

EUROPEAN COMMISSION
DIRECTORATE GENERAL FOR RESEARCH & INNOVATION
JOINT RESEARCH CENTER

Directorate RTD C - Research and Innovation
Directorate JRC A - Scientific Policy and Stakeholder Relations
The Directors

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NOTE TO ERAC DELEGATES

Subject: ERAC September meeting - R&I Observatory

A. Overall concept for the R&I Observatory

Mission

The R&I Observatory is an information system intended to support the strategic development of R&I policies in the EU. It should serve the information (qualitative and quantitative) needs of Commission services to monitor and assess R&I policies as well as provide added value services to Member States and Associated Countries and other stakeholders involved in the development of R&I policies. It is a project set in the long-term, aiming to build on and in due course supersede the current patchwork of R&I information systems (incl. ERAWATCH, NETWATCH and IU Information and Intelligence System).

Main Tasks

The business of the Observatory shall be to collect, organise, produce and disseminate data and analyses on innovation and research, in a way that contributes to a step change in our understanding of such activities as levers of growth, so that a decisional advantage for economic and public actors in the EU is created by the evidence base produced.

To fulfil this mission, the Observatory shall be competent for

- (1) Collection and production of data and analysis on research and innovation, in both qualitative and quantitative dimensions, namely in respect of research and innovation systems and policies, within the EU and abroad;
- (2) Publication, dissemination and valorisation of such data and analysis, whether produced by the Observatory itself, or ceded to it by other parties;
- (3) Application of the state of the art on the methodologies for the production of such data, on the conditions for their pertinence and reliability, as well as on the production of various forms of analyses that such data allows.

Geographical Scope

- the 27 Member States;
- the Associated States and some third countries (selection of key trading partners of the EU);
- the regions within the EU (at a later stage).

Scope for qualitative data

The Observatory will provide and organise in a user-friendly way qualitative data and policy measures for innovation and R&D, necessary to respond to users' needs namely in priority Commission services and Member States' policy makers.

To this end, it will provide:

- Description of the main features of national R&I systems according to a conceptual framework largely based on the structure of the IU Self-Assessment Tool;
- Regular monitoring of R&I policy developments in Member States, Associated Countries and in selected third countries;
- Monitoring of the implementation of IU commitments and ERA actions.

This qualitative information, together with the quantitative information indicated below will allow to:

- identify R&I key challenges;
- assess their impact on competitiveness, growth and jobs; and
- formulate country specific recommendations (CSRs) for each MS, in particular in the context of the European Semester, Innovation Union and ERA.

In due course, this information will support the assessment of overall trends of R&I policies in the EU, the identification of new or persistent systemic issues that affect the R&I performance of the EU as a whole, and the benchmarking of policy developments in the EU against those taking place in key trading partners.

Scope for quantitative data

The Observatory will provide and organise the quantitative data necessary to measure the various dimensions of R&I systems (of the EU, Member States, Associated Countries and key third countries) and to calculate indicators to measure performance, impact and progress.

Three types of data will be used:

- Statistics and indicators sourced notably from Eurostat; other Commission services and OECD, using in particular the pilot Innovation Union Competitiveness Database;
- Estimates collected and analysed by the Observatory on 5 key quantitative data on resources for R&D: the Gross Expenditure on R&D funded by the public sector; the Gross Expenditure on R&D performed in the Government sector (GOVERD); tax credits for innovation and R&D; the Gross Expenditure on R&D funded by the Business sector; the Gross Expenditure on R&D performed in the Business Sector (BERD);
- Other sources of data such as the EU Industrial R&D Investment Scoreboard, the regional innovation scoreboard and other data produced by official bodies, as well as by other reputed public and private bodies, namely in the context of surveys, or of data streams.

The list of such data sources is expected to grow, as the Observatory develops.

Conceptual framework for organising policy information

The needs from all concerned users within the Commission are being gathered and organised to create a "tree model" of issues to be addressed. In respect of ERA and Innovation Union, this model, given in **annex A**, largely reflects the needs of DG RTD users, i.e. the content of the IU and ERA communications, and constitutes a first block in the **conceptual framework** of the coverage by the R&I Observatory to be used for collecting and organising information on national research and innovation policies in view of their assessment.

The exact timing of the coverage by the Observatory of this framework will be determined by the application of a "user needs assessment process".

Initial timeline and deliverables

The initial plan for the timeline and deliverables will be part of the R&I Observatory Business Plan which is being finalised by the relevant Commission service. In respect of the ERA and IU component, the Observatory will be developed progressively to include the various reports indicated in the last column of **annex B** (European Semester cycle, including R&I and ERA monitoring) as well as the production of the 'key estimates' report at the end of each year.

