



## Solutions for biomass fuel market barriers and raw material availability



**The EUBIONET III project will have several long term benefits: boosting sustainable, transparent international biomass fuel trade, securing cost efficient and value-adding uses of biomass for energy and industry, boosting investments into best practice technologies and new services in the biomass heat sector, enhancing sustainable and fair international trade of biomass fuels. EUBIONET III project will run during the period 2008–2011.**

The EUBIONET III project aims to increase the use of biomass based fuel in the EU by finding ways to overcome market barriers

- National biomass programmes and biomass fuel potentials will be analysed especially for different industrial residues and agrobiomass.
- International trade of biomass fuel will be promoted, price mechanisms will be analysed and new CN codes for biomass fuels will be proposed.
- Certification and sustainability criteria for biomass fuels will be set in co-operation with market actors.
- Implementation of new CEN standards for solid biofuels will be supported.
- Bioenergy use will be promoted by raising awareness on biomass heating or cooling aiming at fuel switch from fossil to biomass.
- The appropriate use of biomass resources will be assessed by analysing raw material availability within and between bioenergy, forest industry and agricultural sectors.

## **Solutions to overcome biomass trade barriers**

EUBIONET III will carry out analyses of bioenergy trends and reasons for change in different countries and provide an overview of solutions to specific barriers impeding the development of international biomass trade. Moreover, it will report opportunities for further biomass trade development. Special attention will be paid to those industrial sectors which to date have not been involved in bioenergy projects. These sectors will be identified during the project and could, for example include metal and construction material industries. Three expert group meetings and one international trade event will be organized to discuss the most important current market barriers and to formulate strategies and solutions to overcome barriers.

At present, large amounts of potential raw material for biomass fuels are traded without knowledge of the bioenergy sector due to immature systems of reporting trade statistics. Development of comprehensive and detailed Combined Nomenclature for raw materials of biomass fuels would facilitate more transparent biomass fuel market, and help to identify types and amounts of raw material that could be available for bioenergy purposes. This work will be carried out in cooperation with EUROSTAT and national statistics organisations.

## **Price mechanisms for wood fuels**

A key aim of EUBIONET III is to make national price statistics for wood fuels available on an international level, thereby mitigating the lack of price transparency and contributing to a more efficient European bioenergy market.

Another aspect of the wood fuel prices is the question of what actually defines wood fuel prices. While the price of oil and policy measures aiming to mitigate greenhouse gas emissions are often seen as the key components in creating demand for wood fuels and other renewables, they are not the only factors when determining the actual price. This is particularly true for wood fuels which, to a large extent, are integrated within the forest industry and highly dependent on the development of this sector. Furthermore, increase in the trade of wood fuels can also be expected to have an impact on prices as producers and consumers alike seek new markets and thereby increase competition. EUBIONET III will try to shed some light on the mechanisms that determine wood fuel prices.



## Legal and technical frameworks & sustainability of biomass fuels

EUBIONET III will collect information about the different legal and technical frameworks of biomass fuels and approaches to secure sustainability of biomass, biofuels and bioenergy including a comparison between the different national requirements and those introduced at EU level.

With ongoing discussion about whether or not bioenergy is sustainable, it has become inevitable to introduce a scheme that will ensure that good sustainability credentials are achieved. EUBIONET III will collect all approaches of sustainability schemes that have been proposed over the last years. However, instead of simply collating different aspects of these to develop yet another scheme, EUBIONET III partners will question all stakeholders, especially industry, on how they would envision that sustainability credentials can be secured. EUBIONET III will propose recommendations for a European sustainability certification that is able to combine the most important elements in order to meet the different views and expectations of stakeholders and the market. EUBIONET III will hopefully make a common European scheme a realistic, workable and accepted solution.

## Enlargement of raw material base

The aim is to develop the potential for energy production from biomass through identification of yet unexploited biomass resources and by showing ways of optimizing fuel characteristics.

There may be a significant potential in Europe for energy production from yet unexploited agro-industrial biomass resources such as mash, shea, potato pulp or carrageen. Furthermore new sources like aquatic biomass (micro- and macroalgae) are gaining a lot of interest. EUBIONET III will therefore extract knowledge from existing "traditional" biomass resource surveys plus add new data on alternative biomass resources via national surveys conducted as part of this project. Some newly found alternative biomass products may need conditioning in one way or another prior to use in energy production (e.g. drying, pelletizing etc.). Hence, another important outcome will be recommendations for treatment and handling of the alternative biomasses.

## Heating and cooling with biomass

The largest portion of final energy is used for heating of rooms and producing hot water or process heat for industry. The volume of biomass currently used for heat or cooling production will be shown. Statistics for biomass heat are currently insufficient so participation of national experts will be important. Combined with investigations where this biomass has been produced, considerations about the reliability of the supply of biomass will be taken. The work will concentrate on the domestic and district heating sector.

Furthermore heating practices in different housing estates of different forms and sizes (heating in small and larger size e.g. public buildings) will be described to investigate the most popular heating forms in Europe. Moreover, current biomass cooling practices will be studied and described.

The costs for heating and cooling with biomass will be surveyed in different countries based on, inter alia, heat demand, specific heat consumption figures, technical level of installations, competition of other heating systems. Also, the relative importance to other energy sources, including heating oil and natural gas, will be investigated. The CO<sub>2</sub> savings potential will be estimated from real examples of switching from fossil fuel based heating/cooling systems to biomass based systems. The current policy instruments to encourage the use of biomass for heating and cooling on national and regional level will be investigated.

## Bioenergy and forest industry

The use of woody biomass for energy versus use as raw material inputs to other industrial sectors will be analysed. This will be done in cooperation with forest industry and bioenergy industry stakeholders. The problems encountered and the raw materials with greatest competition intensity, such as the use of sawdust in the energy pellet industry versus particle board industry, will be analysed. Also, there will be an analysis of those policy instruments (such as emissions trading and the renewable energy directive) that have greatest impact on raw material availability and price in different countries. Two workshops will be implemented to encourage debate and dialogue between the bioenergy sector, agroindustry sector and forest industry.



[www.eubionet.net](http://www.eubionet.net)

## Dissemination and communication

Results of the project will be disseminated by publishing reports, flyers, articles in newsletters and by organising the following events:

- National biomass events in all participating countries
- Three expert group meetings or workshops on biomass trade barriers
- International workshop on biomass trade in Italy in 2010
- International workshop “New sustainable biomass heating and cooling systems” in Lithuania
- Two expert group meetings for forest industry and bioenergy sector
- Two international workshops on biomass certification and sustainability criteria
- International conference session on emerging biomass resources

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- DTI (Denmark) ■ ECB (Slovakia) ■ Ekodoma (Latvia) ■ FNR (Germany) ■ SLU (Sweden) ■ UPEI VUT (Czech) ■ UMB (Norway) ■ CRA-W (Belgium) ■ FJ-BLT (Austria) ■ AEBIOM (Belgium) ■ CRES (Greece) ■ UU (Netherlands) ■ UNIFI (Italy) ■ LEI (Lithuania) ■ Imperial (UK) ■ CBE (Portugal) ■ ApE (Slovenia) ■ AAE (Spain).

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