communications** will focus on the agreement of the African Union (AU)-EU joint Innovation Agenda. The Agenda is to transform EU and AU innovative capacities into sustainable jobs and growth, focussing on public health, green transition, innovation, and technologies and capacities for science.

Russia's war of aggression against Ukraine

The Russian military invasion in Ukraine on 24th February 2022, is an act of war, which constitutes **a violation of international law.** As such, Russia also violated the core values and principles for R&I international cooperation, as set out in the Communication on a Global Approach to Research and Innovation[6]. The Commission decided not to engage into further cooperation projects in research and innovation with Russian entities and imposed in this respect, **a series of sanctions and measures on Russian participations in the EU R&I programmes**, both for ongoing, mainly Horizon 2020, projects[7] as for projects under Horizon Europe[8]. DG R&I was not in the position to take specific measures or sanctions on the energy and supply-chain crisis that this military aggression has caused as it is not in its competences. However, the same sanctions and measures are expected to remain in place for the upcoming Horizon Europe 'main' work programme 2023-2024, which includes a provision that prohibits any new contracts under Horizon Europe with any legal entity established in Russia, Belarus, or in non-government controlled territories of Ukraine from participation in any capacity in Horizon Europe actions. DG R&I will continue to ensure the coherent implementation of current and potentially new sanctions and measures against Russia in the field of Research and Innovation across the Horizon programmes and respective managing services.

In parallel, DG R&I will, in **the spirit of science diplomacy**, reflect on the potential for dialogue between civil societies, including exchanges with Russian scientists and students, in line with sanctions policy and the outcomes of the June 2022 G7 Science Ministerial. In this respect, DG R&I will ensure as well that the exemptions foreseen in the current sanctions, for example people-to-people contacts, humanitarian aid and civil society actions, are correctly applied in the research and innovation programmes.

On top of all the sanctions to Russia, DG R&I will advance **in 2023 cooperation with Ukraine and supporting its R&I capacity** in a targeted manner: the key objective is to effectively implement the dedicated support measures for Ukraine and facilitate Ukraine's participation in the Horizon Europe/Euratom programme calls, e.g. with the help of the envisioned **establishment of the Horizon Europe Office in Kyiv**. DG R&I will continue to coordinate with the Member States and advocate for the role of R&I in the political and operational frameworks linked to Ukraine's recovery and reconstruction. DG R&I will implement the **Association Agreement of Ukraine with the Euratom** Research and Training programme.

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[6] COM(2021) 252, final of 18 May 2021

[7] Termination of Russian participations in ongoing projects, mainly based on the fifth sanction package, article 5l – https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2022:111:TOC.

[8] Through amendment of the Horizon Europe Work Programme 2021-2022; adopted of 10 May 2022

General objective 5: PROMOTING OUR EUROPEAN WAY OF LIFE

The following specific objectives, with relevant result indicators reflected in the annex (performance table, page 57), cover the broad spectrum of the R&I activities contributing to the 'Promoting our European way of life' objective.

Specific objective 5.1: Research and Innovation develop and deploy solutions, technologies and innovations to tackle emerging threats and improve crisis preparedness

HEALTH PREPAREDNESS AND RESILIENCE

In 2023 DG R&I will organise a conference on preparedness research, to highlight achievements in relation to the coordination and facilitation of EU wide clinical trials on COVID19 and Monkeypox. It will showcase the added value of EU wide cohorts in providing robust evidence on emerging infectious diseases and give impetus to the development of the EU pandemic preparedness partnership. The conference could also address and contribute to deliberations for the international pandemic agreement, which the World Health Assembly is expected to endorse in May 2024.

Through the creation of life-saving vaccinations, European R&I laid the groundwork for combating the global **COVID-19 epidemic**. R&I will continue to be a driving force behind the EU's recovery and resilience, and the DG will continue to promote activities under the priority 'Promoting our European Way of Life' through a variety of external communication measures. Furthermore, the DG will work on further strengthen the EU's research capacities for **health preparedness and resilience**, as research and innovation play a key role also in tackling emerging threats and improving crisis preparedness.

In the area of ethics and values in research, DG R&I will launch research projects under Horizon Europe's Widening actions on the ethics of **environmental and climate technologies**, addressing notably the concept of intergenerational justice to contribute to a responsible green transition. It will further work on projects under other two areas: the first addresses the **Ethics of Pandemics**, to develop an operational ethics and integrity framework, which safeguards key ethical values, supports a rapid and effective research response to crises and improves overall pandemic preparedness. The second area focuses on the **behavioural and organisational factors** facilitating researchers to engage in questionable practices/misconduct so as to develop methodologies to address those factors and prevent that 'high-pressure' research contexts result in breaches of research integrity. DG R&I will also produce ethics guidance notes on **Cybersecurity Research** and on **Artificial Intelligence,** to ensure that research and innovation in these

fields is conform to the highest ethical standards and aligned with our European way of life, our foundational values of respect for human rights, democracy and the rule of law. The role of **research infrastructures** in support of crisis management will be further promoted in line with the 2022 Council Conclusions and building on the experience from the COVID19 pandemic. Measures to support **young researchers** in times of crises will be further analysed in the broader context of the European Framework for Research Careers.

Specific objective 5.2: Research and innovation support the European health initiatives, including the European plan to fight cancer

In 2023 DG R&I will support the European policy enabling the **digital transformation of health and care (HC)**, and the **European Beating Cancer Action plan** in two ways: First, by accelerating the transition across Europe into more resilient, sustainable, inclusive, innovative and higher-quality HC systems, centred on the patient through a **public/public co-fund on the Transformation of Health and Care Systems (THCS).** Secondly, by supporting the building of the **European Health Data Space (EHDS)** through policy papers delivered by a new cluster of Horizon Europe projects relating to innovation in health data tools and services. The EHDS will facilitate a shift from a 'one size fits all' approach towards taking into account individual differences. It will also better use the accumulating health data to optimally manage health, disease and its predisposition through a co-fund on **Personalised Medicine (PM)** and the second stage of the **1+ Million Genomes (1+MG) Initiative**.

As part of the **Europe's Beating Cancer** Plan, DG R&I will organise thematic workshops and a conference on Survivors of childhood cancer with **Commissioner Gabriel** with the aim to engage with young cancer survivors and parents, and to identify research needs for better addressing unmet needs, also **in terms of mental health,** of children, adolescents, and young adults with childhood cancer history. In parallel, DG R&I will contribute to implement the **Cancer Mission,** and promote it through external communication activities, broadly involving European citizens in the various activities of the Mission.

DG R&I will contribute to **the Accelerating Clinical Trials in the EU (ACT EU)** initiative for better clinical trials that address patients' needs: this initiative is inter alia aimed at promoting larger, multinational trials specifically in the academic setting. The **ERA4Health partnership** will be a direct contribution to this initiative, with its focus on investigator-initiated clinical studies that address important public health needs not yet adequately covered. The partnership's Strategic Research and Innovation Agenda will be delivered in 2023, including activities to facilitate the conduct of large-scale investigator-initiated clinical studies, ensuring close links with DG SANTE and the European Medicines Agency. DG R&I will also contribute to the revision of the Commission legal proposal on **the revision of the orphan and paediatric regulation**, and to its Impact Assessment.

General objective 6: A NEW PUSH FOR EUROPEAN DEMOCRACY

The following specific objective, with relevant result indicator reflected in the annex (performance table, page 58), cover the broad spectrum of R&I activities contributing to the 'New push for European democracy' objective.

Specific objective 6.1: European research and innovation support citizens' involvement, social inclusion and equalities in Europe, including through communication of the European R&I added value

To **allow Member States to support and expand their citizen science activities** operational recommendations and enabling conditions will be provided through the **final report of the Citizen Science Mutual Learning Exercise (MLE)** involving 11 Member States. It will be delivered in the first quarter of 2023 and. The MLE will also highlight possible follow-up initiatives e.g., citizen science campaigns that have high potential to be implemented in a collaborative way across the ERA.

DG R&I will contribute to the implementation of **the European Democracy Action Plan** and to the follow-up to **the Conference on the Future of Europe** by feeding into the policy development the knowledge, methods and other results developed in H2020 projects on deliberative and participatory democracy, and on threats to democracy in the EU neighbourhood. Moreover, a network for innovative solutions for the future of democracy will be launched in 2023, bringing together researchers, practitioners, and policy-makers.

Gender equality will also be a priority in 2023 with the implementation of **the ERA policy agenda on gender equality, the Gender Equality Strategy 2020-2025, and the EU University Strategy**, in particular via support to the development of **a Manifesto on gender-inclusive STE(A)M education**, and an expert group on the impact of Covid-19 on gender equality in R&I and on women researchers' careers. Moreover, continuous work will be done to support the implementation of the new Horizon Europe rules on Gender Equality, in particular by raising public awareness of the importance of gender equality in higher education and research via **a new award for Gender Equality Plan Champions**, and a study on the impact of Gender Equality Plans (GEPs) on EU and national policies and programmes.

General objective 7: A MODERN, HIGH PERFORMING AND SUSTAINABLE EUROPEAN COMMISSION

The following specific objective, with relevant result indicator reflected in the annex (performance table, page 60), cover the broad spectrum of activities contributing to the 'A modern, high performing and sustainable European Commission".

