Administration process of the

Joint Call on Gasification

Final report

in the framework of

ERA-NET Bioenergy

June 2008

provided by M. Brijder

1. Summary

Background
In the framework of ERA-NET Bioenergy, the second joint call was launched on June 1st 2007 for proposals on the topic “Gasification: cleaning and treatment of product gas from biomass gasifiers”. Seven countries participated with their national programmes in this coordinated activity: Austria, Denmark, Finland, Germany, the Netherlands, Sweden and the United Kingdom. The call was coordinated by SenterNovem from the Netherlands.

Common processes
National processes used in a call differed between the participating countries. Therefore, every single step had to be made transparent and discussed in detail before launching the call. Consensus over submission, pre-check, jury process, project evaluation, national clearing process and contract negotiations were important steps in the process in order to have a succesful call.
The jury was composed of experts in the field of biomass gasification, one from each participating country. The jury experts evaluated the 10 submitted proposals according to 10 evaluation criteria with points given for each criterion. The jury experts had the right to reject a proposal if they had strong objections against a proposal. The final result from the jury session was a ranking list. Taking the budgets from the participating countries into account the jury recommended 6 projects for funding and 4 projects for rejection.

Projects funded
The recommendations of the jury were followed by the participating countries during the national clearing processes: 6 proposals were funded and 4 proposals were rejected.
From the participating countries different budgets were available, the average budget was around 500,000 €. In the jury meeting 10 proposals were evaluated with a total budget of 6.8 M €. The average requested budget for the funded proposals was 616,000 euro and the total requested budget was 3.7 M €. The rejected proposals had a total requested budget of 3.1 M €.

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1. Introduction

In the framework of ERA-NET Bioenergy, the second joint call was launched on June 1st 2007 for proposals on the topic "Gasification: cleaning and treatment of product gas from biomass gasifiers". Seven countries participated with their national programmes in this coordinated activity: Austria, Denmark, Finland, Germany, the Netherlands, Sweden and the United Kingdom. France did not participate, but joined as an observer. The participating countries agreed on a common call text and common procedures concerning e.g. submission of proposals, jury process and evaluation of the proposals. They based the work on the first joint call on Small-Scale Combustion[1] (SSC-call). This report summarises the successful work and presents the results of the proposal evaluation. The secretariat of this call was SenterNovem.

2. Common processes - "From Proposal to Contract"

Learning from the SSC call, first of all a proper time schedule was worked out and the participating countries agreed on common processes. These processes included all important steps that are crucial in order to launch and proceed on a call successfully. National processes differed between the participating countries. Therefore, every single step had to be made transparent and discussed in detail. Some of these steps had already been discussed during the SSC call, so the lessons learnt then were taken into account. The focus of the discussions was on the deviating and new processes compared with the SSC call.

The different steps that were discussed are (see Fig. 1 "From Proposal to Contract" page 2):

- Common time schedule
- Topic of the call
- Submission of proposals
- Pre-check of proposals
- First information exchange
- Jury process and project evaluation
- National decision process
- Clearing process (Second information exchange)
- Contract negotiations
- Project monitoring, common workshops and expected deliverables

[1] Described in the report *Pilot Joint Call Small Scale Comustion in the framework of ERA-NET Bioenergy*, May 2007.

2.1 Time Schedule

Date	Item	Person(s) responsible
Before 1st August	Nomination of jury members to the secretariat	ERA-NET team
Before 1st August	Nomination of a moderator	SenterNovem
1st August	Secretariat sends out an overview of the nominated jury members and moderator	Secretariat
15th August	Agreement on the jury members and moderator (objections by e-mail)	ERA-NET team
15th August (till 1st September)	Signing of the confidentially agreements by the jury members	ERA-NET team
1st September	Jury members receive details about the call	Secretariat
6th September	**Call closes**	
7th September	Project titles/countries/ partners/budget to be send to secretariat	ERA-NET team
7th September	Secretariat sends out the 'Sheet first details' to the team	Secretariat
7th September (till 12th October)	Pre-check begins	ERA-NET team
10th/11th September	CD with project info to be send to secretariat	ERA-NET team
18th September	Table with info on all projects to be send to team	Secretariat
11th October 10:00 (Brussels time)	Telephone conference about the proposals and pre-check	ERA-NET team Organisation: Secretariat
12th October 16:00 (Brussels time)	Pre-check ends, info to be send to secretariat	ERA-NET team
16th October	Proposals and 'Worksheet proposals Gasification Call' to be send to jury members on paper and to ERA-NET team by mail	Secretariat
16th October (till 30th October)	Jury pre-judgements begins	Jury members
30th October 12:00 (Brussels time)	Pre-judgements to be send to secretariat	Jury members
31st October 12:00 (Brussels time)	Secretariat sends out an overview with the pre-judgements to the jury members and the team	Secretariat
1st/2nd November	Jury meeting in the Netherlands	Jury members, ERA-NET team
Until 7th December, morning of	National clearing process	ERA-NET team
7th December, morning of	Telephone conference, and rejection/invitation letters to be send	ERA-NET team

2.2 Topic of the call

Biomass gasification research is very diverse and its applications can be seen in different areas. However, the long-term 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 topic for the joint call was restricted to gas cleaning and gas treatment. The call was open for the development of a range of different technologies to clean and treat the different produced gases from gasifiers and to enable the utilisation in all different applications. Detailed information about the topic can be found in the call text (Annex I).

