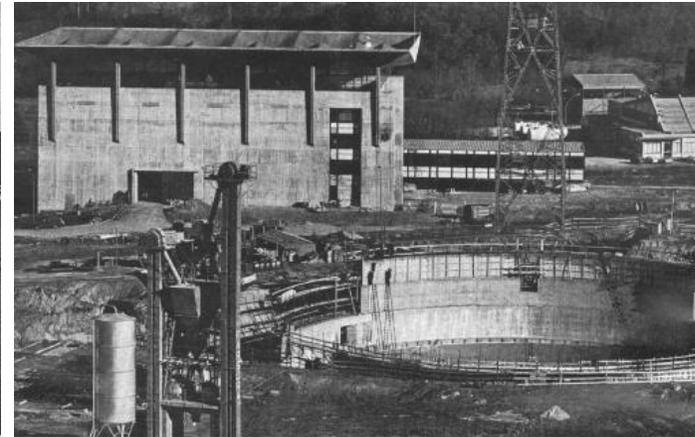
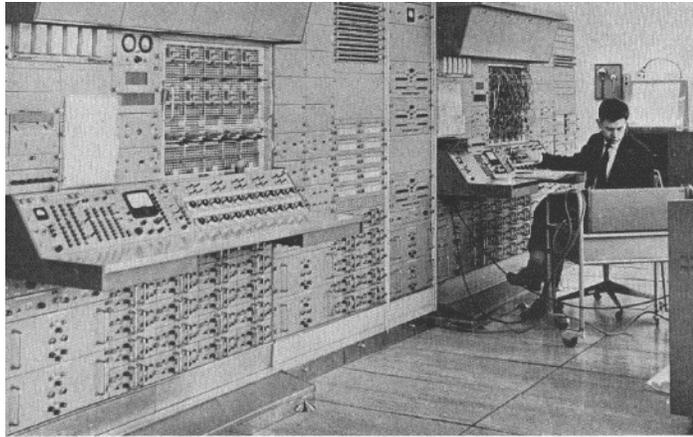


The Joint Research Centre

Katarzyna Kowal, Policy Officer
Unit A.3 Member States, Partnerships
and International Relations
Brussels, 21.10.2024

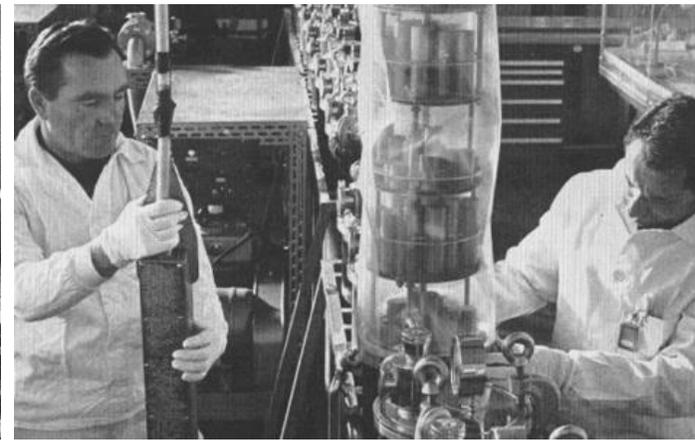
JRC: the birth

Ispra, 1962 –
Euratom's Scientific
Data Processing
Centre: any nuclear
installation requires
electronic equipment.



Ispra, 1963 –
The ECO reactor
and the ESSOR
reactor
construction site.

Ispra, 1966 –
Decontamination
of Ispra-1 reactor.



Ispra, 1967 –
Metallurgy
Department:
two technicians
placing uranium
carbide in
the special airtight
containers.

