



## The Mission of the Joint Research Centre

... is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies.

As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union.

Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.



## 7 Institutes in 5 Member States, Including Spain, 227 Spanish staff

IRMM - *Geel, Belgium*

Institute for Reference Materials and Measurements

ITU - *Karlsruhe, Germany*

Institute for Transuranium Elements

IE - *Petten, The Netherlands – Ispra, Italy*

Institute for Energy

IPSC - *Ispra, Italy*

Institute for the Protection and Security of the Citizen

IES - *Ispra, Italy*

Institute for Environment and Sustainability

IHCP - *Ispra, Italy*

Institute for Health and Consumer Protection

**IPTS - *Seville, Spain***

**Institute for Prospective Technological Studies**



## JRC Resources (latest figures)

### Budget \*

Institutional budget	~ 345 M€
Additional contracts	~ 60 M€
Additional credits from FP7 Associated Countries	~ 17 M€

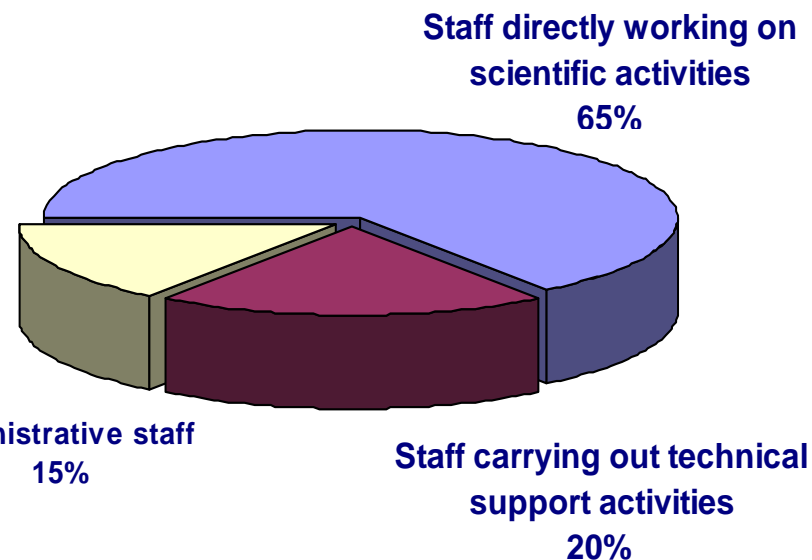
**Total ~ 422 M€**

Decommissioning of nuclear installations	~ 33 M€
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### Human resources \*\*

Core staff	1765
Visiting staff	~ 1000

### JRC Human Resources



(\* data as of Dec 2009    (\*\* data as of Oct 2009)

## Institute for Prospective Technological Studies (IPTS)

- Established in 1994
- 210 staff: target of 250 by 2012
- IPTS promotes and enables a better understanding of the links between technology, economy and society

### Core activities:

- Sustainable development ✓
- Energy & transport ✓
- Research & innovation ✓
- Information society ✓
- Agriculture & rural development ✓





- **184 Spanish partners**
- 482 Ongoing Partnerships:
  - 418 Competitive activities ✓
  - 33 Institutional Networks ✓
  - 31 Collaboration Agreements / Memorandums of Understanding ✓



## An international, multi-disciplinary research centre

55 nationalities  
700 specialised scientific core staff  
~430 PhDs/PostDocs students  
~600 peer-reviewed publications/year  
~450 policy support reports/year

## Cooperate to deliver

JRC works with over 1000 public and private research organisations, institutions and expert groups in more than 250 networks

## Infrastructures for users

JRC builds and maintains its own general infrastructure, and 31 specialised research facilities and 48 scientific databases