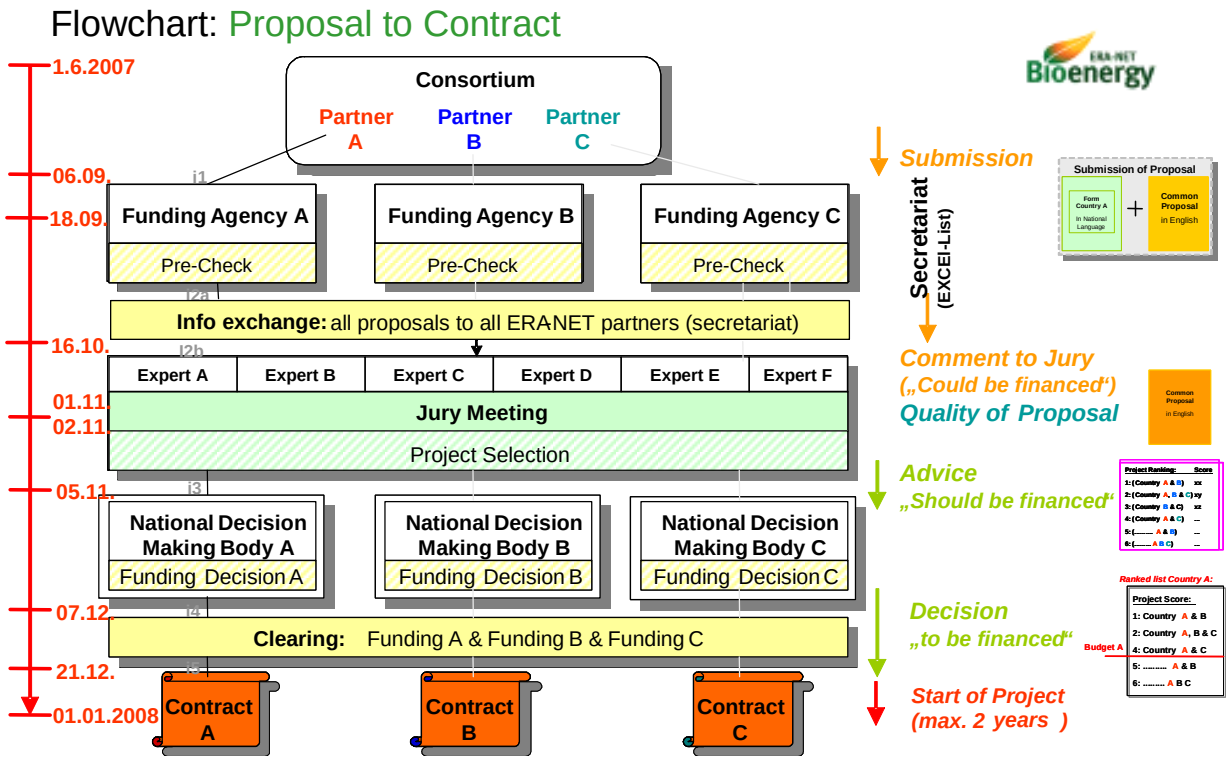

Figure 1. The process from proposal to contract

2.3 Submission and pre-check of proposals

During the first meeting in Amsterdam (12-13th March 2007), the group discussed their national submission and pre-check processes. The comprehensive research about national programmes had already been done for the SSC call. The result of the common discussion was a procedure for submission and pre-check that could be used in the Joint Call Gasification. The agreed procedure will be described in detail in the next paragraphs.

2.3.1 Submission of proposals

Proposals could be submitted within the topic 'Cleaning and treatment of product gas from biomass gasifiers'. Proposals were invited from companies (small, medium and large), universities and research organisations epending on national funding criteria. At least one industrial partner had to be included in the consortium in order to implement the developed technological and scientific know-how gained in the course of the project. The proposals had to include partners from at least two of the countries involved in the call.

The documentation consisted of three parts (see Figure 2 "Submission of proposals"):

- a **common proposal** written in English jointly by the participating researchers of the different countries; this proposal is used in the jury evaluation.
- a **national standard application form** containing all necessary data needed by the national agencies.
- a **sheet:** 'Affirmation of participation in a Joint Project within the ERA-NET Bioenergy Joint Call for Biomass Gas Cleaning'. With this sheet, each party affirms their participation in the project.

Each consortium partner submitted these documents to their participating national funding agency.

