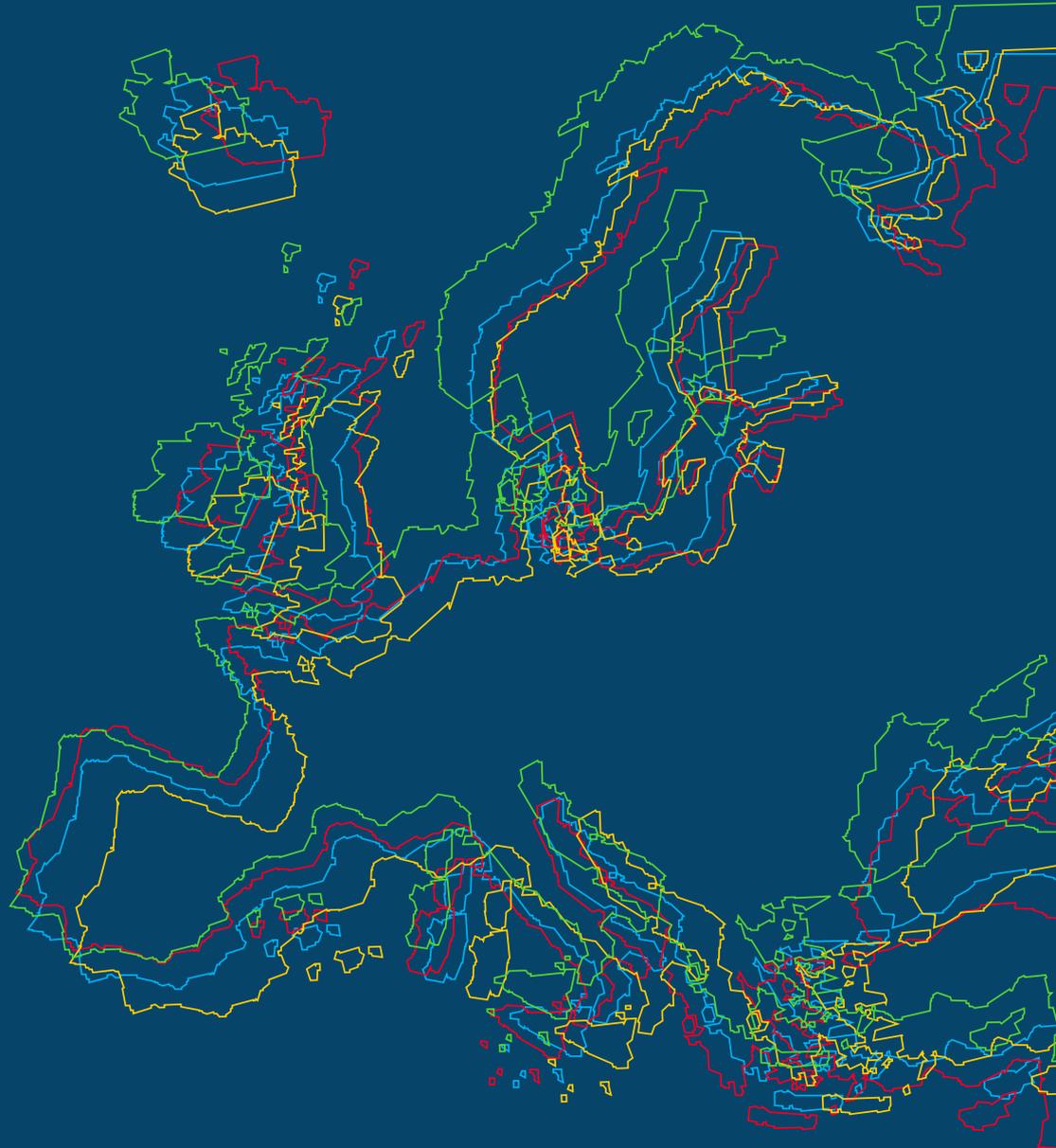




synchronising research infrastructure
roadmapping in Europe



The role of structural funds in the mix of funding sources for the long-term sustainability of Research Infrastructures

Report from an InRoad regional workshop

Aveiro, 13 April 2018



InRoad has been funded by the
European Union's Horizon 2020
Research and Innovation programme
under grant agreement No 730928.

InRoad Regional Workshop

The role of structural funds in the mix of funding sources for the long-term sustainability of Research Infrastructures

University Campus of Santiago, Aveiro
(Portugal), April 13th 2018

Authors: Carme de Andrés Sanchis (HGF), Teresa Jorge (CCDRC) and Annika Thies (HGF).



InRoad has been funded by the
European Union's Horizon 2020
Research and Innovation programme
under grant agreement No 730928.

