

# Processi di gestione di biomasse e di legname da opera finalizzati alla realizzazione di un centro integrato di trasformazione del prodotto legnoso

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## Biomass and timber management processes aimed at the creation of an integrated wood products processing center

### Riferimenti

Tipo di progetto

Gruppo Operativo

Acronimo

LEGNOa360°

Tematica

Gestione aziendale

Information

Time frame

2021 - 2022

Durata

18 months

Partners (no.)

7

Regione

Liguria

Comparto

Forestale

Localizzazione

ITC33 - Genova

Costo totale

€84.471,84

Fonte di finanziamento principale

Programma di sviluppo rurale

Programma di sviluppo rurale

2014IT06RDRP006: Italy - Rural Development

Programme (Regional) - Liguria

Parole chiave

Farming/forestry competitiveness and diversification

Supply chain, marketing and consumption

Landscape /land management

Energy management

Forestry

Sito web

<http://www.legnoa360.it>

Project status

ongoing



### Objectives

The project proposes the creation of an integrated sustainable forest management system, with a prevalent productive function and supported by a local supply chain system, through the creation, in a single site, of a 360 ° timber utilization center (from structural timber, to thermo-treated wood, to the reuse of woody biomass for energy, etc.) with the aim of planning and rationalizing the silvicultural activity in the area, increasing the value of local wood, obtaining management economies, revitalizing cooperation between local companies, providing a virtuous model to be applied in other Ligurian realities.

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### Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	VERTICAL GREEN S.S.	Via Balletto 17 16021 Bargagli GE Italy		verticalgreen.agr@gmail.com
Partner	Università degli Studi di Firenze - Dipartimento di Scienze e Tecnologie Agrarie, Alimentari, Ambientali e Forestali (DAGRI)	Piazzale delle Cascine, 18 50144 Firenze FI Italy	055 2755700	direttore@dagri.unifi.it
Partner	Ente Parco Aveto	Via Carlo Marrè 75/A 16041 Borzonasca GE Italy	0185 340311	direttore@parcoaveto.it
Partner	Comune di Torriglia	Via al Municipio 16 16029 Torriglia GE Italy	010 944038	lavoripubblici@comune.torriglia.it
Partner	FORMA	Viale Millo 9 16043 Chiavari GE Italy	0185 306311	info@enteforma.it
Partner	Balicco Osvaldo	loc. Alpicella 86 16049 S.Stefano d'Aveto GE Italy		funghietartufi@libero.it
Partner	Cooperativa Alta Val D'Aveto	loc. Casoni di Amborzasco, 11 16049 S.Stefano d'Aveto GE Italy		info@coopaltavaldaveto.it

### Pratiche abstract

#### Description

"The VERTICAL GREEN proposal involves an integrated and complete system of sustainable forest management, with a prevalent productive function and inserted in a local short supply chain system, aimed at maximizing and diversifying the treatment of timber resulting from cuts in a single integrated processing center. .

The idea is to create, in a single site, a 360 ° wood utilization center, able to enhance it from higher quality productions to

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processing waste, maximizing revenues and creating synergies and economies between the various components of the plant and the processes implemented therein.

A fundamental principle is to provide an integrated and complete center but small in size so as to be manageable by local businesses with local resources.

In fact, the availability of a single center for the delivery of wood and the possibility of using it in a diversified way (from waste wood to better quality wood) also allows for a different approach to silvicultural interventions and above all the logging and transport phases, differentiating the assortments (long timber for joinery and structures, short timber for firewood and wood chips, etc.) and using it in all its parts.

Delivered in the center, the timber will be sorted to the various plants and also the waste materials from the processing can be reused and valorised (e.g. the sawdust resulting from the sawing operations will be transformed into pellets), according to a virtuous model already applied abroad. .

Within the center, systems are also envisaged for the economic enhancement of the production of sawn products (heat treatment), certainly not very common in the Ligurian territory"

### Description

LOCAL FOREST COMPREHENSORY STUDY FOR THE SUPPLY OF BIOMASS FOR INTEGRATED PROCESSING CENTER - In the Ligurian forestry chains, low-quality wood has no possibility of economic locations; the use as forest biomass for energy purposes is a point of innovation in Liguria, for an economic enhancement of these productions, with a replicable model.