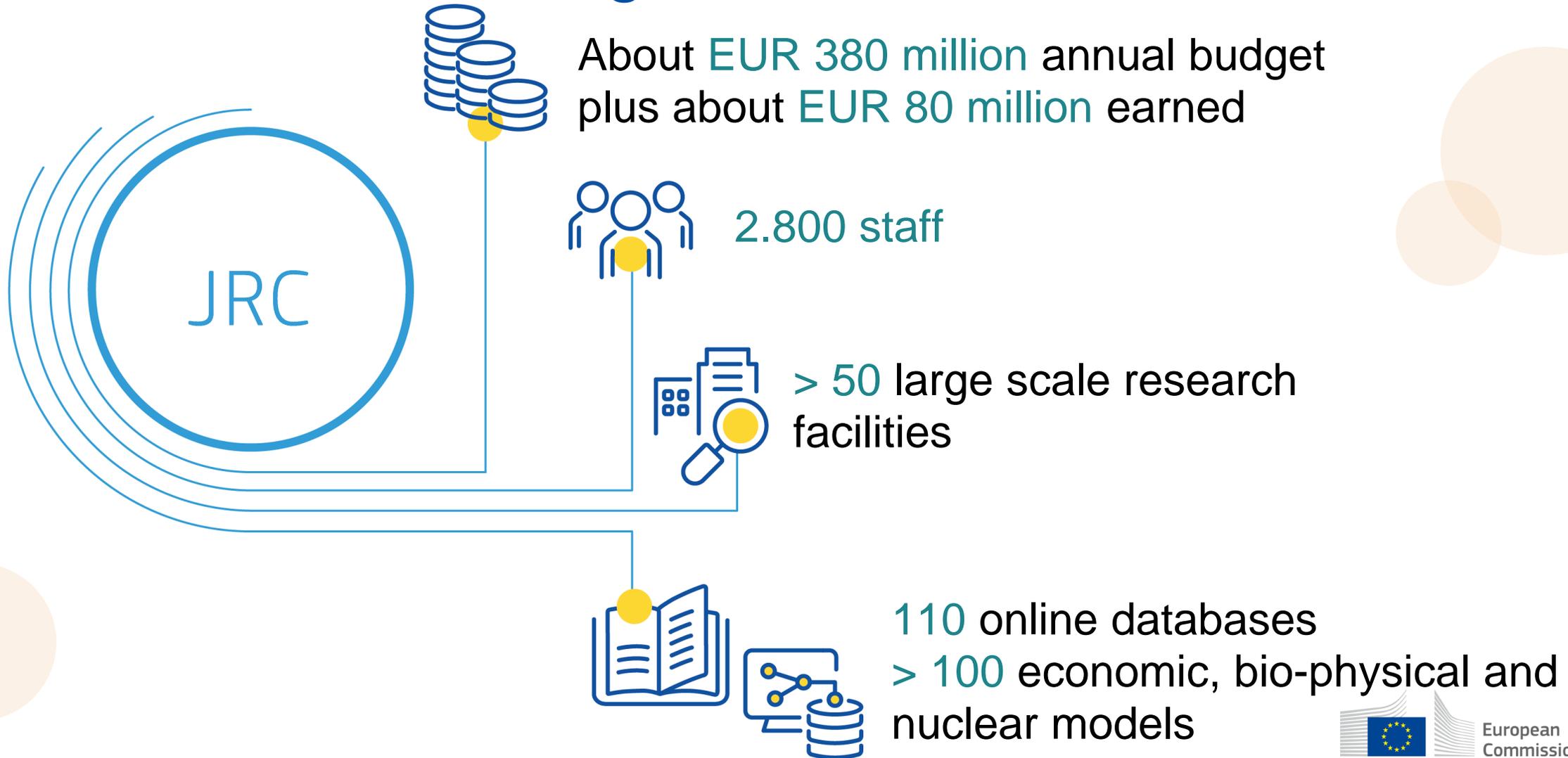
JRC sites

Headquarters in **Brussels**
and research facilities located
in **5 EU Countries:**

- Belgium (Geel)
- Germany (Karlsruhe)
- Italy (Ispra)
- The Netherlands (Petten)
- Spain (Seville)



JRC – Facts and figures



JRC facilities – some examples

Virtual tour at <https://visitors-centre.jrc.ec.europa.eu/en/media?type=8>

Neutron beams
to explore
the femtoscale
(MONNET)



Food Contact
Materials
(EURL FCM)

Nanobiotechnology
Laboratory



JRC neutron
time-of-flight
facility (GELINA)

Reference Material
Processing Hall



Water Laboratory

JRC facilities – some examples

Virtual tour at <https://visitors-centre.jrc.ec.europa.eu/en/media?type=8>

European Laboratory for Structural Assessment (ELSA)



Hopkinson Bar facility (HOPLAB)

