



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

**WP 1 / D 1.1.**

## **Minute of the 1<sup>st</sup> advisory committee meeting**

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**INTELLIGENT ENERGY**  
**EUROPE**





## Table of contents

1	Background .....	3
2	Programme .....	3
3	Results .....	4
3.1	Participants .....	4
3.2	Discussion and results .....	6
3.2.1	Introduction to the Project .....	6
3.2.2	Overview about production and combustion technologies for alternative biomass pellets	6
3.2.3	Overview about different national conditions for the utilization of alternative biomass pellets .....	7
3.2.5	Overview about further activities .....	9
3.2.5	Summary of the first advisory committee meeting .....	9
4	Annex .....	10
4.1	Presentations .....	10
4.2	Contact data of the project partners .....	10
4.3	Participant list with signature .....	11



# 1 Background

The objective of the 1<sup>st</sup> advisory committee meeting was to gather experiences and knowledge from the members of the advisory committee. By involving several key actors new developments, tendencies and the position of business associations and policy makers concerning the topic of alternative pellets were identified and taken into account in the project. Additionally, aspects which are not yet known by the project partners in spite their expertise and the regional analysis, can be integrated in the project. The following points were discussed:

- Quality / effectiveness of the dissemination activities
- Quality of the investigated data
- Solution for actual problems
- Gathering of new sources of information, dissemination and key actors

Each topic was introduced by a presentation of the work package leader. Afterwards a discussion with the members of the advisory committee meeting was supervised by Volker Lenz.

# 2 Programme

## Introduction to the Project

- 11:00 – 11:15 Presentation of the objectives of the project and the task of the advisory committee
- 11:15 – 11:30 Short round of introductions

## Project results

- 11:30 – 11:45 Overview about production and combustion technologies for alternative biomass pellets
- most relevant raw materials
  - available pelletizing and combustion technologies
  - first results of the interviews with key actors regarding available raw materials, production and combustion technologies
- 11:45 – 12:15 Discussion
- 12:15 – 12:30 Overview about different national conditions for the utilization of alternative biomass pellets
- existing legal conditions, pellet standards, measurement methods
  - further political aspects like political targets
- 12:30 – 13:00 Discussion
- 13:00 – 13:30 Coffee Break
- 13:30 – 13:45 Overview about the regional networking activities
- objectives and progress of the regional case studies
  - experiences made within the regional networking activities
- 13:45 – 14:15 Discussion



## Further activities

14:15 – 14:30 Overview about further activities

- set up of labelling system for alternative pellets and combustion systems
- set up of favourable regional concepts for the utilization of alternative pellets
- further regional networking activities

14:30 - 14:50 Discussion

## Summary

14:50 – 15:00 Summary of the first advisory committee meeting

15:00 End of first advisory committee meeting

# 3 Results

## 3.1 Participants

Table 1: List of participants

No	Name	Initials	Institution	Country
1	Franz Angerer	FA	Energy office of the province of Lower Austria	Austria
2	Josef Rathbauer	JR	BLT - Biomass-Logistics-Technology	Austria
3	Elisabeth Berger	EB	Association of boiler suppliers in Austria	Austria
4	Lukas Kranzl	LK	Vienna University of Technology, Energy Economics group	Austria
5	Martin Behr	MB	Deutscher Energieholz- und Pellet-Verband e.V.	Germany
6	Andrej Stanev	AS	FNR (Agency for Renewable Resources)	Germany
7	Frank Kienle	FK	The German association of domestic heating and cooking appliances	Germany
8	Matti Savolainen	MS	Vapo Oy	Finland
9	Leonardo Nibbi	LN	Centro di Ricerca Energie Rinnovabili	Italy
10	Antonio Iacca	AI	Pelletsnews magazine	Italy
11	Wolfgang Stelte	WS	Technical University of Denmark	Denmark
12	Elisabeth Wopienka	EW	Austrain Bioenergy Centre	Austria
13	Christa Kristöfel	CK	Austrain Bioenergy Centre	Austria
14	Giuseppe Toscano	GT	Comitato Termotecnico Italiano	Italy
15	Markku Kallio	MK	Technical Research Centre of Finland	Finland
16	Anna Sager	AnS	Technical Research Institute of Sweden	Sweden
17	Thomas Zeng	TZ	German Biomass Research Centre	Germany
18	Volker Lenz	VL	German Biomass Research Centre	Germany





## 3.2 Discussion and results

### 3.2.1 Introduction to the Project

First 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.

