

## Euro-BioImaging Node – Expression of Interest 1st Open CALL - PART B

### Important information for imaging facilities expressing interest in becoming a Euro-BioImaging Node

This document provides the necessary information for existing or planned imaging infrastructure providers in the field of population-based imaging and in the field of challenges frameworks for biological and/or medical image analysis that are interested in becoming a Euro-BioImaging Node. Euro-BioImaging is a pan-European infrastructure project whose mission is to build a distributed imaging infrastructure across Europe, which will provide open access to innovative imaging technologies for European researchers. Euro-BioImaging is committed to an open Node-selection mechanism for all ESFRI countries and imaging facilities, through an independent evaluation of Node Expressions of Interest.

The ‘Part (b)’ of the 1st Open Call for Euro-BioImaging Nodes – Expression of Interest focuses on technologies that will provide open user access to research infrastructures for

- Population Imaging
- Challenges Framework supporting (i) the standardized validation of image analysis algorithms, and (ii) making these validated algorithms and reference data available

Part A comprises Nodes offering physical user access to imaging technologies for data acquisition which have been tested in proof-of-concept studies or by alternative means.

**Part B** comprises Nodes which offer physical and remote user access to services for data analysis infrastructure and data repositories as well as access to challenges frameworks for organizers and algorithm developers. Euro-BioImaging Nodes in Population Imaging will provide on site access to image analysis infrastructure and remote or on site access to image data repositories to all Euro-BioImaging users. Euro-BioImaging “Challenges” Nodes will provide access for challenge organizers to a software environment and methodology to set-up challenges for the standardized evaluation of algorithms to perform certain image analysis tasks, access to software engineers to participate in challenges to have their algorithms evaluated and access to evaluated algorithms to all Euro-BioImaging users.

The Euro-BioImaging Steering Committee adopted the inclusion of these two modalities after thorough evaluation of the following material provided by the related technical Work Packages:

- **Demonstrated user need;** for *Population Imaging* through the Euro-BioImaging survey, the Dutch survey as part of the position paper “Population Imaging infrastructure in the Netherlands”, and a survey during the first European Workshop on Population Imaging. For the *Challenges* user need has been demonstrated through the Euro-BioImaging survey, a challenge workshop held in Nice 2011, The Euro-BioImaging “Medical Image Analysis” workshop at the ISBI 2012 conference in Barcelona, and challenges conducted at MICCAI 2012. Documents the user need in more detail can be found at(<http://www.eurobioimaging.eu/content-page/open-call-part-b-demonstration-user-need-feasibility>)
- **Infrastructure model** and service package for technologies has been defined (see Technology Specific Review Criteria)
- **Feasibility** has been approved by the Steering Committee (<http://www.eurobioimaging.eu/content-page/open-call-part-b-demonstration-user-need-feasibility>)

## **Open Call Part B**

In 2013, Euro-BioImaging is inviting infrastructure providers for Population Imaging and Challenges Frameworks for the first time to express their interest in joining the future Euro-BioImaging infrastructure by becoming Euro-BioImaging Nodes.

Additional modalities will be added in future Euro-BioImaging calls for Nodes that are foreseen annually after the end of the Euro-BioImaging Preparatory Phase.