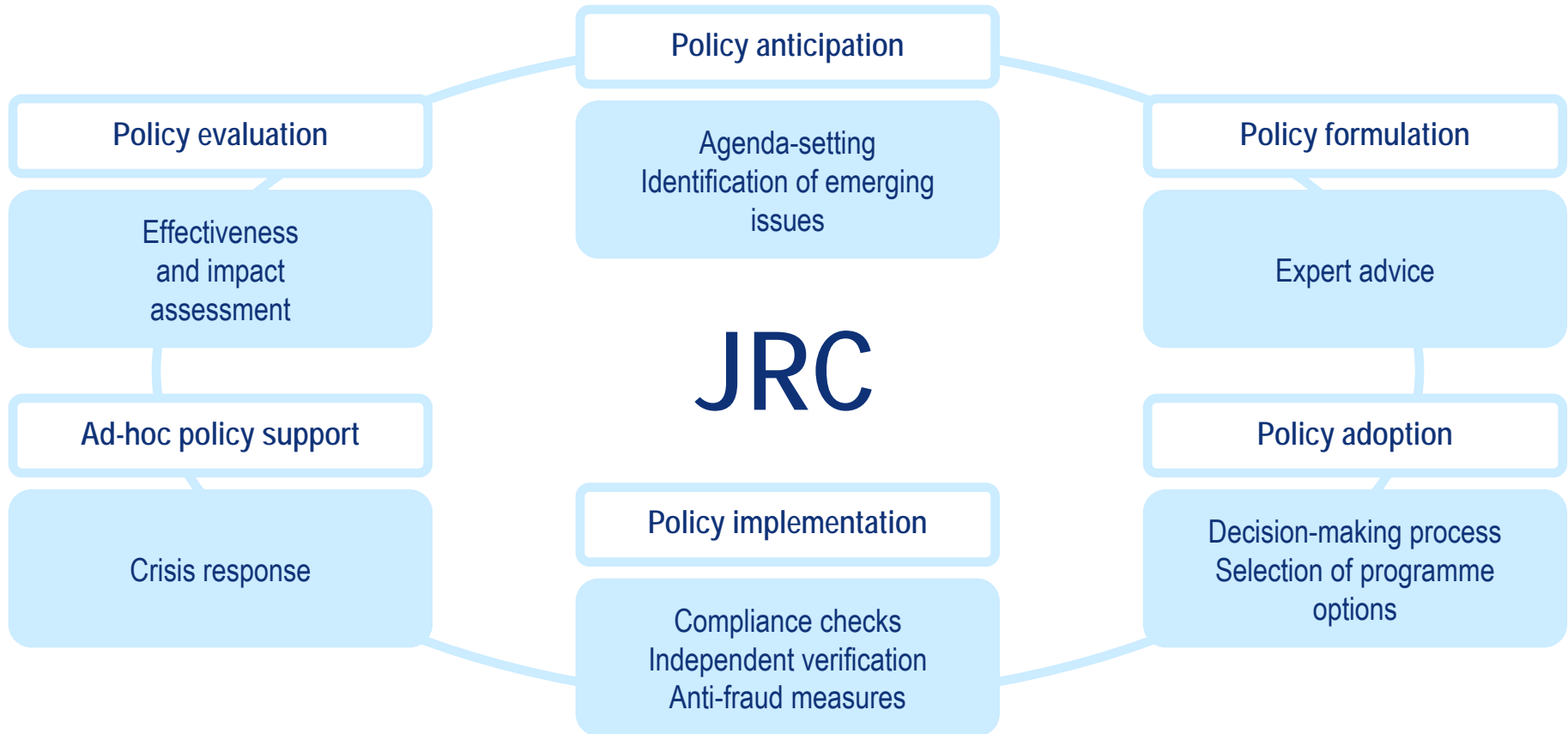
## Quality above all

The Quality management at JRC is based on ISO9001 (8 Directorates already certified), 12 ISO 17001 accredited laboratories

## Working for the EU Citizen

- Helping to fix pollution emission standards
- Harmonising measurements of GMOs
- Validating new methods alternative to animal testing
- Preventing nuclear trafficking
- Developing safe, secure and ecofriendly building standards
- Improving testing for safer food and feed
- Testing the safety of nano-materials
- Responding to crises and natural disasters
- Ensuring the safety and security of the nuclear fuel cycle
- Providing econometric indicators
- Monitoring business R&D spending
- Supporting enlargement







## Policy Anticipation: Understanding Europe's Energy Supply Systems

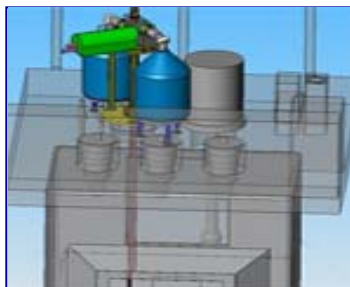
Developing indicators and models for simulating disruption, advising on policy and industry strategy

Reg. proposal to safeguard security of gas supply & repealing Directive 2004/67/EC [COM(2009) 363]

## Policy Formulation: Climate Change Negotiations

Support to EC and MS at COP-15: CO<sub>2</sub> removal projections, assessment of accounting rules for land use, land use change and forestry

Directive 2003/87/EC and Decision No 280/2004/EC on monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol



## Policy Implementation: Securing Nuclear Material in the Russian Federation

Nuclear Material Accountancy and Control (NMAC) system at Mayak reprocessing plant

Council Regulation (EC, Euratom) No 99/2000 on the provision of assistance to the partner states in Eastern Europe and Central Asia

## Policy Evaluation: Approval of New GM Crops

Assessing the implications of asynchronous approval for international trade

Regulation 1829/2003 on GM food and feed to protect human life, health and welfare whilst ensuring the internal market works effectively and Regulation 1830/2003 on traceability and labelling.