The Common Policy and Programming Centre (CPC) and the Common Implementation Centre (CIC) provide the framework for policy planning, programming and implementing the Research & Innovation framework programme. The overarching priorities are simplification, harmonisation, and equal treatment of beneficiaries, which result and enter in the concept of **a modern, high performing and sustainable Commission**. This is achieved through optimised tools and processes, including for partnerships, missions, synergies, feedback to policy-making, and the exploitation of results.

Specific objective 7.1: The Common Implementation Centre and Common Policy and Programming Centre provide user-friendly services and tools to the European Commission for effective and efficient planning, programming and implementation of the Research and Innovation Framework Programme and other EU programmes

In 2023, DG R&I will make sure that **the implementation of Horizon Europe and the Euratom programme** run smoothly and contribute to delivering on EU priorities.

The CPC will continue its work as the central hub driving, facilitating and **co-creating the Horizon Europe strategic plans and the 'main' work programme** with all Directorates-General involved in Horizon Europe. It will launch the preparation of the **second wave of co-funded and co-programmed European Partnerships**, building on the Strategic Coordinating Process for Partnerships. It will continue the preparatory work for

the strategic plan 2025-2027, based on the largest ever **stakeholders' consultation** on the Framework programme (to close in Q1 2023).

Depending on the 2023 assessment of the EU Missions and review of mission areas, an **amendment of the Horizon Europe 'main' work programme 2023-2024** will be prepared to include calls for Missions for 2024 and other points. Further to this, depending on the developments and interinstitutional negotiations concerning the Chips act, the Cluster 3 part of the Horizon Europe 'main' work programme 2023-2024 would need to be added to this work programme as an amendment.] To reinforce **synergies** in policy action, DG R&I will work with other Commission services to harness the positive experience with co-creation also for other programmes to best deliver on common goals, including in the specific context of EU Missions and partnerships.

The CPC will support an **impact and policy driven budget management**, by providing a co-created R&I budget for 2024 at the level of ambition set by the legal acts, the Strategic Plans and the Work Programmes and providing timely solutions for any emerging priority impacting the R&I budget. It will also support an optimal implementation of the 2023 budget of the Horizon Europe and Euratom programmes, including for the Next Generation EU (NGEU) funds. It will also ensure a **timely and accurate authorisation of calls for funds to associated countries** and support to negotiations with new countries and the **budget coherency of all budgetary decisions for 2023 and 2024**, including the Work Programmes for the years 2023-2024, with the agreed R&I investment plan 2021-2027.

The CPC will continue to support the **EU Missions** in delivering on their key outputs and milestones by providing **effective and efficient planning, programming, monitoring and implementation services** and tools to the European Commission services involved in Missions' implementation: operation of Mission Boards, Missions' portfolio management, coordination of budget planning and associated governance mechanisms; and the analysis, strategy development and sharing of common approaches across the EU Missions, including **synergies with European Partnerships and other initiatives at EU, national and regional level** relevant to reach the EU missions objectives. The organisation of a mutual leaning exercise with the Member States under the Policy Support Facility on the **whole of government approach** in particular for missions will contribute to the exchange of experiences about the definition and delivery of R&I policy at both European and national level.

To support the achievement of the objectives of the EU Missions as well as key EU priorities, such as the Green Deal and REPowerEU plan, DG R&I will support the visibility of **portfolios of existing R&I solutions** funded by the Framework Programme through the **Horizon Results Platform** and assistance in the exploitation of results by innovative SMEs and spin-offs through the **Horizon Results Booster**.

The ex-post evaluation of Horizon 2020 will be delivered by end of 2023 analysing in particular its scientific, economic and societal impact, in light also of the key societal challenges of our times. The evaluation will also inform areas for improvement and feed into the interim evaluation of Horizon Europe due in 2024. It will also coordinate the publication of the annual report on Research and Technological Development Activities and the annual monitoring of Horizon Europe in Q2 2023. This work will be supported by the

R&I Data strategy of Horizon Europe that will put a reinforced focus in 2023 on the operationalisation of the monitoring framework of Horizon Europe (Key Impact Pathways), the monitoring of the EU Missions (classification of projects contributing to Missions), transparency on R&I programme data and increased value of DG R&I data assets – through European Data for R&I policy initiative collection of national funding data, external data linking, better cataloguing and documentations of data assets as well as data services and tools.

The CIC will continue building the blocks of Horizon Europe on the basis of **the new legal framework**. In this context, among other initiatives, it will support central services in further **developing the corporate Annotated Model Grant Agreement (AGA)** which is a key document for correct implementation of Horizon Europe. It will also further contribute to ensuring business continuity and smooth functioning of the funding bodies and Executive Agencies. In this context the CIC will further shape its relations with stakeholders and enable increased efficiency and effectiveness based, among others, on the work performed on the back office arrangements with the joint undertakings and the memoranda of understanding with executive agencies. The CIC will continue **to refine the framework for the supervision of the executive agencies, joint undertakings and other funding bodies** receiving delegation to implement Horizon Europe.

As one of its contribution to **the Digital Transformation of the Commission**, the CIC will continue to provide users with the corporate eGrants IT suite for managing the complete direct grants management lifecycle. Moreover, in the wider scope of **the Synergies and Efficiencies Review (SER)** it will participate in discussions on the future of the synergies scheme.

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The CIC will step up efforts to speed up the ongoing **roll out of funding with simplified cost options**, in particular lump sum project funding and new unit cost options for personnel cost, which are expected to lower error rate HE funding. This will also be included within the scope of a robust and modern Control Strategy developed by the CIC in order to keep the Horizon Europe control system, as a whole, adapted to the risks and to maintain the balance between economy, effectiveness and efficiency of operations.

Through ex-post financial audits **the CIC's Common Audit Service** will further contribute to the legality and regularity of R&I expenditure. Towards the end of 2023, the CIC will launch the first audits on Horizon Europe expenditure. The approach, based on the Horizon Europe Audit Strategy will be risk-based, ensuring more focused control. Concurrently, the CIC will steer the preparation of an updated Common R&I Anti-Fraud Strategy.

In its commitment to its corporate offering, deeply embedded in its operations and building on eGrants users' data, the CIC will start the implementation of **the Client Centricity programme**, which is a data-driven evolution of the Portal and will result in the development of a mobile app to improve users' journey with personalisation and to increase the impact of EU Programmes. It will offer more value, better experience, higher relevance to users through personalisation and timely access to content for effective support throughout the grant lifecycle (e.g. guidance documents). The Client Centricity programme, will bring together a wide spectrum of actions that places the CIC's client at their centre and will involve users early and actively in the design and development of the mobile app

.The CIC will also reinforce and **align its outreach, communication and training campaign** on implementation aimed towards Horizon Europe participants and to staff in implementing bodies ensuring that this is more impactful and engaging towards its recipients.

PART 2. Modernising the administration: main outputs for 2023

A. Human resource management

In 2023, DG Research and Innovation will continue the process aiming to further develop the organisation, building on the work already carried out towards a flexible, digital and green workplace. This is a joint effort of all managers and staff that takes into account the needs, the opportunities, the challenges and the role of the Directorate-General in the general political context. To this end, extensive staff consultations took place in 2022, which have been translated into an Organisational Development Action Plan for the Directorate-General, addressing the main priorities for implementation in 2023.

Organisational development is a continuous process and thus this action plan will be monitored and reviewed after one year from its adoption, while taking stock of the progress made and considering the emerging needs and opportunities.

In addition to the afore-mentioned action plan, several HR matters will be addressed via the local HR Strategy, complementing the corporate HR strategy. The local HR strategy takes into account the results of 2021 Staff Survey and further supports the evolution of the Directorate-General.

In parallel, a continuous review of human resources matters, such as resources allocation to policy priorities, needs in terms of competences and skills, learning and development will be pursued in order to ensure that the organisation continues to meet its objectives while continuously adapting to challenges.

At the same time, as part of its wellbeing programme, the Directorate-General will continue its efforts to increase staff wellbeing, by launching a wellbeing program.

The Directorate-General will also continue to support female talent development in line with the Gender Equality Strategy, by implementing and promoting the initiatives established by central services. By the end of year 2022, the DG has nominated in advance more female colleagues on middle management positions compared with the target established by Commission.

Staff will be kept informed on the progress made in the implementation of the action plan on organisational development and of the local HR strategy via a variety of communication channels, including a dedicated web page. All relevant HR matters will be communicated via posting on the DG intranet, newsletters, lunch conferences, emails to staff, as the case may be. This communication will support an open and constructive working environment, building trust in addition to knowledge and information sharing as well as staff engagement.

B. Sound financial management

This section describes the measures put in place to provide to the Authorising Officer by Delegation with reasonable assurance that **resources have been used in accordance**

with the principles of sound financial management and that cost-effective controls, which give the necessary guarantees for legality and regularity of underlying transactions **are in place**.

Year 2023 will be a year with the further take-off of the new programme Horizon Europe, while activities of Horizon 2020 will still be on-going. In 2023, a large part of the payment expenditure will be for payments to other implementing bodies such as the Executive Agencies, Joint Undertakings, Public-Public-Partnerships, as well as payments for the Euratom programme grants and contracts.

Ex-ante controls are rigorously implemented for each transaction (commitments and payments). Standard ex-ante control measures are in place for Horizon 2020 and Horizon Europe. They are tailored to the different forms of costs and combine trust-based baseline checks and risk-based targeted controls. The Common Implementation Centre (CIC) will work with all Research and Innovation family services and the European Court of Auditors to further strengthen the common ex-ante control approach in light of further error reduction.

