

## **Invitation to a Joint Call on cleaning and treatment of product gas from biomass gasifiers**

2007 June 1<sup>st</sup>

### **Aim of the call**

The purpose of this call is to generate joint European industrially relevant research and development activities within ERA-NET BIOENERGY. This call builds on the experience that was gained in the first Joint Call on Small Scale Combustion of wood.

This call provides new opportunities for industries and researchers to take part in multilateral cooperation in the field of gasification of biomass for energetic use and to enhance the quality of the conducted research. Projects are expected to provide knowledge through research in order to develop solutions which are economically competitive, reliable and environmentally friendly.

Given the limited budget and also the content of the existing FP7 call from the European Commission the focal area that was selected for the joint call in the whole chain of biomass gasification is gas treatment and cleaning. The joint call will open on 1<sup>st</sup> June 2007 and will be closed on 6<sup>th</sup> September 2007.

This call will be published on the ERA-NET BIOENERGY web page and on the web pages of the national programmes. See: [www.eranetbioenergy.net](http://www.eranetbioenergy.net)

## **Biomass gasification research in industry**

### **Background**

This is a joint call by some of the ERA-NET BIOENERGY partners. ERA-NET-BIOENERGY is a network of national R&D programmes focusing on bioenergy. The network includes funding organisations from Austria, Denmark, Finland, France, Germany, the Netherlands, Sweden and the United Kingdom. Further calls are intended to be launched within the ERA-NET BIOENERGY project. The ERA-NET BIOENERGY project has a duration of 4 years and ends December 2008. The funding agencies organising this joint call will be aiming to investigate best practises for arrangement of joint calls and subsequent evaluation of the resulting projects. We will also be aiming to provide a platform for the exchange of information and knowledge related to biomass gasification research in different countries through workshops and other dissemination activities.

The European Commission actively supports the use of biomass for energy as part of the EU aim to increase the use of renewable energy and to avoid an increase of CO<sub>2</sub> concentration in the atmosphere. The European Union and its Member States recently decided to set a target of 20% CO<sub>2</sub>-reduction and the implementation of 20% Renewable Energy by the year 2020. Biomass and the use of gasification technology is needed to realise this goal, especially in liquid biofuel applications.

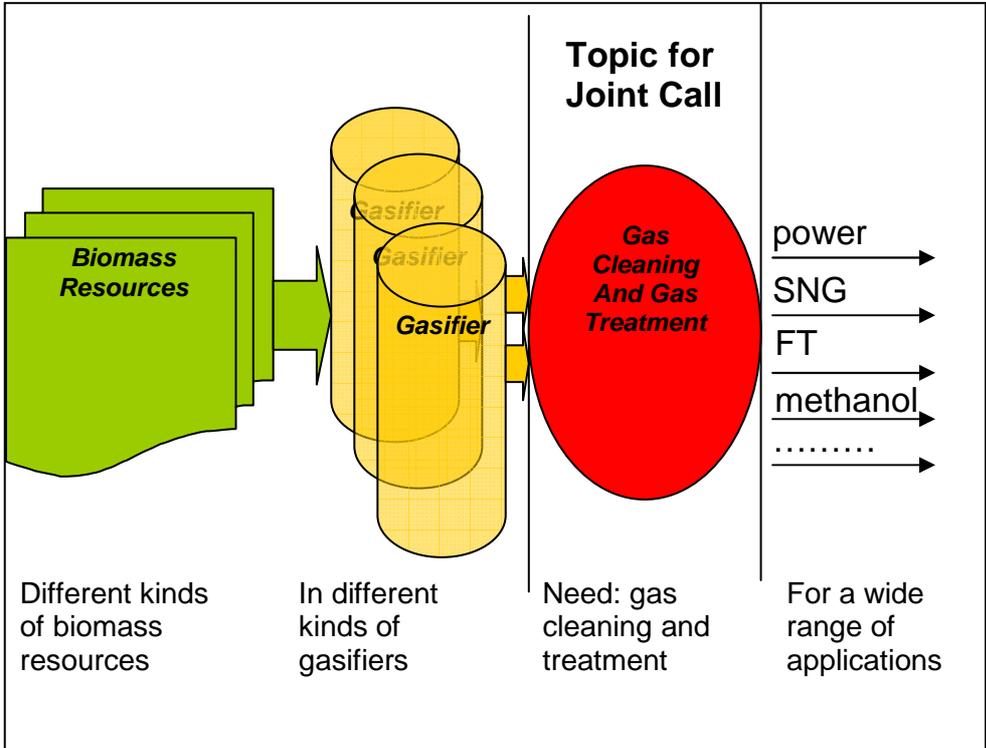
Biomass Gasification Research is very diverse and its applications can be seen in different areas. However the longterm perspective in the market is seen as promising. Gasification offers the possibility of higher efficiencies, high flexibility and good economics both for power production and for production of liquid biofuels.