### 3.2.2 Overview about production and combustion technologies for alternative biomass pellets

- 1) Presentation of the state of work by Markku Kallio (Technical Research Centre of Finland - VTT)
- 2) Discussion

*“What are the experiences in the field of pelletizing and combustion of alternative (mixed) biomass pellets / Which raw materials and additives could be mixed to minimize problems during combustion / pelletizing?”*

- JR: Alternative biomass pellets are used almost in a range of 50 to 100 kW for small scale and up to 400 kW for medium scale combustion systems
- AS: The use of a wide range of raw materials is problematic. Therefore a use of reduced amounts of raw materials is favourable, especially for small scale combustion. The project should focus on the most promising raw materials that are interesting for most of the partner countries
- VL: This concept applies to the standardization of alternative fuels. Regarding the utilization on regional level a wider range of local raw materials has to be taken into account.
- AS: Additionally the impacts on the environment by using raw materials with critical properties should be taken into account.
- VL: Especially in Germany a wider range of raw materials can be used in a range > 100kW because the technical and economic possibilities for keeping the emission limit values are available.

*“Which are the most interesting way of production of alternative fuels – small or industrial scale?”*

- WS: In Denmark big production plants for straw pellets (e.g. Vattenfall) existing. Problems during the production can occur by changing the straw sort. The pellets are used in industrial CHP plants. A switch from coal to 100% biomass is supported by the legal authorities.
- MS: In Finland reed canary grass pellets were produced in big pelletizing plants which originally producing wood pellets. Pelletizing tests by mixing wood with peat are ongoing because less dust and particle emissions can be expected. The production is mostly done with ring dies presses. Problems with the higher ash content by pelletizing alternative raw materials led to higher wear. In Finland is still enough wood available but it is important to utilize alternative materials in the future. The database for the production of alternative fuels is very small.

- 3) Conclusions
  - a. The biggest challenge is to collect information for the pelletizing and combustion of alternative raw materials.
  - b. The project should compile an overview over the most common raw materials and reduce the wide range to sources that are interesting for all countries.
  - c. Give emphasis to the most common supply chains for all countries.
  - d. Find a good way to bridge the different legal aspects and raw materials.
  - e. Give emphasis to the most promising pretreatment technologies, e.g. torrefaction and washing technologies.



### 3.2.3 Overview about different national conditions for the utilization of alternative biomass pellets

- 1) Presentation of the state of work by Thomas Zeng (German Biomass Research Centre - DBFZ)
- 2) Discussion

*“What are crucial points to keep the emission limit values (e.g. dust emissions), for pellet standards (e.g. limit values of different parameters) and for boiler testing methods? / Do regulations of fine particles and other emissions prevent the use of alternative pellets?”*

- JR: Lower emission limit values are crucial in order to facilitate a continuous technical development.
- AS: Depending on the characteristics of the input materials a differentiation between the utilization of waste (17.BlmSchV) and biomass (1. and 4.BlmSchV) is crucial in Germany. Thus an appropriate energetic utilization with regard to environmental issues is possible.
- JR: A standardization of the emission limit values on European level is very important.
- EW: It is too expensive for many boiler manufacturers in Austria to fulfil the requirements for type testing e.g. the measurement of dioxins / furanes according to the 1.BlmschV in Germany.
- VL: The legislation / type testing should be simplified to boost the energetic utilization of alternative biomass fuels. It is important to identify representative alternative biomass fuels for a certain group of raw materials.

*“Are there regulations needed regarding the recovery / handling of ash?”*

- EW: Typical values for ashes from biomass combustion processes are mostly unknown and there are significant differences between the combustion of waste and biomass fuels.
- AS: In Germany the ash recovery is an old problem, but more R&D is needed in this field. Especially the recovery of ashes from medium sized plants has to be solved but maybe not in the framework of the MixBioPells project, but the question how to handle the ashes should be discussed within the project.

*“Influence of harvesting and production technologies on the fuel quality?”*

- JR: Technical and economical information/data on harvesting of miscanthus is needed in Austria.
- VL: The standardization of harvesting and logistic methods is crucial to improve and facilitate a constant fuel quality.

*“Additional issues, e.g. the possibility for higher emission limit values for a restricted time period?”*

- FA: It is important to figure out suitable applications for different fuels and to distinguish between different scales. There is a limited scope for higher threshold values possible but the development should focus on suitable technical systems, e.g. the appropriate combination of combustion and precipitators systems.
- AS: Precipitator technologies are needed to overcome legal aspects, but these technologies rarely available for the combustion of certain alternative fuels. Additionally not all emissions can be reduced with precipitators, especially in small scale combustion systems. Thus the focus should be on a smaller range of suitable biomasses.

#### 3) Conclusions

- a. Identification of possibilities to simplify legislative conditions for boiler manufacturers.
- b. Figure out suitable applications for different fuels and distinguish between different ranges.
- c. Give emphasis to the possibilities for the European standardization of emission limit values.