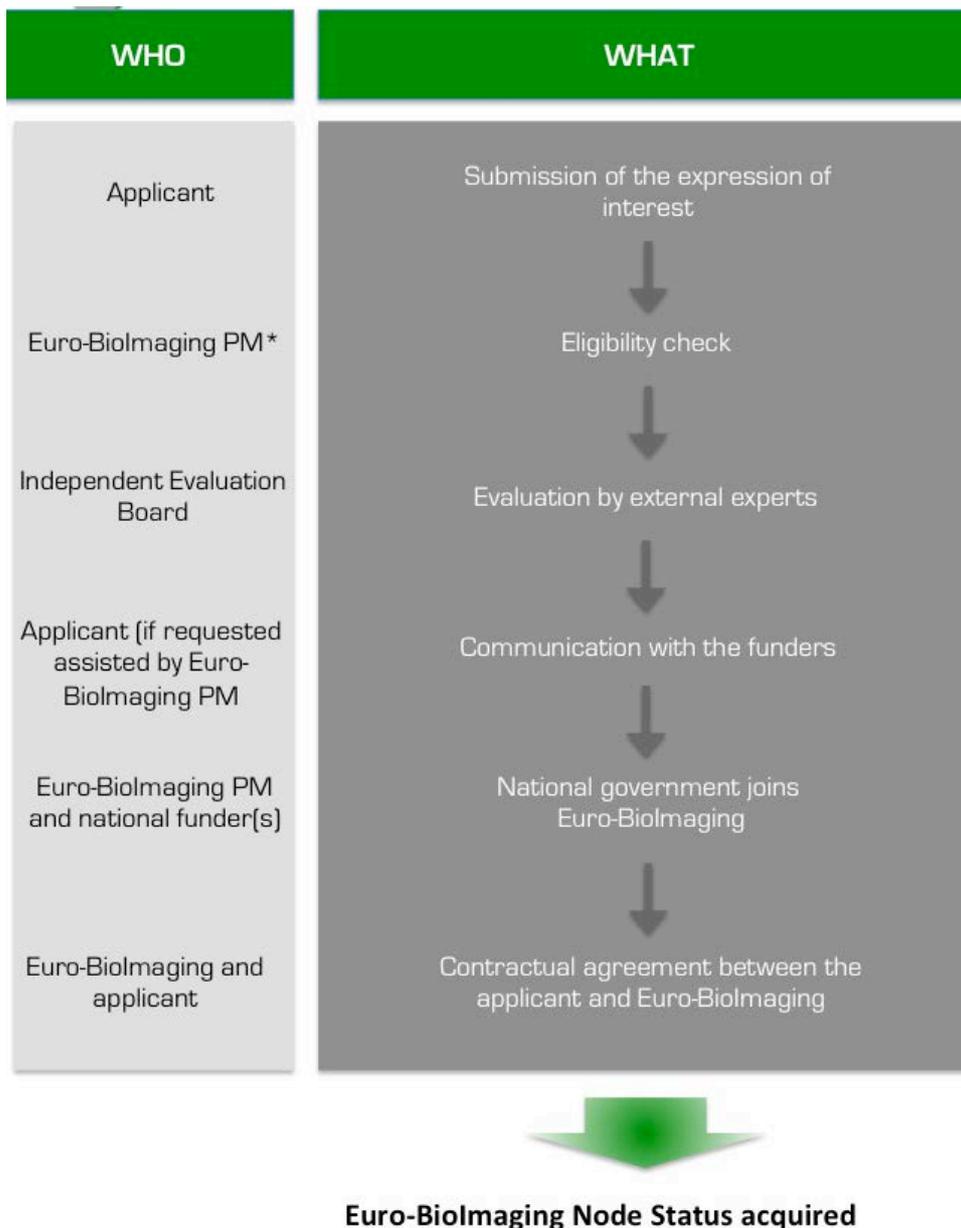
## **Purpose of the Expression of Interest**

Imaging facilities interested in becoming Euro-BioImaging Nodes should carefully prepare and submit their Expression of Interest (EoI) to Euro-BioImaging. This EoI presents the foundation for the selection of potential future Nodes and when successful, it will lead to the initiation of a series of negotiations between Euro-BioImaging, future Nodes, funders and their national government. As part of the EoI, applicants are therefore expected to document the initial communication with their funder(s) and to provide a budget plan for the upgrade and operation of the facility for the first 5 years. Once the EoI for becoming a Euro-BioImaging Node is positively evaluated, the applicant will be in a position to start direct communication with the respective funder(s) to obtain commitments for the construction of the Node. If requested, Euro-BioImaging will support the applicant in this communication with the funders. Euro-BioImaging will further negotiate with the national government about joining Euro-BioImaging and about national participation in the operational costs.

After funding is secured and the country has joined Euro-BioImaging, the applicant will be invited by Euro-BioImaging to jointly draft and sign the contractual agreement with Euro-BioImaging. After signature, the applicant will be officially recognized as a Euro-BioImaging Node.