Contents

- 1. Executive summary..... 3
- 2. Workshop programme 3
- 3. Workshop findings 3
 - 3.1 Funding programmes and frameworks 4
 - 3.2 Rules and bureaucracy 4
 - 3.3 Transnational access 5
 - 3.4 Measuring performance 5
 - 3.5 National roadmaps..... 5
 - 3.6 Training 5
- 4. Closing session 6
- 5. Next steps 6
- 6. Participant list 6
- 7. Workshop agenda 8

1. Executive summary

This report provides information on the 4th InRoad Regional Workshop organized by the Centre for Coordination and Regional Development Commission (CCRDC) in Aveiro, on April 13, 2018. The workshop aims were to bring together regional, national and European research infrastructure (RI) experts in order to:

- share experiences and develop knowledge and understanding of the research; infrastructure (RI) funding environment;
- provoke a reflection on the critical issues that affect the longevity of RI;
- raise awareness among participants; and
- provide a set of recommendations that can improve overall RI funding conditions to support their robust development.

2. Workshop programme

Building on the experience and knowledge of previous workshops, the day was structured into 4 blocks:

First, an opening session with a welcome speech by Ana Abrunhosa, President of the CCDRC, followed by a presentation on Inroad's findings by Dr. Martin Müller, from the Swiss National Science Foundation and a keynote speech on the RI ecosystem by Ricardo Miguéis, Senior Advisor for Research and Innovation at Conference of European Schools for Advanced Engineering Education and Research (CESAER).

Second, a panel introduced by Teresa Jorge, Head of Cooperation and Promotion at the CCRDC, where 3 topics were presented in the following order:

- the role of structural funds in the mix of funding sources by Dr. Ondřej Hradil, Core Facility Coordinator of the Central European Institute of Technology (CEITEC);
- the combination of different funding sources and mechanisms by Dr. Gonzalo León, Deputy Rector for Innovation Partnership, Polytechnic University of Madrid; and
- the importance of roadmapping procedures by Dr. Miguel Castelo Branco, Coordinator of the National Functional BIN – Brain Imaging Network of Portugal.

The third block was dedicated to 3 parallel sessions, where the abovementioned topics were discussed in more detail by workshop participants.

The fourth block consisted of a plenary session with a presentation from Dr. Jan Hrušák, Vice Chair of ESFRI, on the future prospects for the long-term sustainability of RI, followed by a debate moderated by Ricardo Miguéis (CESAER) and closing interventions by Professor Helena Pereira, Vice President of the Foundation for Science and Technology of Portugal (FCT) and Professor Manuel Assunção, Principal of University of Aveiro.

3. Workshop findings

The conclusions from the roundtable discussions were summarized by three rapporteurs: Alexandra Vilela, Member of the Board of COMPETE 2020 - Operational Programme for Competitiveness and Internationalization; Professor Domingos Barbosa, Instituto de Telecomunicações (Engage SKA – Square Kilometre Array); and Dr. Daniel Carapau, Scientific Officer at the Foundation for Science and technology of Portugal. The paragraphs below touch upon the main points identified during the group discussions, as well as some observations and recommendations covered in the rapporteurs' outcome statements.

3.1 Funding programmes and frameworks

The role of R&D investment in RI is poorly understood by policymakers. Without a sound understanding of these two concepts, a distortion of the RI mission occurs preventing it from reaching its full potential.

There is a fine line between capital and operational expenses. Although both concepts are linked to the long-term strategy of the RI, not all available funding schemes cover operational costs. Structural funds, for instance, do not contemplate the provision of funds for operational expenses that are necessary for the viability of RI services. In High Performance Computing (HPC), for example, as systems become quickly obsolete, host organizations are under continuous pressure to cover expenses related to software, support and maintenance.

RIs are positioned in the middle of the knowledge chain playing a key role in the validation of new scientific and technological concepts developed by academia and industry.

When it comes to infrastructures hosted by universities, sustainability and adequacy of funding remain important and unresolved issues in some countries.

Besides adequacy of funds, two other factors are important: the awareness of funding conditions and opportunities from a multiannual financial perspective among RI Managers and timely funding decision-making.

Recommendations and clarifications

The fundamental differences between funding for RI investments and running costs, and funding dedicated to competitive research projects needs to be further clarified in a way that can be easily understood by policymakers.

The provision of technological and scientific RI capabilities to compete globally requires among other things, a permanent dialogue between users, RI managers and policymakers, as well as a long-term vision backed by governments and their mandated agencies. Structural funds could play a relevant role here, allowing the coverage of operational costs in RIs, thereby narrowing down the technological gap between less developed regions and those that are moving forward.

