



Euro-BioImaging

European Research Infrastructure for Imaging Technologies in
Biological and Biomedical Sciences

WP4 Finance Planning

Task 4.1

**Identify funding sources by approaching ministries and
funding agencies in the EU Member States and Associated
States**

Deliverable 4.1

Report on funding sources for the construction and operation of
Euro-Bioimaging

Task leader

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Background

1. This report provides an overview of potential funding opportunities that could be available for the Euro-Biolmaging Research Infrastructure (RI). Research for this report has been carried out through the consultation of national research infrastructure roadmaps, reports, and web-pages produced by national funding bodies. The report was accepted by the Work Package 4 Working Group on 10 November 2011.

Information Sources

2. Countries likely to have potentially useful funding mechanisms were identified based on their involvement with Euro-Biolmaging, other European programmes such as ERA-Instruments and the Preparatory Phase of the European Strategy Forum on Research Infrastructures project 'European Life Science Infrastructure for Biological Information (ELIXIR)'. This has included both European Union member states, candidate EU countries and other European countries. A full list of the countries studied is given in **Annex 1**.
3. In order to identify potential funding sources, references to Euro-Biolmaging or bioimaging in general were firstly identified in national RI roadmaps. Following this, national funding mechanisms were identified that provide funding to national infrastructures, large equipment, bioimaging-related research and technology development. Subsequently, the draft version of this report was sent to **128** organisations in **26** countries (and including EU-wide organisations) to ensure that the information provided was accurate and timely. A list of these organisations (including those that responded), together with the email requesting input can be found in **Annex 2**.
4. It should be noted that some respondents provided information on specific large infrastructure calls, some of which are dedicated to imaging. Some of this group of respondents plus some other respondents provided details of regular funding programmes such as standard equipment funding schemes.
5. Funding schemes have therefore been identified that may provide support for both international bioimaging facilities and support for national facilities. Both types of funding will be of importance to Euro-Biolmaging, where the hub and node model likely to be adopted will require international support for the central hub, and national support for the nodes.

Potential Funding Sources

6. Details are provided of countries in which bioimaging RI have been identified in RI roadmaps. Such countries recognise the importance of bioimaging RIs and so are likely to be receptive to approaches for funding for Euro-Biolmaging. The roadmaps either identify Euro-Biolmaging as an international RI worthy of support, or discuss the importance of national imaging facilities; such facilities may be expected to meet the likely requirements of a Euro-Biolmaging node such as the ability to demonstrate

the excellence of the institution and the presence of strong support from national funders.

7. Also identified are Countries in which although bioimaging has not been identified as a priority area, support mechanisms are in place for the establishment and maintenance of RIs and imaging related research. Lastly, countries in which there is a lack of information regarding RI funding are discussed; such countries may still recognise the importance of ESFRI projects or may have mechanisms in place for the support of national imaging projects or resources.

Countries with Euro-Biolmaging on their Research Infrastructure Roadmap

8. The Czech Republic consider engagement with ESFRI activities to be an important activity by which to boost their RIs and have identified Euro-Biolmaging as a “priority project” within the 2011 report “Roadmap for Large Research, Development and Innovation Infrastructures in the Czech Republic” produced by the Ministry of Education, Youth and Sports [1]. The Roadmap states that the Czech Republic intends to host part of the Euro-Biolmaging infrastructure within their planned Biotechnology & Biomedicine Centre (BIOCEV) of excellence. The BIOCEV centre is scheduled to open in 2013 and aims to develop an excellent biotechnological and biomedical centre. The proposal for the centre was submitted in 2008 to the Operational Programme 'Research and Development for Innovation' (OP RDI) call that is operated by the Czech Republic's Ministry of Education, Youth and Sports [2]. In addition to bioimaging, the facility intends to house the Czech Centre for Phenogenomics and a Structural Biology and Protein Engineering programme.
9. France is organizing its contribution to Euro-Biolmaging through the setup of 2 national infrastructures: one, France Biolmaging, for photonic and electronic cellular bio-imaging, and a second one, France Life Imaging for *in vivo* imaging for preclinical, clinical, and population studies. Each infrastructure aimed at establishing a coordinated and harmonized network of biomedical imaging in France. Their mission will be (i) to coordinate nation-wide research activities concerned with imaging and (ii) to provide scientists with convenient access to a complete range of imaging technologies and integrated services. France Biolmaging and France Life Imaging will constitute the French component of Euro-Biolmaging in term of management and access to imaging platforms. France Bio-Imaging is coordinated by Centre National de la Recherche Scientifique (CNRS) and was selected by the French government in 2010 with a budget of 26M€. France Life Imaging is coordinated by the Commissariat à l'Energie Atomique et aux Energies Alternatives (CEA). The project was submitted in October 2011 with a budget of 40M€. The selected projects and their funding will be know in Feb 2012.[3,4,5,6]
10. Greece published a ten year plan for large research infrastructures in 2005; proposals for these infrastructures were received in response to a call for research infrastructures from the General Secretariat for Research and Technology (GSRT). The roadmap includes plans for BIOIMAGE which will aim to meet the needs for acquiring structural or functional images, develop novel methods/algorithms for