Vehicle Emission Laboratory (VELA)+ vehicle Market Surveillance Laboratory



European Interoperability Centre for Electric Vehicles and Smart Grids

Battery Testing Facility Laboratory



Nuclear Forensic Laboratory

JRC facilities – some examples

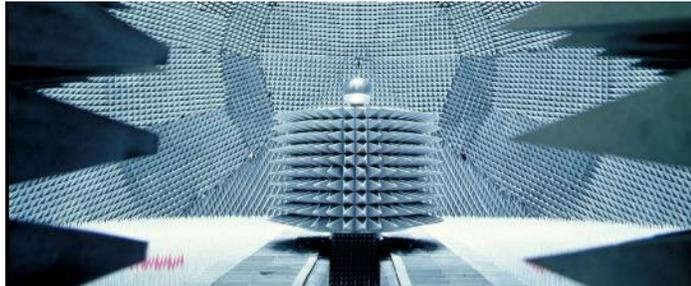
Virtual tour at <https://visitors-centre.jrc.ec.europa.eu/en/media?type=8>

JRC ultra low-background gamma-ray spectrometry facility (HADES)



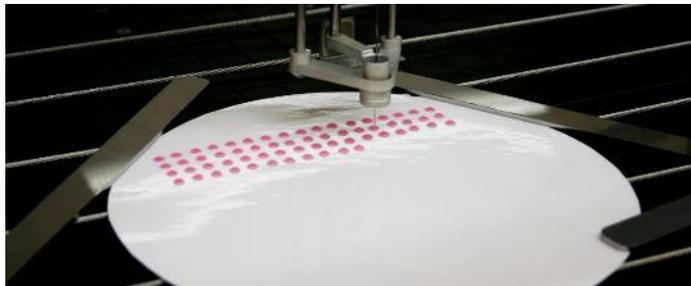
European Solar Test Installation (ESTI)

European Microwave Signature Laboratory (EMSL)



Gas Testing Laboratory

JRC radionuclide metrology laboratory (RADMET)



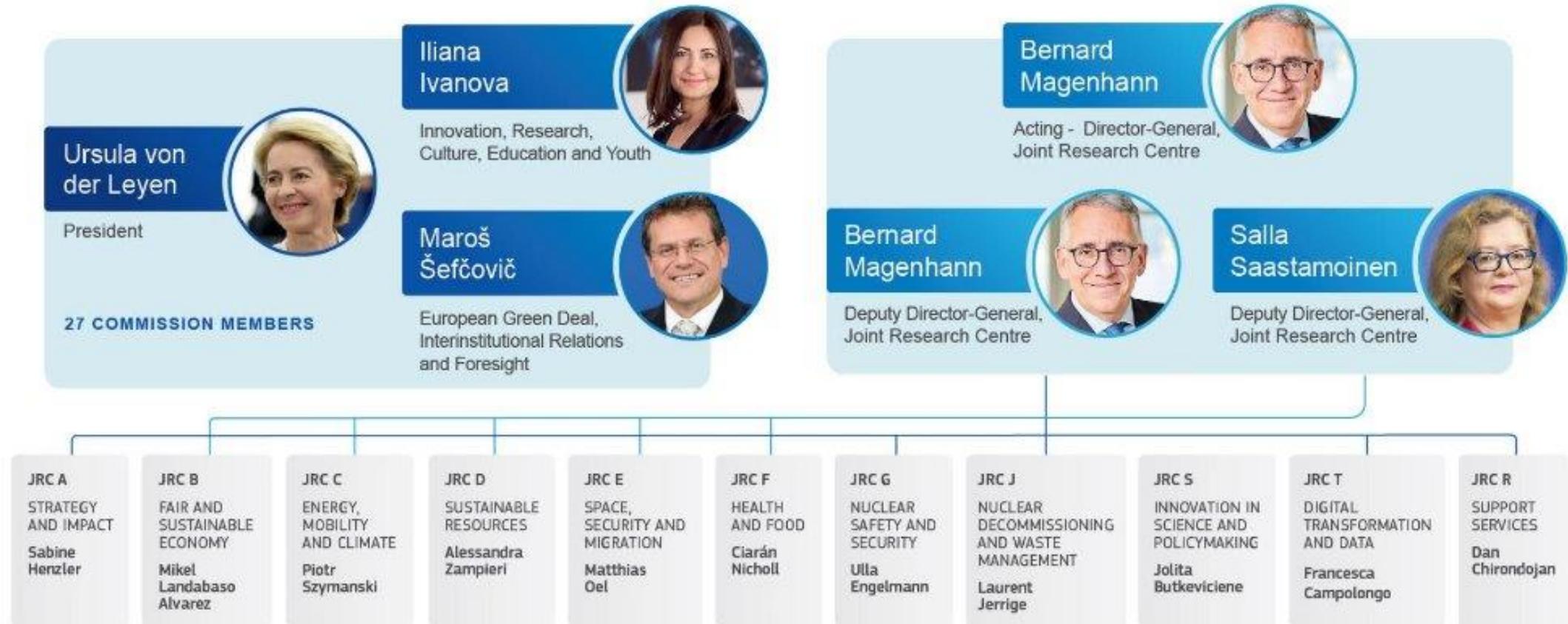
European Crisis Management Laboratory (ECML)