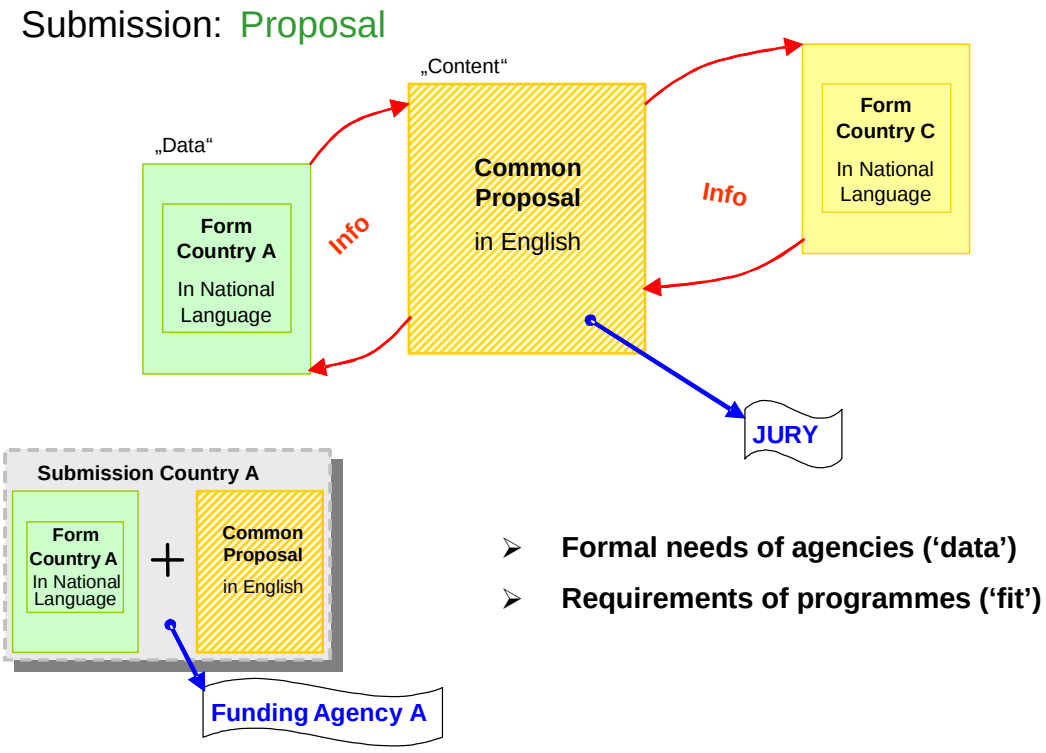

Figure 2. Submission of proposals

2.3.2 Pre-check of proposals

It was decided that all submitted proposals should be collected by one partner of the group in order to get a good overview of the projects. SenterNovem offered to host the “secretariat” of the Joint Call on Gasification. All important information was summarised by the “secretariat” and sent out to all involved ERA-NET Bioenergy partners (e.g. summarising excel sheet with all the projects submitted to the call).

A **pre-check** was conducted in order to eliminate projects which did not meet the formal requirements of the call or the specific funding criteria of the relevant national programme. It also included comments on the quality and on the liability of the involved project partners, on how well the project fitted into the national programme and on how the project contributed to the aims of the national programme. It was, however, not allowed to modify the common proposal after submission and therefore, the pre-check was not an evaluation of the scientific quality of the proposal.

2.3.3 Information exchange

After the pre-check, an information exchange served to bring everybody to the same level of information before the jury session took place. The secretariat listed all proposals in a worksheet, including whether a project was rejected or ready for evaluation and, in the former case, an explanation on why the project was rejected. In this call two projects were rejected for not meeting the national criteria of one of the participating countries. It was agreed in the process that a proposal is rejected by all partners if one of the participating countries rejects the proposal from a national point of view. The other countries cannot fund the other partners in this particular project. The rejected proposals were not sent to the jury members.

2.4 Jury process and project evaluation

During the second meeting in Amsterdam (4th July 2007), the jury process including the evaluation criteria (see paragraph 2.4.4) was discussed thoroughly. The jury process used in the SSC call was adopted with one major alteration: it was decided to use a veto mechanism. The results of the jury process, the project evaluation process and the funding process will be described in detail in the following.

2.4.1 Jury composition

The proposals were evaluated by an international jury. Each ERA-NET Bioenergy country participating in the call had nominated one expert who was sent into the jury panel. Ideally, the jury member was to be a senior member of the relevant funding organisation. There was also a chairman who had the responsibility to moderate the jury process in a neutral way and a support person acting as a secretariat and keeping the records.

Jury members had to sign a confidentiality agreement before any information was sent. All ERA-NET Bioenergy partners were welcome to join the jury meeting as observers.

2.4.2 Pre-judgement by the jury

Prior to the jury session, the jury experts evaluated the proposals according to the criteria in the evaluation form (see page 9). For each criterion, there was a choice between five different scores. Only one score could be chosen. A zero could be explained as a rejection of the proposal (veto, see paragraph 2.3.3). Scores were filled in the individual worksheet of each jury member. Scores given during this pre-judgement stage were preliminary only and were discussed during the jury meeting. The jury had the responsibility to assess the technical (scientific) value of a project in their pre-judgements. These pre-judgements were sent to the secretariat together with the comments on each

project. The comments included the judgement ‘should be financed’, ‘should be rejected’ or ‘needs more discussion’. The judgement ‘should be rejected’ needed clarification whether it was a rejection with the veto. The secretariat created an overview and sent it out to the ERA-NET Bioenergy partners and all jury members prior to the meeting.

