

The European Commission's science and knowledge service

Joint Research Centre

A modern JRC
in a modern Commission

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Sofia, 15th March 2017



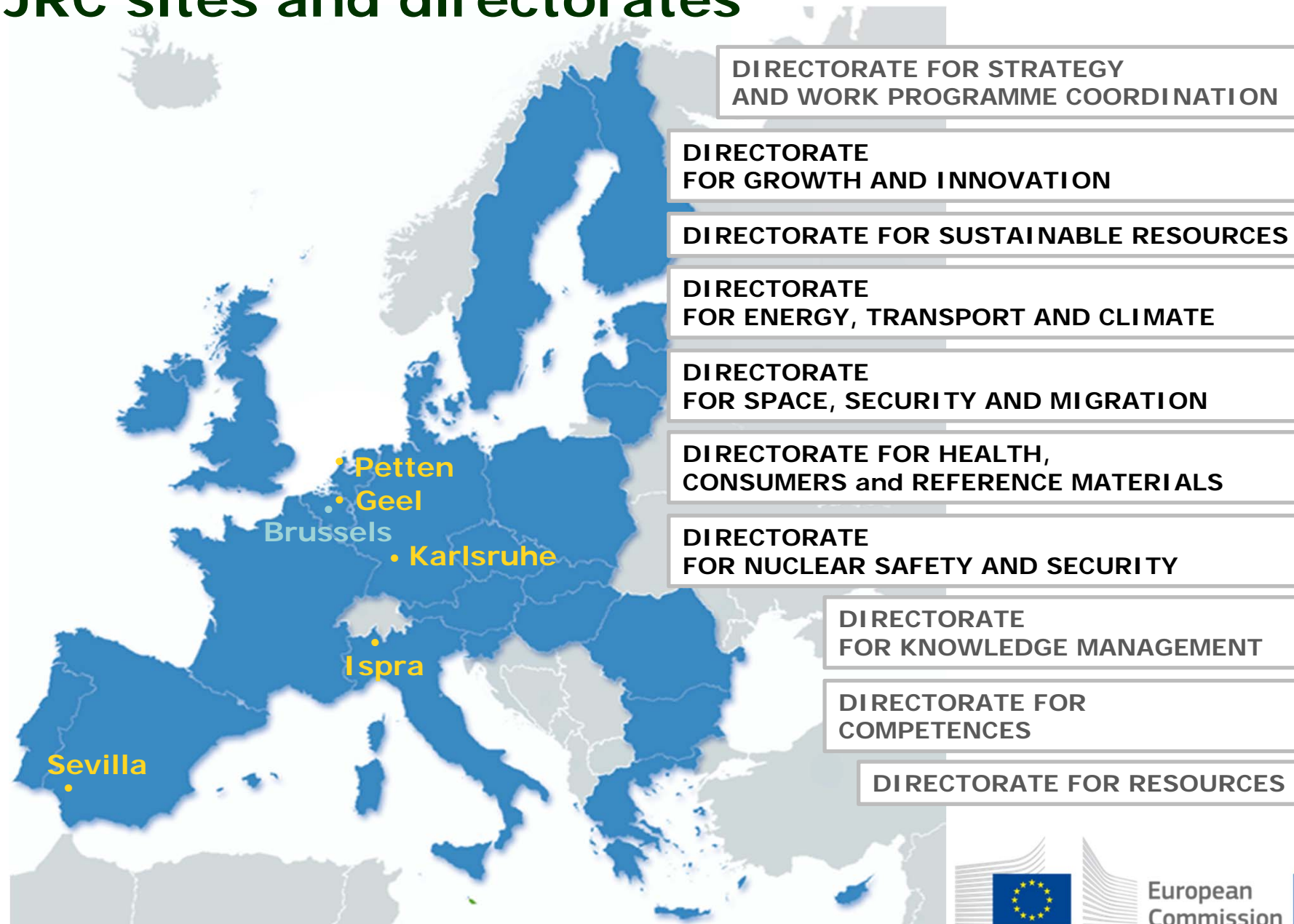
DG JRC: key figures

- **6 locations** in 5 Member States
- **1500 core research staff**, out of around **3000 total staff**
 - + Research fellows and visiting scientists
- **83%** of core research staff with **PhDs**
- **42 large scale research facilities**