Scientific performance

- Nearly 8.000 peer-reviewed publications in Scopus
- 40-50% of articles published in the top 10 % most cited journals (KPI)
- 5-7 % among the top 1% most cited journals
- Positive trends for share of publications in top 10% most cited journals and in top 1% most cited publications.



The Joint Research Centre within the Commission



Support to robust policymaking

- In 2023, we helped shape **35% of the new policy initiatives set out in the Commission's Work Programme.**
- For the new mandate, we expect the JRC to be strengthened in its role to provide scientific evidence support.
- For the first time, we have been **mentioned in all mission letters.**
- This reference of the JRC of the President-elect to all Commissioner-designates provides recognition of the JRC's role and a tacit **endorsement for more engagement of the JRC in the policy cycle.**

Science for policy



ANTICIPATE



INTEGRATE

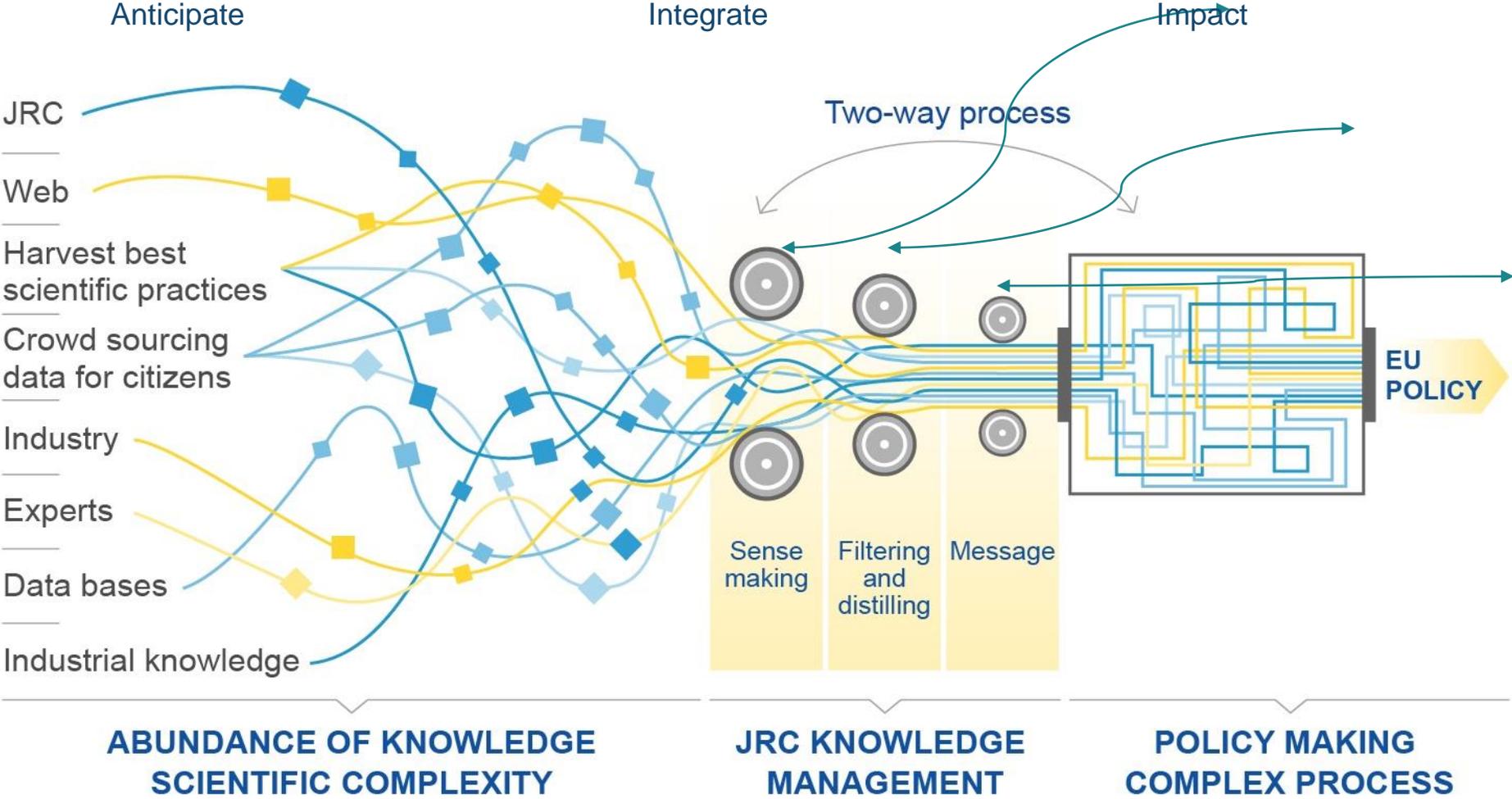


IMPACT

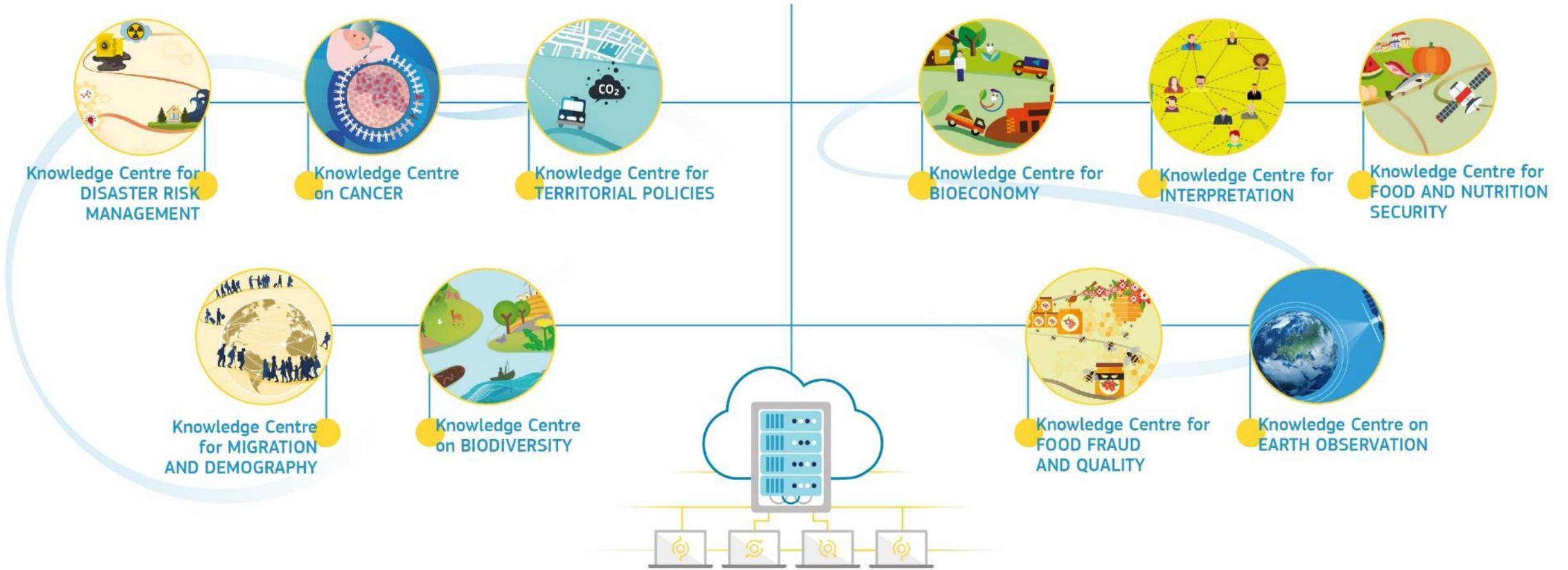
Our purpose

The Joint Research Centre provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

