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JRC Workprogramme 2021-2022

https://ec.europa.eu/jrc/en/news/jrc-s-work-programme-2021-2022-adopted



Joint Research Centre Work Programme

Joint Research Centre Work Programme 2021-2022

As the European Commission's science and knowledge service, the JRC provides independent scientific advice and support to EU policy, in order to tackle the interlinked and complex challenges faced by our society.

The European Commission has set its ambition high in how Europe should respond to planetary challenges, climate change and ecosystem degradation, the digital acceleration, changing demographics, shifting human geography and the future of work, all against a rapidly evolving geopolitical context.

Europe needs to build its own resilience, and to do so at a time when we are recovering from the effects of a global pandemic. Operating at the interface between science and policy, the JRC wants to strengthen its capacity to be a key partner in helping to identify solutions to such challenges.

In our 2021-2022 Work Programme, we support all Commission's political priorities and most initiatives included in the Commission 2021 work programme and contribute to the implementation of the Horizon Europe and Euratom research and training programme.

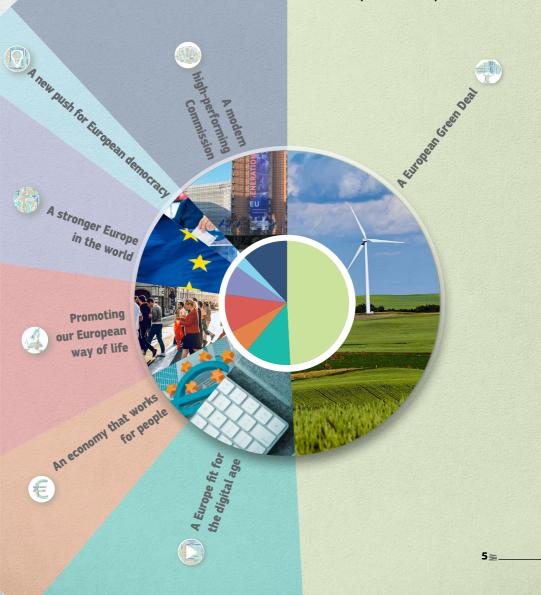
We provide the underpinning science via modelling, monitoring tools and analyses to help design new policy initiatives and to monitor existing ones. Working in partnerships inside and outside the European Commission, we help identify solutions. We dedicate significant efforts to sharing best practices and organising training events in Member States, regions, and with our international partners.

New activities this year include leading the design phase for the New European Bauhaus. We will play a strong, crosscutting role in several of the Commission's COVID-19 initiatives. We will apply our foresight competencies to new areas such as strategic autonomy for the EU. Moreover, we will explore alternative ways for how to engage with citizens, building on values and identity.

Over the coming years, we have an unmissable opportunity to strengthen the role of the JRC at the service of the European project. The 2021-2022 work programme comes as we set out on the process of grasping this opportunity. Our next work programme 2023-2024 will aim to demonstrate further progress against this ambition. I am therefore happy to share this summary of highlights with you.

Stephen Quest Director-General

Overview of the JRC's contribution to the Commission's political priorities



JRC support for the European Green Deal



The European Green Deal aims to enable climate neutrality by 2050, focusing on adaptation, on protecting and preserving our environment and on a new growth strategy for Europe. It is a driving force that will transform every aspect of our economy, environment and society: the energy we use, the air we breathe. the food we eat, the way we work, travel, produce and consume products and shape our built environment. It will help create jobs and growth, making European economy and industry more innovative, resource-efficient, circular and competitive.

This green transition requires a coordinated and targeted mobilisation of Europe's scientific knowledge, research, innovation, investment and societal assets, institutions and capacities. The JRC will underpin a large number of Green Deal initiatives and look beyond them, by anticipating future challenges and needs in the areas of climate action, sustainable and smart mobility, energy, green and sustainable economy, environment, oceans and fisheries, agriculture and food systems.

Our key enabling role will be to provide the scientific, technical and economic evidence base, as well as foresight, modelling and monitoring, necessary for the transformations. To do so successfully, we will work in close coordination with other Commission services and with partners at multiple governance levels, both within and outside the EU.

Important areas of our work under this priority are to assess potential trade-offs between economic, social and environmental objectives and to embed climate action into all EU policies based on thorough interdisciplinary research.