image processing and will facilitate novel applications of bio-medical imaging in biology and medicine. This project was categorized as being of immediate priority and its suggested that attempts to finance the project would begin in 2012 [73,7].

11. Greece has in the past run a specific call for the long term development of research equipment and infrastructure (“Excellence in the GSRT Supervised Research Centres and Institutes”), but this call ended in 2006 [8].
12. *Ireland* has a National Biophotonics and Imaging Platform that is supported by a number of funders including the Higher Education Authority and EU Structural Funds. The platform aims to provide training and national access to advanced biophotonics and imaging infrastructures [9].
13. *Italy* has published the Italian National Research Programme 2010-2012 in which Euro-Biolmaging is listed as one of 25 ESFRI projects that the country is interested in participating in [10]. Structural funds are available from the National Operatives Programme for the support of both research and other infrastructures. However, funding from this source can only be used to support infrastructure in the South of Italy [11].
14. Other Italian funders such as Research and Technology Development in Sardinia or the charities Associazione Italiana per la Ricerca sul Cancro (AIRC) or Telethon do not appear to provide specific support of research infrastructures or equipment.
15. *The Netherlands* included Euro-Biolmaging on their roadmap for large scale facilities that was published in 2008. Within this report, Euro-Biolmaging is given an “A priority”. This priority status equates to a recommendation that a node of the RI be located in the Netherlands and that the construction and operation of the facility receive funding [12]. An update of this roadmap was made in autumn 2011, with decisions to allocate up to €80M to a selected number (out of 37) of large-scale research infrastructure projects envisaged in February 2012 [13].
16. The Netherlands Organisation for Scientific Research (NWO) also runs two investment programs that can be used to fund research equipment and facilities. The Investment Subsidy NWO Large program is held every two years and aims to encourage and support investment in research infrastructure; applications should be for at least €1M, and approximately €20M is available for the 2011 call [14]. Furthermore, a call for medium infrastructures is held annually; this provides funding of between €110k and €900k for research infrastructure and equipment [15].
17. *Poland* has recent published its national research infrastructure roadmap and this contains plans for the NEBI – National Imaging Centre for biological and biomedical sciences. This project is being co-ordinated by The Nencki Institute of Experimental Biology of the Polish Academy of Sciences and there is the intention that the project will become part of the Euro-Biolmaging infrastructure [16]. No dedicated call for proposals has been announced yet for the projects on the roadmap, but financing is available via complementary schemes.

18. Sweden is currently preparing their 2011 research infrastructures roadmap, but in 2010 operated a call for “Large-Scale Research Infrastructures in Biolmaging” [17]. This call was carried out to give research groups access to MRI, PET and bioimaging technologies that they would not otherwise have been able to access. As a part of this call it was stated that grant applications may address the construction and operation of a Swedish node of an international infrastructure such as Euro-Biolmaging.
19. Sweden also operates two research equipment calls that can be used to provide facilities with cutting edge technology [18,19]. One of these calls is for equipment costing greater than about €223k; this can include construction or modification of equipment and aims to provide researchers with greater access to equipment for basic and applied research. Furthermore, there is a call for “Large-Scale Research Infrastructures” that aims to support large scale national and international infrastructures for which construction can begin in 2012. Funds are specifically available from this call to allow Swedish participation in ESFRI projects.