JRC sites



JRC sites and directorates



DIRECTORATE FOR STRATEGY AND WORK PROGRAMME COORDINATION

DIRECTORATE FOR GROWTH AND INNOVATION

DIRECTORATE FOR SUSTAINABLE RESOURCES

DIRECTORATE FOR ENERGY, TRANSPORT AND CLIMATE

DIRECTORATE FOR SPACE, SECURITY AND MIGRATION

DIRECTORATE FOR HEALTH, CONSUMERS and REFERENCE MATERIALS

DIRECTORATE FOR NUCLEAR SAFETY AND SECURITY

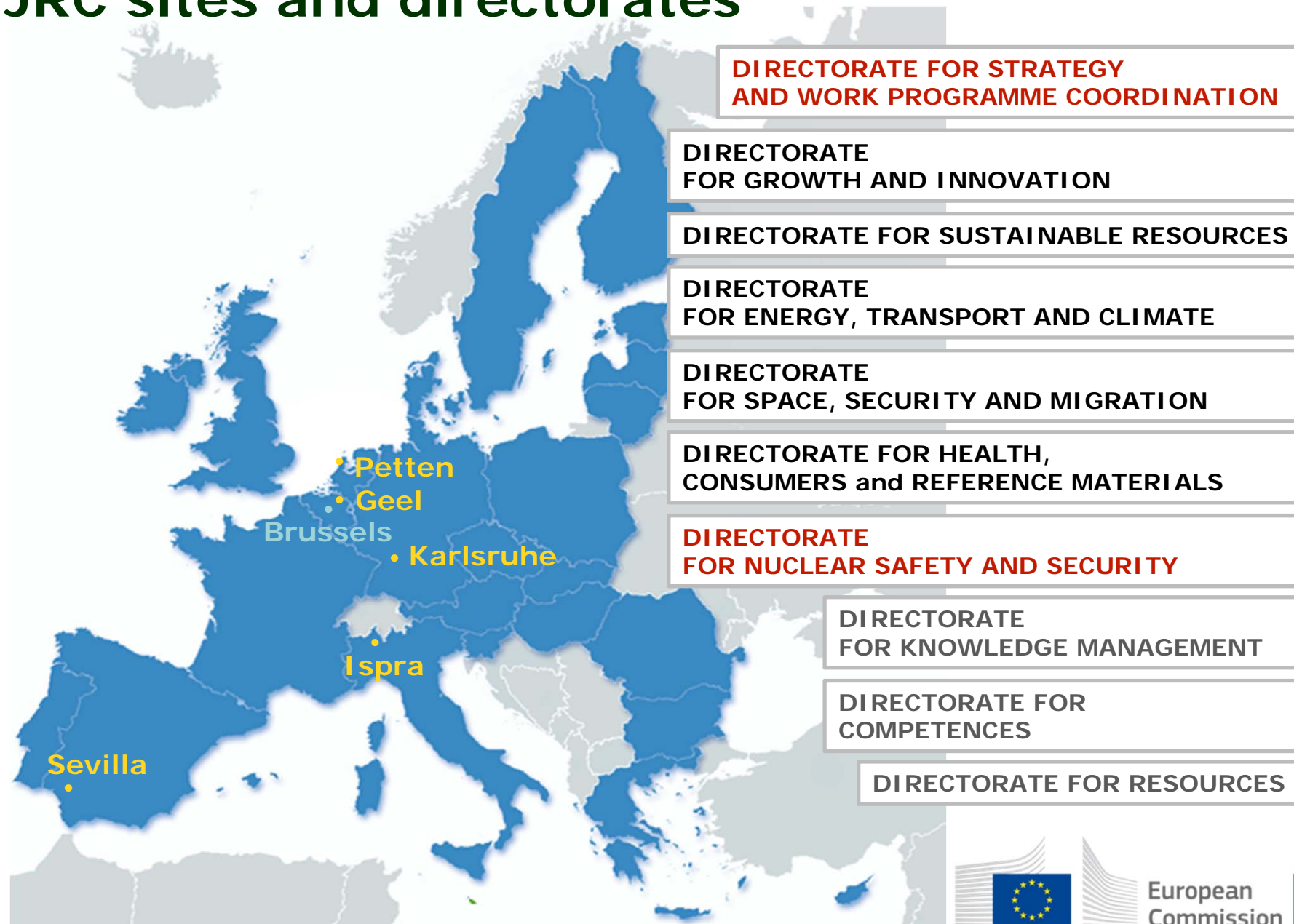
DIRECTORATE FOR KNOWLEDGE MANAGEMENT

DIRECTORATE FOR COMPETENCES

DIRECTORATE FOR RESOURCES



JRC sites and directorates



DG JRC Role

- **Independent** of private, commercial or national interests
- **Policy neutral**: has no policy agenda of its own
- **Transversal** service - cuts across policy silos
