



Solutions for biomass fuel market barriers and raw material availability - IEE/07/777/SI2.499477

Summary of the event: Biomass – Use and standardization in European Countries – EUBIONET III workshop

Lukas Sulzbacher, Josef Rathbauer FJ BLT Wieselburg

Lukas_sulzbacher@josephinum.at, Josef_rathbauer@josephinum.at



HBLuFA FRANCISCO JOSEPHINUM WIESELBURG
BLT - BIOMASS | LOGISTICS | TECHNOLOGY
Rottenhauser Str. 1, AT 3250 Wieselburg
Tel.: +43 7416 52175-43; Fax: +43 7416 52175-45
<http://blt.josephinum.at>



Wieselburg, October 20th, 2010



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1 Preface

This publication is part of the EUBIONET III Project (Solutions for biomass fuel market barriers and raw material availability - IEE/07/777/SI2.499477, www.eubionet.net) funded by the European Union's Intelligent Energy Programme. EUBIONET III is coordinated by VTT. Other partners are Danish Technological Institute, DTI(Denmark), Energy Centre Bratislava, ECB (Slovakia), Ekodoma (Latvia), Fachagentur Nachwachsende Rohstoffe e.V., FNR (Germany), Swedish University of Agricultural Sciences, SLU (Sweden), Brno University of Technology, UPEI VUT (Czech), Norwegian University of Life Sciences, UMB (Norway), Centre Wallon de Recherches Agronomiques, CRA-W (Belgium), FJ-BLT Wieselburg (Austria), European Biomass Association, AEBIOM (Belgium), Centre for Renewable Energy Sources, CRES (Greece), Utrecht University, UU (Netherlands), University of Florence, UNIFI (Italy), Lithuanian Energy Institute, LEI (Lithuania), Imperial College of Science, Imperial (UK), Centro da Biomassa para a Energia, CBE (Portugal), Energy Restructuring Agency, ApE (Slovenia), Andalusian Energy Agency, AAE (Spain). The EUBIONET III project runs from 2008 until 2011.

The main objective of the project is to increase the use of biomass based fuels in the EU by finding ways to overcome the market barriers. The purpose is to promote international trade of biomass fuels to help that demand and supply meet each other, while at the same time the availability of industrial raw material is to be secured at reasonable prices. The EUBIONET III project will in the long run boost sustainable, transparent international biomass fuel trade, secure the most cost efficient and value-adding use of biomass for energy and industry, boost the investments on best practice technologies and new services on biomass heat sector and enhance sustainable and fair international trade of biomass fuels.

This is a summary of the national event, organized by the FJ-BLT Wieselburg. In form of an open workshop with the title EUBIONET III workshop: Biomass – Use and Standardization in European Countries, the event was organized in Wieselburg, at the facilities of the Francisco Josephinum. Within this workshop, the intermediate results from the EU project EUBIONET III were presented and discussed as well as the actual status of the standardization of solid biofuels on the European level. The technical and legal requirements for type testing of boilers and stoves fired by solid biomass was also a major topic of the event.

In this summary a short report of each presentation is given. All presentations of the workshop are available at the EUBIONET III web site (www.eubionet.net).

Lukas Sulzbacher, Wieselburg, November 3rd 2010

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2 Introduction

The workshop was organized as a national event in the EUBIONET III project from the Austrian partner FJ-BLT Wieselburg. The date of the event was the 20th of October 2010 and it was organized at the facilities of the Francisco Josephinum in Wieselburg (Weinzierl). The program (see appendix 1) consists of three major topics:

1. The intermediate results from EUBIONET III
2. Actual status of standardization of solid biofuels on European level
3. Technical and legal requirements of biomass boiler type test procedures

The event was targeted for biofuel producers and traders, boiler producer, chimney sweepers, heating contractors, as well as user and authorities working on the bioenergy and biomass sector.

More than 600 invitations were sent out and 28 participations were registered at the workshop, including the speakers (see appendix 2). More than 50 % of these participations were from industries, e.g. boiler producers, fuel producers, chimney sweepers, heating contractors and consulting agencies.