The ex-post control for grant management, part of the common audit strategy adopted in 2016, is largely centralised in the Common Audit Service (CAS) for the whole Research and Innovation family. The CAS undertakes all ex-post audits (representative and risk-based), including those concerning beneficiaries of the Executive Agencies and the Joint Undertakings, and ensures high quality audits while ensuring a harmonised approach, minimising the audit burden on beneficiaries, and contributing to sound financial management. The robust Horizon 2020 ex-post audit strategy contributes to the assessment of the legality and regularity of Horizon 2020 grants' payments by means of ex-post financial controls. In addition, a risk-based audit strategy for Horizon Europe will provide reasonable assurance to Authorising Officers of payments under the new programme on the legality and regularity of underlying transactions.

Together, ex-ante and ex-post controls provide the Authorising Officers by Delegation (AODs) with the necessary elements of assurance on the research and innovation budget under their responsibility. The **Common Implementation Centre (CIC)** will work with all Research and Innovation family services and the European Court of Auditors to **design a consolidated control strategy for Horizon Europe** (incl. ex-ante and ex-post controls and anti-fraud).

The internal control system of DG Research and Innovation is designed to maintain error rates within an acceptable range. For **Horizon 2020**, DG Research and Innovation remains firmly committed to its objective in reducing the cumulative residual error rate to a lower percentage as close as possible to 2%. Given the results of the audit campaign up until 2022 and the observations made by the European Court of Auditors in its recent annual reports, the CIC, in close cooperation with DG BUDG and the IAS, defined and started implementing **an action plan, which aims to reduce further the multiannual error rate of H2020**, and pave the way for a **simpler** and, to the furthest extent possible, an

error-free Horizon Europe. Actions include further simplification, increased used of simplified forms of funding (including lump sums and unit costs), and focused communication campaigns to more "error-prone" types of beneficiaries with higher than average error rates, such as SMEs and newcomers. In addition, enhanced training is provided to internal project officers and External Audit Firms performing audits on behalf of the Commission. By focusing on the most common errors, these events are short and simple, reaching more participants and achieving higher impact and will be part of a more holistic and client-centric approach the CIC will launch in 2023.

In the context of further reducing the error rates, the CIC will examine the **existing tools for ex-ante controls**. The CIC will carry out a consultation with the stakeholders in order to collect their views on what improvements should be developed in the grant management risk module or via additional business activity monitoring reports.

It should be noted that although the implementation of these actions has already started, their positive effect in the form of reduction in the multiannual error rate may take time to materialise. However, for Horizon Europe the objective is to achieve a cumulative residual error rate below 2%[9].

As concerns the **use of simplified forms of costs**, DG Research and Innovation will continue to roll out lump sum funding in Horizon Europe. This decision to increase the use of lump sums is based on the successful pilot under Horizon 2020, which was assessed positively in two independent studies by the Commission and the European Parliament. After a moderate start in 2021 and 2022, the first significant wave of lump sum calls will be launched with the Horizon Europe 'main' work programme 2023-2024. This contains 230 lump sum topics, mostly in pillar II, where lump sum funding will account for approx. 25% of the budget spent. In addition, an optional unit cost for personnel costs has been elaborated. The consultation with DG BUDG and Legal Service, on the Decision authorising the use of unit costs for personnel costs for actions under the Horizon Europe and Euratom programmes, was launched in June 2022 and is currently ongoing.

The Common Implementation Centre provides **common services** in legal support, ex-post audit, IT systems and operations, business processes, programme information and data and dissemination and exploitation to all Research and Innovation DGs, the Executive Agencies and to the institutionalised European partnerships established under Articles 185 and 187 of the TFEU and other funding bodies (such as the EIT).

In 2023, building on the work performed in 2022, the CIC will continue to refine the framework for the supervision of the executive agencies, joint undertakings and other funding bodies receiving delegation to implement Horizon Europe. It will further endeavour to provide the necessary support to ensure streamlined, consistent, and timely implementation including within the scope of legacy activities ongoing under Horizon 2020.

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[9]   No representative error rate for Horizon Europe will be available in 2022 and 2023 as the ex-post audit campaign for the Programme will start at the earliest end of 2023.

The CIC will further seek to facilitate and coordinate the Horizon Europe programme implementation across the relevant Commission Directorates-General involved in the supervision of these entities

Acting as a hub for the above activities, the CIC helps **reduce costs** based on **economies of scale**, envisaging **simplification, synergies and harmonisation**.

In the context of the new EIC Fund structure in 2023 DG R&I will review the reporting and monitoring modalities.

Indicators[10] based on the 17 principles of the Internal Control framework were updated at the beginning of 2022. They will be reviewed at the end of 2022 and will be used for the assessment of the internal control system in the Annual Activity Report 2023.

The costs of supervision of grant management, and delegated/externalised bodies (Executive Agencies, Joint Undertakings, Public-Public Partnerships, and EIB/EIF) will be kept to the minimum that is appropriate for a satisfactory balance with the risks to sound financial management.

DG Research and Innovation will continue to work on improving the quality of the accounting and of the financial information. With regards to the (significant) part of its budget implemented through indirect management, DG Research and Innovation relies on the reports and accounts provided by the relevant implementing bodies. This information is considered reliably sufficient and, therefore, supervision does not affect 2023 activities.

C. Fraud risk management

There are two coexisting Strategies that deal with anti-fraud dimensions in the activities implemented by DG R&I.

1) The **Common Anti-Fraud Strategy in the Research and Innovation family** (RAFS 2019) and its corresponding Action Plan deal with the fraud risks related to the implementation of the Research and Innovation programmes concerning Grant Management. The Common Audit Service (Unit R&I.H2-CAS) coordinates this strategy, suggests actions, and chairs the Fraud and Irregularities in Research (FAIR) Committee. This unit is also the OLAF and the European Public Prosecutors Office (EPPO) correspondent for the DG R&I. In addition, the Common Audit Service plays a prominent role in facilitating coordination within the R&I family in relation to OLAF cases involving more than one grant authority.

   For the year 2023, the R&I Family Common Anti-Fraud Strategy and its action plan will be updated within the FAIR Committee. Raising anti-fraud awareness among staff and grant beneficiaries will continue to be crucial. The Unit will continue to closely collaborate with OLAF on case selections, investigations and its yearly

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[10] Internal Control Monitoring Criteria

financial monitoring exercises, and will continue to actively participate in the OLAF-chaired Fraud-Prevention and Detection Network (FPDnet) meetings (both in plenary sessions and in subgroups). In addition, the Unit will continue to cooperate with the EPPO when necessary.

2) A distinct DG Research and Innovation Anti-Fraud Strategy (DG R&I AFS) deals with the fraud risks related to all other expenditure areas that are not related to Grant Management, i.e. fraud risks related to procurement, financial instruments, prizes, expert management etc. The DG R&I AFS has been updated in December 2022, based on a fraud risk assessment exercise. For 2023, the DG R&I AFS' Action Plan provides for a number of actions aiming at raising awareness and promoting training on ethics issues, research integrity and anti-fraud measures, including budget implementation through procurement.

D. Digital transformation and information management

Digital transformation

The CIC will continue to "Empower business-driven digital transformation" (strategic objective 3 of the European Digital Strategy). In 2023, the CIC will further this objective by continuing the work of on-boarding entities and programmes to the eGrants suite (under the 2021-2027 MFF). eGrants is the corporate solution for a fully electronic management of all centrally managed direct funding programmes. The CIC will deliver continuous service improvements so that on-boarded programmes are integrated into the corporate system as smoothly as possible and in order to deliver synergies and efficiencies across our organisation and with a high visibility to our external stakeholders.

The CIC will, in the context of **the Client Centricity Project**, design a more tailored user-experience based on the latest available technologies (AI, data mining, profile identification) including inter alia the development of a mobile app with the aim of facilitating and improving the journey of applicants, beneficiaries and experts into EU grants and related tasks. This app will be built around and for the CIC's clients.

The Digital Strategy calls for IT which is "User-centric, data-driven and agile" and which uses innovative technologies such as artificial intelligence (AI) and advanced data analytics. The digital strategy also calls for IT systems which are mobile enabled. The client-centricity project addresses all of these ambitions.

The CIC will take concrete steps to further the objective of "Ensuring a seamless digital landscape" (strategic objective 4 of the European Commission Digital Strategy). By replacing a plethora of local systems, the eGrants suite makes a big contribution towards reducing complexity in the Commission's IT landscape. In 2023 the CIC will take the first steps towards the technical modernisation of the eGrants suite in readiness for the next MFF. This re-engineering will be informed by the "Dual pillar approach", will make use of open source software where appropriate and will take a cloud-first approach.

The "Client-centricity" project will make extensive use of open-source software and will use a cloud-fist approach where possible.

Several legacy systems will be replaced by the new "Vistool" system which was built using a cloud-first approach and will run on the public cloud.

The CIC will enable "Digital ready policy making" (strategic objective 2 of the European Commission Digital Strategy) by continuing to exploit the results of research projects in order to provide feedback to the Common Programming Center on policy making.

DG R&I will contribute to "Fostering a digital culture" (strategic objective 1 of the European Commission Digital Strategy) by organising on a regular basis, tailored training and coaching related to M365 suite and web conferencing tools such as WebEx and Teams.

