



**IEE/09/758/SI2.558286 - MixBioPells**

**WP 1 / D 1.1.**

## **Minute of the 2<sup>nd</sup> advisory committee meeting**

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**INTELLIGENT ENERGY**  
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## 1 Background

**The 1<sup>st</sup> advisory committee meeting** was carried out in March 2011 during the European Pellet Conference in Wels. The discussion was focussed on the quality of the investigated data, the gathering of new sources of information, dissemination activities and key actors as well as solutions for actual problems. The main conclusions were:

- The biggest challenge is to collect information for pelletising and combustion of alternative raw materials.
- The focus should be on the most common raw materials that are interesting for all countries to emphasise common supply chains and to avoid the establishment of disconnected local frameworks.
- It is crucial to find a good way to bridge the different legal aspects and raw materials and to identify possibilities to simplify legislative conditions for boiler manufacturers.

**The 2<sup>nd</sup> advisory committee meeting** will take place during the Pellets 2012 conference in Stockholm. The meeting will be divided in two parts. In the first part, the project as well as the latest project results will be presented and discussed. In the 2<sup>nd</sup> part the relevant outcomes of the project will be presented and discussed in working groups:

- Discussion of the labelling system for alternative pellets and combustion systems with regard to possible concepts for the distribution of alternative pellets and the implementation in existing legal frameworks.
- Discussion of the results from the comparison of regional conditions and technical solutions with the accordant national frameworks in order to identify common constraints and drivers. On this basis the recommendations on favourable legal frameworks and regional concepts will be discussed to develop the structure and content of an “Initiators Handbook” and possible frameworks to be included in an advisory paper for EU politicians and politicians and stakeholders in each partner country.



## 2 Programme

### A Introduction to the Project

**08:30 – 08:45** Overview of the objectives of the project and the advisory committee

**08:45 – 09:00** Short round of introductions

### B Overview of common project results

**09:00 – 09:20** Overview of the achieved project results

- Progress and experiences from the regional networking activities
- Alternative raw materials and associated production and combustion technologies
- Best practise examples for pelletising and combustion technologies and results from combustion tests
- Cost analysis

**09:20 – 09:35** Discussion

### C Discussion of specific project activities

**09:35 – 09:55** Overview of a new labelling and quality assurance system for alternative pellets and combustion systems

**09:55 – 10:35** Discussion of the concept of the labelling and quality assurance system in working groups

**10:35 – 10:50** Coffee Break

**10:50 – 11:10** Overview of constraints and drivers as well as favourable regional concepts for the set up of the initiators handbook and the advisory papers

**11:10 – 11:50** Discussion of the concept of the initiators handbook and the transferability of examined favourable regional concepts in working groups