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## How to become a Euro-BioImaging Node



\* Euro-BioImaging PM stands for Euro-BioImaging Preparatory Phase Project Management.

## About Euro-BioImaging

Euro-BioImaging will provide access to a complete range of state-of-the-art imaging technologies stretching from basic biological imaging in cells and tissues to in vivo molecular imaging in animal models and medical imaging of human patients. Euro-BioImaging will also supply training for infrastructure users and providers and continuously evaluate and include new imaging technologies to ensure cutting-edge services in a sustainable manner. The infrastructure will consist of a set of complementary, strongly interlinked and geographically distributed facilities to reach European scientists in all Member States. Through Euro-BioImaging, investment in imaging infrastructure will be used in the most cost-effective and efficient way by applying the highest quality standards in management, access and service of imaging facilities.

The Euro-BioImaging research infrastructure project was published on the ESFRI Roadmap in 2008 (<http://www.eurobioimaging.eu/content-document/esfri-roadmap-2008>) and is currently entering the final year of its three-year EU-funded Preparatory Phase. During the first two very successful years, Euro-BioImaging has conducted extensive consultation with the European scientific communities, gained the support of 1400 stakeholders, extensively analyzed supply and demand of the imaging technologies in Europe, successfully demonstrated technical feasibility of its working model in a six month proof-of-concept operational phase and is now finalizing its infrastructure model, governance structure and finance plan. Euro-BioImaging stakeholders include representatives from the major European and national research organizations, research ministries, European, national and regional funding organizations, universities, scientific communities and industry. The Consortium has driven the establishment of 20 national imaging initiatives across Europe that are coordinating imaging infrastructure activities at the national level, enabling better use of funds and capacities by speaking with one voice. Since the start of Euro-BioImaging, by now 12 European countries have listed imaging infrastructure as high priority on their national research infrastructure roadmap and more are likely to follow once their national roadmaps are prepared.

To prepare the first concrete steps towards construction of the future infrastructure Euro-BioImaging is now publishing its 1<sup>st</sup> Open Call for Nodes.

#### **Euro-BioImaging users and access model**

Researchers at any stage of their career will be able to request access to Euro-BioImaging by submitting an application describing their project. The evaluation of user applications will be a two-step process. The user application will first be submitted to the Euro-BioImaging web-access portal and rapidly evaluated for scientific merit by independent scientific experts in the field. As part of their application, users will suggest the infrastructure Node where they wish to perform their imaging experiments/analysis. In the second step, the selected Node will rapidly evaluate the technical feasibility of the project proposal and Euro-BioImaging will grant access. If a user application is not selected, feedback is provided to the applicants to improve their application in order to make it feasible.

#### **Euro-BioImaging Hub**

The Euro-BioImaging infrastructure will be supported by a coordinating entity, the Euro-BioImaging Hub. The Hub will provide a single entry point (web-access portal) from which the user will be directed to his/her desired imaging technology as served by the respective Euro-BioImaging Nodes. The Hub will furthermore support dedicated data management and training activities tailored to the needs of users of the imaging infrastructure.

**Euro-BioImaging Nodes** are facilities in the field of biological or medical imaging that are providing open access to imaging technologies as part of the Euro-BioImaging infrastructure. These facilities are upgraded or newly created in order to provide open access to imaging technologies to Euro-BioImaging users. Facilities which become Euro-BioImaging Nodes are identified through the open call for Nodes, which will be annually conducted by Euro-BioImaging ([www.eurobioimaging.eu](http://www.eurobioimaging.eu)). Open access is defined as the commitment to provide access to the facility for Euro-BioImaging users, encouraging especially transnational mobility of researchers. The capacity for providing open access should include facilitating means such as accommodation and assistance to the users.

### **Main Responsibilities of the Node**

The main responsibilities of the Node are summarized in the *General Criteria for Applications for Euro-BioImaging Nodes*

(<http://www.eurobioimaging.eu/sites/default/files/General%20Criteria%20for%20Applications%20for%20Euro-BioImaging%20Nodes%20Dec.%202012%281%29.pdf>) and the *Technology Specific Review Criteria* (<http://www.eurobioimaging.eu/content-page/required-documents-part-b-1st-call-euro-bioimaging-nodes>) documents.