The FJ-BLT also conducted a survey with the audience to collect feedback. The summary of the results could be found in appendix 3.

3 Summary of the workshop presentations

3.1 Introduction by Dir. Alois Rosenberger, executive director of the research and education institute Francisco Josephinum (9.00 - 9.15)

Dir. Rosenberger gave a short overview of the venue of the event and its energy situation. The Francisco Josephinum is a secondary educational establishment and research centre for agriculture, agricultural engineering and food technology. It is connected to a heating plant with a capacity of 2.1 MW fired with forest wood chips. The fuel is produced in the region with an average delivery radius of 6,3 km. In an average heating period the plant is using about 5350 loose cubic meters wood chips and is delivering 4400 MWh heat quantity per year.

Additional to the heating plant the Francisco Josephinum has installed a 80 kW_{peak} photovoltaic plant. (further information could be found on the website <http://www.josephinum.at/>)

3.2 EUBIONET III – Solutions for biomass fuel market barriers and raw material availability - intermediate results by Lukas Sulzbacher (9.15 – 10.30)

Mr. Lukas Sulzbacher started the first part of the workshop by introducing the EUBIONET III project. He gave an overview of the aims and structure of the project, the involved partner institutes and the background of the project. A special focus was

on the presentation of the planned and the already completed action and results of the different work packages.

The actions were divided into the following work packages

- biomass trade use in new industry sectors
- price mechanisms for wood fuels
- sustainability and solid biomass fuel standards and legislation
- new biomass raw materials – unexploited residues (e.g. from food industry)
- heating and cooling by biomass
- forest industry and bioenergy
- dissemination and co-operation

After an introduction of the project, some selected results from each work package were presented. From WP 2 the actual use of biomass and the potential of resources for each country were presented as well as the results of the survey for barriers in biomass trade. The presentation of WP 3 was concentrated on the factors, that affect the wood fuel prices, e.g. policy instruments, raw material and production costs but also energy prices in general and interactions with forest industry. (more information about the results from Work Package 3 Olsson O, Vinterbäck J, Dahlberg A & Porsö C (2010) “Price Mechanisms for Wood Fuels”, www.eubionet.net).

WP4 was presented very short, because there were some overlapping with the second part of the workshop the standardization of solid biofuels.

The actions in WP 5 were among others to identify new biomass raw material for energy production, e.g. unexploited residues. In the line of this project, about 50 different raw materials have been identified so far, but this action is still in progress. The Austrian example were vineyard residues, horse litter (800 PJ), Sunflower seed shell and sunflower press cake pellets (705,700 GJ), grass and hay (17,500 GJ), reed, stone fruit kernels (180 GJ).

In WP6 heating and cooling with biomass, the actual status of work was presented. Mr. Sulzbacher summarized the case studies and the calculation of the CO₂-equivalent emission reduction as well as the company fact sheets. The problems with the lack of data for cooling and heating with biomass for households were also tackled and discussed. The EUBIONET III web site (www.eubionet.net) where additional information and reports can be found was also strongly promoted.

3.3 Actual status of standardization of solid biofuels on European level by Josef Rathbauer (11.00 – 13.00)

Mr. Rathbauer summarized the European standardization activities for solid biofuels and upcoming product standards.

The European Committee for Standardization, CEN has published several pre-standards, which are now upgraded to full European standards (EN). The two most important technical specifications developed by the TC 335 deal with the classification and specification (EN14961) and quality assurance for solid biofuels (EN 15234).

Mr. Rathbauer gave an overview of the new and finalized standards EN 14691 as well as the product standards. The part 1 – general requirements of EN 14961-1 includes all solid biofuels and will be used mainly from industry. General part 1 of EN 14961

includes Table 5 for all kind of biomass pellets. This part includes also the classification of solid biofuels, which is based in their origin and source. By that the production chain of the fuel is traceable over the whole production chain. The biomass fuels are divided into the following sub-categories:

- 1) woody biomass
- 2) herbaceous biomass
- 3) fruit biomass
- 4) blends and mixtures

The sub-category blends and mixture includes material of various origins.