- **Focus** on the **priorities** of the European Commission (80% of activities co-designed with partner DGs)
- Expertise in a **wide range of areas** from economic and financial analysis through to energy, transport, health and environment

DG JRC Vision and Mission Statements

Vision:

"To play a central role in creating, managing and making sense of the collective scientific knowledge for better EU policy."

Mission:

*"As the science and knowledge service of the Commission our mission is to **support EU policies with independent evidence** throughout the whole policy cycle."*

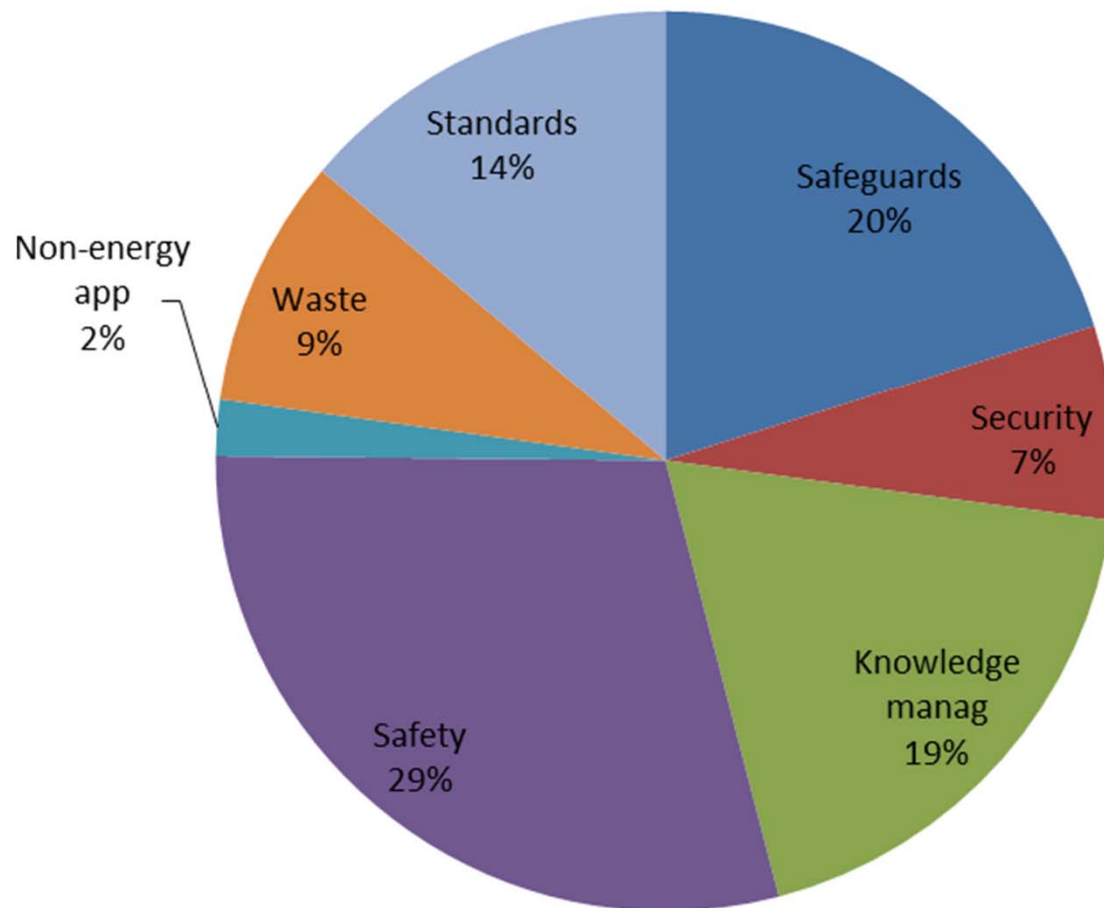
Horizon 2020 – Council Regulation EURATOM 1314/2013