### D Summary

**11:50 – 12:00** Summary of the 2<sup>nd</sup> advisory committee meeting

**12:00** End of the 2<sup>nd</sup> advisory committee meeting

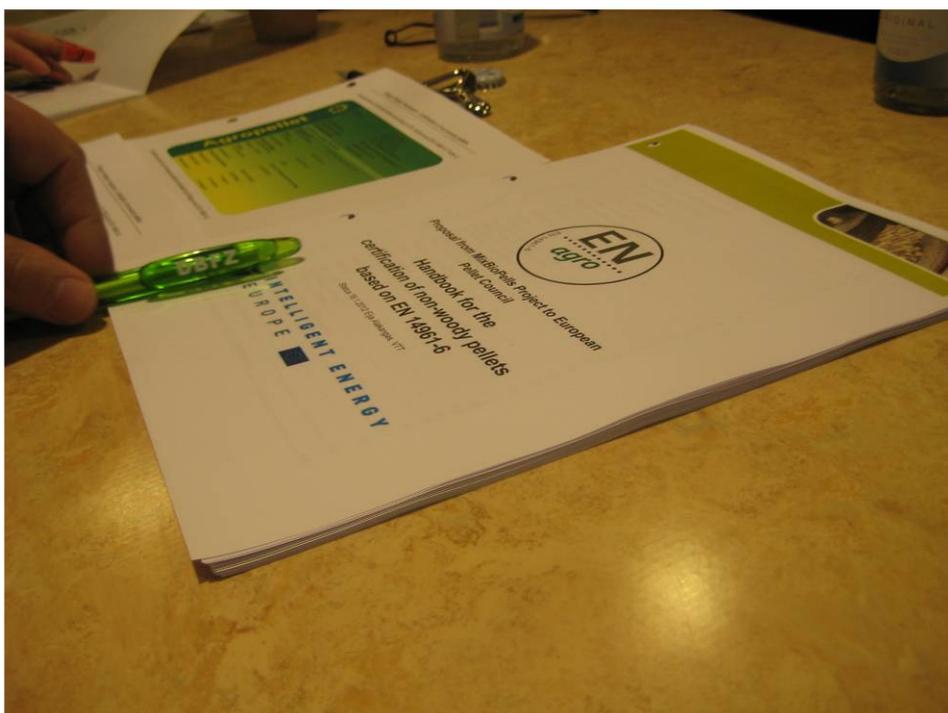


### 3 Results

#### 3.1 Participants and pictures

Table 1: List of participants

No	Name	Institution/Company	Country	Key actor group
1	Kristöfel, Christa	Bioenergy 2020+	Austria	professional association
2	Pallesen, Bodil	AgroTech	Denmark	professional association
3	Allan Stokvad Abildskov	Verdo	Denmark	fuel distributor
4	Nikolaisen, Lars	Danish Technological Institute	Denmark	professional association
5	Gonzalez, Indalecio	Fundación Asturiana de la Energía, FAEN	Spain	lobbying institutions
6	Trogisch, Steven	Protecma, Energía y Medio Ambiente	Spain	professional association
7	Alakangas, Eija	European pellet Council, Member of ISO/TC 238	Finland	lobbying institutions
8	Jämsen, Mia	University of Jyväskylä	Finland	professional association
9	Agar, David	University of Jyväskylä	Finland	professional association
10	Savolainen, Martti	Vapo Oy	Finland	pellets producer
11	Tuohiniitty, Hannes	Finnish Pelletenergy Association	Finland	lobbying institutions
12	Kallio, Markku	Technical Research Centre of Finland	Finland	professional association
13	Hennig, Christiane	IEA Task 40 : Sustainable International Bioenergy Trade	Germany	professional association
14	Schneider, Andreas	PUSCH AG	Germany	provider of production facilities
15	Dobler, Ulrich	ÖKOTHERM GmbH	Germany	provider of boiler technology
16	Grischkat, Frank	HPS Schwedt	Germany	pellets producer
17	Zeng, Thomas	German Biomass Research Centre	Germany	professional association
18	Scholwin, Frank	German Biomass Research Centre	Germany	professional association
19	Annett Pollex	German Biomass Research Centre	Germany	professional association
20	Iacca, Antonio	Pellet news magazine	Italy	lobbying institutions
21	Nibbi, Leonardo	CREAR - Centro di Ricerca Energie Rinnovabili	Italy	professional association
22	Toscano, Giuseppe	Comitato Termotecnico Italiano	Italy	lobbying institutions
23	Engström, Jonas	Swedish Institute of Agricultural and Environmental Engineering	Sweden	professional association
24	Lundmark, Anna	Glommers Miljöenergi AB	Sweden	pellets producer
25	Gustafsson, Lennart	Technical Research Institute of Sweden	Sweden	professional association
26	Rönnbäck, Marie	Swedish Energy Agency	Sweden	lobbying institutions





## 3.2 Discussion and results

### 3.2.1 Introduction to the Project

The members of the advisory committee were informed about the work programme and the objectives of the project. Based on a presentation a discussion of the major questions from the project consortium has been done. Afterwards, a short round of introduction was carried out.