Finally, the CIC will enable "Digital ready policy making" (strategic objective 2 of the European Commission Digital Strategy) by continuing to exploit the results of research projects in order to provide better evidence for policy design, monitoring and evaluation.

Information and IT security rules

In 2023, the CIC will continue to create security plans for new IT systems and to update the security plans of existing IT systems. The CIC will also continue to improve the compliance with the EC security standards by identifying and resolving any non-compliant priority controls. CIC has its own internal capability for the management of the security plans, the monitor of the implementation of the related security controls, the development of the security competences and the support of the relevant development teams. If not possible otherwise, DG RTD would make use of the recent security plan service offered by DIGIT early 2023 to create the missing security plans.

The CIC aims at updating the CIC security plans every two years or whenever there are major changes in the functionalities/ technologies/ environments/ governance of the IT systems, having a relevant impact from a security point of view. Compliance is managed through the corporate GRC tool and currently all the CIC IT systems are compliant with all the 55 IT priority controls and the MFA/EU Login controls.

The eGrants systems, which are managed by the CIC, contain "sensitive non-classified" (SNC) data. As such, the Information Technology and Cybersecurity Board requires putting extra protections in place. In particular, we must be compliant with the policy of the central services concerning "Multi-factor authentication" (MFA). This means that in some cases a user name and password is not sufficient to establish the identity of a user, and an extra identification must be provided such as by using a mobile app. In 2023, the CIC will intensify the campaign to convince the external users of the Funding & Tenders portal to activate MFA for their EU Login account. The CIC will also enforce MFA in certain cases for internal users.

For cybersecurity awareness raising, we will, in collaboration with the R&I LISO, organise information/training sessions for the System Owners of our IT systems.

Data, information and knowledge management

The CIC will intensify their efforts to build the key data assets map for DG R&I (integrated in the R&I Knowledge Base), and will move forward with the deployment of data governance, in particular in collaboration with the key horizontal services (SG, DIGIT) in the Grant and Procurement Steering Board context.

DG R&I will implement proactively, in close cooperation with the Secretariat-General, the application of the eDomec policy on records management and archiving: firstly by stepping up efficient closure and archival processing of electronic files, and secondly on the identification of files for transfer to the Historical Archives Service for long term preservation based on the Common Retention List of the Commission.

Further, the DG will provide regular training for newcomers on document management (1,5 hours, monthly) as well as individual coaching sessions, and will widely promote the use of the sensitive personal data flag in Ares in order the strengthen the organisation's output in the domain.

Data protection

DG R&I will continue the implementation of Commission's Data Protection Action Plan (C(2018) 7432, and its revision C(2020) 7625) by:

(1) Organising personal data protection awareness-raising activities (specific and general trainings and info sessions);

(2) Keeping its data processing records up-to-date;

(3) Monitoring the implementation of its processing agreements; and

(4) Ensuring the lawful exercise of their rights by the data subjects, in particular by timely answering to their requests and complaints.

E. Sound environmental management

Following the European Commission adoption of the Communication on "Greening the Commission", DG R&I has gone through a participatory process involving all its staff to design the **R&I Greening Strategy for 2022 – 2024**, approved by the DG senior management in July 2022. The aim of that specific strategy is to contribute to the main corporate goal of the Commission to become climate neutral by 2030, while merging local and corporate actions, and ambitiously going beyond that.

Combining a source emission approach with a systemic one, DG R&I wants to decrease its environmental footprint focusing its actions not only on the items generating the highest GHG emissions, but also foreseeing initiatives to increase its staff awareness and put in place concrete projects to preserve and improve the surrounding environment.

This R&I Greening strategy for 2022-2024 represents the result of a staff consultation and the responsibility of its implementation relies on all staff while being led by senior management. Therefore, the ownership of the strategy by the staff remains fundamental to involve the DG R&I colleagues to achieve the ambitious targets set.

The different actions in particular focus on:

1. **Staff and experts business travels:** decreasing the GHG emissions generated by the staff and experts trips, implementing the related Guidance note and developing a local monitoring system;

2. **Buildings and workspace:** energy efficiency actions through decreasing of office heating and cooling, but also reduce the comfort hours and close down the buildings at winter time;

3. **Mobility/Commuting**: DG R&I will keep improving in 2023 the facilities for sustainable commuting, in addition to dedicated awareness actions;

4. **Digitalisation:** raise awareness on the digital impact;

5. **Participation to the circular economy** through green public procurement, and other EU Green Deal policies, such as **biodiversity and sustainable food:** promote the reuse of items and materials;

Staff engagement and communication: a revision of the dedicated intranet page 'Greening R&I' where all relevant information are shared with all colleagues, with actions foreseen.

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

The CIC and CPC services:

The Common Implementation Center (CIC) and the Common Programming Center (CPC) will continue to extend their support in many areas **in the implementation of Horizon Europe**. The CIC will go on with the development of IT services and provide users with the corporate eGrants IT suite for managing the complete direct grants management lifecycle. Moreover, in the wider scope of **the Synergies and Efficiencies Review (SER)** it will participate in discussions on the future of the synergies scheme. In its commitment to its corporate offering, deeply embedded in its operations and building on eGrants users' data, the CIC will start the implementation of **the Client Centricity programme**, which is a data-driven evolution of the Portal and will result in the development of a mobile app to improve users' journey with personalisation and to increase the impact of EU Programmes. It will offer more value, better experience, higher relevance to users through personalisation and timely access to content for effective support throughout the grant lifecycle (e.g. guidance documents).

ANNEX: Performance table

Part 1. Delivering on the Commission's priorities: main outputs for 2023

General objective 1: A EUROPEAN GREEN DEAL

General objective 1: A EUROPEAN GREEN DEAL	
Specific objective 1.1: *High-quality science, knowledge and innovative solutions support climate policies and help to preserve biodiversity, ecosystem and natural resources*	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*
Main output in 2023:	

New policy initiatives

Output	Indicator	Target
Launch of the calls on solar energy in the Cluster 5 part of the Horizon Europe 'main' Work Programme 2023-2024	Implementation of the Solar Flagship projects in the Cluster 5 part of the Horizon Europe Work Programme 2023-2024	By Q4
Preparation of the strategic R&I agenda on solar energy technology in the ERA framework	Adoption of a strategic R&I agenda on solar energy technology in the ERA framework	By Q4
Preparation of the Strategic Research and Innovation Agenda (SRIA) for the new solar co-programmed partnership ready	Draft SRIA for the new solar co-programmed partnership ready	By Q4
Transition Charta for energy intensive industries to incentivise industrial lighthouse investments	Publication of the Transition Charta and opening of signatures	Q2
Mutual Learning Exercise and Policy Support Facility to help Member States (MSs) to develop national roadmaps for the decarbonisation of energy-intensive industries	Number of MSs to be engaged for developing national roadmaps for the decarbonisation of energy-intensive industries	6 Member States, Q3
Community of practice producing guidelines for permit procedures regarding 'First of a Kind' (FOAK) industrial installations	Launch of the community of practice Minimum number of Member States involved	Q4 6 Member States
Commission Coordinated Plan on novel materials with Member States and with industry	Publication of the Coordinated Plan	Q4

Food Systems Partnership	Launch of the Food Systems Partnership	Q3
New Food 2030 Pathways Report setting our strategic orientations, drafted mainly by DG R&I	Report published at Food 2030 High Level Conference	Q3

Enforcement actions

Output	Indicator	Target
Critical number of demonstration of systemic circular economy solutions at local and regional level implemented	Number of demonstration projects supported Amount of funds provided in the form of demo grants	6 demo projects funded 60M EUR invested
Effective technical assistance provided to local and regional circular economy initiatives in the Circular Cities and Regions Initiative (CCRI)	Number of local and regional initiatives supported by the network of technical assistance organisations associated to CCRI	50 local and regional initiatives supported
Incorporation of the ERA Pilot Action on Green Hydrogen under the revamped SET-Plan	Governance structure in place under the revamped SET-plan to implement the ERA Pilot Action on Green Hydrogen	By Q4
Joint report by DG R&I and DG ENV on the implementation of the 2022 Commission Recommendation on a European framework for the design and assessment of chemicals and materials as safe and sustainable	Publication of the report	Q4
Standing Committee of Agricultural Research (SCAR) Plenaries	Organisation of two SCAR Plenaries	Q2 and Q4

External communication actions

Output	Indicator	Target
IPCC: Publication of Report	Social media stakeholders outreach Media publications	1,000 impressions 500 online views
High level Food 2030 conference	Number of attendees Social media stakeholders outreach Media publication	500 participants 1,000 impressions 500 online views
Revamp of the SET-Plan	Media publications Social media stakeholders outreach	500 online views 1,000 impressions

Output	Indicator	Target
European climate change adaptation (ECCA) conference in Dublin	Number of attendees Social media stakeholders outreach	1,000 participants 1,000 impressions

Other important outputs

Output	Indicator	Target
Workshops on the long-term strategic biodiversity research agenda for the EU (eg. on the roadmap on nature-based solutions)	Organisation of the workshops	Q3
Preparation of a communication on the revamp of the SET-plan	Publication of the communication	By Q2
Preparation of an amendment of the Clean Energy Transition Partnership (CETP)	Adoption of the amendment of the CETP	Q4
R&I report on Key Performance Indicators to monitor the funding landscape for the implementation of the Strategic Research and Innovation Plan for safe and sustainable chemicals and materials	Publication of the report	Q1
Chemicals Strategy for Sustainability: Policy Brief from the European Human Exposome Network on the Exposome research and its contribution to support policy frameworks addressing the impacts of pollution on human health	Publication of the policy brief	Q4
R&I chapter in chemicals and textile transition pathways	Publication of transition pathways	Q1
Document on the next steps of the EU Bioeconomy Policy in 2023	Document publication	Q4
Publication highlighting the contribution of EU-funded research to the Intergovernmental Panel on Climate Change (IPCC) evidence base across the 3 IPCC working groups; synthesis of R&I priorities resulting from the IPCC 6th Assessment Cycle	Publication of the document	Q3