2.4.3 Veto mechanism

For the gasification call a veto mechanism was introduced. Vetos were introduced to provide the jury experts with a tool to reject a project in case the jury expert has strong objections to funding the particular project. A veto means that the particular project will receive zero points and will not appear on the final ranking list. Again, if any country rejected a proposal, it was rejected by all countries. Therefore it was agreed beforehand vetos must be used in a reasonable manner. Of course if a jury expert wished to reject a proposal, an explanation was required. Using a veto was restricted to the jury experts from participating countries in a project.

2.4.4 Evaluation criteria

Indicator 1	Contribution to the Current Call	k.o.	--	-	+	++
1	**Contribution to the goals of the call** How well does the proposal align with the call topic?	0	6	12	20	25
Max I1						25

Indicator 2	Technical and scientific quality	k.o.	--	-	+	++
1	**Novelty** Does the proposed project produce a new step forward in knowledge and technology?	0	4	7	12	15
2	**Quality of the proposed R&D** Are the issues to be addressed significant and relevant within this field of research? Will the proposal as written be able to address these issues? Are worthwhile challenges identified in the proposal?	0	6	12	20	25
3	**Quality of the approach - Methodology** Clarity, adequacy and consistency of the approach. Is there enough technical detail in the methodology? Is the approach clear, adequate to the problem and consistent?	0	5	9	17	20
Max I2						60

Indicator 3	Qualification of Consortium	k.o.	--	-	+	++
1	**Competence concerning the topics addressed** Does the consortium have the necessary competence and experience for achieving the results proposed?	0	4	7	12	15
2	**Co-operation and complementarily of partners** Are the partners clearly complementary in their roles and do they fit together? Is the balance between the partners appropriate? Is there added value in the co-operation including why specifically the international co-operation improves the quality of the results? Is it likely that the project will be a true co-operation of all partners? Will external stakeholders be engaged?	0	4	7	12	15
3	**Availability of technical and human resources** Are appropriate technical and human resources available within the consortium or if not, have they been requested within the proposal?	0	2	4	8	10
Max I3						40

Indicator 4	Project Management	k.o.	--	-	+	++
1	**Quality of project management arrangements** Are suitable plans and structures in place to make sure that the project will operate effectively over its lifetime? Is there sufficient detail in the project plan (milestones, workpackages,…)? Are arrangements in place to ensure effective communication between the partners?	0	5	9	17	20
Max I4						20

Indicator 5	Outputs and exploitation	k.o.	--	-	+	++
1	**Potential outputs and expected results** Are any cost reductions and efficiency improvements likely to result from the proposed work?	0	8	14	24	30
2	**Plans for implementation and exploitation** Are realistic and appropriate plans in place for effective implementation and subsequent exploitation of the outputs?	0	6	12	20	25
Max I5						55

2.4.5 Jury process and jury output

The jury process consisted of a step by step discussion following the evaluation form. This process was led by the chairman. The goal of the jury meeting was to provide final funding recommendations with a ranked list of projects. This stage eliminated projects which did not have the necessary technical/ scientific quality. The jury experts decided on the content of a proposal using the evaluation

criteria. The ERA-NET Bioenergy partners decided on the formal/political aspects of the proposal during the pre-check.

Projects which were rejected for not meeting the national criteria were not sent to the jury experts and not discussed during the jury meeting. All projects were discussed following the procedure:

Procedure for the discussion during the jury meeting

1. Each expert was asked by the chairman (one by one) about a short general opinion and comment on the proposal (this opinion can also be seen from the pre-judgement).
2. Then each sub-indicator was called up one by one, and was discussed if necessary especially with deviating scores. Only after reasonable time of discussion the chairman called for the voting. The chairman tried to bring the judgements as close as possible.
3. Each expert gave his or her score for each sub-indicator. These scores were recorded.
4. Recommendations of the jury experts about the proposal were formulated and recorded.

Calculation

1. The score of a proposal for each sub-indicator is the sum of all scores given by the experts, except for the situation that an expert from a country participating/involved in the project gave a “0”. In the case an expert wished to give a “0” after the discussion, the score of the sub-indicator is “0” (veto mechanism).
2. The score of each indicator (I1 till I5) is the sum of all sub-indicators.
3. If one sub-indicator is “0”, the proposal is rejected.

The decision of a country to veto a project was the outcome of the pre-judgement of the jury member and the discussion during the jury meeting. If any country persisted on using a veto and rejected the proposal, then the proposal was rejected by all countries.

General comments concerning the jury:

- The jury members based their opinions and decisions purely on the common proposals.
- The jury gave recommendations on the projects. In case of probable financing, the jury gave recommendations to the national agencies/ministries on obligations that needed to be fulfilled by the proposers in case the agency/ministry decided on financing the project. In case of probable rejection, the jury gave recommendations to the agency/ministry regarding the reasoning and wording of the rejection letter.
- The final funding decisions were made nationally by the ERA-NET Bioenergy partners based on the recommendations of the jury.