### 3.2.4 Overview about the regional networking activities

- 1) Presentation of the state of work by Anna Sager and Elisabeth Wopienka (Technical Research Institute of Sweden / Austrain Bioenergy Centre)
- 2) Discussion

*“What information and knowledge transfer do you expect from the regional activities?”*

- JR: It is important to display the whole supply chain especially with data like fuel properties, technological details of the production and combustion plants as well as logistic aspects. The target groups should understand the objectives bio-business activities in the regions.
- AS: Furthermore experiences regarding the solutions and existing problems should be transferred in an appropriate way.
- JR: The contact data of the key actors should be indicated.

*“Are there missing aspects concerning the case studies?”*

- JR: The case studies cover a lot of raw materials, but the energetic utilization of hay is an important issue in Germany and Austria. This topic is missing.
- TZ: The energetic utilization of hay may be included in the best practise examples of Germany.
- AS: The energetic utilization of digestate could be problematic because of the competitive situation to the use as fertilizer.
- LN: In Italy the pelletizing of fuels like tobacco or press cake is very interesting but not included in the project.
- AS: It could be problematic that some exotic fuels are commonly not interesting for the other European countries. Additionally it should be avoided to establish disconnected local frameworks.
- JR: An overview about the properties of exotic biomass fuels is available at DTI in Denmark.
- WS: Case studies' dealing with torrefied biomass is missing. Due to the fact that torrefaction is more an R&D topic it should be included as possibility in the project.

*“What networks can be interested?”*

- JR: It is necessary to transfer the results and experiences to standardization and political bodies on European level.

- 3) Conclusions
  - a. An appropriate transfer of information, data and experiences to the key actors and target groups (especially to standardization and political bodies on European level) made within the regional activities.
  - b. The focus should be on the most relevant raw materials (like straw, energy crops, hay, reed canary grass) to avoid the establishment of disconnected local frameworks. The utilization of regional available raw materials (like press cake or tobacco) should be included to evaluate possibilities for alternative (non-standardized) concepts.



### 3.2.5 Overview about further activities

- 1) Presentation of further steps by Thomas Zeng (German Biomass Research Centre - DBFZ)
- 2) Discussion

*“What is your wishing list for the Initiators handbook and advisory papers?”*

- LN: The information and data should be presented in a sufficient way, e.g. in figures. Especially the presentation of the cost analysis is very important.
- AS: Additionally the economic and environmental aspects are very important and should be included in the handbook and advisory papers.
- VL: The preliminary layout and table of content of the handbook and advisory paper will be sent to the members of the advisory committee to receive their comments and remarks

*“What are the main criterions for the labelling system for alternative biomass and the combustion systems?”*

- AS: It is important to include the environmental parameters and standardization parameters for solid biofuels. The amendment of the EN303-5 is under preparation and will include the boiler testing with alternative fuels.
- VL: Besides a simplified and customer orientated labelling system can be supported. The system can be based on a colour system.
- JR: Such systems can be problematic by displaying the complexity of the energetic utilization of alternative biomass fuels.
- VL: The technical aspects will be regulated and are not sufficient for the costumers, but such a system will only be working for a small range of fuels in small scale applications.
- EW: A possibility is to distinguish between “don’t care boilers” and “you have to look at boilers”.

*“What is the best way to improve the dissemination activities to increase the information exchange between the key actors and target groups?”*

No further comments by the members of the advisory committee

- 3) Conclusions
  - a. The preliminary layout and table of content of the handbook and advisory paper will be discussed with the members of the advisory committee to ensure a appropriate transfer of the information and data.
  - b. The labelling system can be set up in a customer orientated labelling system or in a more complex system by including environmental parameters and standardization parameters. Further steps will be discussed in the 2<sup>nd</sup> advisory committee meeting.

### 3.2.5 Summary of the first advisory committee meeting

Volker Lenz summarized the main topics and conclusions of the advisory committee meeting. The following steps were agreed:

- Minute of the meeting including all presentations and contact data of the national partners will be sent to the members of the advisory committee by DBFZ.
- The organisation of the next advisory committee meeting will be done until autumn 2011 by DBFZ.

The members of the advisory committee will be involved in the project by providing support, e.g. layout and content of the initiators handbook and advisory papers, evaluation of dissemination activities (conferences...).



## 4 Annex

### 4.1 Presentations

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

### 4.2 Contact data of the project partners

Table 2: Contact data of the MixBioPells project consortium

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### 4.3 Participant list with signature

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Wolfgang Stehr	Technical University of Denmark	W. Stehr
MARITI SAVOLAINEN	VAPOR	Mariti Savolainen
ANTONIO UCEA	GREEN MEAN COMPANY	Antonio Ucea
IRAIK UGUE	HVI, DE - FRAUNFURT	Iraik Ugue