Specific objective 1.2: Mainstreaming of the public and private research and innovation investments for climate actions strengthens the European Green Deal's impact	Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM

Main output in 2023:

New policy initiatives

Output	Indicator	Target
Preparation of a Roadmap on Hydrogen Valleys	Adoption of a Roadmap on Hydrogen Valleys	Q1
Preparation of the identification of the 100 hydrogen valley projects for the Mission Innovation (MI) mission on Clean Hydrogen. Support other non-MI countries and developing countries to create and deploy Hydrogen Valleys through the Clean Hydrogen Mission which DG R&I co-leads	Identification of 100 hydrogen valley project ideas by 2023 and launch the Hydrogen Mission Label	By Q4
International visibility of EU R&I activities for energy intensive industries by contributing to Mission Innovation 2.0 and via other relevant international fora	Number of documents delivered/contributed to in the context of R&I international exchanges of experience	5 documents

External communication actions

Output	Indicator	Target
Mission Innovation coordination (Launch of sprints on Hydrogen Valleys)	Social media outreach	1,000 impressions
	Media publications	500 online views
Mission Forum 2023 held to consult and engage on actions of the Mission Adaptation to Climate Change	Number of participants (hybrid mode) at Mission Forum 2023 Social media outreach	1,000 participants 1,000 impressions

Other important outputs

Output	Indicator	Target
Launch first flagship actions in 2023 to develop new products and improve processes under the Integrated Biorefineries Mission of which DG R&I is a core member	Implementation of the Mission Innovation mission on Integrated Biorefineries	By Q4
Demonstrate what a fully operational and commercially ready Zero Emission refuelling port will look like, through the Zero Emissions Shipping Mission which we support	Preparation of a design of a Zero Emission refuelling port	By Q4

Output	Indicator	Target
Preparation of the identification of a first cohort of 50 participating cities for the Mission Innovation mission on Urban Transitions	Identification of a first cohort of 50 cities across the globe that will develop and test innovative strategies for reaching climate neutrality, Launch of a Global Knowledge Exchange Centre Organization of an Innovation Summit for Cities, through the Urban Transition Mission which DG R&I co-leads	By Q4
Mission Innovation: Establish five continental demonstrators with up to 80% Variable Renewable Energy and launch the first calls under a new Multilateral Research Programme to tackle the identified innovation priorities under the Green Powered Future Mission, of which DG R&I a core member	Preparation of the creation of five continental demonstrators for the MI mission on Green Powered Future	By Q4

Specific objective 1.3: Co-creation of Horizon Europe and its missions and partnerships increases awareness of the key role of research and innovation for achieving climate neutrality	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*
Main output in 2023:	

Evaluations and fitness checks		
Output	**Indicator**	**Target**
Assessment of EU Missions, review of Mission areas and review of areas of institutionalised partnerships established under article 185 and article 187 TFEU	Publication of a report on the assessment of EU Missions Review of Mission areas Review of areas of institutionalised partnerships established under article 185 and article 187 TFEU	Q4

Enforcement actions

Output	Indicator	Target
Launch of 4 EU funded Coordination and Support Actions (CSAs) for each of the lighthouses and ensure coordination as necessary	All Lighthouse CSAs kicked off Indicators: Number of awards established to "the bluer ports, cities, islands, schools, etc". Programming of the Missions part of the Horizon Europe 'main' Work Programme and synergies with Cluster 6 part of the same work programme	Q1-Q4 Q1-Q4
Implementation of the strategic definition of the future Research Fund for Coal and Steel programme 2023-2024	Launch of the 2 big tickets calls (€34,5 million for coal and €128 for Steel)	Q1
Implementation of the strategic definition of the future Research Fund for Coal and Steel programme 2023-2024	Launch of the annual call (€40 million)	Q2

External communication actions

Output	Indicator	Target
Implementation of the Missions on Adaptation to Climate Change, Oceans, Cities and Soil	Social media outreach	4,000 Impressions

Other important outputs

Output	Indicator	Target
Preparation of the Framework Partnership Agreement for the Climate-neutral and Smart cities Mission Platform to support the selected cities	Establishment of the Framework Partnership Agreement for the Climate-neutral and Smart cities Mission Platform	By Q4
Development of EU Missions portfolios of projects and results	Horizon's projects and results supporting missions published in relevant platforms – Horizon Dashboard and Horizon Results Platform	Q4
Mission Implementation Platform	Mission Implementation Platform is launched and starts delivering services to end-users	Q1
Validation of the first batch of Climate City Contracts submitted by Mission cities and assignment of the Mission label	Signature of the first batch of Climate City Contracts Award of Mission labels	Q2
Mission Adaptation to Climate Change: Mission charter updated	Number of regions/ communities having signed the Mission charter	150 signatories

Output	Indicator	Target
Mission Restore our Ocean and Waters by 2030: Continued organisation of high-level conferences per each of the lighthouse	Organisation of 2-days events in each basin (total 4 events) to bring together stakeholders and set which priorities will be led by key actors to achieve the lighthouses' targets	Q2
Mission Restore our Ocean and Waters by 2030: Pedagogical workshops with targeted group of stakeholders to explain the Mission and the relevance to sign the Mission Charter	Successful organisation of pedagogical workshops	Q1-Q4

General objective 2: A EUROPE FIT FOR THE DIGITAL AGE

General objective 2: A EUROPE FIT FOR THE DIGITAL AGE	
Specific objective 2.1: High-quality science, knowledge and innovative solutions facilitate a digital transition in Europe, including a new European approach to Artificial Intelligence	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*
Main output in 2023:	

New policy initiatives

Output	Indicator	Target
Policy Roadmap on the use of Artificial Intelligence for Research and Innovation (AI4R&I)	Policy roadmap published	Q3

External communication actions

Output	Indicator	Target
Implementing the new European Innovation Agenda. Actions included: - One event in first semester, and one in second semester Media relations for Innospace, Scale-up 100, Guidance on regulatory sandboxes, innovation internship scheme	Number of attendees Number of online views	600 in total 10.000 (cumulated number for media relations around the implementation of the NEIA)
Joint workshop with ESA projects one Earth System Science Initiative.	Number of participants	150 Participants

Other important outputs

Output	Indicator	Target
European coherence between Mission, HE, the Partnership for a "climate-neutral, sustainable and productive Blue Economy" (SBEP), and other national activities	Contribution to the DTO in relevant WPs Holding stakeholder events	Q1-Q4
Follow-up of the Recommendation on a common European Data Space for Cultural Heritage – Establishing a European Collaborative Cloud for Cultural Heritage (ECCCH)	High level stakeholder engagement meeting requested by Commissioner Gabriel First ECCCH call (35M€) – Q4 2023	High-level meeting concluded Q2 Call concluded. Q4
Piloting gender and diversity index (NEIA action)	Set up of index	Q1 2023

Output	Indicator	Target
Launch of Innospace, platform for connecting innovation ecosystems actors	Innospace platform accessible to non-EIC beneficiaries	2023
Institutional planning for the delivery of the DTO by 2024	Staff working document	Q4
Assessing R&D needs for evolution of Copernicus	Published co-drafted report with JRC	Q4
Set up of Innovation Procurement Specialist Advisory Service (NEIA action)	Launch of the Service	Q1 2024
Launch of EIC Scale up 100 action	Selected 100 companies for support	Q1 2023

Specific objective 2.2: The revitalised European Research Area sets directions for societal, economic and ecological transitions in Europe and contributes to spreading excellence, closing research and innovation gap and working out a common global response to emerging challenges	Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM

Main output in 2023:

New policy initiatives

Output	Indicator	Target
Under ERA implementation; maximise synergies by setting up an ERA Sub-group	Setting up of an ERA sub-group on access to excellence and running meetings for the sub-group	3 Meetings of the sub-group
ERA Forum expert group	Meetings of the group in 2023	11 meetings
ERA Monitoring Mechanism	Setting up the policy platform First EU-level report and first country reports	Policy platform in Q2 Reports in Q3 and Q4
European Framework for Research Careers	Adoption of the framework	Q2
Freedom of scientific research – a European monitoring system	Finalisation of the monitoring system	Q4
Updated European Charter for Access to Research Infrastructures	Publication of the Charter	Q4
EIC Forum special expert group	Plenary meetings and WGs in 2023	1 Plenary meeting per year, and 2 meetings per working group Launch of the new EIC Forum WG on stock options

Evaluations and fitness checks

Output	Indicator	Target
Monitoring of the performance of ESFRI Landmarks	Reports on the first batch of 12 Landmarks	Q3

External communication actions

Output	Indicator	Target
Implementation of the ERA Policy Agenda 2022-2024: - Short ERA Talks 2022/2023 on YouTube - Twitter campaign on ERA Policy Agenda - Media relations around ERA Monitoring mechanism, launch of the R&I dimension of the spring package	Number of views on YouTube per video uploaded Number of impression per post Number of online views	500 2000 10.000 (cumulated number for media relations around ERA Policy Agenda 2022-2024)