The JRC will integrate its climate, sectoral biophysical and economic modelling to **ASSESS THE COSTS OF CLIMATE INACTION.** The project considers the impacts of climate change on people, natural and human assets, both in Europe and globally. It will improve our understanding of resilience and vulnerability to climate change, showing why achieving climate neutrality is crucial. https://ec.europa.eu/jrc/en/researchtopic/impacts-climate-change



The EDUCATION FOR CLIMATE **COALITION**, a flagship initiative of the European Education Area, engages students, teachers, schools and mobilizes their creativity for a just green transition by means of sharing their projects and knowledge through a pan-European community platform. The Coalition will be implemented through a dedicated partnership between DG EAC and JRC, where the JRC will run the executive support service for designing the Coalition and for providing community management expertise. https://europa.eu/!TH44nv



The JRC will lead the design phase of **THE NEW EUROPEAN BAUHAUS**,

the initiative that is connecting the Green Deal to our living spaces. This phase will explore ideas and shape the initiative, drawing on the engagement and expertise of designers, architects, artists, experts, scientists, entrepreneurs, engineers and students. A broad participatory co-creation process for the "design" will aim at launching calls for proposals under the next Multi-Annual Framework in all relevant programmes. <u>https://europa.eu/new-european-</u> bauhaus/index en



JRC significantly contributes to the **CHEMICAL STRATEGY FOR**

SUSTAINABILITY. JRC addresses safe and sustainable use of chemicals, high level of human health and environmental protection by running the EU Reference Laboratory for alternatives to animal testing and the Information Platform for Chemical Monitoring. It also contributes to the safeand-sustainable-by-design objective for chemicals and tackles the potential risks of combined exposure to multiple chemicals. https://ec.europa.eu/jrc/en/eurl/ecvam



Our Energy Industry and Geography Lab will serve as a specialised geospatial data management, visualisation and analysis hub that will offer a comprehensive view of the energy, industrial and other infrastructures on European ground. It will **SUPPORT THE DESIGN OF THE UPGRADE AND EXTENSION OF THE EUROPEAN INFRASTRUCTURE** in an integrated,

cost-efficient manner, supporting the growth of a low-carbon energy intensive industry in Europe.



JRC's analyses on implications and requirements of Connected and Automated Mobility will help regulate the **SAFE MARKET DEPLOYMENT OF CONNECTED AND AUTOMATED VEHICLES**.

Safety will be verified through innovative approaches such as simulation and testing in virtual reality. Through multidisciplinary analyses, the JRC will investigate the synergies between connected vehicles and smart infrastructures and the impacts of mobility disruptions on EU economy and jobs in a recovery context.



Within the **RESEARCH AND TRAINING PROGRAMME OF THE EUROPEAN ATOMIC ENERGY COMMUNITY,** the IRC provides

technical and scientific support to EU policies in nuclear safety, security and radiation protection, and carries out cuttingedge research, knowledge creation and preservation across its Member States on nuclear technologies. In the present context of medium and long-term decarbonisation of the energy system in a safe, efficient and secure way, attention will be given to long-term operation (LTO) of current nuclear reactors, innovation in nuclear energy systems, radioactive waste minimization, management and disposal, decommissioning, and non-electric energy technologies. https://ec.europa.eu/jrc/en/research-topic/ nuclear-knowledge-management-trainingand-education



The JRC will analyse SOCIAL ASPECTS OF THE GREEN TRANSITION

to answer key questions related to structural shifts in the labour market and income distribution. These will include questions how to create opportunities for jobs and growth in coal and other carbon intensive regions, how to best re-skill affected workers, how to tackle energy and transport poverty and how to ensure social inclusion and consumer engagement.



The JRC plays a key role in the development of the **EU TAXONOMY** of sustainable economic activities. This detailed **CLASSIFICATION FOR ENVIRONMENTALLY SUSTAINABLE ACTIVITIES** identifies which activities contribute to reaching the main EU environmental objectives, assesses the share of financial products or of companies' activities considered green, and will be instrumental in redirecting capital flows.



The **KNOWLEDGE CENTRE ON BIODIVERSITY** will support the Commission's needs for knowledge on biodiversity and help mainstream biodiversity into EU policies. It will develop EU-wide ecosystem assessments, which provide a baseline to define smarter targets for the post-2020 biodiversity policy. https://knowledge4policy.ec.europa.eu/ biodiversity en



JRC will monitor PLACE-BASED

INNOVATION to support the implementation of the European Green Deal, including place-based investment priorities, innovationdriven policy strategies and implementation in regions and cities. Research topics cover the governance of public and private R&I, education and skills, analysis of innovation ecosystems, as well as policy tools and methodologies for transition to a green and digital economy.