2.4.6 Funding recommendations

After discussing all proposals and calculating the scores a ranking list was formed with the recommendations of the jury formulated at each proposal. The ranking list contained ‘red’ proposals and ‘green’ proposals. The ‘red’ ones were not to be funded (even if sufficient resources would be available). The ‘green’ ones were be funded following the ranking list (top down) as long as there were resources available following individual country lists (see Fig. 4).

The following rule applied for selecting the projects from the green area:

1. Projects with a higher ranking go first
2. Projects are funded top down, i.e. no country can exchange a highly ranked project for a lower ranked one. This may result in a country not being able to participate, although this is not desirable and solutions should be sought if such a situation arises (e.g. the possibility of budget

extensions). In the following case, an exception can be made: Country X cannot fund any project because country Y has already fully exhausted its budget on projects 1 to 3 on the list and cannot fund project 4, in which it is also a partner. In the case country Y is NOT a partner in project 5, and country X is a partner in project 5 but in no project ranked higher, it may be decided to fund project 5 and not fund project 4, but ONLY if no country is partner to project 5 as well as to project 4, i.e. NO country is "jumping" a project.

The panel (jury experts and ERA-NET Bioenergy partners together) discussed the outcome of the ranking list and made a final ranking list with the formulated recommendations for financing or rejection of each project. These recommendations were formed into one paragraph of text which helped the ERA-NET Bioenergy partners to formulate the invitation and rejection letters. The result of the jury session and ranking list can be found in chapter 3.

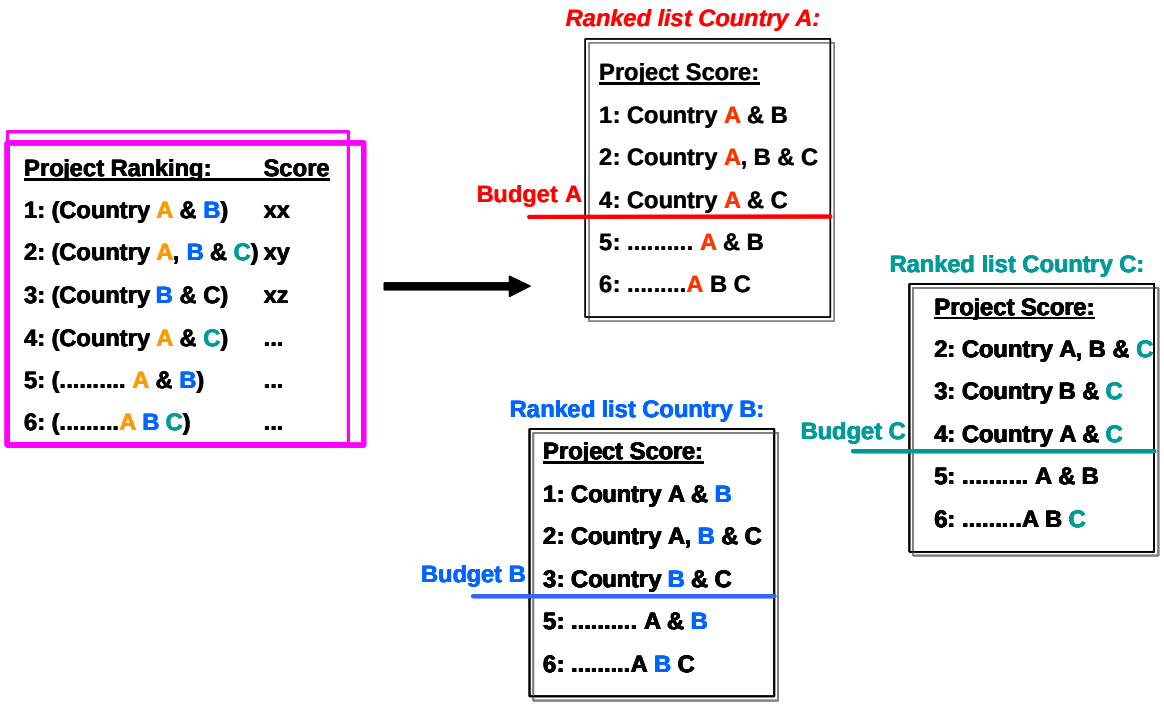

Figure 3. Creating ranking lists for individual countries.

2.5 National decision process

The final decisions were made nationally by the ERA-NET Bioenergy partners, based on the recommendations of the jury. National decisions were disseminated by the ERA-NET Bioenergy partners. Jury experts were not allowed to distribute any result of the jury session. This was stated in the code of conduct signed by each jury member.

The ERA-NET partners involved in the joint call agreed to respect the jury recommendations and to assure this on a national basis as well. It was agreed that in case one country rejected a project during the national decision process, this whole project would not be funded. It was also agreed that nothing would be published before the national decisions had been taken.

2.6 Clearing process

After the national decisions had been made (7th December 2007) all the participating partners were informed on the outcome of the national decision processes. Not until all national decisions had been made by the participating countries a binding feedback was sent to the proposers. In other words, the formal day of the decision was the day after the clearing process had been finished (8th December 2007).