Despite efforts to date, in the face of global competition, regional, national and European funding institutions should strive to continue to improve the conditions for transnational inter-sector collaborative activities to flourish, not just on each level but also across them.

A funding pipeline from universities to RIs could bring about the continuity needed for the provision of excellent scientific services, where market failures do exist. Whenever an RI is considered of strategic relevance (e.g. its inclusion in a National Roadmap) a minimum level of funding should be granted to support a pluriannual strategy. Furthermore, European Commission funding should be regarded as a mean to complement the national funding (and not to replace it).

3.2 Rules and bureaucracy

Even though the funding rules in some countries have evolved in the past years towards more evidence and impact-based criteria, a closer alignment of the various regulatory levels (regional, national and European) is still needed to enable the optimal use of existing funding schemes.

Recommendation

A single set of funding rules in the programming period for research and innovation, could bring about greater stability and clarity to all parties involved (i.e. users of RI services,

facility operators, beneficiaries and funding organizations), as well as favour synergies with other funding programmes, e.g. the Cohesion funding schemes.

3.3 Transnational access

In terms of transnational access, two phenomena have been observed: On one hand, large companies are willing to pay for access to RI services to keep their Intellectual Property and on the other, Small Medium Sized Enterprises (SMEs) seeking financial leverage are eager to obtain funding for transnational access and disseminate their results.

Recommendation

Given the diversity of users, designing an access scheme that acknowledges the variety of profiles and their different needs could stimulate the demand for services from state-of-the-art facilities. Such scheme though would have to be aligned to and supported by an appropriate funding instrument.

3.4 Measuring performance

While some research infrastructure communities view KPIs as unfit for purpose, others consider them a constructive tool for research and development (R&D).

In certain cases, when measuring performance, the role and impact of the RI in boosting job creation, growth and competitiveness should be considered.

Recommendation

KPIs are important but need to be adequate and tangible. A minimum common base of indicators in combination with a tailored-set of KPIs could help improve the RI's R&D capacity, monitoring processes, the overall excellence of its services and funding decisions on a contractual basis.

KPIs used to measure the socio and economic impact of RIs (therefore to be assessed in a longer term) should be included in the common set of indicators to be adopted, in line with an innovation ecosystem approach.

3.5 National roadmaps

The internationalization of RI, meaning the scaling-up of activities and standards through meetings with other European and/or international relevant stakeholders, has long been neglected by national scientific policies in some countries.

Recommendation

Science knows no borders. Preparing and positioning state-of-the-art facilities in the global arena requires a national science policy that acknowledges the importance of international visibility and a comprehensive national support system that enables the participation of national RI groups in international networking activities.

3.6 Training

There is a shortage of qualified personnel in highly-skilled areas such as big data, data mining and modelling that are relevant for the operation and upgrading of RIs.

While there is ample information out there on ERICs, the general perception, however, is that the information is scattered and not always accessible in a concise form to everyone.

Although there are several RI funding instruments available at different levels (regional national and European), RI Managers, however, tend to lack clear information on them.

Recommendations

Specific lines for scientific employment in fields such as HPC and Big Data (where Europe is lagging behind in comparison to other world regions), should be promoted by universities, as well as regional and national authorities.

Mutual learning exercises can help starting and existing RI communities gain exposure to good practices, lessons learned and success factors of RI management based on evidence.

Trainings addressed to RI Managers on funding instruments would facilitate the identification of those schemes that are best suited to each RI, as well as the optimum coordination of different funding sources.

4. Closing session

In the afternoon, Professor Helena Pereira gave an overview of FCT's role, the level and distribution of funding across all disciplines, some statistics on the number of RIs in the national roadmap (#40) and the percentage figure of facilities hosted by region. Following Pereira's presentation, Dr. Manuel Assunção, Principal of the University of Aveiro, highlighted the need for an improved understanding of the different funding sources and mechanisms to maximize their effective and efficient use, as well as the importance of structural funds and universities to sustain scientific and technological competitiveness.

5. Next steps

Bringing together representatives from the different regional scientific communities and funding organizations in the past four workshops has evolved into a useful format for progress reporting and knowledge sharing. The observations and recommendations made in the Aveiro workshop will be included in the final reports D4.4 and D4.5, due in months 19 and 24 respectively. In the meantime, the progress reporting shall be continued in the last regional workshop foreseen in Wroclaw, Poland, in May 2018.