To support the future Common Agricultural Policy, **THE DIGITAL RURAL LANDSCAPE LAB** uses artificial intelligence and novel data capturing methods - combining insights from smartphones, farm sensors, street level cameras, crowdsourcing, and satellites. Innovative integration of these data flows will improve farm management and refine rural landscape and biodiversity monitoring.



To support the FARM TO FORK STRATEGY, the JRC will run European Union Reference Laboratories, the Knowledge Centre for Food Fraud and Quality and Health Promotion and Disease Prevention Knowledge Gateway and looking at sustainable use of chemicals and pesticides risk assessment.

https://ec.europa.eu/jrc/en/eurls

https://knowledge4policy.ec.europa.eu/ food-fraud-quality_en_ https://ec.europa.eu/jrc/en/ health-knowledae-aateway



SUSTAINABLE FISHERIES AND AQUACULTURE provides

scientific advice to the Common Fisheries Policy and monitors its performance. Mainly, it strongly links to the EU Blue Growth Strategy and building on innovative modelling approaches and analysis, it feeds data and information in support to the Marine Strategy Framework Directive, the bioeconomy, Sustainable Development Goals (SDGs) and Arctic Strategy. https://ec.europa.eu/jrc/en/ research-topic/fisheries-andaquaculture



The **EU SOIL OBSERVATORY** will provide soil information to support of EU initiatives under the Green Deal, for example CAP, Zero Pollution, Farm to Fork, Biodiversity Strategy, European Climate Law, and Circular Economy Action Plan. It will address in particular soil erosion, soil nutrients, soil organic carbon, soil sealing and contaminated sites, and soil contamination by agrochemicals, pesticides, organic wastes and industrial emissions. It will also help develop regular reporting on land degradation and restoration in the EU. https://ec.europa.eu/jrc/en/eu-soil**observatory**



The **KNOWLEDGE CENTRE ON EARTH**

OBSERVATION will support the uptake of products and information from Copernicus for EU policymaking. It will establish best practices to translate policy needs into concrete requirements for products and services, provide a forum for dialogue with the technical implementing entities associated with Copernicus, and raise awareness on next generation Earth Observation science and associated technologies to enhance the exploitation on Copernicus throughout the policy cycle. https://knowledge4policy.ec.europa.eu/ earthobservation en

JRC support for a Europe fit for the Digital Age



Digital is the second component of the 'twin transition' in the EU's political agenda and a potentially powerful enabler of the green transition. The Communication on a Europe fit for the digital age identifies five main streams for action: the European digital strategy, the industrial strategy, digital services, cybersecurity and consumers, and research.

New actions should ensure that digital technologies help Europe develop and pursue its own vibrant, globally competitive, value-based and inclusive economy and society. In the upcoming years, the JRC will explore the interplay between cybersecurity, data protection and Artificial Intelligence. We will analyse the EU's technological sovereignty from the standpoint of current and emerging digital technologies applied to security, defence, public safety and competitiveness.

We will map important industrial sectors and assess critical dependencies and longer-term sustainability in EU supply chains, taking into account specific combinations of key digital technologies (e.g. AI, edge computing, or cloud computing) for specific sectors (e.g. in transport, manufacturing, or space). We will also conduct fundamental research for digital innovation and for guaranteeing that European values, citizens and environment remain embedded in digital developments. We will support innovation policy and technology transfer activities. Finally, we will support standardisation work, the regulation of data and platform economy and other activities that support market surveillance and compliance.

Our work will feed into a broader EU endeavours making digital transformation work for people and businesses, while helping Europe to achieve its targets of a climate-neutrality by 2050.