High-level objectives for EURATOM direct actions (2014-2018)

- 1 – Improve **nuclear safety** including, fuel and reactor safety, waste management and decommissioning, and emergency preparedness;
- 2 – Improve **nuclear security** including: nuclear safeguards, non-proliferation, combating illicit trafficking and nuclear forensics;
- 3 – Raising excellence in the **science base for standardisation**;
- 4 – Foster **knowledge management, education and training**;
- 5 – **Support the policy** of the Union on nuclear safety and security and the related evolving Union legislation.

JRC Directorate for Nuclear Safety and Security

Euratom groups of activities



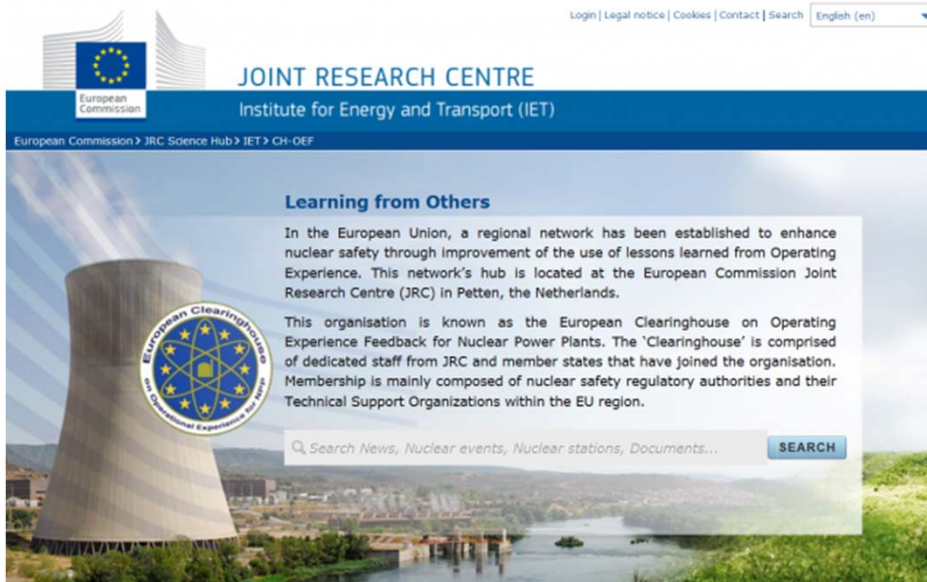
Work programme 2016:

- 22 R&D Projects
- 156 work packages
- executed in 4 sites: Karlsruhe, Geel, Petten, Ispra