Countries with Biolmaging facilities on their Research Infrastructure Roadmap

20. Estonia is aiming to upgrade or replace 80% of its research infrastructure by 2013 and is participating in five current ESFRI projects. Furthermore, their 2010 RI roadmap includes plans to upgrade the functional imaging facilities currently available at the University of Tartu [20]. This upgrade will be as part of a new National Centre for Translational and Clinical Research that aims to create an internationally competitive environment for medical research; this facility is expected to be constructed in 2011-12.
21. The Estonian RI roadmap also includes plans for the Estonian PET-Centre. This will be housed in new facilities and make use of new equipment while taking advantage of animal facilities, climatic growth chambers and plant growth rooms at the University of Tartu to facilitate the imaging of plants and animals.
22. Estonia has previously operated research infrastructure calls for low cost equipment (€6.4k-64k) and large equipment (€300k-1.6M) but these were on an ad-hoc basis and are not expected to continue following the previous call in 2010 [21].
23. Finland ran a call for research infrastructures in 2010 that aimed to allocate funds for RIs in 2011 [22]. The fund is to provide €10M to support research infrastructures which are included on the Finnish RI roadmap. This roadmap, published in 2009, includes plans for the Helsinki Functional Imaging Centre, Turku Bioimaging and the Centre for Systems Neuroimaging which together could be used to make up a “cluster of bioimaging” [23].
24. Furthermore, the Academy of Finland has a call for “photonics and modern imaging techniques” that is running from 2010-2013 and has a priority area of “photonics in life science and medicine” [24]. The call aims to generate significant research and

novel findings in different areas of photonics, and to facilitate the creation of multidisciplinary research teams and international networks [25].

25. *Norway* has awarded a Norwegian Research Council grant to a national imaging core facility in Oslo, Norway [26].
26. In 2010 Norway publicised a review of e-infrastructure requirements. This report recognises the need to address the scientific challenges associated with the visualisation and analysis of large multidimensional imaging data sets [27]. Furthermore, the National Financing Initiative for Research Infrastructures (INFRASTRUKTUR) roadmap, also published in 2010, includes two imaging related infrastructures [28];
 - NORBRAIN aims to provide a large scale infrastructure for neuroscience, at the Medical Imaging Laboratory Norwegian University of Science and Technology.
 - NorMIT- the Norwegian Centre for Minimally Invasive Image Guided Therapy and Medical Technologies is seeking approximately €16.5M. These funds aim to provide new scientific equipment to expand existing infrastructure in order to guide image guided therapy in the Operating Room of the Future at St. Olavs Hospital and the Interventional Centre at the Norwegian University of Science and Technology.
27. These projects are two of a number that have been selected from 260 grant proposals received in response to a Norwegian Research Infrastructure call issued in 2009. Both are considered ready to receive investment.
28. *Spain* has five molecular and medical imaging related national infrastructures included in their 2008 National RI roadmap. All of these represent new infrastructures built at single sites [29]. Spain also has a research infrastructure/equipment call that is managed by the Spanish Ministry of Science and Innovation and co-financed by the European Regional Development Fund. The call aims to provide the Spanish scientific community with the technology necessary for their research activities [30]. Furthermore, a research infrastructure call specifically for biological sciences is operated by the Ministry of Health through the Institutes of Health Carlos III [31].
29. The Spanish Light Microscopy Network (Red Espanola de Microscopia Optica Avanzada, REMOA), which was founded in June 2010 with the goal to position the Spanish bioimaging community for Euro-Biolmaging, has taken shape in the last 1.5 years supported with a grant for funding for their network activities from the science ministry MICINN. [32]

Countries with Potentially Relevant Research Infrastructure Funding Schemes

30. Although lacking specific RI roadmaps on which Euro-Biolmaging or bioimaging in general are noted, several European countries have infrastructure calls that emphasise the importance of engagement with ESFRI projects or provide a range of funding streams for the provision of new infrastructures, equipment, and technology.

