

GO BUCHDENS – New local hedges development sector: densified logs

Context

Hedgerows are currently used in two local industries: wood energy (wood chips used for heating) and biomass (mulch). However, a significant proportion of this material is not compatible with the production of quality fuel. The aim of this project is therefore to work with all the parties involved to examine how the co-product of screening shredded wood can be recycled by creating a local channel for producing densified logs.

The West Normandy Cuma Federation (Cooperative for the use of agricultural equipment) runs the local agricultural hedgerow valorisation scheme. In the Manche department, the project is being organised with the Ecovaloris Cuma (wood chipping), local Cuma (storage platforms) and the Haiecobois association (marketing of chipped wood to local boiler rooms, colleges and local authorities).

The project has both a technical component and a territorial development component involving local players. The foundation shared by the project's stakeholders is based on a shared vision of commitment to the local development of natural resources, with a focus on the environment, social issues and business creation.

Objectives

The aim of this OG project is to set up a local densified wood supply chain (shredded wood and co-products of shredded wood screening) by using the hedgerow wood produced by farmers as part of a circular economy approach. The type of investment studied will be accessible to small production workshops and will be based on an agricultural and cooperative-type organisation that will be set up with the local Cuma. The project's feasibility study covers technical, economic and social aspects. In addition to the technical trial on a densified log press and the market study, the GO partners and other stakeholders have set up an association called 'In Fine Haie', whose

Results

This sector would be complementary to wood chips and would strengthen the economic viability of the local wood energy sector by increasing market outlets. The type of investment studied will be accessible to small production units and will be based on an agricultural and cooperative type of organisation that will be set up in the local Cuma. The end users are private individuals with a log-burning stove.

Points studied:

1 Inventory study

The volumes of agricultural wood have been identified and are readily available, given the lack of outlets for hedgerow wood.

Several sources of non-agricultural supply are being studied. These sources are difficult to identify but represent an economically interesting source for the project. They are mainly occasional resources that require large storage capacities. The source linked to private individuals has not yet been explored beyond occasional contacts.

2 Technical tests of the press

The full-scale test was carried out on 20 May 2019 in Le Touquet. This test validated the technical feasibility of the project using agricultural raw materials. The briquetting was carried out with the company Agriopal.

These tests showed that :

- the product was easy to use
- the hydraulic press system corresponded to the needs
- samples were sent for analysis (SOCOR laboratory) to check the quality of the product (physico-chemical measurements, thermal performance).



3 Technical and economic study

The cost of the equipment has been estimated, but a number of points still need to be refined. The production of densified log in a short circuit requires a volume of activity of around 2,500 tonnes for an investment in the machine that varies between €250,000 and €500,000 depending on the product required.

4 Organisation of production

For the Manche region, and depending on the technical resources available for the project, the production site would be located in central Manche. It would have to be close to a dryer (a flat-bed dryer combined with an anaerobic digester).

The project is also based on complementary work with the screening of wood on Haiecobois' shredded wood storage platforms in order to recover the "fines/"residues" from the screening. The In Fine Haie project brings together 4 players: the Haiecobois association, an individual player, the Steve association (Territorial service for the maintenance and enhancement of the area) and the IPE Environnement association (IPE : Environment Employment Initiative).

Objectives

This OG has enabled us to validate the feasibility of a local industry producing densified logs from local resources.

The difficulty of such a project lies in mobilising the players and being able to free up time for project engineering and structuring the activity. The Normandy West Cuma Federation supports local structures in their territorial projects, and the work initiated with the BUCHDENS programme has been extended beyond densified logs. In fact, as part of the project to develop hedgerows, farmers have joined forces with the SECCOPA project to produce pellets from hedgerows to complement their alfalfa development project.



Figure 1: Wood chips (Rancon Cuma). Copyright : Jean-Paul Gayot - CRPF Limousin © CNPF.

Further information

[Operational Group BuchDens additional information](#)

Contacts




Matevž Triplat (Gozdarski inštitut Slovenije), matevz.triplat@gozdis.si
 Žiga Lukančič (Gozdarski inštitut Slovenije), ziga.lukancic@gozdis.si
 Benjamin Chapelet, (Centre National de la Propriété Forestière), benjamin.chapelet@cnpf.fr

FOREST4EU partners:



Funded by the European Union (Grant n. 101086216). Views and opinions expressed are however those of the authors only and do not necessarily reflect those of the European Union or REA. Neither the European Union nor the granting authority can be held responsible for them.



 FOREST4EU Project
 FOREST4EU Project
 info@forest4eu.eu