Example 1: European Clearinghouse

European Clearinghouse on OPERATING EXPERIENCE FEEDBACK

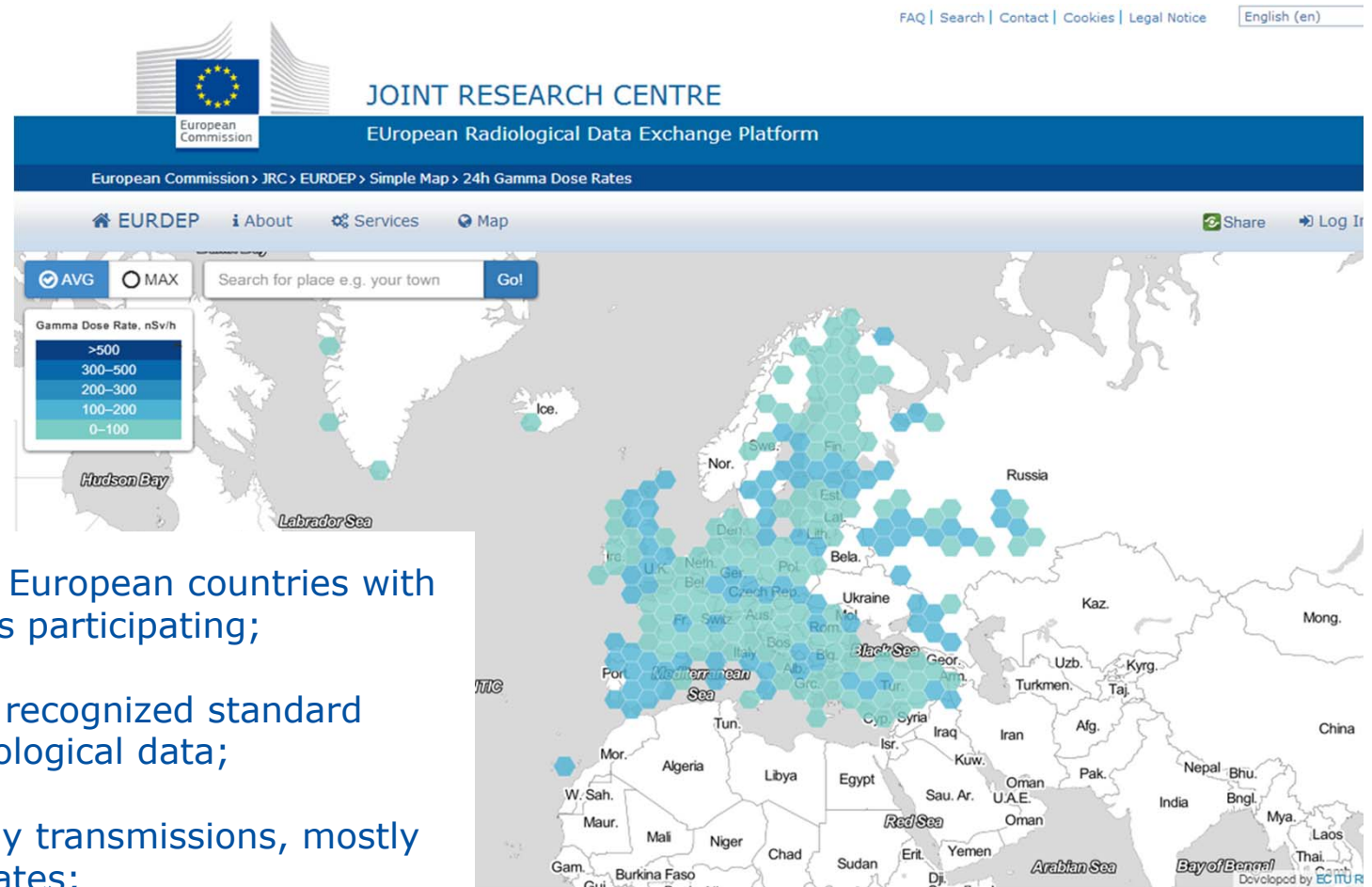
Participants: nuclear regulators of EU Member States having NPPs + Switzerland + Ukraine
International cooperation through IAEA and OECD/NEA



The objective of the OEF records is to make available and disseminate relevant information and lessons learned acquired from reported operating events in order to improve the safety of nuclear power plants.



Example 2: EURDEP



- Network of 39 European countries with > 5000 stations participating;
- Internationally recognized standard format for radiological data;
- Daily and hourly transmissions, mostly gamma-dose rates;
- Web-site to view and download data: >>> <http://eurdep.jrc.ec.europa.eu>

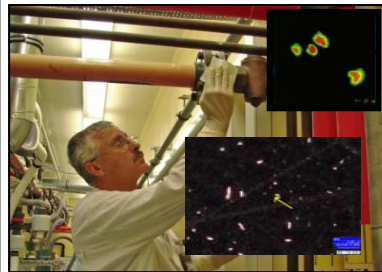
Example 3: EUSECTRA

Effective and Efficient Safeguards



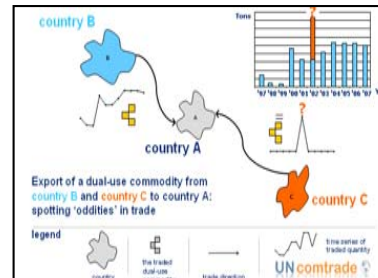
- Nuclear material measurements
- Reference materials
- Containment & Surveillance
- Process monitoring
- On-site laboratories