Local policy design and customised innovative solutions are essential, building on territorial diversity and local strengths and needs. The JRC will help regions designing and implementing innovation strategies, provide targeted support to enhance their innovation ecosystems, improve technology transfer and connect better places to new and renewed European Value Chains. This will support the **TERRITORIAL DIMENSION OF THE EUROPEAN RESEARCH AREA.**



In the area of **DIGITAL EDUCATION**, and to support of the implementation of the Digital Education Action Plan, the JRC carries out foresight studies, leads actions on SELFIE (a tool to help schools assess where they stand with learning in the digital age) and SELFIE for teachers, updates the digital competence framework DigComp and carries out a feasibility study for a common European Digital Skills Certificate.

https://ec.europa.eu/education/ schools-go-digital_en https://ec.europa.eu/jrc/en/digcomp



The JRC will analyse the impact of **ARTIFICIAL INTELLIGENCE ON HUMAN BEHAVIOUR.** It will

concentrate on analysing the outcome and impact of the use of algorithms in socially highly relevant environments, such as decision making in criminal justice, the occupational impact of artificial intelligence and robots, and the role of social robots on human development. It will also monitor the uptake of Artificial Intelligence in Europe via **AI WATCH**, as part of the European coordinated efforts to use Artificial Intelligence as a driver for European economy, while respecting European values. https://knowledge4policy.ec.europa.eu/ ai-watch en



In the area of **CYBERSECURITY**, the JRC is investing in foresight research activities, to identify the cybersecurity needs for tomorrow. Examples include activities on blockchain technologies (The JRC runs a unique infrastructure for large scale blockchain testing), artificial intelligence algorithms, next generation Internet, digital identity, and post-quantum cryptography.



Work in the interrelated SPACE-SECURITY-DEFENCE SECTOR

will analyse industrial environments for security, defence and space, looking at value chains and their criticalities from a technological and strategic autonomy angle. In the context of the Observatory of Critical Technologies, it will support the implementation of the European Commission action plan on synergies between civil, defence and space industries, leading the action producing a bi-annual report on the monitoring and analysis of critical technologies.

JRC support for an economy that works for people



In recent years, globalisation, digitalisation and the economic and financial crisis have challenged the economic and social fabric of the EU. Achieving a deeper and fairer Economic and Monetary Union, boosting investment and creating jobs, and refocusing the European Semester towards green growth and sustainability count among the flagship ambitions under this priority.

To help repair the economic and social damage caused by the coronavirus pandemic, the Commission, the European Parliament and EU leaders have agreed on a recovery plan that will lead the way out of the crisis and lay the foundations for a modern and more sustainable Europe.

JRC support for an economy that works for people

In 2021, within this priority, the JRC will support the development of monitoring frameworks to assess individual Member States' performance over time, to benchmark and evaluate convergence between them.

Moreover, to support of the revamped European Semester, the JRC will develop models to assess and monitor the outlook for European economies, including the real-time economic situation in the largest euro-area countries and regional and sectoral analyses. We will assess the effects of tax-benefit reforms in Member States and examine the impact of reforms of the international corporate tax system.

These activities form part of our efforts to inform policymakers of developments in the economic, financial, employment and social fields.



The JRC's forward-looking tool **RESILIENCE DASHBOARDS**

will propose indicators to assess vulnerabilities and capacities at EU and Member State level in view of emerging megatrends and anticipated challenges, including those associated with the COVID-crisis and recovery. The tool will monitor the resilience of the Member States to navigate the green, digital and fair transitions, as well as the geopolitical strengths and weaknesses of countries.



The JRC's interactive website **REOPEN** provides citizens with the information they need to plan confidently their European travel and holidays, while staying healthy and safe. The information is frequently updated and available in 24 languages. https://reopen.europa.eu/en



In the sector of **TOURISM**, the JRC will help respond to the urgent challenges that the sector is facing as a consequence of the COVID-19 outbreak and subsequent lockdowns, including the need to design and implement relevant policy action at European, national and local level. Data and analysis related to tourism will focus on localised impacts, trends, scenarios and strategies, and on transitions towards sustainable tourism. https://s3platform.jrc.ec.europa.eu/ tourism



The JRC is actively engaged in the **EUROPEAN SEMESTER** and the **RECOVERY AND RESILIENCE FACILITY (RRF)**, which aims to help Member States recover from the COVID-19 crisis and make their economies more resilient. The JRC conducts macro-economic forecasts, assessment of tax and social benefit reforms aimed at boosting job recovery and protecting workers' income, such as the SHORT-TERM WORKING SCHEMES, the implementation of Smart Specialisation, productivity, high growth enterprises, and integration of SDGs into the Semester.