31. Belgium has a highly decentralised funding structure, with funds being provided by the federal authority as well as the Flemish, Walloon and Brussels regions [33]. The Flanders authority operates the Hercules Fund to support research investments of less than €1.5M and large investments in research infrastructure that are over €1.5M; this scheme is currently undergoing its third call for which €3.3M is currently available. However, past calls have received €10M in funds and it is hoped funds for the third call will be increased to this level [34]. The Flemish Finance Fund for Paying of Debts and Investments (FFEU) has also been used in the past to contribute to RI funding in areas including medical and digital infrastructure [35].
32. The regional government of the Wallonia region has a competitive poles program to support the formation of clusters of research units, industry and training centres in specific areas of industry [36]. Of most relevance to Euro-Biolmaging is the cluster on photonics [37] and the Biotechnologies Wallonia cluster that focuses on cancer, inflammation and brain diseases [38].
33. Infrastructure funding is also available through the foundation Fournier-Majoie pour l'innovation (FMI). The FMI's mission is to provide support to entrepreneurs developing innovative projects for the improvement of human health and welfare, and to encourage team building. The foundation has a call out in 2011 for cancer biomarkers and functional imaging technology development; projects from €75,000 to €1,000,000 can be funded by this scheme [39]
34. In addition to the regional governments, the Belgian Federal Government can take initiatives, set up structures and finance R&D for international projects where Belgium is a treaty partner (or could be considered as such); and where the project exceeds the interests of individual communities or regions. The Federal Government is also responsible for the implementation and organisation of networks for data exchange between research institutions, and is also politically responsible for the execution of supranational agreements.
35. Croatia is aiming to increase funding in several key areas, including science, IT and technology. As part of this aim the Croatian Ministry of Science, Education and Sports is restructuring their research institutions and providing assistance for the upgrading of their physical infrastructure, laboratory equipment and facilities. Croatia currently does not have a national roadmap for research infrastructure, reflecting in part the lack of finance available for research within the country. [40].
36. Denmark's agency for Science, Technology and Innovation has encouraged their research community's participation in international research infrastructures. From 2007 until 2009 a National Program for Research Infrastructure operated with the aim of increasing the level of research infrastructures available in the years 2010-2012. In 2009 this call specifically stated funding would be available for facilitating Danish membership or participation in major international research infrastructures [41].
37. Germany has a number of schemes in place for the support of acquisition of major instrumentation, equipment and research infrastructure. The Deutsche Forschungsgemeinschaft (DFG) reviews proposals for State Major Instrumentation,

the funding for which is provided by the German University/hospital and State in which the equipment will be located. Instrument costs must exceed €100k for universities of applied science and €200k for other institutions; as this funding is provided by the host institution these proposals can be submitted to DFG at any time [42].

38. In combination with a host University's home State, DFG also provides funding for Major Research Instrumentation that will facilitate research projects of high quality and national importance. Equipment costing up to €5M can be applied for through this scheme [43]. Furthermore, funding for 'Research Building' can be applied for under the same guidelines as for Major Research Instrumentation [44].
39. DFG issues specific calls on cutting edge Research Infrastructure. Whilst this is a relatively minor funding stream, it can be helpful to pump-prime the development of new technology.
40. The German Federal Ministry of Education and Research is preparing the development of a National Roadmap for Research Infrastructures, which is to be published in the first half of 2013. The planned process consists of science-driven evaluation of projects and an examination of their costs as well as the political prioritisation of research infrastructure projects. Euro-Bioimaging has been selected for inclusion in this examination procedure by the Federal Ministry of Education and Research. Eventually, all projects which have been evaluated positively and whose funding is secured will be included. Should Euro-Bioimaging be included in the national roadmap, the Federal Ministry of Education and Research will provide financial support for the project.
41. Hungary published their National Research Infrastructure Development Plan (NEKIFUT) in 2008 with the aim of developing their National ESFRI capabilities. Included within this review was the identification of core imaging facilities within Hungary; this includes resources for atomic force microscopy, fluorescent techniques and cellular imaging. Furthermore, funding is available in Hungary for technology development research through the Research and Technologies Innovation Fund. [45,46]
42. Iceland has a funding scheme for the provision of research infrastructure and equipment that is operated by RANNIS. The Equipment Fund provides funding to institutions for expensive research equipment for which an average of €0.68M is available each year [47,48].
43. Although there are no established multi-annual infrastructure calls in Iceland, there has been significant investment in bioimaging infrastructure over the past decade. A review of infrastructures is expected within the next year and the resulting roadmap will be more specific regarding the engagement with ESFRI projects.
44. Israel has no national RI funding program. The decisions on RI funding are made by high-level committees of the Israel Council for Higher Education and the Forum for National Research and Development Infrastructure. Israel's Science Foundation

