Workshop about Research Infrastructures and Structural Funds
Draft Report

Beate Warneck: 28/05/2013

CoPoRI

CoPoRI is an EU project, funded under FP7, and supports the European Strategy Forum on Research Infrastructures (ESFRI) in labour intensive activities. The acronym **CoPoRI** stands for "**Co**mmunication and **Po**licy development for **R**esearch **I**nfrastructures in Europe". Coordinator of the project is the German Aerospace Center (DLR). Partner is the German Electron Synchrotron (DESY).

www.copori.eu

CONTENT

Introduction

The Innovation Union includes a commitment to complete or launch construction by 2015 of 60% of the ESFRI (European Strategy Forum for Research Infrastructures) roadmap priority Research Infrastructures of pan-European interest. This requires investments beyond the means of individual countries – pooling of regional, national and European Union funds is thus necessary.

The development of the research and innovation capacity of the Member States and regions is one of the key thematic objectives of the European Cohesion Policy. Within the European Commission's communication "Regional Policy is contributing to smart growth in Europe 2020", the development of Regional Partner Facilities[1] (RPF) has been highlighted as one of the three-pronged approach to help regions to realise their full research and innovation potential. In that context, Member States are requested to link national research infrastructure roadmaps to the ESFRI roadmap and Smart Specialisation Strategies in order to have the possibility of using Structural Fund, thus reinforcing the capacity of less favoured regions to host and participate in Research Infrastructures of pan-European and international interest.

Horizon 2020 will promote the development and implementation of world-class Research Infrastructures under the "Excellent Science" priority and will support in particular the development of Regional Partner Facilities aiming at a more balanced development of the European Research Area. Close synergies should therefore be developed between the Structural Funds and Horizon 2020 in all relevant programmes and priorities.

Objective of the workshop

The overall objective of the workshop was to increase the awareness of Member States on the effective use of the structural funds for Research Infrastructures as well as to promote the regional dimension of Research Infrastructures, in particular of the RPFs. The workshop aimed to:

- increase the awareness on how to use the Structural Funds for the construction and operation of Research Infrastructures;
- discuss the conditions for setting-up nodes and Regional Partner Facilities of pan-European Research Infrastructures;
- increase the awareness of the inclusion of Research Infrastructures in Smart Specialisation Strategies and/or Operational Programmes and thus promoting the efficient and effective use of structural funds;
- discuss the role of Research Infrastructures in Smart Specialisation Strategies;
- provide some experiences of some projects, like ELI, ELIXIR and LIFEWATCH that have a regional dimension and applied for structural funds;

.

The workshop was organised by the CoPoRI project, in close cooperation with ESFRI and the European Commission. It took place on **15 May 2013** in Brussels and was hosted by CoPoRI together with the European Commission.

[1] A **Regional Partner Facility** to a Research Infrastructure of pan-European interest must itself be a facility of national or regional importance in terms of socio-economic returns, training and attracting researchers and technicians. The quality of the facility including the level of its scientific service, management and open access policy must meet the same standards required for pan-European Research Infrastructures.

Summary

The Workshop on Research Infrastructures and Structural Funds (SF) was held on 15th May 2013 in Brussels.

The overall objective of the workshop was to increase the awareness of Member States on:

- the effective use of the SF for Research Infrastructures as well as
- to promote the regional dimension of Research Infrastructures, in particular of the Regional Partner Facilities (RPFs)

The workshop was attended by more than 100 people representing Ministries, the National Managing Authorities, ESFRI, the European Commission, the scientific community and other ERA stakeholders and policy makers.

The first session of the workshop was dedicated to the Development of Research Infrastructures within the European Research Area and expected Synergies with Cohesion Policy, as well as the role of ESFRI and the perspectives for the next roadmap update. In this context, the importance of Smart Specialisation Strategy was addressed by the European Commission.

The second session was dedicated to the successful use of SF. It was demonstrated in a practical way, how SF were used by ESFRI projects either for construction (ELI) or for the operation of ESFRI projects like ELIXIR and LIFEWATCH. Ideas for setting up Regional Partner Facilities were also presented.

The outcomes of the workshop can be summarised as follows:

- The awareness of Member States on the effective use of the SF for Research Infrastructures could be increased.
- Research Infrastructures can be funded by SF. However, there are some conditions and/or constraints for their use.
- Research Infrastructures can be supported under the Cohesion Policy assuming they verify their contribution to improve the regional economy in terms of competitiveness, growth and job. Apparent competition between scientific excellence and socio-economic impact should be considered as complimentary.
- There is a potential of European Structural Investment Funds (ESIF) for building research and innovation capacity, including research infrastructures: thematic concentration and ex-ante conditionality;
- In the next programming period (2014-2020) around 100 billion Euro will be allocated for research and Innovation
    - The challenge for the ESFRI projects is to fit in the research and innovation Smart Specialization Strategy;
- Regional issues should be addressed as an integral part of the future ESFRI strategy, in particular within the next roadmap update;
- There is a potential synergy between SF and HORIZON 2020. The different DGs are cooperating closely to ensure those synergies and complementarities;

All the presentations can be downloaded on the CoPoRI web sit under www.copori.eu. The following chapters provide an overview of the workshop presentations.