Especially for non-industrial use, which means fuels for smaller appliance, such as households, specific product standards have been developed.

Part 2: wood pellets for non-industrial use

Part 3: wood briquettes for non-industrial use

Part 4: Wood chips for non-industrial use

Part 5: Firewood for non-industrial use

Part 6: Non-woody pellets for non-industrial use

Within this presentation Mr. Rathbauer explained all normative and informative properties, which are included in these product standards and gave also an overview of how standards are made and how the procedure looks like to get EN-standards in craft.

3.4 Technical and legal requirements for biomass boiler type test procedures by Leopold Lasselsberger (14.00 – 15.30)

Mr. Leopold Lasselsberger, the head of the boiler test bench at the FJ-BLT, reported about the technical and legal requirements for biomass boiler type testing on national as well as European level. He explained the innovations and reforms in the line of the EN 303 Central-Heating boilers - Part 5: Heating boilers for solid fuels, hand and automatically stoked, nominal heat output of up to 500 kW - Terminology, requirements, testing and marking; German version prEN 303-5:2010.

Further he gave an overview of how the execution of the test looks like and which emission limits are required.

He explained the importance of fuel standards for the type testing of heating boilers.

A major topic of the presentation was also the federal directives for placing boiler on the market, which are reworked in a new 15a agreement with certain requirements and regulations.

This presentation follows a discussion about the periodic inspection, which is required for boilers with a nominal heat capacity of more than 50 kW. Especially the chimney sweepers and the heating contractors were involved in the discussion about the procedure in practice and its difficulties.

3.5 Excursion to the boiler test facility for non-woody biomass and the heating plant of the Francisco Josephinum

After the presentations, the participants had the option to visit the heating plant, the boiler test facility for non-woody biomass and the photovoltaic plant. A 100 kW boiler is installed in the test facility which is operated with miscanthus briquettes to see the long term impacts of non-woody biomass in the combustion process. The visitation of the heating plant and the test facility finalized the workshop.

4 Summary of the feedback

The feedback of the workshop was throughout positive. 15 from 28 participants gave a feedback and filled in a questionnaire. The whole workshop was scored with 1.3 (scores from 1 to 5, 1= excellent, 5= unsatisfactory). For a detailed summary of the feedback see appendix 3.

Especially remarked was the pleasant atmosphere at the workshop and the great possibility for networking with other participants. It was also mentioned in the feedback, that more information on use, production and logistics of biomass is in demand.

5 Appendix 1 – Programme

- 09.00 – 09.15 Begrüßung (*durch Direktor DI Alois Rosenberger*)
- 09.15 – 10.30 Europäisches Biomassenetzwerk - EUBIONET III
(*Dr. Josef Rathbauer, Mag.(FH) Lukas Sulzbacher*)
- 10.30 – 11.00 *Pause (Kaffee + Kuchen)*
- 11.00 – 13.00 Aktueller Stand der europäischen Normierung fester
Biobrennstoffe - EN 14961 (*Dr. Josef Rathbauer*)
- 13.00 – 14.00 *Mittagspause*
- 14.00 – 15.30 Technische und rechtliche Anforderungen an Feuerungen für
feste Biobrennstoffe
(*Dipl.-HLFL-Ing. Leopold Lasselsberger*)
- Im Anschluss Besichtigung des Heizwerkes und der Versuchseinrichtung FJ für
Feuerungen von agrarischer Biomasse