provides Basic Institutional Equipment Grants to fund equipment based at Universities that will serve a large number of users. Equipment can cost up to about €424k and in 2010 the fund provided about €1.19M of support for nine items of equipment [49]. Furthermore, as part of their Strategic framework in Optronics and Biophotonics the Ministry of Science and Technology supports a Centre of Excellence in Free Electron Lasers [50]. A group of Israeli researchers, headed by Prof. Michal Neeman has submitted an application for funding biomedical imaging infrastructure at a national scale, to a consortium of governmental bodies, that assess and fund large-scale instrumentation cores, both in academic institutions and industry. The scope of the application, which was submitted to the planning and Budgeting Committee of the Council of Higher Education includes a wide range on molecular imaging systems, advanced light microscopy and development of novel imaging probes. At present the application is considered by the infrastructure forum.

45. Romania is in the process of implementing a Research, Development and Innovation Strategy 2007-2013; this has the specific aims of developing institutional capacity and extending international cooperation; as a part of this, public investment has been provided for developing research infrastructure both at pan-European, national and regional levels [51]. In response to the Innovation Strategy an infrastructure roadmap was published in 2008 and this emphasised the importance of participation in ESFRI projects [52].
46. Switzerland provides support for Research Infrastructures through the Swiss National Science Foundation (SNSF); that funds research infrastructures deemed to be indispensable for research projects. Furthermore, the SNSF operates a research equipment program for the procurement and development of major items of research equipment [53]. Swiss Biolmaging has applied for infrastructure with a volume of €80M to the Swiss Ministry of Education. This application is pending and may be re-activated in 2012.
47. The United Kingdom Research Councils are currently in the process of updating their capital priorities programme. Currently, the UK has support for research equipment development and infrastructure maintenance through two initiatives operated by the Biotechnology and Biological Sciences Research Council (BBSRC). Firstly, the Strategic Tools and Resources Fund provides support for small or short-duration pump-priming projects that are typically concerned with the first stages of novel technology development or the adaptation of existing technology to biological research purposes; this fund has an annual budget of about €2.8M [54]. Secondly, the Bioinformatics and Biological Resources Fund can be used support imaging-related bioinformatic resources that are in high demand from the UK academic community; this call has an annual budget of about €7.4M [55]. Past calls of the BBSRC have been used to provide funding for the widely utilized recognised Open Microscopy Environment [56].
48. Support for imaging-related technology development is also provided through BBSRC's Responsive Mode. For the financial year 2009/10, €2.4M of funding was provided to imaging technology development projects via this mechanism.

49. The Medical Research Council (MRC) provides support to medical imaging units and centres through competitive funding mechanisms. [57]. The MRC, in association with the Engineering and Physical Sciences Research Council are undertaking a review into current and future research opportunities in medical imaging technology. The review will help evolve the medical imaging technologies portfolio of both funders. The review will cover transforming clinical imaging through novel instrumentation, image analysis and modelling or biomarker technologies for screening, diagnostics and therapy at all levels of biological organisation.
50. The Wellcome Trust provides support for equipment and biomedical resources through a dedicated scheme and is open to receiving applications focussed on technology development and imaging through this and other schemes. The Wellcome Trust also co-funds the Wellcome Trust/EPSRC Medical Engineering Centre of Excellence at King's College London. This centre is funded as part of the Wellcome Trust's Technology Transfer Division and one area of research on which the centre is focused is the development of new medical imaging methods [58].
51. CRUK also funds a number of research institutes and centres, and a priority of the charity is the piloting of new technologies within these centres [59]. Furthermore, CRUK has previously provided up to €34M support for state of the art cancer imaging facilities at Imperial College London, the Institute of Cancer Research, and the University of Oxford [60]. Furthermore, CRUK operates a call for Biomarkers & Imaging Discovery & Development Project Grants to provide funding for biomarker and imaging technology development [61].