### 3.2.2 Overview of project results

- 1) Presentation of the achieved project results by Thomas Zeng (German Biomass Research Centre DBFZ)
- 2) The discussion of the project results was mainly based on the results of the case studies and the economics:
  - Anna Lundmark from Glommers Miljöenergi AB, Sweden asked about composition of the raw material costs. Since the delivery costs are not crucial in small and medium scale combustion systems, they were not included in the case studies. The results for the use of reed canary grass will be exchanged between Glommers Miljöenergi AB and the MixBioPells project.
  - Christiane Hennig from the IEA Task 40 remarked that the use of peat was not included in the case studies even it has a high potential especially in Finland and Sweden. However, peat is commonly used in industrial scale combustion and co-combustion systems and the economics in this range of performance vary significantly. Thus, it is difficult to provide representative data.
  - Frank Grischkat from HPS Schwedt added that the use of wet raw materials is challenging because of high drying costs. Furthermore, the fuel requirements of the used combustion plants affecting the fuel costs significantly. An individual assessment of the economics is always recommended.

### 3.2.3 Overview of a new labelling and quality assurance system for alternative pellets and combustion systems

Within the advisory committee meeting there were two rounds of work groups. The first took place after the introduction of the labelling and covered open issues and problems within this field.

- 1) Presentation of the state of work by Marie Rönnbäck (Swedish Energy Agency)
- 2) Results from the working groups dealing with standardisation and labelling. The results of the working group were summarised.



### **Group 1: Technical requirements for the labelling system**

- Group leader: Annett Pollex

To gather the most important technical requirements for the labelling system the group discussion first covered the main topics that have to be solved on the technological side. Thus, ash melting and corrosion appear to be of high relevance. Therefore, measures to deal with the critical parameters of alternative biomass (e.g. ash content, ash slagging and corrosive elements within the flue gas) should be included. Apparently, the high ash amount raises concerns on what to do with it. From the two options utilization or disposal the former should be favoured. To realise this possible options and necessary requirements for the utilization (e.g. as fertilizer) need to be addressed. Overall convenience for the customers is highly important. Thus, technical requirements have to be set in order to guarantee a hassle-free handling of the appliances. The participants highlighted the importance of experience with difficult fuels. The boiler manufacturer should be able to provide the customers with the required settings for a specific fuel. Ideally, these settings are founded on the own experience with the fuel. The low flexibility of changing the fuel type (since it requires elaborate adaption of the appliance and may cause problems) is seen as problematic.

### **Group 2: Constraints and drivers for certification**

- Group leader: Thomas Zeng

Within this group constraints and drivers for the certification have been discussed. Overall, the rising costs for alternative (mixed) biomass pellets are seen as an important constraint. Furthermore, the labelling system needs to be as simple as possible and easy to understand. A too complicated system would hinder the acceptance. This is particular relevant in light of small scale user. These customers demand simple solutions. Thus, the labelling system should apply to the production and use of standardised (tradable) and local (regional) fuels. Otherwise they will stick to common appliances with approved reliability based on fossil fuels or wood pellets.

### **Group 3: Labelling system**

- Group leader: Eija Alakangas

This work group attracted the highest interest among the first round of work groups indicating the high relevance of the labelling system. Within the workgroup the discussion centred on the draft of the EN-Agro labelling system. Comments and open issues of this draft have been discussed. Within the work group it was suggested to change to title from 'non-woody pellets' to 'Agro' with reference to the classification in the prEN14961-6. Furthermore, there should not be a system support organization as it is implemented for EN-Plus. It was suggested to exclude the certification on trading. For the duration of the certificate a three-year duration was suggested. An open issue is the handling of mixtures and of briquettes. The parameter ash melting behaviour should be voluntary due to convincing test methods are lacking. Since this parameter gives not sufficient evidence, a risk of inconvenience of the costumers can be high. However, the parameter is important for many boiler manufacturers.