## Financial Crisis: Impact Study of Policy Options

DG MARKT amending legislation on deposit protection: New Directive 2009/14/EC - JRC delivered a 450 pp impact assessment in January 2010

## Research Studies: On Residential Energy Consumption & Efficiency

Commission Regulation (EC) No 244/2009 implementing Directive 2005/32/EC on ecodesign requirements for non-directional household lights - Directive 2006/32/EC on energy end-use efficiency



INSPIRE  
GeoPortal

INSPIRE  
Registry

## Drafting Implementation Rules: Infrastructure for Spatial Information in Europe (INSPIRE)

COMMISSION REGULATION (EC) No 976/2009 implementing Directive INSPIRE 2007/2/EC of the European Parliament and of the Council as regards the Network Services (Discovery and View)

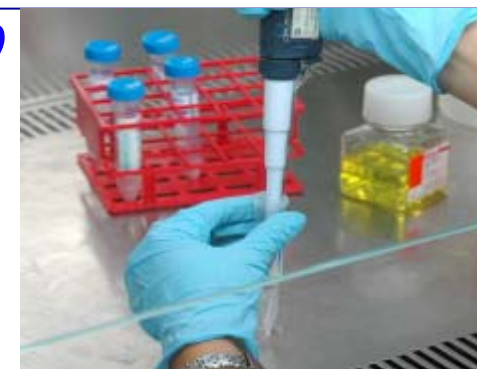


## New reference materials to detect flame retardants banned under the RoHS Directive

Directive 2002/95/EC on the Restriction of Hazard Substances (RoHS) in electrical and electronic equipment

## Validated 7 alternative test methods for regulatory acceptance in 2009

Accelerated the implementation of (1) the Cosmetics Directive to completely ban tests for skin/eye irritation in humans (from 11 March, 2009) and (2) the REACH legislation



## VELA-7 for full size trucks and buses

Regulation (EC) No 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information

	Event	Type of response
Food Safety	2009: imports of GM-contaminated Flax from Canada into EU (Germany)	Verification of detection method
Natural hazards	2010: Earthquake in Haiti (January, 2010) 2009: Earthquake in the Abruzzo (Italy) 2008: Forest Fires in Greece 2009: Po river flooding, Irish flooding 2008: Szechuan earthquake	Damage assessment (provision of maps, on-site analysis)  Early warning & damage assessment (continuous monitoring)  Early warning  Damage assessment (provision of satellite data, analysis, training)
Humanitarian crises	Since 2007: illegal diamond mining 2008: Georgia	Reports to Kimberley Process using satellite surveillance Damage assessment in Ossetia and Georgia
Industrial accident	2005: fire of Buncefield oil depot (UK)	Modelling dispersion of smoke plume; delivered to DG ENV
Non-proliferation	Illicit trafficking (since 1994, about 400 samples analyzed annually; 2009: find in NL)	Nuclear forensic analysis, advice and training
Financial Crisis		Impact Assessment of Changes to Deposit Guarantee Schemes (2008/2009)

## Principle Drivers:

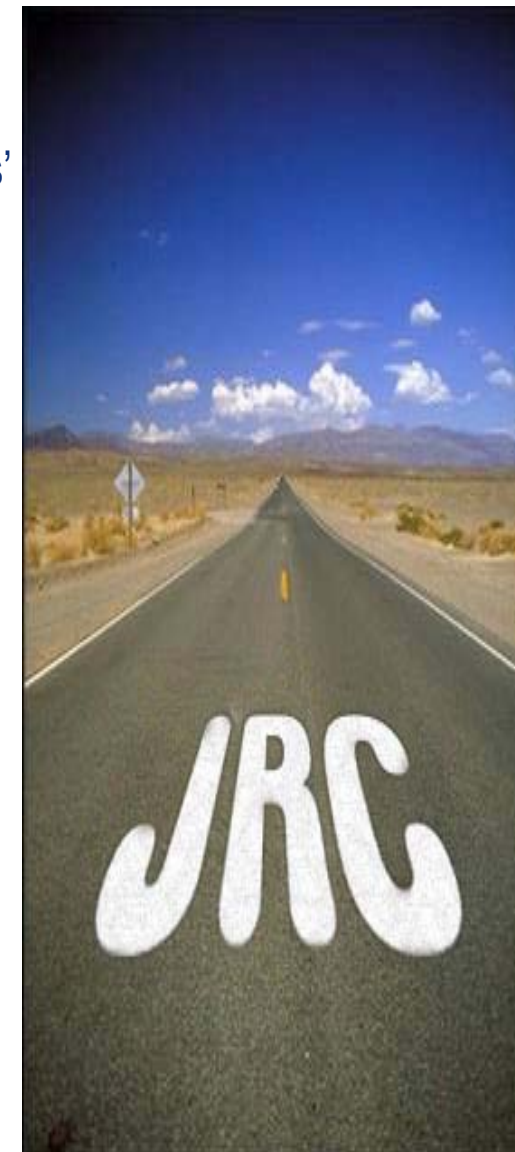
- Evolving complexity of challenges facing the EU and world: 'Grand Challenges'
- EU increasingly requested by Member States to tackle higher level issues
- We need to change how the JRC accomplishes its Mission