I. The Development of Research Infrastructures within the European Research Area and expected Synergies with Cohesion Policy - the importance of Smart Specialisation Strategy

1. The development of Research Infrastructures within the European Research Area and expected Synergies with Cohesion Policy / *Octavi Quintana, Director DG R&I*

- The development of the Research & Innovation capacity of the Member States and regions is one of the key thematic objectives of the European Union cohesion policy. Research Infrastructures have a prominent place in the European Research Area, and aim to make a significant contribution towards boosting Europe's research and innovation potential.

- The development of research infrastructures of pan-European character and their regional partner facilities is a key driver of growth, which contributes towards creating a genuine market for knowledge, research and innovation. Such facilities can help in concentrating regional human capital and also to turn science and innovation into instruments of regional development.

- The idea of Regional Partner Facilities (RPF) was developed as a promising concept by ESFRI together with the EC and was recognised as such by the Competitiveness Council in 2009. RPF could be an attractive measure to assist the regions in developing their capacities further. Within this context, synergies between different EU, national and regional policies as well as public and private investments can be increased.

- The concept of the regional facilities, either as RPF or nodes and hubs of distributed pan-European Research Infrastructures, offers numerous advantages. They can play a strong role in the development of the Europe 2020 agenda, and can contribute both to the success of the ERA in the global context and of the regional development in the "smart specialisation" approach. They also can be one of the major initiatives where the synergy between EU Cohesion and Research and Innovation policies and resources can be fully developed.

- A mission of regional facilities should be to develop strong partnerships with some of the present or future pan-EU (both the existing ones and those planned in the ESFRI Roadmap) or Global Research Infrastructures. In this context, it is important that ESFRI shall offer some best practice advice, evaluation criteria and guidelines which could be used at regional and national level to fully implement these policies through the setting up of RPF. In addition, ESFRI should also strengthen its focus on the development of regional nodes of distributed pan-European Research Infrastructures.

- National and regional authorities across Europe are required to draw up regional innovation strategies for smart specialisation and include the ESFRI related Research Infrastructures and/or other facilities with a regional or national relevance, so that the EU's Structural Funds can be used more efficiently.

- At the European level, developing synergies between the Structural Funds and Horizon 2020 is a priority for the European Commission. Horizon 2020 will promote the development and implementation of world-class Research Infrastructures under the "Excellent Science" priority and will support in particular RPF aiming at a more balanced development of the ERA. It will also integrate national Research Infrastructures and facilitate transnational access to these infrastructures, as a continuation of the very successful FP7 Integrating Activities.

- Because of their impact on economic development, the Commission expects significant investments in Research Infrastructures from the new round of the EU Structural Funds. EC will therefore be looking for even greater synergies between Horizon 2020 and Structural Funds, based on regional smart specialisation strategies - where regions and countries focus on and invest in their particular strengths. Clusters based around top-quality Research Infrastructures will play a major role in creating these synergies.

2. The role of ESFRI and the perspectives for the next Roadmap update /*Elena Righi-Steele, ESFRI executive secretary*

- Meaningful transnational research cooperation is one of the major requirements for a successful realisation of the European Research Area (ERA).
- Engagement of all stakeholders in increasing regional competitiveness in all European countries is essential to contribute to a strong ERA.
- Less intensive R&D countries have for historical reasons a smaller endowment of competitive infrastructural resources so that less research infrastructures in these countries meet the respective criteria (of pan-European excellence) for the ESFRI roadmap
- For the next roadmap update the regional issues will be included as an **integrated strategy** which is based on two complementary elements:
    - Effective support for implementation of nodes of distributed pan-European research infrastructures (RIs) and
    - The identification of top quality Regional Partner Facilities (RPFs).
- For setting up nodes of distributed RIs and RPF of pan-European RIs, MS and AC should link their national RI roadmaps to the ESFRI roadmap and to Smart Specialisation Strategies in Structural funds programmes, **thus reinforcing the capacity of less favoured regions to host and participate in RIs of pan-European and international interest.**
- The requirements to set up such nodes of distributed RIs and RPF of pan-European RIs are that:
    - There is a national or regional importance in terms of socio-economic returns (especially if national/regional authorities are planning to use structural funds).
    - Scientific service, management, access policy must meet ESFRI standard. ESFRIs Strategic Working Groups will evaluate proposals.
    - The nodes and RPF are recognised by the pan-European RI itself. The proposal needs a letter of intent for cooperation.

3. Structural Funds in support of Research Infrastructures / *Katja Reppel DHoU, DG REGIO*

Cohesion Policy 2014-2020:

Deliver the Europe 2020 strategy objectives of smart, sustainable and inclusive growth. It strengthens partnerships, is based on simplification and focuses on results and it will maximise the impact of EU funding.