5 Appendix 2 – Participant list

	Familienname	Vorname	Organisation
1	Brader	Martin	ORTNER GmbH, Leitung F&E
2	Burmann	Heinz	LIM Rauchfangkehrer, BIM Stv. Landesinnungsmeister
3	Datzreiter	Leopold	ÖkoFEN Metall & Heiztechnik GmbH
5	Fischer	Josef	Amt der NÖ Landesregierung, Geschäftsstelle für Energiewirtschaft
6	Furtner	Karl	Landwirtschaftskammer Niederösterreich, Ref. Technik und Energie
6	Gerlinger	Raimund	Biokompakt® Heiztechnik GmbH
7	Gerlinger	Ernst	Biokompakt® Heiztechnik GmbH
8	Glettler	Robert	Regionalenergie Steiermark, Beratungsgesellschaft für Holzenergiesysteme
9	Grumböck	Franz	Franz Bauer Ges.m.b.H.
10	Haneder	Herbert	Landwirtschaftskammer Niederösterreich, Ref. Technik und Energie
11	Kaupe	Lukas	BMLFUW, Abteilung II 9 (Modernisierung, Innovation, Marktstruktur)
12	Krammer	Silvia	FJ-BLT Wieselburg
13	Kreipl	Karl	Installateur-Biowärme
14	Lasselsberger	Leopold	FJ-BLT Wieselburg
15	Prankl	Gertrud	FJ-BLT Wieselburg
16	Leitner	Otto	Biomasseverband OÖ
17	Loibnegger	Thomas	LWK Steiermark
18	Pikola	Jürgen	Roland Cornelius, Rauchfangkehrerbetrieb
19	Pöllabauer	Wolfgang	Perhofer GmbH
20	Pölzgutter	Horst – Peter	NÖ-Landesinnung der Rauchfangkehrer
21	Rathbauer	Josef	FJ-BLT Wieselburg
22	Rosenberger	Alois	FJ-BLT Wieselburg
23	Schneider	Jan-Friedrich	
24	Spaller	Johannes	Biomasseverband OÖ
25	Stalzer	Günther	Rauchfangkehrer - Biowärme
26	Sulzbacher	Lukas	FJ-BLT Wieselburg
27	Sumetzberger	Hubert	GENOL Ges.m.b.H. & Co KG
28	Tuna	Harald	Rauchfangkehrermeister, Energie- und Umweltberater

6 Appendix 3 – Summary of the feedback

15 participants filled in a feedback questionnaire

Evaluation (scores from 1 to 5, 1= excellent, 5= unsatisfactory)

			1	2	3	4	score
Q 1:							
How would you evaluate the relevance of the information from the event for your occupational activity?			9	5	1		1,47
Q 2:							
How would you evaluate the quality of the presentations in respect of actuality for your occupational activity?			11	4			1,27
Q 3:							
How would you evaluate the pace of work?			13	2			1,07
Q 4:							
How would you evaluate the organization of the workshop			11	4			1,27
Q 5:							
How would you evaluate the scope of time for the workshop?			12	3			1,20
Q 6:							
How would you evaluate the possibilities for networking?			14	1			1,07
Q 7:							
How would you evaluate the venue of the workshop?			14	1			1,07
Q 8:							
Have you got helpful suggestions for your work?			8	7			1,47
Q 9:							
How would you evaluate the documents for the workshop?			9	4	2		1,53
Q 10:							
Would you recommend the organization of the workshop?			11	4			1,27
Q 11:							
How would you evaluate the whole workshop?			10	5			1,33

7 Appendix 4 – invitation flyer



The flyer features a green background with several small images illustrating biomass processes: a power plant, a truck, a forest, wood chips, a pile of wood, hands holding wood chips, and a pile of wood pellets. The main text is in white and green.

**Einladung
zum Workshop**

**Biomasse –
Nutzung und Normierung
im europäischen Raum**

**am Mittwoch, 20.10.2010
09.00 bis 16.30 Uhr**

**HBLFA Francisco Josephinum
Hörsaal 1, Weinzierl 1
3250 Wieselburg**

EUBIONET3

F | J **BLT**

Intelligent Energy  Europe

Das Thema Biomasse und ihre Nutzung ist hinsichtlich der derzeitigen Energiesituation in Europa von hoher gesellschaftlicher Relevanz. In ganz Europa beschäftigen sich Forscherinnen und Forscher mit unterschiedlichen Aspekten dieser Thematik. Aus diesem Grund veranstaltet die FJ BLT Wieselburg am **20.10.2010** einen Workshop zum Thema Biomasse - Nutzung und Normierung im europäischen Raum. Die Veranstaltung richtet sich an Biomassekesselhersteller, Biobrennstoffproduzenten, Heizanlagenbetreiber, Rauchfangkehrer, Installateure und alle Biomassenutzung und Biobrennstoffkessel Interessierten.

