

Joint Research Centre (JRC)



AN INDICATOR-BASED REVIEW OF THE DIRECT ACTIONS IN THE FP (JRC)

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Overview

1. Direct actions in the Framework Programme:
The Joint Research Centre
2. Monitoring and evaluation of JRC actions:
the expedience of an indicator-based review
3. The implementation of a Periodic Action Review

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7th Framework Programme (FP7)



**Specific programme
“JRC direct actions”**
2007-2013

€1,751 million

out of € 50,521 million

**EURATOM programme
“JRC direct actions”**
2007-2011

€ 517 million

out of € 2,751 million

FP7 indirect actions

Collaboration with national
public and private research
institutes, academia, industry
and international bodies

JRC ~€350 million per year from EC and Euratom FPs

~2900 staff working in 7 institutes in 5 member states



IE, Petten, The Netherlands
Energy



IRMM, Geel, Belgium
Reference Materials and Measurements

Ispra Italy



IES

Environment
and Sustainability

IHCP

Health and Consumer
Protection

IPSC

Protection and Security
of the Citizen

~2900 staff working in 7 institutes in 5 member states



ITU, Karlsruhe Germany
Transuranium Elements



IPTS, Seville Spain
Prospective Technological Studies

+ Brussels Corporate service at SDME 10th floor

JRC Work Programme

120 projects (actions) with SMART objectives and deliverables

Note the wide variety of competence and activities in the actions, e.g.:

- nuclear safety and security,
- environment and sustainability,
- reference materials,
- renewable energy,
- GMO testing,
- EIPPCB (European Integrated Pollution Prevention and Control Bureau)

JRC activities

- Bureaus
- Data bases/Maps
- Monitoring/verification
- Modelling, scenarios analysis/ Indicators development
(Socio-economic and natural sciences)
- Methods development/measurements
(physical, chemical & biochemical techniques)
- Reference materials & measurements/standards
- Prospective studies
- Training (Euratom task, transfer *acquis communautaire*)

Conclusions for direct actions in the FP

- The JRC has a wide variety of activities and competencies
- Defining uniform criteria that can be used for meaningful performance assessment across the whole JRC work programme is a challenge.

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Periodic Action Review PAR



“You can’t improve what you don’t measure”

Measure output and impact
in a meaningful way
uniformly across the organisation

Assess alignment with the mission!

... 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.

In PAR the mission of the JRC is translated into two measurable assessment criteria

... to provides customer-driven scientific and technical support to European Union policies

... the JRC functions as a reference centre of science and technology for the Union

Policy impact

= Impact of support to EU policies

Scientific output

1. Impact on the policy processes

Impact of JRC support provided to EU institutions, Member States authorities and international organisations (cf. Slide 16) according to a set of commonly agreed predefined criteria (cf. Slide 17/18)

2. Scientific results

- Peer reviewed publications and Patents
- Books, EUR reports, PhD Thesis
- (Success rate and role in FP Indirect Actions)

	Category of output	Criteria for acceptance
1	Reference materials	Newly developed and certified reference materials and the new radioisotopes produced in a given year.
2	Policy support documents	Study reports, technical reports, guidance documents, maps, bulletins, forecasts, assessments, analyses, scenarios, BREFs or important briefings produced for customer DGs. Their main purpose is policy support.
3	Validated and harmonized methods and measurements	Validation reports, proficiency tests, round robin tests, inter-comparisons and harmonization exercises for the whole range of methods dealt with by the JRC.
4	Technical systems	Pieces of engineering hardware, including technical prototypes, developed and manufactured by the JRC.
5	Other policy support products and services	Direct scientific and technical support provided by the JRC under a form, other than documents, such as new software, numerical models, algorithms, software based prototypes, databases, websites or other tools.
6	Patents and licenses, inventions	Primary patents filed and for which a registration number exists; newly created exploitable licence agreements.
7	Scientific publications	Scientific peer-reviewed publications registered in PUBSY. They are in general not considered as policy support.
8	Training courses	Training courses developed and delivered by the JRC, either in-house or outside.