Other Countries and Possible Sources of Funding

52. The following countries do not have information regarding specific RI roadmaps or schemes for the support and development of research infrastructures, or for the provision of equipment. However, some of their organisations and policies do provide support for research infrastructures and could be of use for the funding of Euro-Biolmaging.
53. Austria's National research funding policy currently states the importance of developing their research infrastructure in line with the current ESFRI roadmap in order to increase international cooperation and access to international facilities [62].
54. Bulgaria is preparing their RI roadmap. The country is engaged with current the European Research Area (ERA) [63], but it is recognised that there is a general lack of funds for research infrastructure funding [64].
55. Latvia's plans for the support of research infrastructure development have been published previously [65,66].
56. Lithuania is keen to integrate with the ERA and is encouraging the improvement of RIs [67]. Furthermore, the Lithuanian innovation strategy for the year 2010-20

highlights biomedicine and biotechnologies as being key areas for research development, and reiterates their wish to participate in the ERA [68].

57. *The Former Yugoslav Republic of Macedonia* recognised the importance of RI development in their paper for the National Strategy for the Development of Education in the Republic of Macedonia 2005-2015; as part of this plan it was stated that there was a need to increase both European and national collaboration on RI projects [69,70].
58. *Slovakia* published their long-term science and technology policy which details their aims to achieve by 2015. This report states that RIs are vital and that structural funds are available for the establishment of centres of excellence and technology transfer [71].
59. *Portugal* has in place the national Network for Electron Microscopy and the national Network for Functional Brain Imaging; although neither of these networks provide funding they aim to ensure the whole Portuguese academic community has access to the microscopy/ brain imaging facilities present at their Universities [72].
60. *Slovenia* provides funding for research infrastructures and for equipment costing greater than €10k through the Slovenian Research Agency. Slovenia does not intend to participate in Euro-Biolmaging, according to its latest research roadmap, [73].
61. *Turkey* is currently increasing their research spending through their National Science and Technologies Implementation Plan 2005-2010 [74]. Furthermore, in 2010 Turkey released a science, technology and innovation (STI) paper detailing their investments in these areas; this paper details Turkey's view of the importance of international collaboration and participation in FP& projects [75].

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- [61] <http://science.cancerresearchuk.org/funding/find-grant/all-funding-schemes/biomarkers-imaging-discovery-development-project-grants/>
- [62] <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=home.downloadFile&fileID=1048>
- [63] <http://cordis.europa.eu/erawatch/index.cfm?fuseaction=ri.content&topicID=14&parentID=12&countryCode=BG>
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<http://www.minedu.sk/data/USERDATAEN/VaT/VaTDOC/Long%20Term%20Plan%20by%20the%20year%202015.pdf>

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<http://www.tubitak.gov.tr/sid/2407/pid/2400/index.htm;jsessionid=B4E3F3FDB49DBA0F0FFF6D9B5153FEB4>

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ANNEX 1

Countries Researched

European Union Member States

Austria
Belgium
Czech Republic
Denmark
Estonia
Finland
France
Germany
Greece
Hungry
Ireland
Italy
Latvia
Lithuania
Netherlands
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
United Kingdom

European Union Candidate Country

Croatia
Former Yugoslav Republic of Macedonia
Iceland
Turkey

Other European Countries

Israel
Norway
Switzerland

LIST OF ORGANISATIONS APPROACHED IN CONSULTATION
(those marked with * responded)