2.7 Contract negotiations

Contract negotiations started after the national funding decisions took place and the clearing process brought the team on the same level of information. A Consortium Agreement was signed among the project partners of a joint project after each partner had signed the contract and within the first 3 months of the project. This had to be done before the first payment was made.

2.8 Requirements for applicants

In addition to the standard requirements of the individual national funding agency, the following ERA-NET Bioenergy requirements applied to successful applicants for this call:

1) Participation and presentation of mid-term progress at a joint ERA-NET workshop (27th October 2008)

2) A common final report (written in English) describing the activities and outcomes of the work. Detailed requirements for this report will be distributed to successful applicants once the projects have started.

3. Results of the jury meeting

In total, 12 proposals were submitted to the Joint Call Gasification. During the pre-check, two proposals were rejected for not meeting the formal requirements in one of the participating countries. These projects were not sent to the jury experts. 10 proposals were sent to the jury experts for evaluation and were discussed during the jury meeting. The jury meeting took place in Amsterdam on 1st and 2nd November 2007.

3.1 Jury experts

Each participating country was represented by a jury expert who was nominated by the project committee members from ERA-NET Bioenergy. Project committee members were invited to join as observers. The jury was chaired by a chairman who did not evaluate the proposals. The secretariat kept the records.

The following tasks had to be fulfilled by the jury experts:

- To send pre-judgements before jury meeting (scores on sub-indicators and opinion on fund/ do not fund/ needs discussion)
- Evaluate 10 proposals during the jury meeting (discussion led by moderator, use of evaluation form with criteria (see page 6/7, giving scores)
- Formulation of jury comments (input invitation and rejection letter)
- Agreement on a common ranked list (see Fig. 5, page 19)
- Give feedback to ERA-NET Bioenergy Team (lessons learnt)

3.2 Jury process

Each expert was individually asked by the chairman about a short general opinion and comment on the proposal (based on the pre-judgement given prior to the meeting). Then the scores on the sub-indicators were discussed, especially the deviating scores. Some proposals needed more discussion then others, but after reasonable time of discussion the chairman called for the voting, everybody was allowed to alter their own scores. The scores were recorded for the ranking list. It was noticed that jury experts interpreted scores differently. Some gave very high scores and some gave lower scores even if they had the same opinion about a proposal. As all projects were evaluated the same way by the jury experts, the final result was not influenced by this.

After the scores were given, the jury experts formulated their recommendations. The recommendations included a recommendation on funding or not funding (rejection). Rejection could be accompanied by a veto. If the jury expert wished to use a veto, reasons had to be given for this veto and an indication whether this veto was open for discussion or not. Jury experts were able to recall a veto on the second day when the final decision on the proposal and on the veto was made. After the final decision the result on a proposal was summarised including the recommendations. All recommendations were finalised after the complete session.

3.3 Veto mechanism

During the evaluation, several of the jury members emphasised that they were not happy with the veto as a tool in the evaluation process, and that they did not want to use it. They would have preferred the possibility to reject a project by ranking only, i.e. by having a limiting value which would mean that projects which score less are automatically rejected.

It was also emphasised that in case of using the veto mechanism, only jury experts from participating countries in a proposal have the right to use the veto mechanism. Furthermore, a veto should be used during the pre-check of the proposal. If a country has real objections on a proposal for whatever reason, this proposal should not be taken to the jury meeting. Jury members should come to the meeting with a message on all proposals but open for discussion and willingness to reach fair results. Proposals with a veto are not open for discussion.

3.4 Scores and criteria

The jury experts had different feelings about the scores. Some felt there should be a bottom scoring line for funding. Others felt that a bottom line is not necessary because low scores are leveled out in the total picture and the end result is the same. The jury experts came to the conclusion that a norm setting would not result in a different outcome of the ranking list.
The pre-check should involve criteria for meeting the formal (national) requirements but content as well. There was a positive feeling about a criterion for the relationship between content and budget.

3.5 Jury recommendations

After the jury session, the following 6 projects were recommended for funding:

Funded proposals

Nr.	Title proposal	Countries involved
1	Development of a photoionization-detection technique for on-line measurement of biomass tar concentrations	The Netherlands, Sweden
2	Mop Fan and Electrofilter: an innovative approach to cleaning product gases from biomass gasification (EMF)	Germany, the United Kingdom
3	Intensification of Syngas Cleaning and Hydrogen Separation (Synclean)	The United Kingdom, Germany
4	Tar removal from low-temperature gasifiers	The Netherlands, Denmark
5	Energy efficient selective reforming of hydro carbons	Sweden, Denmark
6	OptiBtLGas - Cleaning and treatment of Product Gas from biomassgasifiers-optimisation of the H2:CO - ratio in synthesis gases for the production of 2nd generation biofuels	Germany, Austria

4 projects were recommended to be rejected.

For a complete overview with recommendations from the jury, see Annex II.