#### **Group 4: How does pellet labelling and combustion labelling could fit together?**

- Group leader: Christa Kristöfel

This work group discussed the possibilities and options to realize the compatibility of the labelling system for pellets and for combustion appliances. The participants suggested a label on the boilers indicating which pellet types can be used. The main issue with this is the classification of the pellets. To address the classification specific key parameters of the fuel need to be defined which are used to classify them. The presence of and knowledge about the different pellet classes is essential for the boiler manufactures in order to indicate the suitability of their boilers for specific fuels.

#### 3) Conclusions

- a. The labelling system for the production and use of alternative and mixed biomass pellets is of high relevance, especially in small and medium scale.
- b. The acceptance of the labelling system can be improved by more gaining more knowledge from the market and research.
- c. Thus, the labelling system should apply to the production and use of standardised (tradable) and local (regional) fuels.

#### **3.2.4 Overview of constraints and drivers as well as favourable regional concepts for the set-up of the initiators handbook and the advisory papers**

The second round of work groups was set after the presentation of the constraints and drivers report and the draft of the initiators handbook. It covered the key actors view on constraints and drivers as well as the content of the advisory papers that should address different scale applications within different regional frameworks. Furthermore, the desired content of the initiators handbook was to be discussed.

- 1) Presentation of the state of work by Annett Pollex (German Biomass Research Centre DBFZ)
- 2) Results from the working groups dealing with constraints and drivers, advisory papers and the initiators handbook. The results of the working group were summarised.

#### **Group 1: Further constraints and drivers**

- Group leader: Christa Kristöfel

Within this group further constraints and drivers for alternative (mixed) biomass pellet production and utilization have been discussed. An issue that has been repeatedly raised is the definition of biomass and the differentiation from waste. Waste incineration is always problematic. Hence, biogenic residues should rather be addressed as biomass than as waste as far as possible. Thus improvement of the social acceptance and the adaption of the legal framework are important to enable a large variety of biomass and residues to be used as fuel. A lack of information is seen as main constraints. Particularly, special developments specifically addressing the problems of alternative biomass (e.g. scattered availability, varying characteristics) should be highlighted and supported. For instance, mobile pellet presses and hydraulic presses with low pre-treatment requirements. Thus, the dissemination of available technologies should be strengthened. This applies also to pre-treatment technologies like torrefaction that might be useful to improve fuel



characteristics. The overall economic situation of a country has to be considered when discussing the support of alternative (mixed) biomass pellets. In some cases the economy might be not strong enough to support the utilization.

### **Group 2: Recommendations for the frameworks on small and medium scale**

- Group leader: Christiane Hennig

This group discussed measures and recommendations that could be implemented to increase alternative (mixed) biomass pellets utilization on small scale. It did not address the given frameworks. Maybe the explanation was not clear enough or was too complicated to be introduced at the occasion. Thus, the group rather developed overall recommendations for the utilization of alternative mixed biomass pellets on small scale. The group participants suggested to lay a stronger focus on incentives on the beginning of the supply chain rather than at the end of the supply chain. Thus, production and utilization of alternative biomass should be supported. Furthermore, fossil fuel use should be somehow penalized, e.g. with a CO<sub>2</sub>-tax. The regulations on emissions need to be adapted since alternative fuels will hardly comply with very strict regulation being in place for wood combustion. However, emission thresholds should be marketed as something positive since it indicates that the policy cares about health issues. A certain harmonisation of the emission thresholds should be supported, e.g. by the development on the European directive on “Establishing a framework for the setting of Eco design requirements for energy-related products”. Furthermore, strict regulation in combination with appropriated support can be a strong driver for technologic development. This issue should be more strongly advertised to the policy. Overall, a ‘Stop-and-go’ of support measures should be avoided since long term security is of high relevance.