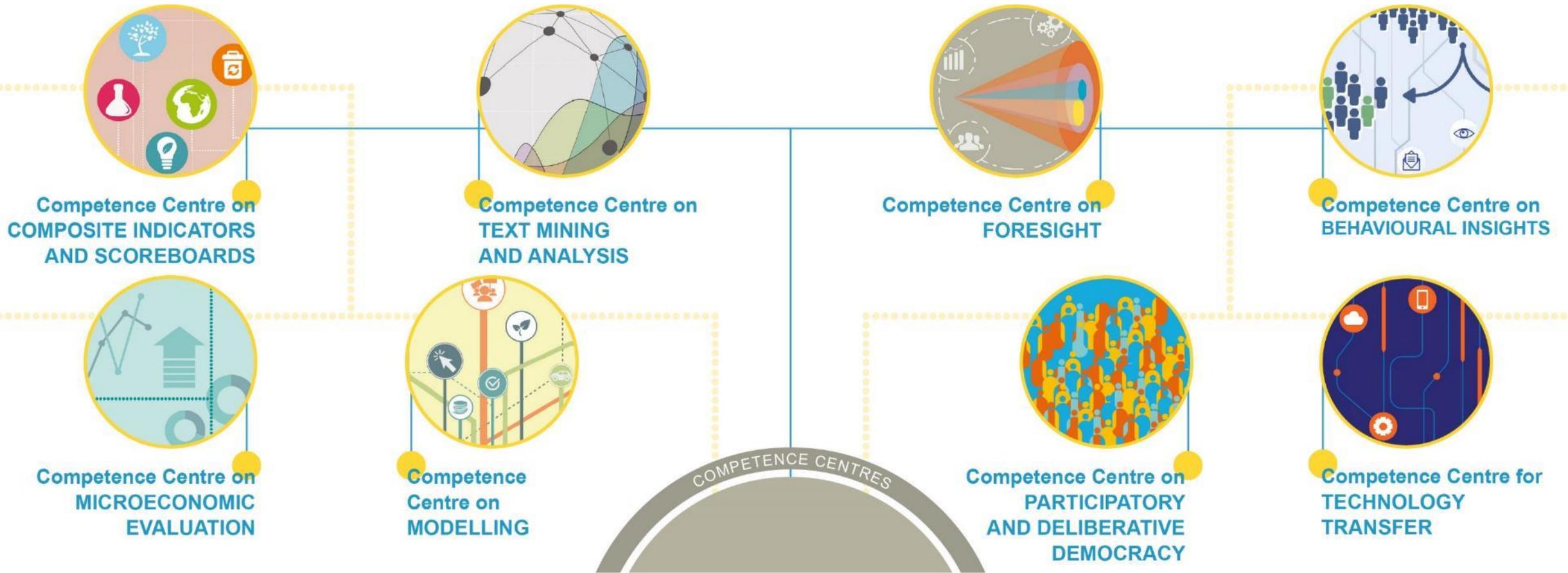
Dealing with the information overload



Knowledge Centres



Competence Centres



JRC Highlights report 2023: [JRC Publications Repository - JRC Highlights Report 2023](https://publications.jrc.ec.europa.eu/repository) (europa.eu)



Fostering nuclear innovation for tomorrow's society

For the last 60 years, the JRC has been developing and applying solid nuclear expertise and making unique nuclear research infrastructures available to positively impact economic and social development in the EU Member States and around the world. Over time, the JRC's nuclear research has also achieved important results in fields that are unrelated to energy, such as nuclear forensics and healthcare, and continues to explore the frontiers of nuclear science applications, for the benefit of all Europeans.