The Gasification chain: Different kinds of resources can be gasified. Dried wood chips, wood residues, energy crops, agricultural residues or wastes can be used in a set of possible gasifiers. These different gasifiers (Entrained Flow, Circulating Fluidised Bed, etc.) all have their own characteristics and result in a specific quality of producer gas. This producer gas needs treatment and cleaning to make it usable for different kind of applications. Through cleaning and treatment, it can either be used to burn and produce power, or to produce a syngas that can be upgraded to methanol or Fischer Tropsch diesel.

The required research covers product gas cleaning, gas conditioning and gas conversion or utilisation. A lot of accompanying research is needed to tackle specific problems; e.g. gas composition measurement, fouling and scaling, cooling problems, catalysts (production, utilisation or degradation), etc.

**Joint call topic**

Research and Development for innovative and economically competitive gas treatment systems to improve the quality and composition of product gas from biomass gasifiers for energetic purposes (CHP, fuels, SNG,..).



The topic for the joint call is restricted to Gas Cleaning and Gas Treatment. The call is open for the development of a range of different technologies to clean and treat the

different produced gases from gasifiers, and enable the utilisation in all different applications.

## General instructions for proposers

### Consortium

Proposals are invited from companies and/or research organisations depending on national funding conditions. [Be aware that national criteria apply!]. Proposals must include partners from at least two of the countries involved in the call. There should be at least one industrial partner in the consortium that is able to implement the developed technological and scientific know-how to reach the goal of the call. Research project outputs are expected to provide benefits to all partner countries.

The project partners are required to sign a consortium agreement in order to agree on Intellectual Property Rights (IPR) and other relevant issues dealing with responsibilities within the project and exploitation of results. The consortium agreement must be signed before the first payment can be made.

Table: Overview of countries and possible applicants. At least one industry should participate in the consortium

Country	Programme	Who can apply
UK/ EPSRC	Energy Research	Research Institutions (standard EPSRC eligibility rules apply)
Finland/Tekes	Climbus	Industries
All others	....	Industries and Research Institutes

### Funding arrangements

Research will be funded from national sources and will be subject to their national funding rules. Each participating funding agency has made separate arrangements for funding the national participants. The public funding available for the individual projects funded in the frame of this call follows the national rules. Additional co-financing from stakeholders is expected following national and European rules for R&D funding. The total funding budget is limited. For details please contact your national agency.

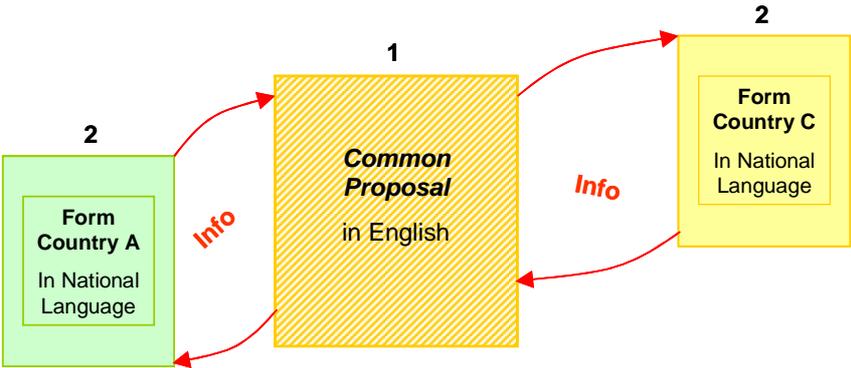
### Project duration

Projects are expected to start between January 2008 and March 2008 and must be completed by 31<sup>st</sup> December 2009.

### Deadline for Submission

Proposals must be submitted to your participating national funding agency by **6<sup>th</sup> September 2007**.

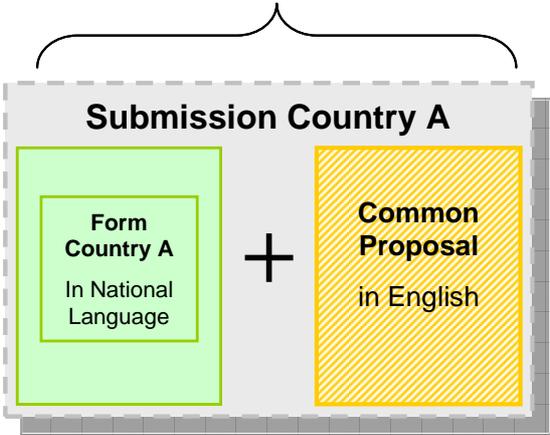
# Structure of Submission



The documentation you have to submit consists of two parts.