- **List of thematic objectives** developed around the Europe 2020 headline targets and flagship initiatives
- **Thematic concentration** to maximise the impact of investments
- **Ex-ante conditionalities**, and strengthened partnership to ensure effective implementation, e.g. existence of a Research and Innovation Strategy for Smart Specialisation (RIS3)
- **Common Strategic Framework**: coherence across funds (ERDF, ESF, CF, EAFRD, EMFF); clarify synergies with Horizon 2020 etc.

Objectives and consequences for RIs:

a) At policy level: to improve the **regional economy** in terms of competitiveness, growth and jobs:

- Research Infrastructure (RIs) can only be supported contributing to improve the regional economy.
- Research excellence *per se* is no objective, but a tool for competitiveness and growth
- Key RI should be designed / transformed into crystallisation points for economic change and growth: clusters, technology parks, incubators, firm cooperation
- Needs for RIs can only be considered for ERDF co-financing, if they fit into the smart specialisation strategies (RIS3) of the relevant member state / region and are eligible for funding under an operational programme.

b) At strategic level: the national and regional authorities in charge of designing RIs and establishing National Roadmaps linked to the **ESFRI Roadmap** should work together with the authorities and actors involved in the entrepreneurial discovery process to design the "research and innovation strategy for smart specialisation" (**RIS3)**. These strategies are to be designed in an entrepreneurial discovery process involving not only universities and researchers, but also enterprises, regional development agencies, cluster organisations, innovation and business support bodies, civil society, etc.. The RIS3 aims at place-based economic transformation.

- In order for a RI to become part of a RIS3, the businesses and researchers would have to have identified the need for such a RI in a territory (i.e. also identify whether such RI already exist and are accessible and affordable for the regional researchers and businesses) and considered the potential expected impact of the RI on the regional economy (links with local industries, spin-offs, clusters, etc.)
- The RIS3 can partly be implemented through ERDF funds, i.e. translated into an element of an Operational Programme. If the cost is above €50 million, the RI has to figure specifically in an indicative list in the relevant Operational Programme.

c) At project level: once the RIS3 are established and the operational programmes approved, RI project managers have to contact the ERDF Managing Authorities to ask for funding. Possible funding will depend on budget planning, timing and procedures. Moreover:

- For projects of €50 million and above, a **cost-benefit assessment, state aid compatibility check and environmental impact analysis** is required. See: JASPERS guidance for major research infrastructures, higher education and science and technology parks: **State Aid in RDI Infrastructure projects** http://www.jaspersnetwork.org/jaspersnetwork/display/for/State+Aid+in+RDI+Infrastructure+projects and **Project Preparation and CBA of RDI Infrastructure Projects** http://www.jaspersnetwork.org/jaspersnetwork/display/for/Project+Preparation+and+CBA+of+RDI+Infrastructure+Projects
- Importance of international attractiveness & connectedness: private investors & brain-gain should be taken into account in the planning process
- Links to regional economy need to be planned and fostered from the out-set
- Business plans should be not only drafted and set-aside, but energetically implemented, in particular by researchers and academics who are interested in the RI development dedicating time and resources to setting up contacts with the business community (including if relevant SMEs) to trigger / maintain their interest in the RI and to design the project details in a way that is attractive and accessible for businesses.
- This should include a strategy for technology transfer to firms in the region.
- Only costs included in constructing or improving a RI are eligible to ERDF. This may include certain planning related cost and cost related to getting the RI starting.
- Running / operating costs of existing RIs or annual fees for membership in existing RI (e.g.CERN) cannot be co-funded by ERDF.

Instruments:

- **Regional and Urban Policy** (DG REGIO)
    - **ERDF**: European Regional Development Fund (→ productive investments, R&I, SME, ICT, certain infrastructures, territorial cooperation …)
- **Social Policy** (DG EMPL)
    - **ESF**: European Social Fund (→ training, education, up-skilling workers, entrepreneurs, researchers, etc.)
- **Others**: for research and innovation in the agro-food fields: EAFRD Eropean Agricultural fund for Rural Development (DG AGRI) and for maritime and fisheries and aquaculture related research and innovation: EMFF European Maritime and Fisheries Fund (DG MARE)

Budget:

€ 347 billion in 2007-13

~ € 325 billion for 2014-2020 of which up to €100 billion for research and innovation, bolstering over 100 smart specialisation strategies