Other important outputs

Output	Indicator	Target
EOSC catalogue of open science practices Study on impacts of potential measures for making regulatory framework fit for research Analysis on national barriers to reform of research assessment	Number of new practices listed Study results published Report on analysis	Doubling the number of practices listed (as of end-2022) by Q4 Report by Q4 Report by Q4
R&I Careers Observatory	Launch of the Observatory First indicators populating the Observatory	Q2 Q4
ERA Talent Platform	Portal definition and planning: news alert + tweet	Q2
ERA Talent Platform	Platform operational Press release + social media posts (Twitter, LinkedIn, Facebook)	Q4
European Research Infrastructure Consortia (ERICs)	New ERICs established	4
Policy Discussion on S4P ecosystems	High-level stakeholder engagement workshop	Q1
Informal lessons learned & mapping of needs in MS level for strengthening S4P ecosystems	Workshop with Chief Scientific Advisors or equivalent of Member States	Q2

Output	Indicator	Target
A S4P ecosystem in Europe	Organisation of a 2-day European Conference with international high-level participation in Brussels	Q4
Swedish Presidency and Spanish Presidency events on Research Infrastructures	Number of participants (on site and online)	300 + 300

Specific objective 2.3: Research and innovation actions and the European Innovation Council in particular support development and scaling-up of SMEs with breakthrough and disruptive technologies.	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*
Main output in 2023:	

Other important outputs		
Output	**Indicator**	**Target**
Implementation of the EIC Fund	Phasing out of EIC Fund transition mechanism and introduction of EIC Fund long-term solution	Q2 2023

General objective 3: AN ECONOMY THAT WORKS FOR PEOPLE

General objective 3: AN ECONOMY THAT WORKS FOR THE PEOPLE	
Specific objective 3.1: Research and innovation actions, increased R&I investments and the R&I component of the European Semester boost economic growth and jobs creation	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*

Enforcement actions		
Output	**Indicator**	**Target**
Implementation of the Work Programme 2023-25 implementing the Euratom programme	Publication of a call for proposals under the Work Programme 2023-2025 implementing the Euratom programme	Q1

Evaluations and fitness checks

Output	Indicator	Target
Monitoring of the implementation of R&I related measures in all Resilience and Recovery Plans(RRPs)	Compliance assessment of all R&I related measures (investments and reforms) in RRPs	All R&I related milestones achieved in all ongoing RRPs (according to the agreed calendar)

External communication actions

Unlocking the potential of cultural and creative industries – New collaborative platform – Launch event	Number of attendees [physical and/or online]	200
European Innovation Scoreboard and the Regional Innovation Scoreboard	Media publications Social media	Online views 1,000 Impressions 2,000
Euratom Research in Action and Opportunities for Europe with Commissioner Gabriel	Number of attendees Social media media publications	100 attendees in-person & 100 attendees virtual 1,000 500

Other important outputs

Output	Indicator	Target
2023 editions of European Innovation Scoreboard and Regional Innovation Scoreboard	- European Innovation Scoreboard 2023 - Regional Innovation Scoreboard 2023	Q2-Q3 Q2-Q3
2023 edition of the Industrial R&D Investment Scoreboard	Publishing the Industrial R&D Investment Scoreboard	Q4
Regulatory sandboxes (NEIA action)	Guidance document on regulatory sandboxes (SWD or other)	Q2
Launch an awareness raising campaign, including a Tour of the Capitals of the EU, to intensify the cooperation with Member States (MSs), EUIPO, EPO and other stakeholders	Number of involved MSs, EUIPO, EPO and other stakeholders during the awareness raising campaign	20 MSs in total
Launch of a Mutual Learning Exercise (MLE) with Member States (MSs) on key elements of Knowledge valorisation	Number of MSs involved into MLE	6
2023 edition of the Knowledge Valorisation Week	Number of participants on the Knowledge Valorisation Week	1,300

Output	Indicator	Target
Code of practice for participatory value creation addressing the way citizens and the civil society is engaged together with researchers, innovators and policy makers in order to valorise R&I solutions for the benefit of the society	Code of practice for participatory value creation is developed	Q3
Code of practice for industry-research co-creation that will facilitate knowledge sharing and valorisation, matching the supply and demand for innovation	Code of practice for industry-research for knowledge sharing and valorisation is developed	Q3
Follow-up of the Commission Green Paper - Unlocking the potential of cultural and creative industries A new collaborative platform will be established, to foster a culture- and creativity driven European innovation ecosystem.	Establish collaborative platform – Consortium selected and started activities	Q2
Preparation of the Staff Working Document on the ex-post evaluation of the Euratom Programme 2014-2020	SWD on the ex-post evaluation of the Euratom Programme 2014-2020	Q2
Enhanced Policy Dialogue with Member States	Number of Member States (voluntary) engaged in enhanced dialogues	6 MS (but all MS expressing interest in engaging in such dialogues)
Policy Support Facility (PSF)	Number of new PSF	3 PSF countries
European Semester - Preparation of R&I related content in Country Reports and when relevant, Country Specific Recommendations	R&I annexes in Country Reports and contribution to annexes on territorial cohesion, green transition and energy.	27 R&I annexes in Country Reports and contributions to related other annexes.
Annual Sustainability Growth Survey (ASGS)	R&I input paper for preparation of ASGS	Q4
Preparation of the declaration on 'EU Research and Innovation on Small Modular Reactors 2030'	Publication of the declaration on 'EU Research and Innovation on Small Modular Reactors 2030'	Q1

General objective 4: A STRONGER EUROPE IN THE WORLD

General objective 4: A STRONGER EUROPE IN THE WORLD	
Specific objective 4.1: Regional research and innovation strategies and broader association policy contribute to promoting common European R&I values and creating a global Research and Innovation Space	*Related to spending programme(s): Horizon 2020, Horizon Europe, EURATOM*

Main output in 2023:

New policy initiatives

Output	Indicator	Target
Preparation of report of progress on the implementation of the Global Approach	Adoption of the report	Q2
Development of a European Science Diplomacy Agenda	Adoption of the proposal for the Council recommendations	Q2

Enforcement actions

Output	Indicator	Target
Enhance R&I cooperation with the US	Under the EU-US Trade and Technology Council: development of first technical recommendations for government-funded implementation of charging infrastructures (ready for TTC Principals Meeting 4, in mid-2023), and	Q1
	Development of Recommendations for future public demonstrations of Vehicle to Grid Integration pilots.	Q4
	Organise a review meeting with the US Department of State to review the implementation of actions agreed at the EU-US Joint Consultative Group meeting of October 2022	Q3

External communication actions

Output	Indicator	Target
Media relations on implementing the global approach to R&I - First biennial report on the implementation of the Global Approach European Science Diplomacy Agenda	Publication Number of online views	400 online views 600 online views

Output	Indicator	Target
Media relations on comprehensive strategy for Africa Agreement on the AU-EU joint Innovation Agenda.	Number of online views	500 online views
Media relations on Horizon Europe Associations agreements Association for Canada and New Zealand and opening negotiations with Japan and South Korea.	Number of online views	700 online views
Media relations on support measures for Ukraine	Number of online views	400 online views

Other important outputs

Output	Indicator	Target
Multilateral dialogue on values and principles for international cooperation on R&I	Organisation of 8-10 international meetings covering the 10 principles and values set out in the Council Conclusions of 10 June 2022	Q4
Deliver the EU-China Joint Roadmap for Future Science, Technology and Innovation Cooperation	Continued dialogue with China on all points of the roadmap	Continued dialogue by Q4
	Launch of the R&I Flagship on Climate Change and Biodiversity	Q1
Joint European Union-African Union Innovation Agenda	Envisaged agreement of Innovation Agenda	Q3
	Launch of Africa Initiative II in Horizon Europe WP23-24	Q1
Implement the EU-CELAC Strategic Roadmap for R&I	Organisation of a EU-CELAC JIRI (Joint Initiative on Research and Innovation) Senior Officials Meeting	Q4
	Organisation of two meetings of the EU-CELAC Research Infrastructures working group	Q2 and Q4
Implementation of the new Union for the Mediterranean R&I Agenda	Implementation of the Declaration and roadmaps through the launch of a Mediterranean Initiative in HE WP23-24	Q4
Policy Dialogues with partner countries covered by a S&T Agreement	Joint Committees planned for 2023 organised for each country	Q4 (throughout the year)
	Co-funding mechanisms or equivalent arrangements established in 80% of the countries concerned	Q4