In short, the Node commits to offer at least 50% of its new capacity to Euro-BioImaging users. Full degree of capacity utilization is expected. The other 50% or less of the capacity is expected to be used by internal users or in the framework of a national infrastructure.

The Node should provide the access for the user to the imaging technology and all supporting services as well as support with project planning and preparation, data acquisition and analysis. It is the responsibility of the Node to provide the imaging technology to the user in the best possible way, allowing for successful experiments and acquisition of publishable data. Training of the user and assistance with accommodation and the logistics should also be provided.

The Node guarantees and provides high performance of all services it offers. In order to do so, each Node will prepare a strategy for quality assurance (making sure that all instrumentation, services and procedures are functional) and quality control (monitoring satisfaction of the users and following success of the project and publication of collected results). This strategy should be submitted in written form, as a part of the *Euro-BioImaging Node – Expression of Interest* form.

Although Nodes can be multi-sited, it is expected from each Node to offer a single point of contact and an integrated service package for Euro-BioImaging users. This will guarantee continuity and consistency of information transfer, applications of procedures, coordination of activities of partners within the Node and straightforward communication with Euro-BioImaging.

The Euro-BioImaging Node will provide all information on the technology and services it offers, in order to allow users to choose the appropriate Node for their experiments in the Euro-BioImaging web access portal. The Node should also have clear laboratory protocols and instructions for the use of instruments and services in place and available.

### **Legal status of the Node**

Each Node is a legal entity and as such a contractual partner of Euro-BioImaging. The Node lends itself for assessment and evaluation by Euro-BioImaging, including all partners in the case of multi-sited Nodes.

The Node as a whole is legally responsible for the performance of all services offered as a contractual partner of Euro-BioImaging. It is therefore expected from the Node to develop procedures that will guarantee the high quality of services.

It is also expected from multi-sited Nodes to clearly define their Node model, including tax model, legal model of the Node, procedures of funds transfers, user access and support between the different sites of this Node and include it in the *Euro-BioImaging Node – Expression of Interest* form.

### **Benefits of becoming a Euro-BioImaging Node**

Applicants that are selected to become a Euro-BioImaging Node will become part of the pan-European Euro-BioImaging infrastructure. The Euro-BioImaging Node status will confirm the facility's high significance in the European imaging landscape. Nodes will benefit from Euro-BioImaging's close communication with national and international funding bodies in Europe e.g. by increased awareness for the needs of the imaging community and the importance of adequate funding for Euro-BioImaging Nodes.

Euro-BioImaging will provide training opportunities for technology providers and facility staff working at the Node. Involvement in the Euro-BioImaging infrastructure will facilitate interactions of the facility with the international imaging community, strengthen research and technology development at the hosting institution and increase the international visibility of the facility. Furthermore, by accepting Euro-BioImaging users, Euro-BioImaging Nodes will get exposed to new scientific questions and imaging technology applications, which will result in the boost of their own science and technology development.

Euro-BioImaging Nodes will also benefit from the close collaboration of Euro-BioImaging with European imaging industry, e.g. by having an opportunity to test prototypes and develop new systems together with industry R&D departments.

### Who can submit Expression of Interest – Eligibility Criteria

The applicant for a Euro-BioImaging Node can be a legal entity (e.g. university, institute, organization) that is hosting an existing imaging facility or is planning to create a new facility based on a leading expertise and capacity/instrumentation in cutting-edge imaging technologies.

All applicants who fulfil the eligibility criteria are welcome to express their interest in becoming a Euro-BioImaging Node. We strongly encourage all applicants to get in touch with their national imaging community prior to preparing their EoI (please see the list of 20 national imaging communities at <http://www.eurobioimaging.eu/content-page/national-coordinating-persons-and-initiatives>).