4. Smart Specialisation Strategies / *Dimitri Corpakis, HoU DG R&I*

- The advent of the knowledge economy in a context of increasing globalisation changed dramatically the rules for economic development and had a profound impact on the ways we deal with regional growth. Global value chains have redrawn the map of conceiving and producing goods and services. Countries and regions that are not able to adapt to this new situation will probably see their economies being marginalised. Therefore, there is a need for a global repositioning of our regional economies. Experts working on these aspects have stressed the importance of introducing a new growth proposition based on knowledge assets. This is the origin of the Smart Specialisation concept.
- Smart Specialisation is defined as a process of economic transformation that is place-based and is rooted in knowledge assets.[2] Because the concept is relatively young, it is often misunderstood. Thus it is important to stress that smart specialisation is not about pure specialisation in a few areas since this involves significant risks for economic lock-ins. It is rather about identifying the new opportunities that often emerge at the intersection of existing sectors and technologies – the target of the "entrepreneurial discovery process". And it is first and foremost, about building on a country/ region's particular strengths.
- RIS3 (Research and Innovation Strategies for smart specialisation) aim at maximising the capacity of the countries / regions that would use their knowledge institutions but also their business players to identify the activities that would give them a competitive advantage based on research and innovation investments. Because of its relevance, the RIS3 concept is now ex-ante conditionality (a prerequisite) for future support on research and innovation under the European Structural and Investment Funds.
- Research infrastructures have a particular enabling role to play in the context of RIS3. This role has to be well defined in an integrated strategy and has to be linked to the greatest possible extent, to the overall economic development strategy of the country / region where they are located. A research infrastructure thus can be a strong component of RIS3 provided its role is well understood and promoted. The provision of specialised services to the local business community and the contribution to the overall development of the country's/ region's economic capabilities will strengthen the research infrastructure's capacity to innovate and create more value.
- Research infrastructures (and in particular ESFRI ones), can play a significant role in the Smart Specialisation process of the countries and regions that will be hosting them, provided that the appropriate steps are taken to properly embed them in an integrated innovation strategy, thereby stimulating creation of growth and jobs
- By the same token, Regional Partner Facilities (smaller scale research infrastructures) can play also a very constructive role in the same process. However, despite their importance, ESFRI infrastructures alone cannot be considered a starting point for a successful RIS3: they must be fully embedded in a broader innovation strategy.

[2] See D.Foray, P.A.David and B.Hall: "Smart Specialisation: the Concept" (KfG brief, no 9, 2009) at : http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm

II. Successful use of Structural Funds – Perspectives for the development of RPFs and nodes of Distributed Research Infrastructures

The Extreme-Light-Infrastructure (ELI) will be the world's first international laser research infrastructure. It will offer a wide range of unprecedented research opportunities to international users from the academia and industry. Implemented as a distributed research infrastructure, ELI will consist initially of three complementary research centres currently being built in the Czech Republic, Hungary and Romania. Once implemented, the ELI research centres will be operated under the governance of a single pan-European consortium, preferably a European Research Infrastructure Consortium (ERIC).

Initiated in 2005 and listed on the ESFRI roadmap of priority pan-European RI, ELI is pioneering a novel funding model combining a €6-million FP7 grant for the preparation of the project (2007-2010) with the use of structural funds from ERDF (until 2017) for the implementation and national contributions to a pan-European consortium (ERIC) for the future operation.

This constitutes a structurally interesting ESFRI funding model, where structural funds represent an opportunity for the development of research infrastructures and scientific communities in the newer Member States of the EU. The availability of structural funds (in total about €850 million allocated to ELI) in the hosting countries facilitated the site decision and a swift transition towards implementation, without additional delay due to multi-national ERIC negotiations.

This funding opportunity, however, is not without some challenging aspects, in the institutional setup, in the application for funds and in their management.

1. ELI-NP: an example of the use of Structural Funds for the construction of an ESFRI Infrastructure / *Marian Raduta, DG REGIO*

Extreme Light Infrastructure is being implemented through the construction of three specialized research facilities in Czech Republic, Romania and Hungary.

The Nuclear Physics facility (ELI-NP), for which co-funding is sought through the present documentation, will consist of two components: a very high intensity laser and a very intense γ beam. ELI-NP will allow either combined experiments between the high-power laser and the γ beam or stand-alone experiments. This facility will create a new European laboratory with a broad range of science covering frontier fundamental physics, new nuclear physics and astrophysics as well as applications in nuclear materials, radioactive waste management, material science and life sciences.

ELI-NP will add about 34,000 m2 of new, high quality, energy efficient buildings. The facility will be able to host a maximum of 62 research experiments per year. ELI-NP will be a 100% open access facility and will have 262 employees by 2018, out of which 218 researchers (including 36 support staff).

ELI-NP will be implemented by the applicant, Horia Hulubei National Institute of Physics and Nuclear Engineering - IFIN HH, located in Măgurele (south of Bucharest). The total project costs amount €356,230,907, out of which €293,138,077 of eligible costs.

Huge challenges are in front of the beneficiary in the execution phase; it is crucial respect of rules of eligibility established at national level or the preparation and organisation of the tenders for works or equipment which are the main tenders.

For the managing authority is important to reinforce its capacity to monitor the execution of the project and technical assistance need to be used when specialised technical advice is necessary.

Challenges for the Commission services in the appraisal of the application for funds

The complexity of the project requested the use by the Commission services of significant resources for the assessment of the financing request. Since the beginning of the discussions on ELI-NP, the Commission services have worked with the Romanian authorities to increase the added value of the investment and its socio-economic impact in Romania.