6. Participant list

NAME	INSTITUTION	NAME	INSTITUTION
Alexandra Griffiths	Swisscore	Jan Hrusak	CAS
Alexandra Rodrigues	CCDRC	João Gregório	Governo dos Açores
Alexandra Vilela	Compete2020	Jorge Graça	Universidade do Algarve
Ana Abrunhosa	CCDRC	Judite Alves	Museu Nacional de História Natural e da Ciência
Ana Fabíola Maurício	UCP	Luis Pereira de Almeida	CNC
Ana Quintais	CCRDC	Luis Seca	INESC
Andreas Meissner	INL	Manuel Santos	UA
António Pereira	UA	Márcia Valério	ULisboa

Antonio Villanueva	University of Vigo	Margarida Franca	CCRDC
Artur Silva	UA	Martin Muller	SNSF
Beata Lubicka	Eitplus	Miguel Castelo-Branco	University of Coimbra
Carla Coimbra	CCRDC	Natalie Haley	University of Oxford
Carlos Silveira	CCRDC	Nataliia Voievoda	CNRS
Carme de Andrés Sanchis	HGF	Nuno Moreno	IGC
Cristina Secades	University of Vigo	Nuno Alves	Politécnico de Leiria
Conceição Carvalho	CCRDC	Ondřej Hradil	CEITEC
Daniel Carapau	FCT	Pedro Alberto	UC
Domingos Barbosa	SKA, IT Portugal	Pedro Magalhães	ICS
Fernando Guiomar	IT Campus Universitário de Santiago	Pedro Vieira	CCRDC
Francisco Amado	University of Aveiro	Ricardo Miguéis	CESAER
Francisco dos Santos	UNL	Rui Nobre	CNC
Geoffrey Mitchell	IPL	Sheila Vidal	IGC
Gonzalo Leon Serrano	UPM	Teresa Jorge	CCRDC
Henrique Santos	C4G Implementation Starts up	Miguel Conceição	UA
Isabel Castanheira	Instituto Nacional de Saúde		
Isabel K. Bolliger	UNIL		

7. Workshop agenda



InRoad WORKSHOP AGENDA

The role of structural funds in the mix of funding sources for the long-term sustainability of Research Infrastructures

April 13th 2018

Venue: University Campus of Santiago, Aveiro (Portugal), Reitoria

Entrance Google Maps Link: <https://goo.gl/nQmWkn>; Coordinates:

40° 37' 53" N 8° 39' 27" W

The event will be in english only.

09.00-09.30	Registration of Participants and Welcome coffee
9.30 – 10.15	<p>OPENING SESSION</p> <p>Welcome speech - Ana Abrunhosa, President of Comissão de Coordenação e Desenvolvimento Regional do Centro</p> <p>Introductory Speech– Martin Muller, InRoad Coordinator, Swiss National Science Foundation <i>Brief presentation of InRoad's findings and results</i></p> <p>Keynote speech - Ricardo Miguéis, Senior Advisor for Research and Innovation, CESAER - Conference of European Schools for Advanced Engineering</p> <p>1st PANEL</p> <p>Teresa Jorge, Comissão de Coordenação e Desenvolvimento Regional do Centro <i>Context and aim of the Workshop</i></p>
10.15 – 11.00	<p>Ondřej Hradil, Core facility coordinator of CEITEC - Central European Institute of Technology <i>The role of Structural Funds in the mix of funding sources</i></p> <p>Gonzalo León, Deputy Rector for Innovation Partnership, Universidad Politécnica de Madrid <i>Combination of different funding sources and mechanisms</i></p> <p>Miguel Castelo Branco, Coordinator of the National Functional BIN - Brain Imaging Network <i>The importance of road mapping procedures</i></p>
11.00-12.45	<p>Round table discussions in parallel sessions</p> <p>Discussion on the Long Term Sustainability of Research Infrastructures (RI) and funding instruments along the full life cycle, focusing on The role of Structural Funds in the mix of funding sources Combination of different funding sources and</p>
12.45 -13.30	Light Lunch
13.30 -15.00	<p>Round table discussions in parallel sessions</p> <p>Difficulties in short, medium and long term funding and recommendations to overcome them, focusing on The next generation of ESIF and FP9 The funding of future life cycle stages of RIs Road</p>
15.00 -15.15	Coffee break

15.15 -17.00	<p>PLENARY SESSION</p> <p>Presentation of conclusions of parallel sessions by rapporteurs Jan Hrusak, Vice Chair of ESFRI</p> <p><i>Long Term Sustainability of Research Infrastructures: the European call for action and prospects for the future programming period</i></p> <p>Debate and recommendations - Moderated by Ricardo Miguéis, Senior Advisor for Research and Innovation, CESAER - Conference of European Schools for Advanced Engineering Education and Research</p> <p>Closing Interventions</p>
---------------------	---



InRoad has been funded by the European Union's Horizon 2020 Research and Innovation programme under grant agreement No 730928.



synchronising research infrastructure
roadmapping in Europe



comissão de coordenação
e desenvolvimento regional
do centro