Verification Absence of Undeclared Activities



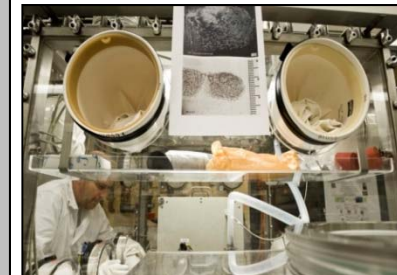
- Trace & particle analysis
- In-field tools for investigative inspector
- Reference materials

Nuclear Non Proliferation



- Export control
- Trade analysis
- Non-proliferation studies

Combating Illicit Trafficking

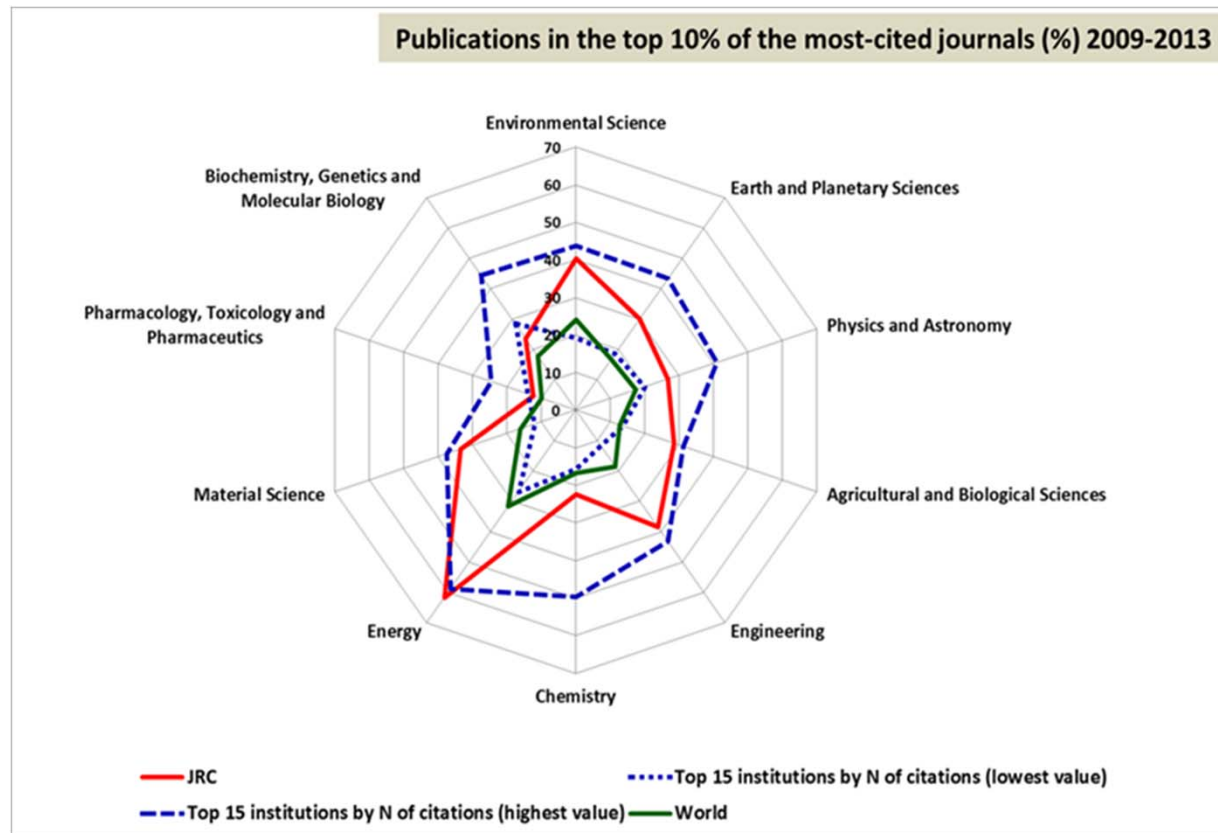


- Equipment development
- Testing & validation
- Nuclear forensics
- Nuclear preparedness
- National response plan
- CBRN, IfS, ...

TRAINING & EDUCATION European Nuclear Security Training Centre
Promotion /Dissemination of EU's highest Safety/Security standards

DG JRC Scientific Excellence

- 23% of JRC publications belong to the top 10% most cited publications
- 3% belong to the top 1% most cited publications



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