3.6 National clearing process and budget

The recommendations of the jury were followed by the participating countries during the national clearing processes: 6 proposals were funded and 4 proposals were rejected.
From the participating countries different budgets were available, the average budget was 500,000 €. In the jury meeting 10 proposals were evaluated with a total budget of 6.8 M €. The average requested budget for the funded proposals was 616,000 euro and the total requested budget was 3.7 M €. The rejected proposals had a total requested budget of 3.1 M €.

4. Lessons learnt

“Recommendations for ERA-Net partners” from experts:

1. A minimum of three months between opening and closing the call is necessary – this was learnt from the SSC call.
2. If a proposal gets a veto, then this proposal should not be excluded from discussion at the jury meeting. Any proposal which is dealt with in the jury meeting should be open for discussion. If a country has real objections on a proposal for whatever reason, this proposal should not be taken to the jury meeting. .
3. If a veto is used, it should be restricted to the participating countries in a project. Non-participating countries should not have a veto right.
4. Jury members should come to the meeting with a message but open for discussion and willingness to reach fair results.
5. Average scores or consensus about the scores do not lead to different outcomes. Which procedure to choose depends on taste of the organisation.
6. More time is needed for evaluating the proposals, 2 weeks was too short.
7. All jury members should have the same background, either people from the agencies, or experts, but not both, because this leads to discussions with different contents

Annex I

Joint Call Gasification: Participating countries

Austria

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Annex II: Overview of the results

Funded proposals

Nr.	Title proposal	Countries involved	Parties involved
1	Development of a photoionization-detection technique for on-line measurement of biomass tar concentrations	The Netherlands, Sweden	Biomass Technology Group BTG (NL), KTH Kungliga Tekniska Högskolan (S)
2	Mop Fan and Electrofilter: an innovative approach to cleaning product gases from biomass gasification (EMF)	Germany, the United Kingdom	Technische Universität Berlin (D), AEROB-BETH Filtration GmbH (D), University of Nottingham (UK)
3	Intensification of Syngas Cleaning and Hydrogen Separation (Synclean)	The United Kingdom, Germany	Institut für Mikrotechnik Mainz GmbH (D), School of Chemical Engineering and Advanced Materials (UK), ITI Energy Ltd., Innovation Technology Centre (UK)
4	Tar removal from low-temperature gasifiers	The Netherlands, Denmark	Energy Research Centre ECN (NL), Dahlman (NL), COWI (Dk), Danish Technical University-MEK (Dk), Danish Fluid Bed Technology (Dk), Anhydro (Dk)
5	Energy efficient selective reforming of hydro carbons	Sweden, Denmark	Chalmers Uni (S), Scandinavian Energy Project AB - SEP (S), Göteborg Energi (S), DTU-Chemical Engineering (Dk)
6	OptiBtLGas - Cleaning and treatment of Product Gas from biomassgasifiers-optimisation of the H2:CO - ratio in synthesis gases for the production of 2nd generation biofuels	Germany, Austria	CU Tec Institut (D), H.P.C. Starck (D), Technical University Vienna (A), Repotec (A), Biomassekraftwerk Güssing (A)

Annex III: Common Call Text

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

2007 June 1st

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 1st June 2007 and will be closed on 6th 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

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_2 concentration in the atmosphere. The European Union and its Member States recently decided to set a target of 20% CO_2-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.

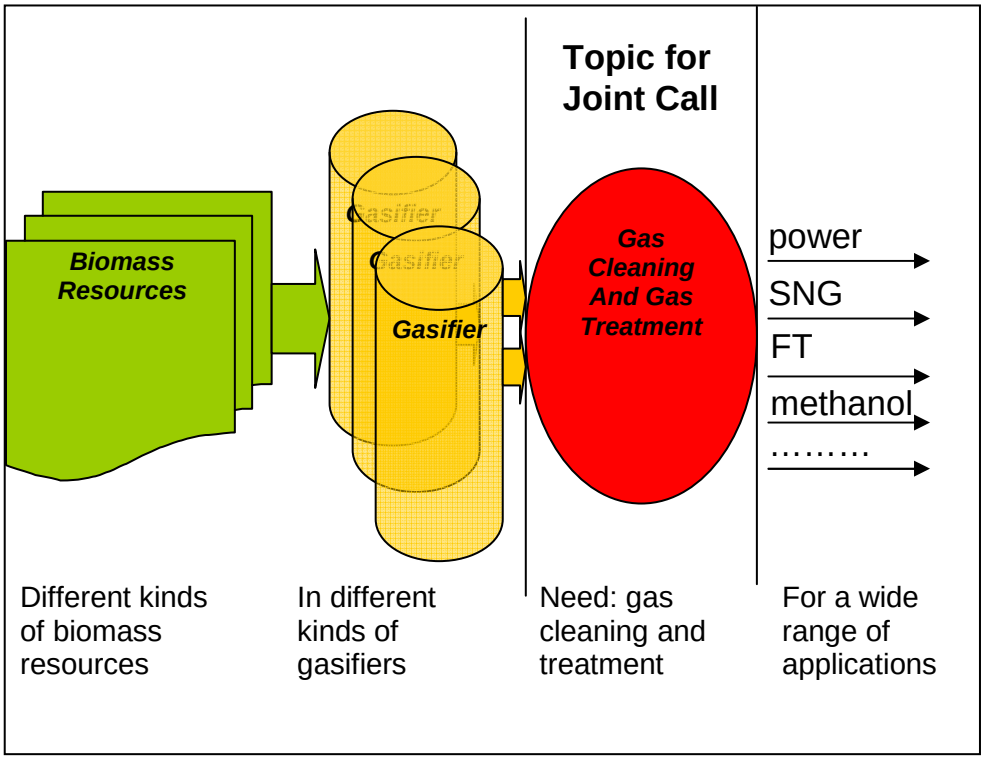
Biomass Gasification Research is very diverse and its applications can be seen in different areas. However the longterm perspective in the market is seen as promising. Gasification offers the possibility of higher efficiencies, high flexibility and good economics both for power production and for production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