The JRC supports the 'Union of Equality' policy with the monitoring of the **EUROPEAN GENDER EQUALITY STRATEGY.** This is part of a broader effort to monitor social progress, starting with development of the social scoreboard, which will also be updated.

JRC in a stronger Europe in the World



Europe strives to strengthen its unique brand of responsible global leadership. It aims to be an assertive geopolitical player, the 'guardian of multilateralism' and to uphold and update the rules-based global order.

Through this priority, Europe aims to give new impetus to its relationship with Africa and with the Western Balkans, where enlargement policy is an instrument for catalysing comprehensive national reforms.

Europe's global leadership is closely linked with promoting ambitious environment, climate and energy policies across the world. The JRC's early warning systems for floods, wildfires, droughts, crop yield forecasting and its global disaster alert and coordination systems help countries all over the world prepare for disasters and manage crisis worldwide.

Moreover, the JRC cooperates with international organisations and individual countries on trade, security and defence, nuclear safety and security, nuclear non-proliferation and crisis management.

Our numerous and world-leading efforts in early warning as well as our broader role and emphasis on evidence for policymaking constitute tangible demonstrations of EU science diplomacy, and supports Europe's commitments in global and multilateral bodies such as the UN. The JRC will continue its cooperation with numerous international organisations and partnerships at the global scale, in line with overarching EU goals.

It will work on trade, security and defence, nuclear safety and security, nuclear non-proliferation and crisis management.



The JRC has launched an **AFRICA KNOWLEDGE PLATFORM** that will bring together data and knowledge and act as the single entry point on JRC activities on Africa, across disciplines and topics. Based on its empirical evidence and science diplomacy, the JRC will facilitate the establishment of a mechanism to support and monitor the implementation of the "New Comprehensive Strategy with Africa".



The JRC will contribute to the **REVIEW OF THE EU ARCTIC POLICY**

and to the international policy framework on Arctic, enhancing EU's 'Science for diplomacy' efforts. It will evaluate societal and climate impacts of a changing Arctic, and develop indicators for Arctic resilience and sustainable development. It will address aspects ranging from the marine environment and bio-economy to ecosystems and citizen engagement.



The JRC will support the UN 2030 Agenda and the UN World Water Quality Alliance through its work on **ONE WATER FOR ALL**. This includes capacity-building activities on water quality related aspects in the EU neighbouring countries, the Mediterranean, Central Asia and Africa, with the aim to strengthen the EU ambition to be a global leader for sustainability, and to help people get access to water.



The JRC analyses **CHINA's** approach to attain a dominant position in international markets through a combination of industrial, research and innovation, trade and foreign direct investment policies. It offers an evidence-based assessment of China's current position compared to the EU and US economic and innovation systems across a range of dimensions, emphasising quantitative data on China's development and objectives. https://ec.europa.eu/irc/en/

nttps://ec.europa.eu/jrc/en/ facts4eufuture/china-reportchallenges-and-prospects



The JRC will analyse **CLIMATE CHANGE INDUCED MIGRATION.**

It will combine demographic and climate impact data to estimate the relationship between changes in population distributions and slow-onset climatic events, with a special focus on Africa. The JRC will also support a better understanding of the drivers and flows of migration within and from Africa, with a focus on **YOUTH AND MIGRATION**, examining the impact of COVID-19 on remittances. https://knowledge4policy.ec.europa.eu/ migration-demography_en



The JRC will continue to provide cutting-edge research, operational support and capacity-building activities in the area of **NUCLEAR NON-PROLIFERATION AND SAFEGUARDS.**

This includes methodologies and technologies for export control, quantitative nuclear material measurement, containment and surveillance, particle analysis, nuclear forensics and data analytics. <u>https://ec.europa.eu/jrc/en/researchtopic/nuclear-safeguards-and-security</u>



The JRC will support the EU security policy by providing its expertise for the operation of the EU CBRN (CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR) CENTRES OF EXCELLENCE. It will support the EU-

funded projects, which aim at improving the preparedness of countries in Africa, South Eastern and Eastern Europe and in Asia against threats arising from natural disasters or malicious acts involving chemical, biological, nuclear or radioactive agents.

https://europa.eu/cbrn-risk-mitigation/ index_en



The GLOBAL DEVELOPMENT DATA

TOOL, developed by the JRC together with DG INTPA, supports the Commission and EEAS around the globe with a wide variety of economic and social data, figures and trends for Africa, the African, Caribbean and Pacific as well as the Overseas Countries and Territories) with the intention of global coverage by 2021. The tool includes 160 indicators in 10 thematic areas, linking them to SDGs where possible. The tool makes automated generation of country reports possible.