1. A Common proposal written in English which contains all relevant information about the joint project. This will be evaluated as one entity by an international jury and will form the basis for the funding decision.
2. A standard application form from your funding agency describing the involvement and funding requirements of each national proposer. The information within this document serve as a national project proposal and should be extracted from the Common proposal as these documents will not be seen by the international jury.

## e.g. Funding Agency A



These documents should be submitted by each project partner to their participating national funding agency (see list of national contacts below).

## Structure of Common Proposal<sup>1</sup>

The Common Proposal document should be structured as follows:

1. Project Title (max. 150 characters).
2. Duration in months (Considering that project work must be completed by 31<sup>st</sup> December 2009).
3. Name of coordinator of the project.
4. Applicant details (institution, name of contact person, contact information).
5. Financial summary table – totals only, (in €) for overall costs, costs per partner, required national funding per partner.
6. Executive summary (300 words).
7. Detailed description of consortium (role of each partner organisation and stakeholders involved).
8. Detailed description of project (objectives, materials and methods, state of the art and innovative contribution of the project, work packages) (max. 5 pages).
9. Project planning and management, this section should include a graphical work plan), deliverables, milestones, work packages (i.e. what is done by whom?) together with details of assigned resources/man-hours and associated budgets (max. 10 pages).
10. Project outcomes (implementation and exploitation plan, implementation should involve all participating countries) (max. 3 pages).
11. Background and competences of participating organisations and individuals (max. 1 page per partner organisation plus ½ page per key person involved).

The proposal should be written using the Times New Roman font with a minimum acceptable font size of 10.

## Proposal evaluation

The proposals will be evaluated by an international evaluation jury, selected by the funding organisations involved in the call. The international evaluation jury will provide recommendations for funding. The final decisions will be made by the ERA-NET BIOENERGY partners.

The evaluation meeting will take place during October 2007 and the funding decisions will be communicated by the end of December 2007.

The evaluation criteria are:

- fit to call
- technological and scientific quality of R&D (including why specifically the international cooperation improves the quality of the results)
- implementation and exploitation of results
- resources available for the project, including quality of project management and coordination.
- promoting cooperation within the ERA-Net Bioenergy framework.

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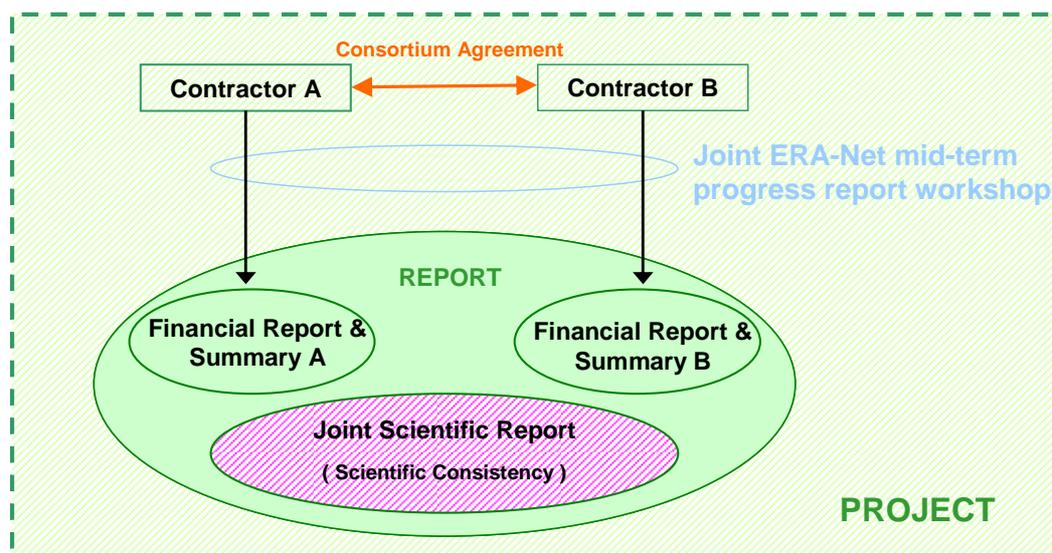
<sup>1</sup> The common proposal must be equal for every applicant within any one consortium. The final version of the common proposal must be approved by the coordinator of the project before submission.

Beyond these instructions above, your participating national funding agency's guidelines should be followed. If you intend to participate in this call, please contact your national contact person.

## Project Monitoring and Expected Deliverables

In addition to the standard requirements of your funding agency we will require the following:

1. Participation and presentation at a joint ERA-NET workshop.
2. A common publishable Final Report (written in English) describing the activities and outcomes of the work including an exploration plan how to implement the results of the project. The report should consist of a public summary and the rest will be treated confidential. National guidelines have to be followed as well. Detailed requirements for this report will be distributed to successful applicants once the projects have started.



Participating countries / National contact points

### Austria

BMVIT, FFG

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