Eligibility criteria are published in the *General Criteria for Applications for Euro-BioImaging Nodes*, available on the Euro-BioImaging website.<sup>1</sup>

In order to be eligible,

1. The applicant should come from an **ESFRI country**.<sup>2</sup>
2. The applicant demonstrates the **user need** for the proposed capacity by submitting together with the EoI form Letters of Intent (LOIs) from at least 50% of potential Euro-BioImaging users for which open access capacity is planned for the first two years of operation, or from 30 users, whichever is less. A LoI template will be provided on the Euro-BioImaging website. A very brief outline of the user projects in the LOIs shall provide information about the field of science, scientific excellence of the project and its expected impact on the user's current and future research, and user's expertise. Based on all user LOIs received, the applicant will summarize the expected impact of the granted open access to the imaging facility e.g. for the addressed research field, the technological progress, industry relationship etc. The applicant is requested to provide a substantiated estimate of the number of Euro-BioImaging users/projects for the first two years of operational phase. It is expected that a significant fraction of those users are transnational.
3. The applicant guarantees to provide **open access** for Euro-BioImaging users to at least 50% of the newly created capacity for Euro-BioImaging. In addition the applicant will describe in its *Euro-BioImaging Node - Expression of Interest* form how the less than 50% of newly created capacity will be used e.g. for internal users of the institute(s), national infrastructure users, etc. Full degree of capacity utilization, not counting maintenance and downtimes, is expected.
4. The applicant can demonstrate in the *Euro-BioImaging Node - Expression of Interest* form that the single-sited or multi-sited Node will constitute a **legal entity**, which in its entirety will become part of the pan-European distributed research infrastructure Euro-BioImaging and as such a legal contractual partner of Euro-BioImaging.

*Note: New models that permit Nodes composed of several different legal entities to act as a single contractual partner of Euro-BioImaging and ensure that it is legally responsible for the performance of all services offered may be developed.*

<sup>1</sup><http://www.eurobioimaging.eu/content-page/required-documents-part-1st-call-euro-bioimaging-nodes>

<sup>2</sup>[http://ec.europa.eu/research/infrastructures/index\\_en.cfm?pg=esfri-membership](http://ec.europa.eu/research/infrastructures/index_en.cfm?pg=esfri-membership)



5. The applicant can demonstrate the **dialogue with funders** for the participation in Euro-BioImaging. This dialogue can be demonstrated with a letter from the funder or any other documentation (e.g. a national research infrastructure roadmap with reference to the Node proposal; recently submitted or granted research infrastructure proposal(s) related to the EoI etc.). The letter should confirm that the applicant and the funder have communicated about the Node proposal to Euro-BioImaging regarding e.g. its context in the national infrastructure and potential funding opportunities for Node construction and operation as part of Euro-BioImaging. Funders can be any financing body, e.g. international, national or regional funding agency, university board, charity foundation, government etc. Funding should cover upgrades and building of physical facilities, but also the required personnel and other costs for the first 5 years of the Euro-BioImaging Node operation.

### **How will the Expression of Interest be reviewed – General and Technology Specific Review Criteria**

Eligible EoIs will be evaluated by the Independent Evaluation Board against the *General Review Criteria*<sup>4</sup> for Applications for Euro-BioImaging Nodes and *Technology Specific Review Criteria*<sup>4</sup> documents.

The *Euro-BioImaging Node - Expression of Interest* form addresses all criteria based on which EoIs will be reviewed and should be used by interested imaging facilities to prove their eligibility and provide all information necessary to facilitate the review process, including a clear plan for the construction, operation, cost and legal model of the Euro-BioImaging Node.

**The form with supporting documents should be submitted to Euro-BioImaging by April 30, 2013.**

**General Review Criteria** are in detail presented in the *General Criteria for Applications for Euro-BioImaging Nodes*<sup>4</sup> document. The criteria refer to the scientific and technical excellence of the existing/planned infrastructure, quality and field of the academic environment, the geographic coverage of infrastructure, national and European significance of the technology provider, plans for maintenance and update of the facility, plans for user access, training and provision of service, systems for quality assurance and quality control and availability of already granted investments.

**Technology Specific Review Criteria** are in detail presented in the *Technology Specific Review Criteria*. Technology Review Criteria refer to the resources that are needed to enable user access to specific imaging technologies in Euro-BioImaging Nodes.