B. Access to the R&I Observatory service

The key principle is that all the data should be readily accessible and regularly checked/updated with the highest quality standards. Major updates will aim to be synchronised with the milestones of the European Semester and the IU/ERA policy cycles as illustrated in **annex B**.

The Observatory will be accessible to users and will offer access to the information and analysis available on research and innovation policies in the Member States, Associated Countries and selected Third Countries.

This access will be achieved through the 'opendata.eu' concept.

According to latest information available, the Commission will open up its 'open data' portal project in September 2012. Akin to the UK 'data.gov.uk' and to the US President Obama 'Big Data' initiative, the key gist of such tools is to make all public data held by administrations exploitable by users.

The preliminary design of the Observatory foresees the possibility of linking up not only data, but also the methods to the 'open data' portal of the Commission. Preliminary design includes:

- an infrastructure layer (computer systems and interfaces to the 'open data'),
- a 'modular methods' layer, to allow separate development of the European Semester module and of other modules such as IU or ERA;
- a user perspectives' layer, designed to optimise user experience in exploring data, depending on the profile (e.g. researcher vs. general public.). Member State agencies, external researchers and interested stakeholders alike will be able to exploit the data of the Observatory.

The precise modalities to ensure that exploitation (library, links, intelligent search functions etc.) will depend on the testing of the first module.

An agreement was reached to earmark 1.5 mio € of FP7 funds for development in 2013 of the Observatory (computer) modules necessary for making the IU and ERA data available in the 'open data'.

Information collection

A key element for any information system is the capacity to collect, check, regularly update and access information. It will rely on:

- Information provided by the countries themselves (Member States and Associated Countries) or directly collected by Commission services, e.g. through studies and surveys. Structured and easy-to-use tools will be designed to minimise administrative burden for countries and maximise data comparability and quality.. JRC will also ensure access to relevant information made available to the Observatory by other parties through relations established by the JRC in the scope of the Observatory.

This will include to set up and maintain data collection mechanisms directly involving national authorities where appropriate in view of the regular and timely provision of quality data.

- in-house expertise from JRC, in particular country desks.

Research funding and performing organisations and other Stakeholders organisations will be asked to report progress in the implementation of relevant ERA actions. The Commission will also carry out regular studies and surveys to review the state of play regarding IU commitments and ERA actions and to identify remaining barriers.

Commission services will coordinate all requests, including with OECD, to avoid duplicative requests to the Member States.

C. How the Observatory will feed into the AGS and improve policy monitoring

Evidence and analytical reporting

The conceptual framework of the coverage by the R&I Observatory should provide all the policy information and related indicators/estimates/statistics needed to review the main features of Member States' innovation systems and to review progress on the implementation of IU commitments and ERA actions. Such reviews should be part of the deliverables of the Observatory and should in particular highlight and document actions undertaken by Member States to implement agreed commitments (in the context of IU or ERA) and to address recommendations issued by the Council (in the context of the European Semester).

Policy Assessment

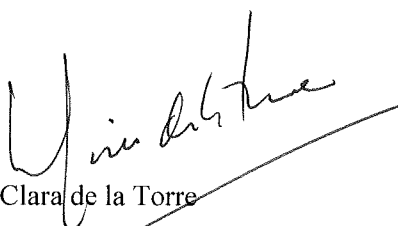
The information provided by the Observatory will support the assessment of the MS policies by the Commission services and strengthen the evidence base for R&I policy analysis at the level both of the MS and of the Commission.

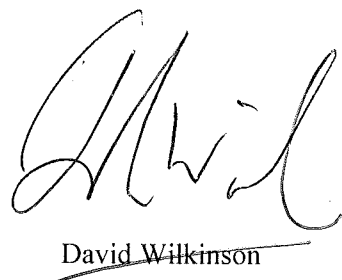
Roadmap for feeding in the Policy process

The regular reporting on monitoring and the analyses by the Observatory will, as the updates on information, be synchronised with the milestones of the European Semester and the IU/ERA policy cycles as illustrated in **annex B**.

The **annex B** illustrates the dates corresponding to the main milestones where such an input would be particularly useful:

- Before the adoption of the Annual Growth Survey by analysing the main policy trends over the medium-to-long term and producing up-to-date 'estimates' of key performance indicators, so as to allow to weigh on the EU policy orientations for the starting European Semester;
- During the European Semester, by producing progress reports on national policy developments related to individual IU commitments and ERA actions and their implementation by stakeholders (+ related indicators), to support the assessment of the National Reform Programmes;
- After the adoption of the Country-Specific Recommendations by producing additional material further documenting and analysing the key challenges that need to be addressed by the Member States concerned and possibly providing policy comparisons with countries in similar situations.


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Annex A: Draft conceptual framework of ERA and IU needs (summary)
Annex B: European Semester cycle including IU and ERA monitoring