Der Inhalt der Veranstaltung umfasst folgende drei Themenbereiche:

- Europäisches Biomassenetzwerk - EUBIONET III:

EUBIONET III ist ein EU-Projekt zur Forcierung der Biomassenutzung in Europa.

Die Themenpalette reicht dabei von aktuellen Biomassetrends für Heizung und Kühlung, neue Biomassearten für den thermischen Einsatz, Nachhaltigkeitssysteme bis hin zur Entwicklung der Pellets- und Holzpreise in Europa.

- Aktueller Stand der Europäischen Normierungsaktivitäten für feste Biobrennstoffe (EN 14961):

In der EU gilt seit Jänner 2010 die Norm EN 14961-1 für feste Biobrennstoffe, in der Eigenschaften für biogene Festbrennstoffe geregelt werden. Darüber hinaus werden speziell für den häuslichen Verbraucher spezifische Produktnormen entwickelt, die in weiterer Folge nationale Normen ersetzen sollen. Im Rahmen des Workshops wird über die neue Norm sowie die Entwürfe der Produktnormen für Pellets, Briketts, Hackgut usw. informiert.

- Technische und rechtliche Anforderungen an Feuerungen von festen Biobrennstoffen:

Dieser Themenbereich umfasst den aktuellen Stand der Feuerungsanlagen-Verordnung inklusive Emissionsgrenzwerte und 15 a Vereinbarung. Darüber hinaus wird über die technischen Rahmenbedingungen bei Heizkesseln für feste Brennstoffe gemäß der europäischen Norm EN 303-5 informiert.

Im Anschluss an den Workshop wird interessierten Teilnehmer die Möglichkeit geboten, das Heizwerk sowie die Versuchseinrichtung für Feuerungen von Agrarbiomasse zu besichtigen.



Programm der Veranstaltung:

09.00 – 09.15	Begrüßung (durch Direktor DI Alois Rosenberger)
09.15 – 10.30	Europäisches Biomassenetzwerk - EUBIONET III (Dr. Josef Rathbauer, Mag.(FH) Lukas Sulzbacher)
10.30 – 11.00	Pause (Kaffee + Kuchen)
11.00 – 13.00	Aktueller Stand der europäischen Normierung fester Biobrennstoffe - EN 14961 (Dr. Josef Rathbauer)
13.00 – 14.00	Mittagspause
14.00 – 15.30	Technische und rechtliche Anforderungen an Feuerungen für feste Biobrennstoffe (Dipl.-HLFL-Ing. Leopold Lasselsberger)
Im Anschluss	Besichtigung des Heizwerkes und der Versuchseinrichtung FJ für Feuerungen von agrarischer Biomasse

Die Tagesgebühr für den Workshop beträgt 20 €. In der Tagesgebühr sind Getränke und Mittagessen, sowie Unterlagen inkludiert.

Wir würden uns freuen, Sie bei unserem Workshop begrüßen zu können.

Bitte geben Sie uns ihre Anmeldung zur Teilnahme schriftlich bis Mittwoch, 13.10.2010 unter folgender Adresse bekannt:

Mag. (FH) Lukas Sulzbacher:
lukas.sulzbacher@josephinum.at

Kontakt für Rückfragen:

Mag. (FH) Lukas Sulzbacher	DI Dr. Josef Rathbauer
Tel.: +43 7416 52175-0	Tel.: +43 7416 52175-43
lukas.sulzbacher@josephinum.at	josef.rathbauer@josephinum.at