SOCIETAL IMPACT

48 scientists from 15 countries improved their nuclear research in 2023 thanks to the Open Access to Research Infrastructures programme



Proactively managing disasters via Earth observation

Floods, wildfires, droughts. When disasters strike, emergency teams need quick and reliable information to take operational decisions. The JRC is a key partner offering data to EU Member States and the EU Civil Protection System. The JRC has been a frontrunner in Earth observation and scientific research related to natural hazards for over three decades. Thanks to its ability to combine satellite data with in-situ observations and artificial intelligence, the JRC is now able to contribute at all stages of the disaster management process: from risk anticipation and early warnings to crisis response and post-event risk and recovery assessments.



MEMBER STATE SUPPORT

88 on-demand mapping activations
in 2023 via the Copernicus
Emergency Management Services



Food & Feed

- Supporting EU legislation on official food control
- Developing methods for detection in food and consumer products
- Validating fit-for-the-purpose analytical methods
- Assess impact of regulations on sustainable food systems
- Environmental and climatic impact evaluation of farming

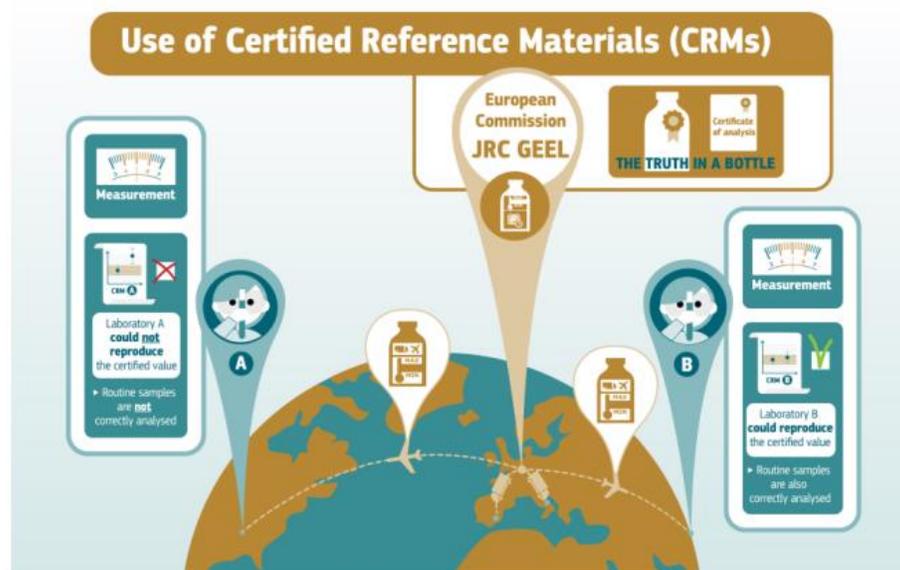


Authenticity proof/fraud detection

- European Reference Center for control in the wine sector including wine data bank
- European Reference for water in poultry
- Olive oil, honey, fish
- European Reference Centre for tobacco authenticity

Reference materials

JRC is a leading Reference Material developer



Materials range from nuclear to industrial to food to GMOs to clinical materials

- ~700 different materials available
- 20,000 units distributed yearly
- ~5-10 new materials yearly