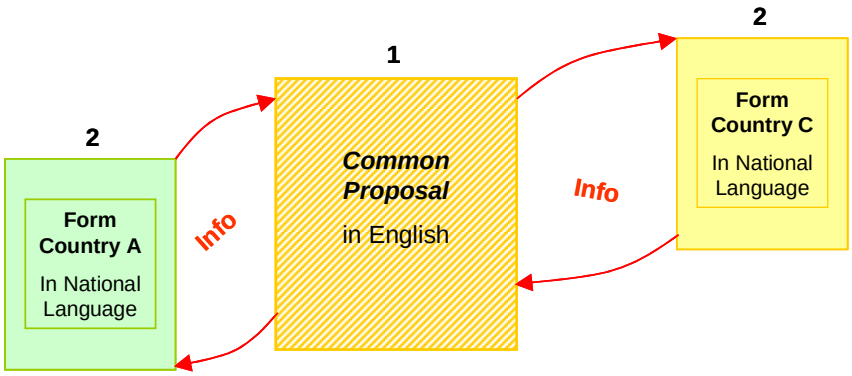
Project duration

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

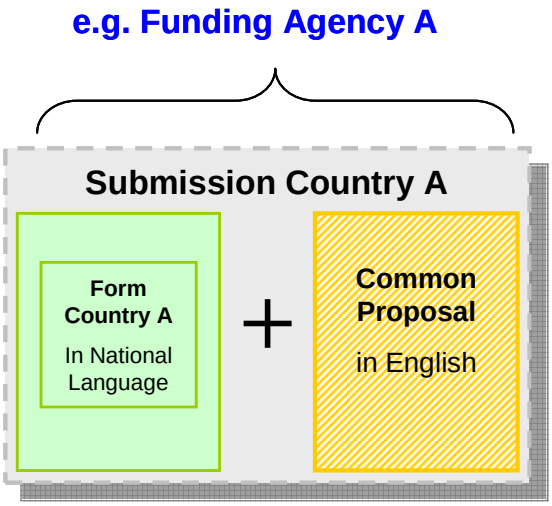
Deadline for Submission

Proposals must be submitted to your participating national funding agency by **6th 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.



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

Structure of Common Proposal2

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 31st 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.

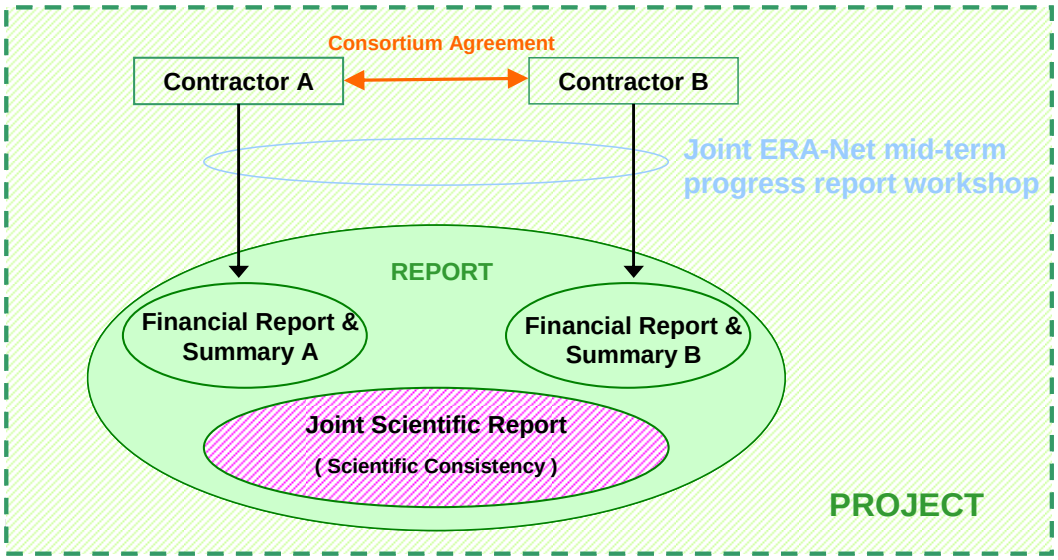
Beyond these instructions above, your participating national funding agency's guidelines should be followed. If you intend to participate in this call, please contact your national contact person.

[2] 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 submisson.

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.



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