→ First, the project needs to be connected with the national RDI system. The infrastructure is mainly built for fundamental research purposes; but as the largest research facility in Romania the conditions had to be met for ELI turns into a driver of the system, fostering developments for applied research and then industrial business.

→ It was the question of how the capacity of the education system to provide the specialised human resources and scientists necessary to build and operate the infrastructure as it is very well known the brain-drain of the Romanian scientific community.

→ The impact of ELI-NP on the business environment and the economic leverage which it could generate had also to be reinforced; whereas the cooperation between the research sector and the business environment is generally weak in Romania, ELI-NP needs turn into a knowledge-based economy cluster, ensuring cross-fertilisation with more applied fields of the nuclear physics technologies.

→ Also, the investment had to turn into an opportunity for the local community to develop; it is important that the project is integrated within the local socio-economic environment (accessibility, amenities, housing, fiscal environment …) and there are growth opportunities which the project could bring for the local community;

2.* Experiences of using Structural Funds for the construction of ELI / *Vlastimil Ruzicka, ELI Czech management team

- **Institutional challenge:**
  - Structural funds being allocated and managed at the national or regional level, their use in the context of a pan-European distributed research infrastructure calls for an institutional setup preserving the pan-European character of the project and the expectations of the international user community on the one hand, and the legal responsibilities and socio-economic and scientific interests of the local beneficiaries and hosting regions on the other hand.
  - The lack of synchronisation between the Operational Programmes in the hosting countries and the time needed to secure firm political support ahead of the funding application may cause delays in the institutional structuring of the project at the European level. The natural focus on national processes carries the risk of a (hopefully temporary) loss of international commitment during implementation.
  - In ELI's context, an interim structure – the ELI Delivery Consortium AISBL – was established to preserve the project's scientific consistency, support the coordinated implementation of the ELI facilities and promote a joint approach to the future operation. The ELI-DC AISBL also has the responsibility of initiating and preparing the negotiations on the establishment of the ELI-ERIC, in parallel with the implementation.
- **Application challenge:**
  - The absence of prior experience in the use of structural funds for large-scale research infrastructures made the whole application and evaluation process complex for all players – beneficiaries, managing authorities, EC. The involvement of the governmental authorities in charge of research policy alongside the managing authorities is a must.
  - The lack of coordination between the various DGs involved in the evaluation and, more importantly, some conflict between their political "cultures" and objectives were the main causes for delays in the evaluation. It seems, however, that the situation has been improving since the submission of ELI Beamlines' application in 2010. In general, DG Regio and DG Research proved collaborative and supportive of the project.
  - Nevertheless, research infrastructures differ in their characteristics from traditional investment project (bridges, motorways) and some aspects of the application process are not fully adapted to these specificities. The use of the Cost-Benefit Analysis to evaluate the socio-economic impact of the project is challenging (the choice of the indicators, their quantification and monetisation in particular). A stronger focus on qualitative aspects is necessary. Similarly, the demonstration of the compliance with competition rules is not an easy task. Guidelines from DG Competition specific to RI projects would be helpful.
- **Management challenge[3]:**
  - Strict time boundaries apply to the use of structural funds, which creates a potential risk of non-completion in case of delays. For RI projects involving challenging technological developments, there is a need for time contingency. A financial phasing of the implementation activities – i.e. the distribution of the

[3] Most management constraints are contingent to the rules of each Operational Programme and not to the EC regulations.

activities and budget over two programming periods – is an appropriate solution to mitigate this risk of non-completion. The implementation of the three ELI facilities is expected to be done on that basis.

- Specific procurement rules apply due to the use of structural funds. Lower thresholds and the additional involvement of the managing authorities in the monitoring of the procurement procedures may create additional delays and generate scheduling uncertainty.
- Financial management is also subject to constraints that make it less flexible than when using other types of funding. In the case of ELI Beamlines, for instance, contingencies are not allowed in the budget. Additionally, savings on building costs are not fully recoverable and major budget reallocations have to be approved by the managing Authority.
- Finally, progress monitoring by managing authorities tend to be overly complex by relying on too many indicators and milestones. Focusing on a few clear key milestones would probably be more consistent and adapted to complex research infrastructures that traditionally need adaptations in the course of their implementation.

