

ESFRI: UPDATE ON STRATEGY & ACTIVITIES 2012

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FEEDBACK ON MERIL

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- Launched in April 2002 by the Council of Ministers of the EU
- Brings together representatives of the Ministers of Research of the 27 MS, 10 Associated States, and the EC

Mission

- To support a coherent and strategy-led approach to policy making on research infrastructures (RIs)
- To facilitate multilateral initiatives leading to a better use and development of research infrastructures
- Additional mandate of the Council (2004, 2007): establish a European Roadmap for RIs (new and major upgrades, pan-European interest) for the coming 10-20 years, stimulate the implementation of these facilities and update the Roadmap as the need arises

Role of ESFRI

- To foster an “Open Method of Coordination” and “Joint Programming” between different countries: building trust, sharing best practices
- To discuss the long term vision at European level and to support the development of a European RI policy: involving all governance levels (EU, countries, regions)
- To bring initiatives and projects to a point where decisions by ministers are possible: pooling / attracting existing and new resources

A stimulation and incubator role

Roadmap

- 2006 – Update 2008 – **Update 2010** (*Next Update: 2014-2015*)
- 48 vital new or (upgraded) RIs of different size and scope, including medium-sized infrastructures (e.g. for SSH, bio-informatics, etc), in all S&T fields
- Single-sited RIs, Distributed RIs (single management and access), e-Infrastructures

Europe 2010 Flagship Initiative – Innovation Union

By 2015, Member States together with the Commission should have completed or launched the construction of 60 % of the priority European Research Infrastructures currently identified by ESFRI

Roadmap (2)

- 12 RIs under implementation:
 - CESSDA, CLARIN-ERIC, ESSurvey (ERIC), SHARE-ERIC, INSTRUCT, ESRF-UP, European XFEL, ILL20/20, FAIR, SPIRAL2, PRACE, JHR (→ to be included in MERIL)

Total construction cost (2010 estimates): 3.75 Billions €

14 RIs expected to be “under implementation” by the end of 2012 :

- 6 ERIC applications for: DARIAH, EURO-ARGO, LIFEWATCH, BBMRI, EATRIS, ECRIN (→ could be included in MERIL)
- IAGOS, ICOS, ELIXIR, INFRAFRONTIER, E-ELT, ELI, ESS Neutrons, SKA (→ some of them could be included in MERIL)

Total construction cost (2010 estimates): 6.5 Billions €

Roadmap (3)

- The implementation of the ESFRI Roadmap projects is the key priority for ESFRI
- **Implementation Group**
 - Set up late 2011 to **support the ESFRI projects** in order to reach the 60% implementation goal
 - Identification/analysis of best practices and bottlenecks
 - Proposing solutions to solve bottlenecks and support regarding: governance, legal issues, access and data policy, financial funding schemes
 - Stimulating communication at an early stage between the scientific communities and funding agencies
 - Coordination of actions with the other ESFRI WGs or Institutions (e.g. EIB)

Roadmap (4)

- Taking into account the current economic and financial situation in Europe, it is now necessary to **define priorities** for the implementation of the projects on the RM
- **ESFRI's mandate** will be extended accordingly
- **Expert Group on Assessment** created in 2012 by the EC:
 - evaluating the financial and managerial maturity of all the projects of the Roadmap (no assessment of scientific merits);
 - identifying bottlenecks and making recommendations on how to be best addressing them and to reinforce synergy (e.g. clustering);
 - indicating the feasibility for the projects to be implemented by 2015;
 - 1st interim report to ESFRI and the EC in December 2012

Working Groups (1)

Strategy Working Groups (SWGs)

- The EU Council invited ESFRI (May 2011):
 - *to contribute towards supporting the implementation and monitoring of progress of the Innovation Union initiative;*
 - *to provide input, as appropriate, to the development of a proposal on the ERA Framework.*
- SWGs (set up in 2011) underpin this process and focus especially on the multidisciplinary domains of the *Grand Challenges*:
 - Health and Food
 - Energy
 - Environment and Climate Change
 - Social and Cultural Innovation