## JRC must become more:

- Proactive and Anticipatory of customer needs
- Operational across traditional policy boundaries
- Integrated across JRC Institutes

## New Forward-Looking Vision:

*"to be a trusted provider of science-based policy options to EU policy-makers to address key challenges facing our society, underpinned by internationally-recognised research".*



Towards an open and competitive economy



Reference materials and measurements



Development of a low carbon society

**Joint Research Centre  
2010-2020 strategy**



Security and crisis management



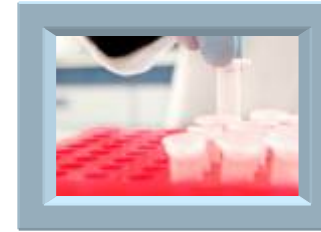
Sustainable management of natural resources



Safety of food and consumer products



Nuclear safety and security



## Integration

## Anticipation

## European Research Area

## Strategic Partnerships

## Innovation

Strengthen and organise economic and policy analysis competences inside JRC to ensure integrated solutions.

Anticipate societal challenges and policy needs through Horizon scan and forward looking activities

- Cooperation/partnership with key MS organisations
- Support Candidate Countries in the technical implementation of the EU law.
- Mobility and training of researchers.
- Access to scientific infrastructures.
- Analyse national research policies and private and public investment in R&D.
- Support standardisation – harmonisation/validation of methods and the development of reference methods, norms and standards essential to EU competitiveness,
- Participation to Joint Programme Initiatives (where JRC has competences and bring added-value).

Reinforce strategic partnership with key research organisations in ERA and major global science players, international organisations (OECD, UN, WHO, AAAS), strengthening the international dimension.

Stronger innovation culture and to protect its intellectual property (IP), i.e. via filing new patents, copyrights, designs and trademarks, while ensuring public access to databases and information portals.

Integration around modelling competences and platforms.

Corporate capacity to provide a proactive forward look for the JRC and the Commission services



## People and skills

Invest in competences: quantitative economics; foresight and horizon-scanning

Policy analysis; Integrated modelling

Invest in people: training, social environment, gender balance, exploratory research.

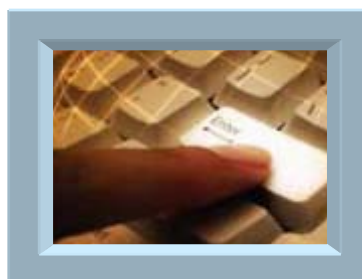


## Infrastructure and facilities

Investment required to update JRC-owned building infrastructure dating from 1960s; (Projects underway in Geel, Karlsruhe, Ispra)

Specialised experimental facilities (25, ~400 M€)

Coming: development plan to guide investment in, phasing out or renovation.



## ICT infrastructure

Investing in computing and communication facilities with appropriate capability, performance, reliability and flexibility to satisfy scientific (platforms) and administrative needs.



## Quality management

Involving external certification of JRC and accreditation of relevant laboratories and administrative units.



## Knowledge management

Scientific knowledge portal; a comprehensive and coherent information map; provide efficient, user-oriented platforms for management and scientific studies (computing platforms).

- Longstanding commitment to working in, and with, Spain **expected to grow under Europe 2020**
- Flexibility in responding to the changing needs **associated with the evolution of EU policies**
- Attention to the provision of quality expertise and support to other Commission services and Institutions **upon the emergence of new issues in crisis situations**
- Increased reliance on networks and partnerships with other institutions and expert groups **pursuing similar objectives**
- Continued day-to-day support **for the conception, development, implementation and monitoring of EU policies**
- **The JRC: your conduit into EU policy support**



## Joint Research Centre (JRC)

*Robust Science for Policy-Making  
Supporting Legislation, Serving Society*

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