Output	Indicator	Target
Ensuring international dimension of Horizon Europe	Establishment of functioning National Contact Points (NCP's) in at least 50% of partner countries	Q4
The association agreements with Canada and with New Zealand signed and provisionally applicable; Commission proposals for Council Decisions on Conclusion of these Agreements adopted by the Commission and submitted to co-legislators.	Association agreements with Canada and New Zealand signed	Q4
Formal negotiations to start with Japan and with South Korea, following the adoption by the Council of suitable authorizations to the Commission to open formal negotiations	Start of association negotiations with Japan and South Korea	Q4
Convene Joint Committee meetings with all Associated Countries with which such meetings are envisaged annually. Provide continued support in promoting Horizon Europe Association opportunities through info events, trainings, capacity building, as relevant	Convene Joint R&I Committee meetings with countries associated to Horizon Europe	Q4
All Western Balkan partners should have demonstrated an increase of their participation in Horizon Europe by at least 10% as compared to the relative period in the past R&I Framework Programme	Increase of Western Balkan countries' participation in Horizon Europe by 10%	Q4
Increase EaP countries' performance under the Global Innovation Index	EaP Partner countries should have demonstrated that there is an increase by at least one point for their performance under the Global Innovation Index.	Q4
Increase of EaP countries' participation in Horizon Europe: all 5 EaP Partner countries should have demonstrated an increase of their participation in Horizon Europe by at least 10% as compared to the relative period in the past R&I Framework Programme	All 5 EaP Partner countries should have demonstrated an increase of their participation in Horizon Europe by at least 10% as compared to the relative period in the past R&I Framework Programme	Q4
National budget spending for R&I for the EaP countries	Increase national budget spending for R&I by at least 20% compared to 2020	Q4

Output	Indicator	Target
Establishment of a Horizon Europe office in Kyiv.	Opening of the office in Kyiv	Q4

General objective 5: PROMOTING OUR EUROPEAN WAY OF LIFE

General objective 5: PROMOTING OUR EUROPEAN WAY OF LIFE	
Specific objective 5.1: Research and Innovation develop and deploy solutions, technologies and innovations to tackle emerging challenges and improve crisis preparedness	*Related to spending programme(s): Horizon 2020, Horizon Europe*
Main output in 2023:	

Other important outputs		
Output	**Indicator**	**Target**
Organisation of a conference on preparedness research	Number of attendees	300 participants
Literature review/state of the arts assessment from projects on "Ethics issues and Preparedness during Crisis" and on "Behavioural and organisational factors of research misconduct"	Finalization of the Project Overview Report	Q4
Ethics Guidance Notes on Cybersecurity research and on Artificial Intelligence	Publication of the guidance notes	Q3

Specific objective 5.2: Research and innovation support the European health initiatives, including the European plan to fight cancer	*Related to spending programme(s): Horizon 2020, Horizon Europe*
Main output in 2023:	

External communication actions		
Output	**Indicator**	**Target**
Contribution to Europe's Beating Cancer plan by organising a Young Cancer Survivors Conference & Workshops (in the framework of EU Mission on Cancer)	Number of attendees (physical and/or online)	500 participants

Other important outputs

Output	Indicator	Target
Contribution to the European Health data Space through a policy paper on "Creating a European ecosystem for improving the governance, the sharing and the re-use of health data"	Publication of the Policy paper	Q4
Partnership on Transforming Health care systems, on Personalised Medicine	Launch of the partnerships	Q4
2nd stage of 1+ Million Genomes Initiative	Launch of the 2nd stage of the 1 Million Genomes Initiative	Q4
Contribution to the Pharmaceutical strategy for Europe	Delivery of the Strategic Research and Innovation Agenda of the ERA4Health partnership	Q4
	Adoption of the Commission legal proposal of the revision of the orphan and pediatric regulation & its Impact Assessment	Q2

General objective 6: A NEW PUSH FOR EUROPEAN DEMOCRACY

General objective 6: A NEW PUSH FOR EUROPEAN DEMOCRACY	
Specific objective 6.1: European research and innovation support citizens' involvement, social inclusion and equalities in Europe, including through communication of the European research and innovation added value	*Related to spending programme(s): Horizon 2020, Horizon Europe*
Main output in 2023:	

External communication actions

Output	Indicator	Target
European Research and Innovation Days	Number of attendees [physical and/or online]	10,000
Integrated communication campaign on Gender Equality Award and Gender Equality Plans	Gross reach: Number of contacts made during the campaign	25,000
Media relations on STE(A)M Manifesto and the impact of Covid-19 on Gender Equality in R&I	Number of online views of media releases [in EC website and/or third party platforms if data is available]	12,000
Integrated communication campaign on Research and Innovation / General EU Missions	Gross reach: Number of contacts made during the campaign	500,000

Other important outputs

Output	Indicator	Target
Final report of MLE on citizen science and dissemination event	Final report published	Dissemination event by Q2
Contribution to the implementation of the European Democracy Action Plan and to the follow-up to the Conference on the Future of Europe	1)Presentation of expert reports on results of deliberative and participatory democracy H2020 projects and results of H2020 projects regarding threats to democracy in the EU neighbourhood 2)A network for innovative solutions for the future of democracy to be launched in 2023, bringing together researchers, practitioners, and policy-makers.	All reports published by Q4 2023 Q1 2023
Contribution to the implementation of the ERA policy agenda on gender equality, the Gender Equality Strategy 2020-2025, and the EU University Strategy,	1)Provision of support of developing a Manifesto on gender-inclusive STE(A)M education as announced in the European Universities Strategy– 2)Final report of the expert group on the impact of Covid-19 on gender equality in R&I and on women researchers' careers	Results of survey and stakeholder workshop published, CSA call closed – Q1/Q2 2023 Final report adopted Q1 2023
Support the implementation of the new Horizon Europe eligibility criterion of Gender Equality Plans	1)first edition of the Gender Equality Plan Champions' Award to raise public awareness of the importance of gender equality in higher education and research, and to reward organisations, which can inspire other academic and research organisations to become gender equality champions themselves.– (award ceremony agreed with Commissioner Gabriel for 11 February) 2)Study on the impact of Gender Equality Plans (GEPs) on EU and national policies and programmes.	Award ceremony concluded Q1 2023 2). Study published Q1 2023
Preparation of the final report for climate transition 'a EU roadmap for shaping the EU's climate future together'	Publication of the final report for climate transition 'a EU roadmap for shaping the EU's climate future together'	Q2

General objective 7: A MODERN, HIGH PERFORMING AND SUSTAINABLE EUROPEAN COMMISSION

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

Specific objective 7.1: The Common Implementation Centre and the Common Policy and Programming Centre provide user-friendly services and tools to the European Commission for effective and efficient planning, programming and implementation of the Research and Innovation Framework Programme and other EU programmes	

Main output in 2023:

Public consultations

Output	Indicator	Target
Preparatory co-creation and co-design work on the strategic plan 2025-2027	Analysis of outcome of the stakeholder consultation on Strategic Plan and drafting of the Horizon Europe strategic plan 2025-2027	Q1
Stakeholder consultation on Horizon evaluations	Factual summary report of outcomes of stakeholder consultation for Horizon 2020 and Horizon Europe evaluations	Q2

Evaluations and fitness checks

Output	Indicator	Target
Development of an HE Control Strategy	Developing appropriate strong coordination and corporate business processes to achieve best possible results and impact in the context of the multifaceted architecture of Horizon Europe and to keep the Horizon Europe control system, as a whole, adapted to the risks and to maintain the balance between economy, effectiveness and efficiency of the operations.	Q4

External communication actions

Output	Indicator	Target
Strategic plan 2025- 2027, including the outcome of the stakeholder consultation	Number of online views – media relations Social media	Online views 1000 Impressions 2000

Output	Indicator	Target
Organisation of webinars and trainings in order to increase level of understanding of internal (staff) and external stakeholders of the rules processes and IT systems for preparing, submitting and evaluating proposals and for managing the HE grants including grants based on lump sums	Number of attendees Number of events	300 12 (by the end of 2023)

Other important outputs

Output	Indicator	Target
Amendment of the Horizon Europe 'main' work programme 2023-2024 implementing the Specific Programme Implementing Horizon Europe to accommodate mission-related needs and other points	Preparation & steps towards adoption in Q1 2024 of the Commission Implementing Decision on the amendment of the Horizon Europe 'main' work programme 2023-2024'	Q4
Amendment of the Horizon Europe 'main' work programme 2023-2024 implementing the Specific Programme implementing Horizon Europe to accommodate the addition of the Cluster 3 part	Adoption of the Commission Implementing Decision on the amendment of the Horizon Europe 2023-2024 'main' work programme 2023-2024	Q1
Annual Report on Research and Technological Development Activities of the European Union and Monitoring of Horizon Europe in 2022	Adoption of the Commission Communication on the report	Q2
Preparation of second wave of European Partnerships	Opinion from the independent expert group and the Partnership Knowledge Hub on the identified needs for new European partnerships landscape	Q2-Q3
Final evaluation of Horizon 2020	Commission Staff Working Document on the ex-post evaluation of Horizon 2020	Q4

Output	Indicator	Target
Synergies with MFF programmes	− Agreements with other Commission services to instigate reciprocity in co-design for enhanced coherence and compatibility with other Union programmes towards common goals, including the specific context of Missions and partnerships. − Advanced knowledge management for designing synergies with support of different programmes and for improved uptake of project results. - Mobilisation and empowerment of key multipliers and advisors such as executive agencies and national contact points.	Q4 Q4 Q4
Horizon Europe and Euratom programme 2024 Draft Budget co-designed with all implementing entities.	- Level of budget in the COM proposal and final voted budget compared to the request made: - COM proposal on the Draft Budget 2024 - Voted budget 2024	- - - June 2023 - November 2023
Timely and accurate authorization of calls for funds to associated countries and support to negotiations with new countries	- Single/1st calls for funds - - 2nd calls for funds of the year 2022 + estimations amount for year 2023 - Distribution of R0 credits from 1st call - - Distribution of R0 credits from 2nd calls	- April 2023 - June 2023 - - September 2023 - - September 2023
Operationalisation of the Key Impact Pathways	Visualisation of short-term performance indicators on Horizon Europe in the Horizon dashboard	Q2-Q4
Collection of national and regional R&I funding micro-data under European data for policy initiative	First dashboard operational with coverage of at least 10 Member states national and regional R&I micro-data sources (target: 2023Q1)	Q1
Corporate use of eGrants	Ensuring continuing on boarding to provide users with the corporate eGrants IT suite for managing the complete direct grants management lifecycle	Q1