Working Groups (2)

Strategy Working Groups (SWGs): main role and activities

- Monitor the scientific developments and emerging research & innovation challenges and address the issue of socio-economic impact + propose possible solutions (RI-related) able to help tackling the *Grand Challenges*
- Propose a joint vision, and a strategic research agenda and a gap analysis

Advise ESFRI on various issues

- How coordinated actions could be developed/overseen: (i) for catalysing the development and implementation of the RM projects and stimulating all the stakeholders and (ii) for monitoring the specific landscape to which the new / upgraded RIs belong
- Potential improvements in the pan-European availability and management of existing RIs, including e-Infrastructure aspects
- Whether projects should remain on future editions of the Roadmap, and, following a decision by ESFRI, evaluate possible proposals according to the agreed procedure for the update of the Roadmap
- How cooperation with Joint Programming Initiatives and with industry (or relevant European industrial organizations) could be strengthened

Working Groups (3)

Working Group on Innovation (will start working in Dec. 2012)

- Aims:
 - to identify and promote the innovation and industrial capabilities of the RIs on the ESFRI Roadmap;
 - to strengthen the cooperation of pan-European RIs with industry;
 - to stimulate, where appropriate, the industrial involvement in the conceptual design phase of RIs;
 - to promote the access of industrial users to the RIs
- Tasks include among others: report to ESFRI on potential improvements in the pan-European accessibility and management of existing RIs and give appropriate expert feedback on the innovation and industrial aspects

Working Groups (4)

Working Group on Regional issues (created in 2007)

- Foster regional cooperation and inclusiveness
 - All Member States should be able:
 - to have access to excellence in science;
 - to develop their research infrastructure capacity
 - Promotion of an optimal use of Structural Funds
 - Promotion of the development of **Regional Partner Facilities (RPFs)** to RIs of pan-European interest
- Facilities of national or regional importance in terms of socio-economic returns, training and attracting researchers and technicians
 - Quality including service, management and open access policy must meet the same standards required for pan-European RIs
 - Recognition as an RPF under the responsibility of the pan-European RIs based on regular peer-review

Working Groups (5)

Developing an evaluation/prioritisation scheme for RIs in Europe

- Final report of the Evaluation Working Group (2011)
- A set of criteria for evaluating the excellence and strategic relevance of RIs has been identified on the basis of a thorough analysis of existing national evaluation systems and roadmaps
- Need to: (i) elaborate further a set of criteria/indicators which should ideally be used in an harmonized way for the evaluation of RIs in all countries on a best practice basis and (ii) to develop on top an evaluation methodology for pan-European RIs
- ***Ad-hoc Expert Group on Indicators for the evaluation of the pan-European relevance of RIs (set up in 2012):***
 - Identify indicators that could qualify the criteria table of the ESFRI evaluation report and define how they could be used
- To note, the collaboration with MERIL: joint workshop on “European relevance” in April 2012

Other issues

Internationalisation

- Increasing need to work at the international level to make sure that the ESFRI projects are not just of European relevance and that they work together with their non-European counterparts to solve tomorrow's global challenges
- Development of the international links of ESFRI
- Global projects on the Roadmap (e.g. HiPER, SKA, etc)

E-Infrastructures

- Long standing collaboration with e-IRG
- This aspect is taken into account in all working groups



Some important issues for ESFRI

- Develop interdisciplinary, transversal and systemic approaches:
 - Optimal coordination of new and existing RIs (ESFRI/non-ESFRI)
- Stimulate the pooling of resources in the ERA, their evaluation and prioritization based on mutual trust and transparency
 - Strengthen the analysis of the scientific needs vs the responses from the existing RIs
- Develop in a more systematic way analysis of the scientific landscapes at European and international levels
 - Getting reliable and up to date overview on existing RIs

Usefulness of a MERIL-like database



Retroacta

(Where are we coming from ?)