Support to Ukraine - JRC Task Force



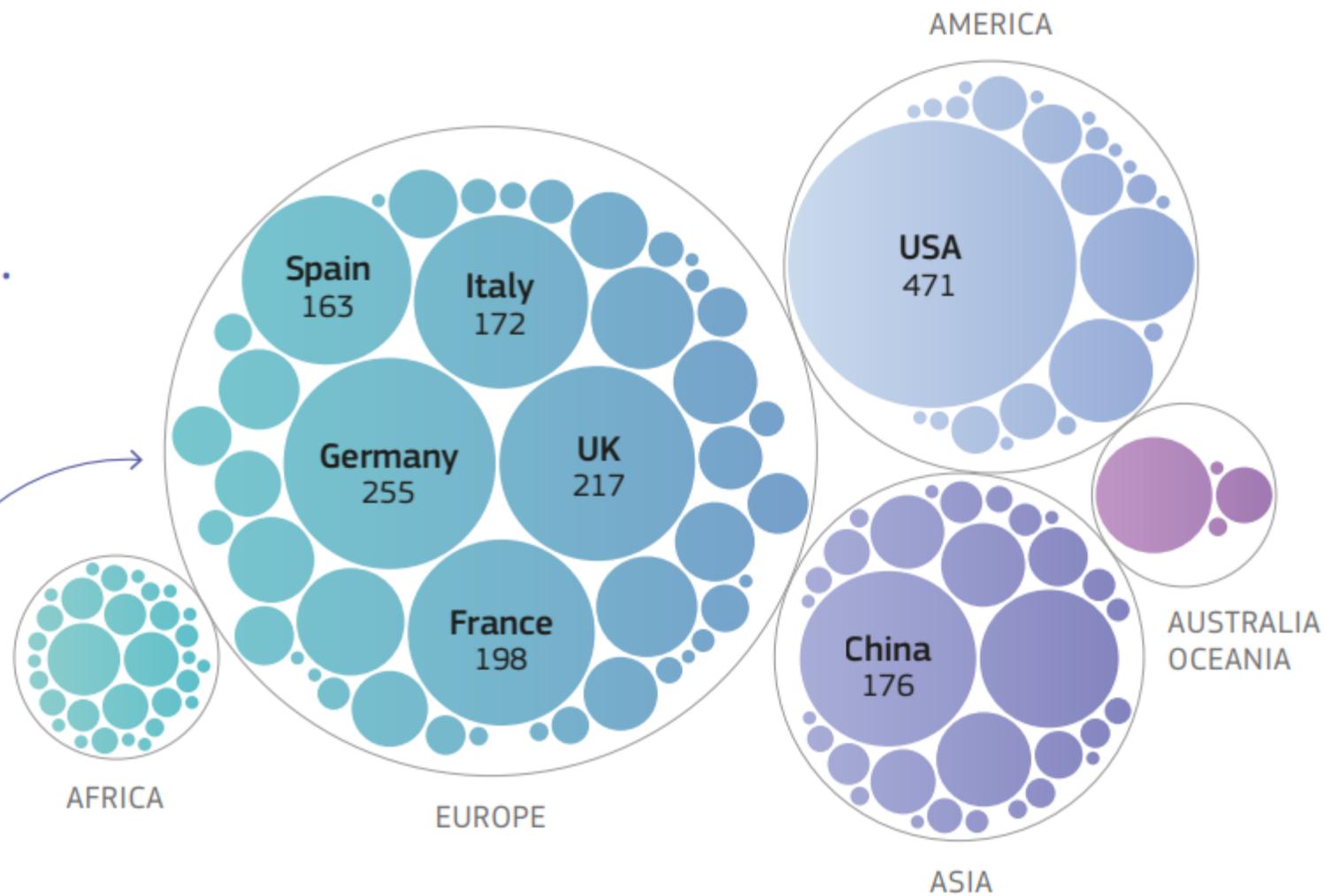
- The JRC is producing 2-4 maps daily to trace migration flows.
- Assessment of the impact of electricity integration and de-carbonisation of the energy system and security of natural gas supply.
- JRC economists assess the exposure of member states to the Russian economy through trade, the banking system, and supply chains.
- Crop yield forecasting for Ukraine.
- Disinformation - identifying false narratives on Russia's war against Ukraine, potential responses and related fact-checks.
- Etc...

Opportunities



We cooperate across Europe and the globe.

To provide the latest and most comprehensive evidence we work in a worldwide network of science. **82% of JRC publications** are co-authored with scientists working outside the JRC from **more than 3200 organisations in 134 countries**, including all EU countries.



Nonmonetary agreements with Polish partners

Bilateral agreements

- ❑ **NATIONAL CENTRE FOR NUCLEAR RESEARCH (NCBJ)**
- ❑ EURDEP Memorandum of Understanding between EURATOM and the National Atomic Energy Agency (Poland)+C27 **NATIONAL ATOMIC ENERGY AGENCY (PAA)**

Multilateral agreements

- ❑ Large Enriched Germanium Experiment for Neutrinoless Decay, LEGEND: **JAGIELLONIAN UNIVERSITY**
- ❑ ESARDA (nuclear safeguards): **NATIONAL ATOMIC ENERGY AGENCY (PAA)**
- ❑ Surveillance of congenital anomalies ('EUROCAT Network'): **POLISH REGISTRY OF CONGENITAL MALFORMATIONS, DEPARTMENT OF MEDICAL GENETICS**

Thank you and keep in touch

Katarzyna.Kowal@ec.europa.eu



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EU Science Hub

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