3. Experiences in working towards using Structural Funds for the operation of ESFRI projects

3.1 Example ELIXIR/ *Andrew Smith*

- As a distributed e-Infrastructure, ELIXIR's mission is to build a sustainable European infrastructure for biological information, supporting life science research and its translation to: medicine, the environment, biosciences and society.
- Whilst the majority of funding for ELIXIR Nodes comes from Ministries and scientific funding bodies, there are examples of Structural Funds being used to support the activities of ELIXIR Nodes.
- The Estonian ELIXIR Node is concerned with the maintenance, upgrade and international integration of Estonian bioinformatics tools and databases, including delivering services through the cloud and exploring alternative cost effective hardware. Funding for the ELIXIR Estonian Node has been provided in part through a pillar of the Operational Programme called: "Improving the competitiveness of Estonian R&D through the research programmes and modernisation of higher education and R&D institutions".
- In Finland, City of Kajaani used EU Structural Funds to support the conversion of paper storage warehouse into data centre. CSC IT Center for Science, which is lead partner in Finnish ELIXIR Node, hosts Finland's largest super-computing systems in the data centre
- In Czech Republic, one of the partners in the ELIXIR Node is the Central European Institute of Technology (CEITEC), which has received over €200 million through ERDF – approximately 80% towards construction, labs, equip and 20% on staff and running costs. ELIXIR related investment is just a small part of that.
- The ELIXIR Hub has supported ELIXIR Nodes by producing an ELIXIR-specific guide to Structural Funds, which lists the managing authorities that Nodes need to contact
- There are at present challenges in using EU Structural Funds to support distributed e-Infrastructures, most notably the sheer number of managing authorities to deal with and the tendency for local and regional governments to focus on high-profile capital intensive investments, whereas a lot of ELIXIR's Node costs are more modest in scale and relate to on-going operations.
- Some improvements could be made in the Structural Funds regulation to facilitate their use, for example, allowing Structural Funds to be transferred outside the boundaries of a Member State would mark an important step.
- ELIXIR will look closely at the proposals for Smart Specialisation Strategies in order to engage in this as appropriate.

3.2 Example LIFEWATCH / *Prof. Alberto Basset*

[The summary may be introduced to a later time]

III. Panel Discussion Summary of Panel Discussion

1. Ideas for setting up Regional Partner Facilities / *Costas Fotakis, Director FORTH*

- The question of developing RPFs is linked to the issue of maximizing the European Added Value (EAV) which is created by the European Research Infrastructures (RIs). RPFs may exploit the knowledge and talent which exists in European Regions, thus optimizing European resources and the impact of major RIs

- Considering that the prime mission of RIs is *to serve scientific excellence*, it is important to establish *how the socio-economic benefits achieved* in different Regions of the Member States can be enhanced through the existence of RIs, without compromising this mission

- The criteria for selecting RPFs are crucial for the above and should include:

    - the scientific and innovative stand of their host organisation placing emphasis on excellence
    - their presence in National Roadmaps or Strategic Regional Agendas (e.g. Smart Specialization Strategies)
    - their open character and possibility of offering Access
    - the EAV they provide to ESFRI RIs
    - level of commitment for national or regional support
    - There are concrete examples of RPFs which fulfill the above criteria.

    ➢ Concluding, RPFs may be effective tools towards enhancing scientific and technological excellence in Europe and simultaneously countering societal, cultural and economic challenges at regional level, thus promoting the goals of ERA.

2. Results summarising from panel discussion / *Jaceck Gierlinski, Chair of the Regional Working group of ESFRI*

Structural Funds:

- *How to ensure coordination (avoid duplication) between the structural funds and Horizon 2020 in the context of research infrastructures at the EU level?*

  So far structural funds and H2020 funds are administered by different DGs according to different principles. There is a need for greater harmonisation within the EC and unambiguous definition of areas which would be eligible for funding under each instrument. Central EC responsibility and regional responsibilities by local authorities should also be spelt and transparent. These definitions should be clearly communicated to the interested communities and stakeholders.

- *What are the main barriers at political, strategic and at operational level hampering synergies between ESFRI Research Infrastructures and the cohesion policy?*

  ESFRI is looking at the issue of research infrastructures from the perspective of research communities thus taking more holistic view on the issue. On the other hand there is a tendency amongst the cohesion policy managers to isolate research infrastructures from the rest of science sector (or ERA) and assess them from the point of view of contribution to regional socio-economic benefits. RI are first and foremost scientific instruments; other benefits are usually long term and of complimentary importance.

- *What are the key drivers facilitating development of such synergies? What channels / networks could be used to exchange information between national authorities managing the structural funds and ESFRI / Research Infrastructure Programme (Horizon 2020)?*

  The key drivers should be scientific communities and their conviction about scientific value of a specific RI. ESFRI bodies and delegates should be more proactive in supporting such communities in dealings with regional / national authorities. Regular meetings of ESFRI representatives with regional / national authorities could be a way forward.

Regional research facilities:

- *What strategic steps could be taken to strengthen the development of regional RI capacity (exploiting Horizon 2020 and the structural funds)?*

  The opinion of the working group of Regional Issues (which does not reflect ESFRIs conviction) is that such strategy should best be the outcome of a comprehensive analysis of the ESFRI roadmap, which includes regional nodes of distributed facilities, and national roadmaps, which include regional facilities, either associated with pan-European RIs or stand alone. ESFRI should provide some form of recognition to such

regional facilities, which would be then eligible for seed funding from Horizon 2020. Gross funding for investment should be from national budgets and / or structural funds.

- *What are the key factors to initiate development of regional research infrastructure, such as Regional Partner Facilities (RPF), nodes of distributed pan-European RIs.*

  Key factor should include: scientific excellence, regional / national uniqueness, relevant local research potential capable of significantly contribute to the development of a critical mass.