### **Group 3: Recommendations for the frameworks on industrial scale**

- Group leader: Annett Pollex

Within this group it was tried to develop advices and recommendations how to support alternative mixed biomass utilization on industrial scale for the different frameworks. At first there was a short discussion on the allocation of the countries within the different frameworks. Apparently there is a difference between the countries which side of the supply chain for alternative (mixed) biomass pellets should be addressed. Scandinavian countries have lower restrictions on the emission side. However, based on the profound knowledge on alternative biomass utilization the restrictions are rather set on the raw material side. In doing so limits are also set on the emissions only not as obvious as in other countries. High legal restrictions in concert with available support options lead to very limited use of biomass in industrial scale. It was argued that with this concept the demand pressure on wood and thus the price development can be reduced. However, usability of alternative biomass in small scale is complicated and little attractive. Thus, measures should be implemented that particularly support alternative biomass use on larger scale at the same time limiting the use of wood for that purpose. Once again it was highlighted that definition of biomass and waste is highly important to enhance the utilization. For alternative (mixed) biomass pellets different quality classes should exist. Furthermore, limited parameters should be used to define the quality classes.



#### Group 4: Initiators Handbook

- Group leader: Thomas Zeng

The group discussed what content should be included in the Initiators Handbook. As main subjects that have to be addressed the following were identified: raw material issues, economics, technology for pelletising and combustion. Concerning the raw materials the available potentials have to be covered addressing as well the availability (e.g. seasonal) and the distribution (e.g. concentrated or scattered) of the raw materials. Possible raw materials for the production of mixtures should be listed. Additionally, the properties of the raw material and the impact on pelletising and combustion have to be included. Furthermore, the origin of the raw materials has to be discussed and what waste regulations and licensed fuels exist.

Since the costs for pelletising and combustion technologies are comparable in certain ranges of performance, the raw material costs are of great relevance for the economics. Thus, the raw material costs and the influences on the price should be highlighted.

Within the technology part basic information about the technologies should be given for different scales. Information on source for further information and support should be provided. A list of manufactures would be very helpful to be included. For initiators experiences and recommendations for the adaption of the available systems are highly important.

### 3) Conclusions

- a. The classification of different European frameworks is crucial in order to identify common constraints and drivers and to give recommendations on favourable legal frameworks and regional concepts topoliticians and stakeholders. This can be confirmed from the feedback of the advisory papers too.
- b. The production and utilization of alternative biomass in small scale should be supported. The regulations on emissions need to be adapted since alternative fuels will hardly comply with very strict regulation being in place for wood combustion. Furthermore, strict regulation in combination with appropriated support can be a strong driver for technologic development.
- c. The usability of alternative biomass in small scale is complicated and little attractive. Thus, measures should be implemented that particularly support alternative biomass use on larger scale at the same time limiting the use of wood for that purpose. High legal restrictions in concert with available support options lead to very limited us of biomass in industrial scale. It was argued that with this concept the demand pressure on wood and thus the price development can be reduced.
- d. It was highlighted that definition of biomass and waste is highly important to enhance the utilization.



### 3.2.4 Summary of the 2<sup>nd</sup> advisory committee meeting

The moderator of the 2<sup>nd</sup> advisory committee meeting, Frank Scholwin, summarised the main topics and conclusions of the advisory committee meeting. The following steps were agreed:

- The members of the advisory committee meeting will be provided by DBFZ with the minute of the meeting including all presentations and contact data of the national partners.
- The members of the advisory committee were invited to give further input and remarks on the meeting and project via direct contact:

Topic	Contact person	Email address	Phone
Labelling system for the production of alternative and mixed biomass pellets	Eija Alakangas	eija.alakangas@vtt.fi	+35 814 672 550
Labelling system for the combustion of alternative and mixed biomass pellets	Anna Sager	anna.sager@sp.se	+46 10 516 58 37
Constraints and drivers as well as favourable regional concepts	Annett Pollex	annett.pollex@dbfz.de	+49 341 2434 484
Initiators Handbook and advisory papers	Thomas Zeng	thomas.zeng@dbfz.de	+49 341 2434 542
Other aspects related to the project			



## 4 Annex

### 4.1 Presentations

The presentations have been sent via Email together with the minute of the advisory committee meeting.

### 4.2 Results from the working groups

#### Working groups dealing with standardisation and labelling





Working groups dealing with constraints and drivers, advisory papers and the initiators handbook