Output	Indicator	Target
Client Centricity Programme	Enhancing the effectiveness of existing platforms, launch the development of a mobile app to deliver higher added value to external and also internal stakeholders and greater impact of R&I programmes.	Q2 onwards

Part 2. Modernising the administration: main outputs for 2023

A. Human resource management

Objective: DG R&I 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 2023:		
Output	**Indicator**	**Target**
Follow up on the 2021 Staff Survey's results, aiming to improve staff engagement and to support the DG in the delivery of policy priorities.	Organisation of the Reflection Week initiative, when reflections with staff will be held on policy priorities and other matters relevant for them	First quarter 2023
Improve the on boarding activities in the Directorate-General	Update of Directorate-General's on boarding measures according to the new guidelines of DG HR foreseen in 2023	End of 2023
Prevention of psychosocial risks at work	Trainings for managers (3 sessions)	End of 2023
Increase awareness on Diversity and Inclusion policy and the prevention of bias	At least 2 communications	End of 2023
To improve wellbeing and working conditions	Setting a wellbeing program	End of 2023

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 output in 2020:		
Output	**Indicator**	**Target**
Effective controls: Legal and regular transactions	Estimated risk at payment and at closure for Horizon 2020 grants	As close as possible to 2%
	Estimated risk at payment and at closure for Horizon Europe grants	Below 2%.[11]
Effective controls: Safeguarded information	Number of security incidents with significant impact on the confidentiality, integrity or availability of Information Systems, reported during the year	No incident with significant impact

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[11] No representative error rate for Horizon Europe will be available in 2022 and 2023 as the ex-post audit campaign for the Programme will start at the earliest end of 2023.

Efficient controls	Time-to-pay	99% of payments (in value) made on time
	Operational budget execution	99% of operational commitment and payment appropriations (credits expiring in the year)
Cost of controls, Effectiveness control	Overall estimated cost of controls for DG R&I	Below 3 % of funds managed

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 2023:

Output	Indicator	Target
Enhanced data analysis	Selection of beneficiaries for risk-based audits Increased number of risk-based audits	Continuous
Fraud Prevention and Irregularities in Research (FAIR) Committee	Number of meetings	2 by 31 December 2023
Updated R&I Family's Anti-Fraud Strategy (grants), within the FAIR Committee.	Fraud-proof Horizon Europe	31 December 2023
Increased level of staff awareness about the Commission ethics rules and ethical issues, and in particular the risk of conflicts of interests	Newcomers have received relevant information on ethics obligations as part of the welcome package.	YES
Increased level of new staff awareness on anti-fraud	New comers dealing with grants have followed an anti-fraud training	YES

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

[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: DG Research and Innovation 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 2023:

Output	Indicator	Target
Implementation of the corporate principles for data governance for DG R&I key data assets 14	Percentage of implementation of the corporate principles for data governance for [the service's] key data assets	Interim milestone by 2023: 50%
The DG R&I staff is aware of the personal data protection implications in their daily work and of their responsibilities towards the data subjects.	Additional staff attending at least one personal data protection awareness-raising activity	Additional 20% of staff attended at least one data protection awareness-raising activity by the end of 2023
Corporate use of eGrants	Increased corporate use of eGrants	Finalisation of the on-boarding of remaining Direct granting programmes (Relex family Programmes and DG ECHO) and ensuring continuity of the services provided by eGrants to the on boarded programmes (MFF 2014-2020 & MFF 2021-2027).

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[14] For each key data asset, services should assess if the following principles have been respected (see also this practical guidance):

1. Identify and designate the data owner and the data steward(s).

2. Instruct their data stewards to share the metadata of their data assets in the Commission's data catalogue and to keep them up to date.

3. Design and document processes for data collection/creation, acquisition, access, sharing, use, processing preservation, deletion, quality, protection, and security. Information concerning these processes should be made available to anyone interested, as long as any confidentiality restrictions are respected.

4. Make any necessary changes and updates to the IT systems used for storing, managing, and disseminating these data assets to implement the aforementioned requirements and processes.

E. Sound environmental management

Objective: DG R&I takes account of its environmental impact in their actions and actively promotes measures to reduce the related day-to-day impact of the administration and its work, with the support their respective EMAS Correspondents/EMAS Site Coordinators.

Main outputs in 2023:

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

Output	Indicator	Target (2019 as baseline, as appropriate)
Priority action to support the Greening the Commission Communication and action plan		
Participation in corporate energy saving actions, by closing down DG/service's buildings during the Christmas and New Year's / summer holiday period, and/or optimisation of the temperature in EC buildings.	Number of DG/service's buildings participating in: - end of year energy saving action - summer energy saving action ([15]) - optimisation of comfort hours and/or comfort temperature	100% of DG buildings (ORBN and CDMA) participating in - end of year energy saving action - summer energy saving action - optimisation of comfort hours and/or comfort temperature
Other recommended actions		
• Staff awareness actions to reduce energy use in the framework of EMAS corporate campaigns and/or awareness actions about DG/service's total energy consumption in collaboration with OIB/OIL([16]) where appropriate.	Number of actions related to • Energy consumption	Two actions related to • Energy consumption
• Staff awareness actions to reduce water use (for example ensuring that staff use the technical services hotline([17]) to report leaks) in the framework of EMAS corporate campaigns and/or awareness raising actions about DG/service's water consumption in collaboration with OIB/OIL where appropriate.	Number of staff informed related to • Energy consumption • Water consumption	100 % of staff informed related to • Energy consumption • Water consumption

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[15] The implementation depends on the OIB dedicated communication and the agreement with JRC, with which we share the CDMA building

[16] See OIB – Environmental Building Performances for Brussels and OIL– Environmental Building Profiles for Luxembourg.

[17] For example, for Brussels: Email: OIB-55555@ec.europa.eu and Tel: 55555 and for Luxembourg: Email: OIL-DISPATCHING-CENTRAL@ec.europa.eu and Tel: 32220.

Output	Indicator	Target (2019 as baseline, as appropriate)
Priority action to support the Greening the Commission Communication and action plan		

II. Reducing CO_2, equivalent CO_2 and other atmospheric emissions

Output	Indicator	Target (2019 as baseline)
Priority action to support the Greening the Commission Communication and action plan		
Analysis of DG/service's missions trends / patterns (based on corporate EC-staff's and experts' professional trips (missions[18]), optimise and gradually reduce CO2 emissions (e.g. by reducing the number of participants in the same mission, promoting more sustainable travelling options, promoting videoconferencing/ virtual events as an alternative).	Promote the EC DG/service Travel Guidance note and R&I Pledge CO2 (t) emissions from DG/service's missions Budget from DG/service's expert meetings	Yes Reduce DG/service's CO2 emissions from missions[19] by at least 35% Reduce budget from expert participating in meetings for which the DG/service is in the lead by at least 40%
Other recommended actions		
Staff awareness actions on reducing GHG emissions (such as actions on sustainable commuting during EU Mobility week and VeloWalk corporate events) and/or raise staff awareness on sustainable commuting in collaboration with OIB (e.g. availability of bike parking facilities, lockers and showers, promote the reduction of parking spaces' use amongst staff).	Number of staff informed	100 % of staff informed
	Colleagues participating to sustainable commuting initiatives	100 colleagues at least participating to sustainable commuting initiatives
Staff awareness actions on digital pollution and gradual change of behaviours avoiding heavy emails, encouraging the use of ICT platforms, avoiding unnecessary storage of data.	Number of events organised Number of staff informed	1 event organised 100% of staff informed

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[18] Data provided by PMO/MiPs.

[19] Overall reduction of CO2 emissions from missions for the DG/service from 2019 to 2023 (%).

III. Reducing and management of waste

Output	Indicator	Target (2019 as baseline)
Priority action to support the Greening the Commission Communication and action plan		
Implementation of the EC Guidelines for sustainable meetings and events, e.g. sustainable catering, reduce/eliminate single-use plastics, gadgets/gifts.	Number of staff informed	100% of staff informed

IV. Promoting circular economy

Output	Indicator	Target (2019 as baseline)
Priority action in line with the Greening the Commission Communication and action plan		
Gradual introduction of GPP criteria in contracts and starting to monitor the process[20].	PP responsible staff trained on GPP	20% of PP responsible staff trained on GPP
Staff awareness action on reuse and repair of items	Number of actions on items collection to be reused 100% of staff informed	1 action on items collection to be reused 100% of staff informed

V. Supporting biodiversity

Setting up local actions in line with site-specific biodiversity strategies where relevant (for example for urban sites, sponsor the creation and maintenance of urban gardens, insect hotels and green roofs within EC-premises with the support of volunteers), and related staff awareness actions.	Number of biodiversity action in DG R&I buildings	1 biodiversity action in CDMA

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[20] For information, technical support is provided by the Interinstitutional GPP Helpdesk. See also GPP webpage on MY IC for EU reference/guidelines by DG ENV and the Vade-mecum on Public Procurement by DG BUDG.