Organisation	Country
Austrian Federal Ministry of Science and Research	Austria
FFG	Austria
European Institute for Biomedical Imaging Research	Austria
COST	Belgium
Flemish agency for research infrastructure	Belgium
*Belgian Science Policy Office	Belgium
Fonds de la Recherche Scientifique (F.R.S.-FNRS)	Belgium
Vlaamse Regering an Vlaams Minister van Innovatie...	Belgium
Scientific and Technical Information Service (STIS/BELSPO)	Belgium
European Organisation for Research and Treatment of Cancer	Belgium
Bulgarian Academy of Sciences	Bulgaria
Scientific Research Department/NIS/of SOFIA UNIVERSITY "ST. KLIMENT OHRIDSKI" (SU-NIS)	Bulgaria
* Ruder Boskovic Institute	Croatia
Ministry of Education, Youth and Sports	Czech Republic
Academy of Sciences	Czech Republic
Czech Science Foundation	Czech Republic
Technologicke Centrum Akademie Ved Ceske Republiky (TC AV CR)	Czech Republic
* Institute of Molecular Genetics of the ASCR	Czech Republic
Danish Agency for Science, Technology and Innovation	Denmark
Klinisk Institut	Denmark
Archimedes Foundation (Archimedes)	Estonia
European Commission	EU
European Society of Radiology	EU
European Science Foundation	EU
Ministry of Education	Finland
Academy of Finland	Finland
Finnish Funding Agency for Technology and Innovation	Finland
University of Turku	Finland
Abo Akademi	Finland
Turku Centre for Biotechnology	Finland
Institut Nationalde la Santé et de la Recherche Médicale	France
General Directorate for Research and Innovation	France
Centre nationalde la recherche scientifique	France
Aviesan	France
INSERM	France
*CEA	France
Centre Nationalde la Recherche Scientifique	France
INRIA	France
University of Bordeaux	France
Institut Nationale des Sciences Appliquees de Lyon	France

ANNEX 2

Deutsche Röntgengesellschaft	Germany
University of Muenster	Germany
University of Freiburg	Germany
Federal Ministry of Education and Research	Germany
Bayrisches Staatsministerium für Wissenschaft, Forschung und Kunst	Germany
*DLR	Germany
European Molecular Biology Laboratory	Germany
University of Heidelberg	Germany
*Deutsche Forschungsgemeinschaft	Germany
Projekträger im Deutschen Zentrum für Luft- und Raumfahrt e.V.	Germany
Fraunhofer-Gesellschaft	Germany
Forschungszentrum Juelich	Germany
Helmholtz Association	Germany
*University of Munich	Germany
Deutsches Zentrum fuer Luft- und Raumfahrt e.V. (DLR)	Germany
Max Planck Institute for Molecular Cell Biology and Genetics	Germany
Ludwig Maximilian Universitat Muenchen	Germany
Max Planck Institute for Neurological Research	Germany
Otto van Guericke Universitat Magdeburg	Germany
Institute of Cell & Developmental Biology B.S.R.C. "Alexander Fleming"	Greece
NationalDocumentation Centre(EKT-NHRF)	Greece
NationalOffice for Research and Technology	Hungary
NationalInnovation Office (NIH)	Hungary
*RANNIS	Iceland
HEA	Ireland
Enterprise Ireland	Ireland
*Health Research Board	Ireland
Science Foundation Ireland	Ireland
Higher Education Authority	Ireland
Israel Science Foundation	Israel
Weizmann Institute	Israel
*Israel - Europe R&D Directorate for the EU Framework Program (ISERD)	Israel
MIUR--Ministero dell'Istruzione, dell'Università e della Ricerca	Italy
REGIONE PIEMONTE Assessorato all'Università, Ricerca, Politiche per l'Innovazione e l'Internazionalizzazione, Telecomunicazioni, e-government, Industria ed Energia	Italy
*NationalResearch Council of Italy (CNR)	Italy
Italian Telethon Foundation	Italy
NationalResearch Council, IBCN	Italy
Fondazione IRCCS SDN	Italy
Agenzia per la Promozione Della Ricerca Europea (APRE)	Italy
Universita di Torino	Italy
European Institute of Oncology	Italy
The Netherlands Organisation for Health Research and Development`	Netherlands