The timber procurement plan for the cogeneration plant, based on a local supply chain in the Sturla and Aveto Valleys, will require timely operational phases and consequent documents:

- precise definition of the area;
- individuation. forest types, structures, forms of government, indicative commissions, current status, etc.
- definition of the land regime (public, private, collective ownership)
- identification of the territorial structure and infrastructures (accessibility, practicability, morphology, etc.)
- organization of local forestry and primary processing companies
- assessment of the availability of biomass and wood, with identification of the retractable assortments
- verification of the potential for effective withdrawal of the wood mass and evaluation of retractable assortments
- evaluation of silvicultural management techniques and intervention systems
- subdivision of the territory into homogeneous subdivision units and sized for the regular supply of biomass
- drafting of the plan of silvicultural interventions for biomass withdrawal
- drafting of a plan of the infrastructural interventions necessary for silvicultural operations, according to the logging and biomass transport techniques

### Description

"How to organize the LOCAL FOREST CHAIN. The procurement process of the timber at the center for the diversified processing of the assortments (sawmill timber, fuel biomass, etc.) must go through the establishment of a local supply chain process, in which they must be involved, with the coordination of the lead company , actors operating in the forestry sector and / or entities and private owners of forest areas.

For the purposes of innovation planning, the following activities will be carried out:

- initial activities of presentation and sharing of the project to local stakeholders, with the aim of directly involving the interested parties and creating local animation processes
- activation of agreements (memoranda of understanding, conventions) with public bodies (maintenance of wooded areas along the relevant roads, waterways, etc.)
- activation of agreements with public bodies that own public bodies that own forest areas for the planning of timber harvesting, also in execution of level III planning tools (forest management and settlement plans)
- involvement of interested private owners, through the signing of contracts for the purchase of timber and / or continuous management, programmable over time
- search for forestry companies in the territory of the supply chain, with the creation of partnerships for the entire procurement process and / or for parts of it (transport, logging, construction of service infrastructures)

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- creation of a technical structure to support the supply chain processes and their planning and organization, in order to create continuity of supply"

### Description

"An innovative aspect for the local reality of the forestry sector in Liguria is represented by the CONSULTANCY AND TECHNICAL-SCIENTIFIC SUPPORT activity for the achievement of the objectives of integrated wood processing and management for energy purposes, through:

- proposals for the implementation of the first wood processing (potential, equipment, product differentiation)
- proposals of innovative products, with a low industrial rate, for the use of local wood, for the diversification of company productions
- identification of the potential for structural use products, in line with local uses (wood species, derivable products, visual and machine classification, CE marking, company certification and accreditation by STC of the CSLLPP)
- organization of processes and treatments for the improvement of production cycles and the optimization of products (natural seasoning, artificial drying, impregnation treatments and heat treatments based on the available equipment)
- advice on the use of wood waste for energy purposes (biomass for energy) for internal use and / or for marketing
- any indications of reuse of pyrogasification waste products (biochar)
- proposal of a product accompanying system with an indication of the contribution to carbon storage (carbon sink) per unit of product for the promotion and enhancement of supply chain products
- consultancy in the preparation of the timber procurement plan and in the organization of the wood supply chain
- consultancy in the collection of time and cost data in the silvicultural and first processing phase"

### Description

"Carrying out TIMES AND COSTS SURVEYS for the procurement and initial processing phases of the timber, which is considered a fundamental moment for the correct planning of silvicultural activities and for the use of waste materials. During the sampling operations scheduled in the project in Val Trebbia and Val d'Aveto, it is planned to carry out the survey on the ground of the following phases:

silvicultural operations:

- operations for selecting candidates for cutting
- abatement
- delimbing, de-cutting, preparation of assortments
- roundwood and twigs concentration
- logging
- chipping of twigs, tops, miniature assortments, etc. in the woods
- loading and transport to the sawmill

first transformation

- unloading and storage
- chipping on the forecourt

Data collection and time checks will allow to analytically define costs and therefore foresee any corrections of the intervention method and machines, in order to optimize all phases and maximize revenues. Referring to small businesses, this is an innovative process that can be extended to many other Ligurian realities"

Link utili

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Titolo/Descrizione	Url	Tipologia
Sito web del progetto	<a href="http://www.legnoa360.it">http://www.legnoa360.it</a>	Sito web
Canale Youtube dedicato a progetto LEGNOa360°	<a href="http://www.youtube.com">http://www.youtube.com</a>	Materiali utili