JRC in promoting our European way of life

A Europe that protects must stand up for justice and for the EU's core values. It has to ensure that citizens feel protected and part of a cohesive and inclusive society.

Promoting the European way of life encompasses fostering skills, education and inclusion. It includes ensuring integration of migrants and refugees, and developing a fair and well-managed migration policy. It also addresses the need to fostering security for all those living in Europe, while respecting our values and principles. Additionally, it gives the EU a key role in helping Europeans take care of their health.

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By strengthening the European Commission's overall response to opportunities and challenges related to migration and demography and by providing the underpinning scientific evidence, data and knowledge to inform the policy cycle in areas related to migration, mobility, integration and demography, the JRC will facilitate the adaptability and inclusiveness of the European project.

We will support the goals outlined in the EU Security Union by analysing evolving threat landscapes, developing technical solutions to foster resilience and supporting law enforcement authorities to tackle crime.

On health, we will integrate a wide spectrum of expertise, technologies, determinants and factors to ensure a united and interdisciplinary scientific approach to support policymaking. In 2021, this includes intensifying our already substantial efforts in Europe's Beating Cancer Action Plan.

Since the beginning of the COVID-19 pandemic, the JRC has been involved in numerous cross-cutting efforts taken by the European Commission

Our key work strands for COVID-19 in 2021 include

- epidemiological monitoring, modelling and reporting;
- use of alternative data and digital technologies;
- testing, genomics, diagnostics and health;
- socio-economic modelling and analysis;
- travel, tourism and transport; and

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• citizen pulse.



The JRC will develop demographic projections and analyses to feed numerous policy areas, through the identification of gender, educational and regional disparities in access to innovation and education, and concerning digital technologies and services. A new Atlas of Demography will be launched in 2021. **THE KNOWLEDGE CENTRE ON MIGRATION AND DEMOGRAPHY**

will further develop and upgrade knowledge management tools such as the Dynamic Data Hub (a web-based application to collect, harmonised and visualise a selection of key datasets related to migration and demography) and the Atlas of Migration (an online tool offering easy-to-read fact sheets about migration for all countries in the world).

https://knowledge4policy.ec.europa.eu/ migration-demography_en



The project **ARTIFICIAL INTELLIGENCE FOR SECURITY** comprises targeted applications of AI to security, including machine learning to detect automatically threats in X-ray images of scanned luggage, and investigating the robustness of e-gate facial recognition against threats such as morphing and adversarial attacks.



The JRC's nuclear site (based in Geel) will act as a living lab to test out technologies and approaches to develop expert knowledge on **COUNTER DRONE MEASURES** together with the Commission services, Member States and other stakeholders. https://ec.europa.eu/jrc/en/researchfacility/living-labs-at-the-jrc



The **KNOWLEDGE CENTRE ON**

CANCER will provide the evidencebased link to connect the Europe's Beating Cancer Action Plan with the new Horizon Europe Mission on Cancer. The KC will foster one EC coordinated approach to tackling cancer, provide up-to-date integrated systems and databases that address cancer prevention, cancer health care quality (namely for breast and colorectal cancer) and cancer burden indicators. https://knowledge4policy.ec.europa.eu/ cancer_en



A promising way of fighting metastatic cancers by selective irradiation of tumour cells with alpha particles is being investigated in the **RADIONUCLIDES FOR MEDICINE** project, which aims at developing sustainable methods for the production of radio-nuclides needed in the context of Targeted Alpha Therapy. In addition, the project aims at studying alternative acceleratorbased production routes for existing and prospective medical radionuclides used for imaging, therapy and theranostic.

https://ec.europa.eu/jrc/en/researchfacility/radionuclide-metrologylaboratories



JRC support for a new push for European Democracy



In a healthy and thriving democracy, citizens can freely express their views, choose their political leaders, and have a say about their future.

Democracy in the EU faces challenges from rising extremism, election interference and the spread of manipulative information and hate speech through information technologies, including social media.