ANNEX 2

*Erasmus Medical Centre	Netherlands
Ministry of Economic Affairs	Netherlands
*Netherlands Organisation for Scientific Research	Netherlands
Ministry of Education, Culture and Science	Netherlands
Agentschap NL/NL Innovatie- EG- Liaison	Netherlands
University of Utrecht	Netherlands
Norges forskningsrad - The Research Council of Norway	Norway
*University of Oslo	Norway
Polish Agency of Regional Development (PRAP)	Poland
Ministry of Science and Higher Education	Poland
University of Finance and Management in Warsaw	Poland
Ministry of Science and Higher Education	Poland
Polish Academy of Sciences	Poland
*Nencki Institute of Experimental Biology Polish Academy of Sciences	Poland
Institute of Fundamental Technological Research	Poland
Ministerio da Ciencia, Tecnologia e Ensino Superior	Portugal
IBMC	Portugal
GPPQ - FP7 Promotion Office (ADI)	Portugal
ANCS (ministry)	Romania
National Research and Development Institute for Cryogenics and Isotopic Technologies (ICIT)	Romania
Catalan Ministry	Spain
Basque Government	Spain
Ministry of Science and Innovation	Spain
Universitat Pompeu Fabra	Spain
Centre for Genomic Research	Spain
Catalan Health Service	Spain
*University of Barcelona	Spain
*University of Uppsala	Sweden
*Swedish Research Council	Sweden
Verket foer Innovationssystem (VINNOVA)	Sweden
FDHA - Federal Department of Home Affairs	Switzerland
SNF	Switzerland
SBF	Switzerland
Leiter nationale Forschung	Switzerland
Verein Euresearch (Euresearch)	Switzerland
Friedrich Miescher Institute for Biomedical Research	Switzerland
ETH Zurich	Switzerland
*Biotechnology and Biological Sciences Research Council	United Kingdom
*Wellcome Trust	United Kingdom

ANNEX 2

*Medical Research Council (MRC)	United Kingdom
Cancer Research UK	United Kingdom
Royal Microscopical Society	United Kingdom
Natural Environment Research Council	United Kingdom
*Imperial College London	United Kingdom
*University of Dundee	United Kingdom

Email to Survey Participants

Dear Colleague,

ESFRI PREPARATORY PHASE PROJECT “EURO-BIOIMAGING”: REQUEST FOR FUNDING STRATEGY INFORMATION

I am writing on behalf of the partners of the ESFRI Preparatory Phase Project ‘Euro-Biolmaging’ to seek your input into the development of a report on potential funding sources for future phases of the project. This report, which will be made available to Euro-Biolmaging stakeholders and the European Commission, will provide an overview of potential funding opportunities that could be available for future Euro-Biolmaging Research Infrastructures.

Background to Euro-Biolmaging

Euro-Biolmaging (www.eurobioimaging.eu) is a large-scale pan-European research infrastructure project on the ESFRI Roadmap. Euro-Biolmaging will deploy a distributed biological and biomedical imaging infrastructure in Europe in a coordinated and harmonized manner. By providing access to and training in imaging technologies, and by sharing of best practice and image data, Euro-Biolmaging will become an engine that will drive European innovation in imaging research and technologies.

In order to deliver this vision, the project is split into 13 work packages, one of which (Work Package 4) is focused on Finance Planning (<http://www.eurobioimaging.eu/content-page/wp4-finance-planning>). One of the objectives of this work package is “to identify sustainable funding opportunities for establishing Euro-Biolmaging as a pan-European research infrastructure”.

Sustainable Funding Opportunities

Work Package 4 members, led by the UK’s Biotechnology and Biological Sciences Research Council (BBSRC), have drafted the attached document as a starting point for identifying funding sources in EU Member States and Associated States. The information provided in this document is derived from publicly-available national infrastructure roadmaps, reports and web pages produced by national funding bodies.

As an organisation/department/ministry identified as being involved in the development and/or implementation of research infrastructures within your country, we are keen to hear your views on this document, in order to ensure that the information contained within the report is correct, timely and accurate. A short survey has been compiled and we would like to encourage you or an appropriate colleague to submit your comments. The survey should take no more than 10 minutes to complete, and can be found at <http://www.surveymonkey.com/s/NZ3BQ8Z>.

Alternatively, comments under the following headings can be emailed directly to me:

- Name
- Organisation/Department/Ministry etc.
- Country

ANNEX 2

- Please provide comments on whether the information provided in the draft paper is accurate and reflects your organisation's current strategy and activities.
- Please provide any additional information that you think would be useful for inclusion into the final Euro-BioImaging paper.
- Are you content for this information to be included in the final Euro-Bioimaging paper (and possibly made public)?
- Would you like to receive a copy of the final report?

The information we receive will be used only for ensuring that the final paper is as accurate as possible. If you wish a copy of the final paper, you can request one through the survey link or directly from me.

The deadline for comments is 28 October 2011.