

**INTERDISCIPLINARY  
MASTER OF SCIENCE THESIS PROGRAMME  
*Rules of participation for CALL 2011***

February 2011

## **1. Mission of BiR&D**

BiR&D is the association of international industrial companies with major operations and R&D activity in Belgium. They are all well known names in the Belgian industry: **AGC Glass Europe, Alcatel-Lucent, Atlas-Copco, Bekaert, GSK-Bio, Johnson & Johnson, OCAS-ArcelorMittal, P&G, Recticel, Solvay, Total Petrochemicals, UCB and Umicore.**

Together, they employ approximately 60000 people in their operations in Belgium, of which more than 8000 are in leading R&D centers. They are present in 7 industrial sectors and in 3 regions of this country.

The funding of the association is ensured by the annual contribution of the member companies.

The activities are supported by the structural associated partners: **Agoria** (The Federation for the Technology Industry), **Essenscia** (Belgian Federation for Chemistry and Life Sciences Industries, and **GRD** (Groupe Permanent de Recherche et Développement de Louvain).

The mission of BiR&D is to stimulate the attractiveness and effectiveness of industrial R&D in Belgium. This includes the facilitation of the recruitment of R&D talent, the improvement of the image of industrial R&D, the facilitation of cooperation with universities and other research centers, and the benchmarking on best practices for industrial R&D.

The board of BiR&D, being composed of R&D- and innovation managers of the member companies, deploys several actions to fulfill this mission, such as this Interdisciplinary Master of Science Thesis programme. From Call 2009 and 2010, 12 projects have been selected amongst the proposals from 8 universities. They are currently being sponsored by BiR&D.

*Further information on BiR&D can be found on:* [www.birdbelgium.com](http://www.birdbelgium.com).

*Contact with BiR&D can be made by email to* [info@birdbelgium.com](mailto:info@birdbelgium.com)

*or by postmail to:* BiR&D, p/a Agoria, Diamantbuilding, Bvd. Reyerslaan 80, 1030 Brussels

## **2. BiR&D's Master of Science Thesis Programme CALL 2011**

Comparable to the previous Calls, BiR&D has reserved call a total budget of 70000 € to financially support up to 6 projects and to provide awards to students participating in up to 3 winning projects.

The goals of this programme are to stimulate a multidisciplinary approach to R&D themes, to create awareness among students for industrial and societal challenges, to promote cooperation between faculties and universities and to enhance the R&D networking between universities and industry.

## **3. Requirements for participation in BiR&D MsC programme CALL 2011**

The BiR&D's Master of Science Thesis programme calls for an interdisciplinary approach for all eligible theses. Hence it requests the involvement of students from technical as well as non-technical disciplines at one or more Belgian universities.

One integrated thesis is preferred, but interconnected Master Theses are also accepted, in so far as an integrated executive summary of 3 to 5 pages is being submitted..

3.1. **Two levels** of MSc-theses are possible:

- for a so called **basic project** it is required:
  - o to involve two (or more) different faculties, out of the categories as described below,
  - o from one university - or High School with Master of Science degree - in Belgium ;
- for a so called **large project – enjoying a higher financial support -** it is mandatory
  - o to involve a minimum of 5 students
  - o from two or more faculties, out of the categories as described below
  - o from a minimum of 2 different universities -or High Schools with Master of Science- degree in Belgium<sup>2</sup>.

3.2. **Categories of faculties:**

To ensure a full multidisciplinary aspect of the thesis, projects to be eligible must include at least one faculty (or institute) **out of each** of the two following categories or knowledge areas (terminology acc EC-DOC CAREERS):

- **Cat 1. A coordinating faculty** in the area of Science, Engineering and Technology, Biotechnology or Medical and Life Sciences
- **Cat 2. One (or more) participating faculty(ies)** in the area of Economics, Social Sciences, or Art Sciences<sup>3</sup>

3.3. **The coordinating faculty is leading the project and is sole contact for BiR&D.**

3.4. **The subjects** of the theses should be of both industrial and societal value, with following societal focus fields: Ecology, Energy, Information Technology, Healthcare, Wellbeing.

BiR&D expects the combination of a significant scientific or technological component on one side, with a significant economical and/or societal component on the other side. BiR&D explicitly welcomes topics associated with the deployment of a new technology into a market.

#### **4. Submission of proposals and theses**

The **submission of proposals** have to be made exclusively in English, in electronic format, using the Word Formats A and B, joint to the website [www.birdbelgium.com](http://www.birdbelgium.com). They are to be posted in Adobe pdf-format to the appropriate confidential site of this website as per instructions, by the coordinating university institute. It should be –electronically- signed by the Professor who is expected to lead and coordinate the projects. Questions on this procedure can be asked to [info@birdbelgium.com](mailto:info@birdbelgium.com) .

**The deadline for submission of proposals is May 31, 2011.**

BiR&D reserves the right to invite the submitting parties for a discussion in case clarifications are judged to be necessary for a careful selection.

---

<sup>2</sup> Different Universities as well as University Clusters

<sup>3</sup> A faculty from Cat 1 can also operate as participating faculty, but only when another faculty of Cat 2 is participating

The selection of the projects to be sponsored is made through voting by a jury, composed of all the members of BiR&D. (see point 7). The selected participants commit to collaborate in a **mid-term project review** by an ad hoc team of BiR&D-representatives at the coordinating institute.

The **final Master Thesis** (or theses) can be written in either English, French or Dutch, in full respect of the applicable university regulations. It should be posted in electronic format to the confidential part of [www.birdbelgium.com](http://www.birdbelgium.com) , after the expected submission to the University of July 2011 to September 2011. It is understood that exceptions are to be made for theses that might take 2 years.