The EU needs to address these issues and to strengthen its capacity to anticipate societal challenges, by creating policies that are informed by the best possible evidence. These policies should be responsive to the different values and identities, take into account the regional and territorial specificities, including demography, with the aim to give Europeans a stronger role in decision-making. A key project of the JRC in 2021 will investigate how people's values and identity affect their attitudes to democratic foundations and their feelings about the EU, as well as how we in the European Commission can take this into account when designing new policies closer to European citizens and in our communication with them.

In response to the challenges that Europe faces from the point of view of demographic change, the the JRC will assess challenges and opportunities related to ageing, depopulation and internal migration within the EU, e.g. from rural areas to cities, in terms of their possible impacts on economy, service accessibility, public attitudes and political behaviour.

Linked to the above, we will continue our research that has already led to advanced AI-based tools for disinformation detection.





The JRC is analysing how **DEMOGRAPHIC CHANGE in the EU**,

both in terms of increasing diversity and ageing, may explain the rise of populism and Euroscepticism. https://knowledge4policy.ec.europa.eu/ migration-demography_en

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JRC's work on **DISINFORMATION** focuses on three areas: monitoring, analysis and reporting to highlight key disinformation narratives; the research and development of AI-based tools for the detection and handling of disinformation; and investigation on the psychology of disinformation, pursued in collaboration with international pools of experts.



The project SCIENCE OF VALUES AND IDENTITIES IN THE POLITICAL

PROCESS aims to improve the understanding of the values held by European citizens' in general terms and engaged by different political issues. It links these values to citizen's identification with their region, country and the EU. A practical toolkit for policymakers will help them include value considerations in designing and adapting policies and communicating them better in value terms. The toolkit will include an EU wide values and identities data interface, values media monitoring and trainings.



The newly created COMPETENCE CENTRE ON PARTICIPATORY AND DELIBERATIVE DEMOCRACY will

support citizen engagement across the EU policy cycle. This entails building capacity to foster participative and deliberative practices across Commission. Furthermore, the Competence Centre will support the European Democracy Action Plan by helping with building the necessary infrastructure to strengthen deliberative democracy practices across the EU.

JRC support to a high-performing, modern Commission

Knowledge and data management play a considerable role in the proper functioning of the Commission. In a world flooded with information from a multitude of sources, providing, managing and making sense of knowledge for policy is more important than ever.

In this context of scientific controversies and post-fact politics, evidence-informed policymaking needs advocates and skilled practitioners, both in scientific and policy bodies. The JRC will support the Commission's services in their needs for collaboration and knowledge-sharing practices. This includes the development of comprehensive, open Knowledge Centres, as well as dedicated communication initiatives within the JRC to ensure complex scientific developments are made understandable to policymakers. These efforts support the Commission's new working methods to enhance cross-organisational collaboration, internal communication and staff engagement.

The JRC will also support better regulation initiatives, with guidance and advice on methods, modelling, and analysis for exante assessments and ex-post evaluations.

As the leader of the Commission's foresight activities, the JRC will undertake a number of new studies to ensure a forward-looking dimension is addressed in new EU policy initiatives.

Likewise, we will conduct ambitious exploratory research to build new scientific competences for future policy demands in a pro-active manner.





What Works' is an activity that contributes to the creation, sharing and use of **HIGH QUALITY EVIDENCE FOR DECISION-MAKING IN THE COMMISSION.** It does so by underlining the benefits that can be gained when working at the continuum of monitoring and evaluation studies – benchmarking performance and causal analysis– complemented by a strong

component of behavioural insights.



FORESIGHT will help anticipating potential topics or signals that might shape the future developments in various areas including health, food and consumer protection. Annual foresight reports will identify emerging challenges and opportunities in order to steer the European Union's strategic choices. https://knowledge4policy.ec.europa.eu/ foresight_en



The **COMPOSITE INDICATORS** & **SCOREBOARDS EXPLORER** is a

new JRC tool that brings together more than 400 composite indicators and scoreboards just a click away. The 'Explorer' allows policymakers, analysts, scientists, journalists and other stakeholders to filter and communicate indexes and scoreboards in ways that are relevant to them. This online datapowered tool will allow users to create country profiles or policy areas profiles (e.g. Sustainable Development Goals) by combining data from multiple sources of composite indicators and scoreboards and generate graphs and dashboards that can help them in analysing specific policy questions. https://knowledge4policy.ec.europa.eu/ composite-indicators en



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