- *Horizon 2020 intends to support development of RPF. How and what kind of support (e.g. investment versus operational costs) could be best to develop synergies / complementarities with the cohesion policy?*

  The working group of Regional Issues consider that Horizon 2020 should take into account support for regional research infrastructures, whether RPF or self-standing facilities. H2020 could be used to provide stable funding for research activities, while the cohesion policy funding should be directed towards investments, management and training.

- *How to manage multi-phase evaluation of regional facilities, which should focus on:*
  a) scientific and managerial excellence,
  b) access policy and long-term sustainability,
  c) national or regional importance in terms of socio-economic returns in the context of Smart Specialisation Strategies?

  Best way to achieve this is to stimulate collaboration between ESFRI, DGs responsible for H2020 and the cohesion policy and with national authorities which develop national roadmaps. Coordination of this process should be provided by ESFRI.

Annex I

Workshop on Research Infrastructures and Structural Funds

Brussels, 15 May 2013
Building ***BREYDEL***
Avenue d'Auderghem, 45, 1040 – Brussels

09.00-09.30	Registration
09.30 – 09.45	Welcome address *Beate Warneck, CoPoRI Coordinator* *Octavi Quintana, Director, DG R&I* *Odd Erikson, Norwegian ESFRI Delegate on behalf of the ESFRI Chair*
Session 1 – The Development of Research Infrastructures within the European Research Area and expected Synergies with Cohesion Policy ***- The importance of Smart Specialisation Strategy*** Chair: *Octavi Quintana, Director, DG R&I*	
09.45 -10.15	The role of ESFRI and the perspectives for the next Roadmap update *Elena Righi-Steele, ESFRI executive secretary*
10.15 - 10.45	Structural Funds in support of Research Infrastructures *Katja Reppel DHoU, DG REGIO*
10.45 -11.15	Smart Specialisation Strategies *Dimitri Corpakis, HoU DG R&I*
11.15 – 11.45	Discussion
Session 2 – Successful use of Structural Funds – Perspectives for the development of RPFs and nodes of Distributed Research Infrastructures Chair: *Philippe Froissard, Deputy HoU, DG R&I*	
11.45 – 12.30	ELI-NP: an example of the use of Structural Funds for the construction of an ESFRI Infrastructure *Marian Raduta, DG REGIO* Experiences of using Structural Funds for the construction of ELI

	Vlastimil Ruzicka, ELI Czech management team
12.30 – 12.40	Discussion
12.40 – 13.40	Lunch
13.40 – 14.20	Experiences in working towards using Structural Funds for the operation of ESFRI projects *Andrew Smith, ELIXIR* *Alberto Basset, LIFEWATCH*
	Panel Discussion ***Chair:*** *Jacek Gierlinski, Chair of ESFRI WG on Regional Issues*
14.20 – 14.40	Ideas for setting up Regional Partner Facilities *Costas Fotakis, Director FORTH*
14.40 – 15.30	***Discussion Members:*** *M. Raduta, V. Ruzicka, G. Pappalardo**
15.30 – 15.45	Coffee break
15.45 – 16.00	Conclusions *Philippe Froissard, Deputy HoU, DG R&I*
16.00	End of Workshop

* *Gelsomina Pappalardo* is Chair of the ESFRI Strategic Working Group of Environment

Annex II

Questions for the panel discussion

Structural Funds:

- How to ensure coordination (avoid duplication) between the structural funds and Horizon 2020 in the context of research infrastructures at the EU level?
- What are the main barriers at political, strategic and at operational level hampering synergies between ESFRI Research Infrastructures and the cohesion policy?
- What are the key drivers facilitating development of such synergies? What channels / networks could be used to exchange information between national authorities managing the structural funds and ESFRI / Research Infrastructure Programme (Horizon 2020)?

Regional research facilities:

- What strategic steps could be taken to strengthen the development of regional RI capacity (exploiting Horizon 2020 and the structural funds)?
- What are the key factors to initiate development of regional research infrastructure, such as Regional Partner Facilities (RPF), nodes of distributed pan-European RIs [..]
- Horizon 2020 intends to support development of RPF. How and what kind of support (e.g. investment versus operational costs) could be best to develop synergies / complementarities with the cohesion policy?
- How to manage multi-phase evaluation of regional facilities, which should focus on:

  d) scientific and managerial excellence,
  e) access policy and long-term sustainability,
  f) national or regional importance in terms of socio-economic returns in the context of Smart Specialisation Strategies.

Annex III

ESFRI European Strategy Forum on Research Infrastructures

ESFRI, the European Strategy Forum on Research Infrastructures, is a strategic instrument to develop the scientific integration of Europe and to strengthen its international outreach. The competitive and open access to high quality Research Infrastructures supports and benchmarks the quality of the activities of European scientists, and attracts the best researchers from around the world.