## **5. Master of Science Thesis Award and Ceremony**

A dedicated Master of Science Thesis Award jury will select up to three winning teams. The students of the winning teams are expected to present their project at the Award Ceremony, early 2012.

For this occasion, the members of BiR&D and the associated partners will also invite representatives of the management of the universities, the scientific coworkers of the participating faculties, representatives of science & technology related institutions as well as other dignitaries.

At this occasion, each of the students of these selected teams will personally receive an award.

## **6. Financials**

For the **basic projects** a **fixed allowance of 8.000 €** will be paid by bank transfer to the coordinating institute of the selected teams to cover the costs associated with execution and management of the projects. The coordinating institute will share this allowance with the collaborating institutes.

For the **large project** the allowance can be increased to a maximum of **16000€**, depending on the size of the project, upon judgment of BiR&D.

These grants will be paid as a lump sum in two equal parts, the first half when the project is starting up, the second half after the mid term review by a dedicated BiR&D team.

**Each member of an award winning team will get a cheque of 2000€**, but only up to a cumulative maximum of 10000€ for all students participating in a project.

## **7. Selection process**

### **7.1 Jury**

The jury for the selection of the **Master of Science Thesis projects** will be composed of relevant top experts and research managers from the BiR&D member companies. They will evaluate the written electronic standard submission forms and might call for an interview session with the candidates. For these interview sessions some BiR&D member representatives might come to visit the coordinating institute. This jury will select up to six projects.

The jury for the selection of the **Master of Science Thesis Awards** will be composed of relevant top experts, research managers and/or BiR&D board members , all exclusively from the member companies. They will evaluate the submitted written Master of Science Thesis to make their selection of up to three award winning teams.

## **7.2 Master of Science Thesis Project selection criteria**

The members of the jury at their sole discretion will base their decision on several selection criteria. These criteria are (not in order of importance):

- Fit of the project target with the defined focus domains (Ecology, Energy, Information Technology, Healthcare, Wellbeing)
- Level of “inter-disciplinarity”
- Degree of societal and industrial relevance
- Relevance for BiR&D member companies
- Degree of innovation and scientific excellence
- Quality of the project structure (work packages, timeline,...)
- Quality of the submission documents
- Quality of presentation & debate during the reviews with the follow up team

## **7.3 Award selection criteria**

The members of the jury at their sole discretion will base their decision on the following additional selection criteria (not in order of importance):

- Quality of the work done
- Editorial quality of the Master of Science thesis
- Level of adherence to the original presented project scope & structure
- University ratings given to the finished Master of Science thesis

## **8. Confidentiality and reference to BiR&D**

In order to protect all strategic information, jury members and all other people taking part in the selection processes are ready to engage in Non Disclosure Agreements where needed.

The reference to BiR&D is subject to the mutual agreement of the BiR&D board and the collaborating institutes.

For general contact and official correspondence on this Call, please refer to [www.birdbelgium.com](http://www.birdbelgium.com) or ask for info to [info@birdbelgium.com](mailto:info@birdbelgium.com).

## KEY STEPS

### of the BiR&D Master of Science Thesis Programme 2011

<p><b>February 2011</b></p> <p style="text-align: center;"><b>Call launch</b></p>	<p>Pre-launch at raising awareness event, followed by effective launch via website <a href="http://www.birdbelgium.com">www.birdbelgium.com</a></p>
<p><b>March– May 2011</b></p> <p style="text-align: center;"><b>Projects preparation by students and supervisors</b></p>	<p>A period of 12 weeks is foreseen to allow the students of the different faculties and possibly universities to prepare the proposals together with their supervisors.</p>
<p><b>31<sup>st</sup> of May, 2011</b></p> <p style="text-align: center;"><b>Submission deadline</b></p>	<p>The submissions can be done only in electronic version pdf version to the website <a href="http://www.birdbelgium.com">www.birdbelgium.com</a>, signed by coordinating professor, deadline 31 May 2011.</p>
<p><b>June – July 2011</b></p> <p style="text-align: center;"><b>Jury deliberation process</b></p>	<p>The jury takes 4 to 6 weeks to select the maximum six projects. The exact timing respects the faculty specifics. The coordinator of the participating teams will be notified on the jury decision through email by the BiR&amp;D secretariat, followed by a contact from the project follow-up leader, member of BiR&amp;D..</p>
<p><b>July – Nov 2011</b></p> <p style="text-align: center;"><b>Start of the selected project, and first payment</b></p>	<p>Exact timing respects the university specifics.</p> <p>Payment of the first allocation (50% of total grant), after check of the effective start-up by BiR&amp;D follow-up team.</p>
<p><b>Feb-March 2012</b></p> <p style="text-align: center;"><b>Midterm review and second payment</b></p>	<p>Progress review by a BiR&amp;D follow-up team with the students and university supervisors, followed by second payment.</p>
<p><b>July – Sept 2012</b></p> <p style="text-align: center;"><b>Submission of the finished theses</b></p>	<p>Submission of the written theses, after being released by the faculties, in electronic form to the same confidential part of <a href="http://www.birdbelgium.com">www.birdbelgium.com</a> by the coordinating professor.</p> <p>It is understood that a thesis can take two years to complete</p>
<p><b>Sept – Nov 2012</b></p> <p style="text-align: center;"><b>Evaluation of submitted Theses and selection Awards</b></p>	<p>A jury composed of representatives from the BiR&amp;D member companies will evaluate the submitted Master of Science Theses and select the Awards winners.</p>
<p><b>Early 2013</b></p> <p style="text-align: center;"><b>Master of Science Thesis Award ceremony</b></p>	<p>Master of Science Thesis Award ceremony in Belgium in presence of dignitaries and representatives of Universities and BiR&amp;D-members.</p>