First survey of European RIs by the EC (2004-2005)

- Existing RIs with clear European dimension or relevance, as well as infrastructures “under construction” within the next two years were invited to participate (on a voluntary basis)
- Feedback from 585 existing RIs and 157 RIs under construction i.e. in total 742 RIs
- Total number of RIs with clear European dimension and top-level relevance: ca 600 (of which 470 existing RIs)
- Results discussed in the FP6/RI Programme Committee: many problems of methodology and of validation of the selected RIs were identified by the delegates of the Member States: many RIs missing, high number of institutions not qualifying as RIs included
- Decision to organise a second survey

Retroacta

(Where are we coming from ?)

Second survey of European RIs by the EC, the EuroHORCs and the ESF (2006-2007)

- Based on a revised questionnaire and an improved methodology. The survey addressed RIs in operation, or currently in the process of upgrading and forecasted to be in use in the year 2006, and which are recognised as fundamental for researchers' work in their domains
- Participation on a voluntary basis + a second submission phase for additional RIs which were nominated by ESF and invited to respond in order to complete the initial data set
- Responses validated by ESF (March 2007) on the basis of a set of criteria: ca 600 RIs were included in the final result and put online in 2008 (RIPORTAL.EU) + Report (analysis of the data set) published in 2007

Retroacta

(Where are we coming from ?)

Second survey of European RIs by the EC, the EuroHORCs and the ESF (2006-2007)

- Once again, the FP7/Capacities/RI Committee expressed reservations. Main concerns:
 - identification of some facilities which may not be considered as major RIs in some countries;
 - lack of identification of major RIs;
 - problem with the validation procedure by national authorities (who, how);
 - and the online portal was never effectively updated
 - Decision taken in 2009 to carry on a third survey (CfP FP7/RI)
- ➔ **MERIL (2010-2012)** ➔ 6th meeting of the SC (September 2012)
- Discussion of the first results of the data collection (far from being complete)



What is MERIL

- Inventory of existing RIs and of RIs “under construction”
- A key criterion for inclusion is: the RIs should be of “More than national relevance” (cf. Workshop in Frankfurt, April 2012)
- Standard requirements as for the previous surveys, in agreement with general ESFRI’s definitions and criteria
- As such, a very useful tool for science policy (ministries, political authorities) and research and RI management (funding agencies, institutions), and among others for ESFRI
- Also useful for users of RIs, but: many other more direct channels exist and are commonly used by the scientists
- MERIL is not: an evaluation tool nor a reference system for funding or for prioritisation at any level



Findings / reflections as a member of the steering committee (1)

- Too much time has been lost in lengthy preparatory discussions on definitions, criteria and procedures, e.g.:
 - Various very theoretical debates on classification schemes + delayed workshop on “European relevance”;
 - Some categories / classification lists are oversized (and too detailed) with respect to the needs of a simple inventory
- Nevertheless, the database structure and the functionalities are now OK
- Still to be achieved: full data collection and validation. Up to now, the collected data are very heterogeneous
- We need comprehensiveness, reliability, consensus among all stakeholders (there are maybe too much data intermediaries and definitely a lack of strong coordination at national level in some countries)



Findings / reflections as a member of the steering committee (2)

- Intrinsic difficulty of this exercise: see the two previous rounds (since 2004). We are facing the same kind of problems
- Two concrete objectives in the short term:
 - Completing the data collection, carrying out the validation in a well coordinated and harmonized way (common understanding of the rules !), reaching a consensus on the content of the “pilot” list of records to put online
 - Identifying the ways to ensure “short term” sustainability (in the coming 2-3 years, up to 2015) in order to have enough time to correctly test the portal (use, feedback from users, interactivity, updating process). ESF support would be a nice option



Inclusion of the ESFRI Roadmap infrastructures

- Discussed at the last meeting of the Forum, in September
- ESFRI itself will validate the list of RIs from the Roadmap which should be on the portal and identify the contact points
- Only one entry of the *distributed RIs* would be preferable:
 - If the nodes have other duties as single sited facilities then they should be there but not as ESFRI projects themselves