Category of impact	Criteria for acceptance
Important EU policy document bearing the trace of JRC influence	Directive, Regulation, a Commission Decision or a Communication referring to the work of the action, or instead of this, accompanying documents, such as 'impact assessments' or 'explanatory notes' that contain influential work directly traceable to an action. Double counting (e.g. mention of the same work in a directive and in the corresponding impact assessment) is to be avoided.
Other evidence of significant influence on EU policy decisions	Verifiable documentation acknowledging or demonstrating the influence of the JRC's work.
Important short-term operational support to EU action bearing the trace of JRC influence	Planned activities (e.g., crop forecasts, work on nuclear safeguards...) and ad-hoc work carried out successfully at short notice in response to urgent request from a Commission DG, MS or International Organisation (e.g., natural disaster, war, humanitarian crisis, food scarcity, fight against illicit activities, WTO case...).

Category of impact	Criteria for acceptance
Long-term indispensable/ essential support to implementation of EU policy or legislation	This is typical of the activities of the JRC "Bureaux", of an action implementing a directive or of the JRC provision of reference data that become "official" (e.g., data on cross-sections in the nuclear area). Without the JRC, implementation would cease.
New means of implementation	New or novel means for the development, implementation or monitoring of specific legislation or policies at EU level such as new methodologies, monitoring techniques, reference materials, reference data sets, new reference methods (e.g., method for greenhouse gas accounting adopted for the implementation of the Kyoto Protocol).
Contribution to the implementation of the " <i>acquis communautaire</i> "	Number of new laboratories or organizations in MS or Third Countries capable of applying official EU methods or protocols as a result of training by the JRC

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PAR Review procedure

- Actions report their output in various categories and indicate verifiable impact from the list of impact criteria
- Internal review panel assesses all actions (one scientist reviewer from each institute)
- Panel assigns a value to impact of an action on a scale of 1-9 according to agreed predefined criteria

PAR Review procedure

- Panel validates number of peer reviewed publications (automatic count from JRC publication data base (PUBSY))
- Each action receives two ratings:
 - one for policy impact and
 - one for normalised scientific output
- Results transmitted to JRC institutes with last possibility for revision

Final report

- Presents detailed tables with output and impact scores for each action
- Gives a general impression of the extent to which a JRC action contributes to the fulfilment of the mission (high, medium or low, but no ranking!)
- Draws management attention to actions with a lower productivity and/or a smaller contribution to fulfilling the mission
- Proposes incremental improvements of the methodology

Five years of PAR : a long list of benefits

- PAR triggers a dialogue with actions with a low productivity and/or off the JRC main stream
- PAR provides quantified results that can trigger and/or support management decisions
(evidence-based decision making)
- PAR results increase the performance awareness of the staff and management

Five years of PAR: a long list of benefits

- PAR better prepares the JRC for external evaluations and performance audits
 - It provides regular and systematic “measurements” of the performance and the mission alignment of the JRC actions
 - It allows the calculation of the normalised productivity (output per scientist)
 - It has introduced a rationalisation and validation of action-related information in the organisation

Propagation of PAR's measurement method

- Budget authorities demand a tighter regime of planning, execution and reporting with strong requirement for systematic accounting
- New budgetary procedures in the Commission give a high importance to output and impact of activities
- The “measurement methods” and indicators used in PAR propagate into the Commission Activity Based Management cycle.

In summary

- From 2003 onwards the JRC has an internal data base with output and impact indicators of all its individual projects validated in the annual PAR exercise
- Building this action data base requires:
 - Effort and discipline to enter data,
 - Specific informatics support for data base management,
 - Dedication to data validation at corporate level (PAR),
 - Determination of senior management

In summary

- Work in progress
 - Corporate-wide acceptance of the methodology
 - Resistance to more detailed reporting
 - Developing methodology e.g. include customer in assessment
- Added value of central collection and storage of output and impact information
 - It allows corporate services to handle budgetary procedures
 - It strongly reduces information requests to scientists
 - Last but not least, it provides a trail for evaluations and performance audits