## Instructions for submission of Expression of Interest

Technology providers who wish to officially express their interest in becoming a Euro-BioImaging Node should submit the EoI consisting of the

- *Euro-BioImaging Node - Expression of Interest* form and
- Supporting documents, as specified in this form (see below)

### **Euro-BioImaging Node Expression of Interest Form**

Applicants should use the official *Euro-BioImaging Node - Expression of Interest* form to prove their eligibility and address all General and Technology Specific Review Criteria. The **form** can be downloaded from the Euro-BioImaging website<sup>5</sup>.

Applicants should fill in all mandatory fields and provide all necessary information on the questions from the General and Technology Specific Review Criteria. A complete and clear EoI will allow the Independent Evaluation Board to evaluate the form in the best possible way.

The complete form should be saved as: APPLICANT\_NAME\_NodeEoI.pdf and send to [opencall@eurobioimaging.eu](mailto:opencall@eurobioimaging.eu) together with the required supporting documents.

When listing publications, please include the complete list of authors followed by the title of the paper, year, journal and normal details on volume, page numbers etc. Only accepted or published articles should be listed.

The total size of all documents together cannot exceed 10Mb.

### **Supporting documents**

In addition to the *Euro-BioImaging Node - Expression of Interest* form, applicants should submit the following supporting documents (see Eligibility and Review Criteria):

1. Single PDF of all **USER Letters of Intent** (file name: APPLICANT\_NAME\_USER LOIs.pdf). A LoI template that can be used will be provided on the Euro-BioImaging website in the coming weeks.
2. For Nodes hosted by more than one institution, please provide additional documents supporting the described/foreseen **legal model**, if available. (Single PDF file, File name: APPLICANT\_NAME\_Legal model.pdf)
3. A document demonstrating the **communication with funders** (file name: APPLICANT\_NAME\_funders.pdf ).
4. Document demonstrating the **commitment of the institution hosting the facility**, signed by the legal representative of the institution and stamped (file name: APPLICANT\_NAME institution.pdf). The applicant guarantees to provide **open access** for Euro-BioImaging users to at least 50% of the newly created capacity for Euro-BioImaging. In addition, the hosting institution can express the intent of support for the existing or planned facility (future Node) e.g. by providing its expertise in the specific scientific and technical field, or by providing infrastructure and administrative support. In case of multi-sited Nodes these documents should be provided by all hosting institutions.



5. **Template Form for Cost Concept** (file name: APPLICANT\_NAME\_Cost Concept.pdf). Template for this document should be downloaded from Euro-BioImaging website<sup>5</sup>. The contribution of your funders and the coverage of cost for your node are subject to national rules & procedures. This aspect will have to be in detail negotiated between you and your funders, once your *Expression of Interest for your node* has been successfully evaluated by the Independent Evaluation Board. If requested, Euro-BioImaging will support the applicant with this negotiation process.

6. Document providing **evidence of investment** (where applicable) (file name: APPLICANT\_NAME\_investments.pdf). If investments in the Node have already been made or are anticipated, the applicant is invited to provide respective evidence e.g. Letter of investment from funders. The degree of funding commitment by national funders will be considered during evaluation of EoI.

*All documents should be saved in a PDF format and emailed together with the Euro-BioImaging Node - Expression of Interest form to [opencall@eurobioimaging.eu](mailto:opencall@eurobioimaging.eu). The names of the attached documents should also be correctly entered in the corresponding fields of the Expression of Interest Form, allowing us to match the supporting documents to the submitted form.*

**Deadline for the submission of the EoIs is April 30, 2013, 5pm CET.**

**Receipt of the submitted EoI will be acknowledged within 7 days of submission.**

## Selection

All EoIs will be pre-selected for eligibility and completeness by the Euro-BioImaging team rapidly after the submission deadline.

Eligible and complete EoIs will be forwarded to the Independent Evaluation Board. Following successful evaluation, Euro-BioImaging will get in contact with the applicants and initiate communication with funders.

It is expected that the whole process of selection of future Euro-BioImaging Nodes is finalized during summer 2013.

## Other

If you need any further information, please feel free to contact the Euro-BioImaging team at [opencall@eurobioimaging.eu](mailto:opencall@eurobioimaging.eu).