

LogistEC

Logistics for Energy Crops' Biomass

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**Collaborative project (small or medium-scale focused research
project targeted to SMEs)**

SEVENTH FRAMEWORK PROGRAMME

Priority: Food, Agriculture and Fisheries, and Biotechnology

Deliverable D6.2 ***Project Leaflet***

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Project start date: September 1st, 2012

Duration: 42 months

Workpackage concerned: WP6

Concerned workpackage leader: AEBIOM

Dissemination level: PU

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Summary

The brochure contains information such as:

1. Objective of the project
2. List of partners and demonstration sites
3. Information on crop management, agricultural machinery, new pre-treatment technologies, multi-criteria assessment, quantitative models and methods, and demonstration.

The leaflet was printed in 1,300 copies and distributed to the relevant partners.

LogistEC partners:

- | | |
|------------------------------------|---------------------------------|
| AEBIOM
Belgium | INRA Transfert
France |
| Acciona Energia
Spain | INRA
France |
| Averinox
Netherlands | MHG Systems
Finland |
| Biotrans
Spain | MIRBB
Norway |
| Biopoplar
Spain | Nobili
Italy |
| Bourgogne Pellets
France | PIMOT
Poland |
| CENER
Spain | Riso DTU
Denmark |
| CFN
Denmark | RRes
UK |
| CIEMAT
Spain | SGB
UK |
| CRL
UK | SINTEF
Norway |
| ECN
Netherlands | SSSA
Italy |
| FCBA
France | |

LogistEC Demonstration Sites:

- | | |
|--|--|
| Triticale, sorghum and poplar cultivation
Spain | Power from grassy crops and poplar
Spain |
| Miscanthus to supply a pellet plant
France | Energy grass harvester
Italy |
| Torrefaction pre-treatment
The Netherlands | Willow harvester
UK |
| Torrefaction pre-treatment and briquetting
Denmark | Storage of torrefied feedstock
Spain |



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Logistics for Energy Crops Biomass

The LogistEC project supported by FP7 aims to develop new or improved technologies of the biomass logistics chains. Cost-efficient, environmental-friendly and socially sustainable biomass supply chains are needed to achieve the 2020 EU RES targets that might be impeded by the potential scarcity of lignocellulosic biomass from agriculture. The project covers all types of lignocellulosic crops: annual and multi-annual crops, perennial grasses, and short-rotation coppice.

www.logistecproject.eu



LogistEC - sustainable biomass supply chains in terms of environmental, economic and social impacts.

The project focuses on improvement of all biomass value chain components and assesses the sustainability in terms of environmental, economic and social impacts. Innovative techniques for crop management, biomass harvesting, storage and transport provide a possibility to increase biomass supply whilst keeping costs down and minimizing adverse environmental impacts.

Timeline: the project is running from September 2012 until the end of February 2016 with a budget of 3.5M€ for its activities.

Target groups: feedstock producers, biomass project developers, rural communities, farming industries, supply chain, retail, logistics and transport companies, end-users of biomass, NGOs and consumer associations, policy makers, and scientists.

Stakeholder platform: a virtual stakeholder platform will be created in order to follow the most recent project achievements, developments and to provide a possibility to get involved in project activities and to transfer the know-how on the ground.

Optimizing bioenergy supply chains

The barriers for optimal use of supply chains include scattered and bulky nature of biomass, high moisture content, unsuitable for lignocellulosic crops harvesting equipment, biomass deterioration during storage and transport etc. Therefore, by employing specific meta-analysis, laboratory tests, field trials, ecosystem modelling and mechanical engineering, the project will deliver recommendations for optimal technologies as well as new equipments and systems.

The recommendations will be based on the project partners' work on the following:

Crop management

Innovative crop management practices such as intercropping or multifunctional land use and recycling of process residues and other waste streams will be developed in order to maintain soil quality, reduce environmental impacts and increase economic profitability.

Agricultural machinery

Existing harvesting equipment is not sufficiently adapted to harvest lignocellulosic crops such as grasses or short-rotation woody crops. Development of improved agricultural machinery would ensure cost efficient biomass harvesting and handling and lower environmental impacts.

New pre-treatment technologies

In order to optimise biomass production, there is a need to have feedstock of consistent quality, particle size and moisture content. This can partially be done via conventional densification (pelletisation, briquetting); however the aim is also to develop pre-treatment technologies to improve biomass properties prior to

densification and transport (hydrophobicity, grindability, mildew) so that it can be handled in existing transport, handling and storage equipment.

Multi-criteria assessment

The implementation of innovative techniques at different steps of the supply chain will not lead to an improved supply chain if the system is not envisaged as a whole. Therefore, the project will employ multi-criteria assessment to optimize all steps of the supply-chain (feedstock types, cultivation sites, crop management, harvesting and pre-treatment technologies, transport and storage).

Quantitative Models and Methods

We will develop and apply a set of quantitative models and apply qualitative methods for the optimization of biomass supply chains in a spatially explicit manner taking into account environmental, economic and social sustainability criteria and regulatory framework thus facilitating the supply of lignocellulosic biomass for bioenergy. It will also help to explore various scenarios.

Demonstration

The developed system will be tested in bio-energy and bio-materials projects all across Europe. Improved logistics will be demonstrated at a pilot and industrial scales in 2 regions (Eastern France and Southern Spain) for existing bio-energy and bio-materials value chains. All technology developments will be carried out with industrial partners in order to speed up their transfer to the market.



1.1 Objectives

The objective of this deliverable is to create promotion for the LogistEC project. It will inform people about the main objectives of the project and will direct them to the project website which will give them more information.

1.2 Rationale

The brochure will be distributed to all major events where there are potential participants; therefore we will give people an overview of the project and direct them to the LogistEC website.

1.2 Teams involved:

AEBIOM was the main partner involved in this process. However, ECN, RRES, Acciona, Biotrans, BIOPOPLAR, SSSA, Nobili, FCBA, CENER, INRA gave their input and approval on the deliverable.

Conclusion

The LogistEC leaflet is meant to give a short overview of the project and to direct people to the project website. It is an important promotional tool that will be used by the partners who are most involved in the communication activities of the project.