The mandate of ESFRI is to support a coherent and strategy-led approach to policy-making on research infrastructures in Europe, and to facilitate multilateral initiatives leading to the better use and development of research infrastructures, at EU and international level. According to its adapted mandate, ESFRI will address the existing challenges and has to deal with the follow-up of the implementation of already on-going ESFRI projects after a comprehensive assessment, as well as with the prioritization of the infrastructure projects listed in the ESFRI roadmap.

ESFRI's delegates are nominated by the Research Ministers of the Member States and Associate Countries, and include a representative of the Commission, working together to develop a joint vision and a common strategy. This strategy aims at overcoming the limits due to fragmentation of individual policies and provides Europe with the most up-to-date Research Infrastructures, responding to the rapidly evolving Science frontiers, advancing also the knowledge-based technologies and their extended use.

Created in 2002 by the Member States and the European Commission, ESFRI has become an increasingly important Forum to advise Ministries and Funding Agencies on strategic issues of research infrastructures.

With the setting up of the first Roadmap for pan-European research infrastructures ESFRI has been a major contributor to the realisation of the European Research Area. To date, 48 research infrastructures have been identified to be of pan-European (or global) relevance. Of these, 10 have been considered "under implementation" in the 2010 ESFRI Strategy Report and Roadmap update, and another 17 had started their implementation by the end of 2012.

The 48 projects were identified by ESFRI in an extensive consultation process involving more than 1000 international scientific experts in three cycles so far, published in 2006 and updated in 2008 and 2010. The projects cover all areas of research: from Humanities and Social Sciences to Biological and Medical Sciences, Environment, Energy, Physical Sciences and Engineering, Materials and Analytical Sciences and also e-infrastructures.

The European roadmap process has also stimulated the preparation of national roadmaps in many of the Member States and the Associated Countries contributing to an overview on major developments in the European Union. It fosters coordination, helps to avoid duplications and further develops complementarities of national investments.

The main task of ESFRI is now to help the projects on the ESFRI roadmap to move towards implementation. This focus is in line with the commitment in the Europe 2010 Flagship Initiative - Innovation Union and the Digital Agenda, which states that 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. However, to keep Europe at the rapidly evolving forefront of science and technology, and increase the capacity to meet the needs of the EU and World scientific community, much remains to be done: ESFRI looks forward to the challenging times ahead.

Further information and contact details:
ESFRI Secretariat, DG R&I, European Commission; ESFRI@ec.europa.eu;
www.ec.europa.eu/research/esfri

The Project

Background Information

CoPoRI is an EU project funded under FP7 and supports the European Strategy Forum on Research Infrastructures (ESFRI). The acronym **CoPoRI** stands for "**Co**mmunication and **Po**licy development for **R**esearch **I**nfrastructures in Europe".

Objectives

Since its inception in 2002, ESFRI has successfully supported the development of a coherent and strategy-led approach to policy-making in the field of Research Infrastructures in Europe, and has facilitated multilateral initiatives leading to the better use and development of Research Infrastructures, at the EU and international level.

CoPoRI acts as a service tool for ESFRI by providing support in labour-intensive activities. This includes in particular the organisation of workshops and networking activities among ESFRI projects, but also the enhancement of ESFRI's communication tools and resources.

Activities

- **Promoting exchanges of experience and best practices among ESFRI projects:** To support the implementation of the ESFRI roadmap projects, CoPoRI provides a platform for the exchange of experience and best practices between ESFRI projects, in their different stages of development. A group of expert organises workshops, compiles a FAQ catalogue and analyses the possibility for setting up a "club of ESFRI projects".
- **Synthesize socio-economic relevance of ESFRI Research Infrastructures:** On the basis of a desk research on existing studies and on additional initiatives (e.g. interviews of ESFRI project coordinators and organisation of a high-level expert workshop), CoPoRI produces a concise document providing key findings and messages on the socio-economic dimension and added value of ESFRI Research Infrastructures. This document is to be addressed mainly to policy- and decision-makers.
- **Increasing the visibility of ESFRI:** To enhance the communication capacity of ESFRI and facilitate its interaction with the scientific community, national and international authorities and other stakeholders, CoPoRI has developed and upgraded a set of communication tools for ESFRI. This includes the update of ESFRI's webpage, a new brochure highlighting achievements of ESFRI, an exhibition booth for conferences, a public relations contact database and an intranet platform to facilitate internal communication and the workflow between CoPoRI project partners and ESFRI projects in general (see also: www.copori.eu).

Organisation

CoPoRI is managed and coordinated by the German Aerospace Centre (DLR) / European and International Cooperation, with the support of the German Electron-Synchrotron (DESY) as partner. To ensure consistency with the overall ESFRI objectives, the project is carried out in close connection with the ESFRI Chair, the Executive Board, the Implementation Working Group (IG) and other working groups of ESFRI.
The project consortium of two research organisations and the strong connection with ESFRI bring together substantial academic and operational experience in the field of Research Infrastructures from across the European Union.

Contact for more information:
Beate Warneck, beate.warneck@dlr.de (project coordinator); http://www.copori.eu/

The project is funded by the European Community under
Seventh Framework Programme