



Generating an online IT platform/market place for the revitalization of abandoned chestnut orchards in South Italy (Italy)

The concept:

Chestnut orchards in southern Italy are valuable, legacy forests that have fed generations of Southerners and have a very large potential, given their large extension, adaptation and general resilience to adversities. They have been hit by several major pests since the early 1900s and they have always reacted and survived – one can take the ink disease, the bark canker and the Chinese wasp as examples of their resilience. They are still there, and they still grow and produce. Since they produce primarily food, they are almost all family forests – privately owned, fragmented and often under multi-owner management due to heritage laws. The main issue with those forests is that they were abandoned – like many similar chestnut orchards in Italy. In Tuscany and Piedmont, abandonment is partly mitigated by the fact that people emigrated to urban centers in the same region, and quite a few of them can still manage an extensive crop like a chestnut orchard. The situation is more complicated in the South because emigration occurred towards a completely different part of the country – generally in the North – some 10 or 12 hours car drive away from the family property.

An online IT platform that enables and facilitates the encounter of remote orchard owners on the one hand, and local service providers on the other hand, might stimulate the interest of the owners for their property. The fundamental idea is that by professional management of those stands, the owners could accrue an income. Besides, it might contribute to the rural development via important environmental and social benefits, that is: land management in a landscape that is prone to fire and erosion, landscape beautification, and employment in a local economy that offers very few employment opportunities to young locals. This way, it might slow down the emigration and brain drain of young people from these regions.

Feasibility:

Numerous abandoned chestnut orchards are available in Southern Italy, where many young people are currently unemployed and in search for interesting jobs. The region is rather traditional and therefore in favor of safeguarding and re-activating a traditional patrimony like chestnut orchards. These are strong favoring factors in this connection.

Viability:

Currently, many of the orchards of interest are managed according to outdated business models and with the assistance of obsolete technology. Through the optimization of existing value chains for wood and nuts, and the creation of complete modern operation processes, the revenue for the orchard owners will be maximized.

Contribution to regional bioeconomy:

Several local businesses will be involved in the described activity. Along with the basic work steps presented here (registration of the orchard owner on the online platform – service announcement from the side of the orchard owner – matching between orchard owner and service provider – execution of the agreed activity – payment), a range of tasks must be fulfilled which require the engagement of many local actors. As already mentioned, besides the core stakeholders (orchard owners, service providers, operators, and people from sales units), two further sectors might benefit: tourism, and local power generation plants.

Possibly other facilities from there can be developed, such as an association of emigrant and resident chestnut orchard owners that guarantees efficiency, transparency and fair redistribution of expenses and revenues.

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<p><u>Key Partnerships</u></p> <ul style="list-style-type: none"> • Owners of chestnut orchards • Orchard service providers • Technology providers: machinery rings, IT-companies • Logistic partners: transport companies, cooperatives • ORC-based (for the low-temperature steam generation) power plants (energetic use of the pruning residues) • Local authorities • Nurseries 	<p><u>Key Activities</u></p> <ul style="list-style-type: none"> • Development, establishment and maintenance of the online IT platform • Planning of required services: procurement of plant material, orchard re-establishment, rejuvenation, silvicultural treatment (choice of provenance, definition of rotation, stem density, eventually mixture with other species e.g. trainer trees or trees for the production of structural timber, horizontal and vertical structure), grafting, pruning, fruit harvest, tree felling • On-site operations with adapted machinery • Marketing of products • Workshops with remote owners for feedback collection 	<p><u>Value Propositions</u></p> <ul style="list-style-type: none"> • Income for the small-scale orchard owners • Emotional benefits for remote orchard owners by getting in touch with their place of origin/family roots • Income for local economy: service providers, contractors for orchard and forest operations, nurseries, etc. • High-quality chestnuts to purchase for customers, at a reasonable price, by rationalizing the value chain • Biodiversity values • Protection from natural hazards (erosion, forest fire...) • Prevention against pests and pathogens (vital trees as an ecologically stabilizing element in the landscape) • Carbon sequestration and storage • Aesthetic/recreational values • Traditional values (orchards as a legacy in these regions) • Touristic attraction (e.g. the sweet chestnut soup in Calabria originates from the ancient Romans, and is famous); Other regions in Italy are famous for types of wine, these regions could become renowned also for the top quality of chestnuts and the availability of ancient varieties 	<p><u>Customer Relationships</u></p> <ul style="list-style-type: none"> • Emigration lists from local authorities • Land register • Word of mouth • Relationship between orchard owners and service providers via the online IT platform • Relationship between service providers and customers (wholesale trade, retail trade, power plants) 	<p><u>Customer Segments</u></p> <ul style="list-style-type: none"> • Local specialists with expertise in forest and orchard management • Local machine operators • Local forest workers • Tourism • Local trade • Local power plants with ORC device
	<p><u>Key Resources</u></p> <ul style="list-style-type: none"> • Internet access by the orchard owners • Availability of abandoned orchards • Information network to identify potential clients i.e. emigrated owners, e.g. by emigration lists from local authorities etc. • Machinery: excavator, mulcher, rotovator, drill borer, feller-buncher, forest tractor, mobile chipper, transport trailer etc. • Regeneration material (seeds, seedlings, grafted plants) • Facilities for the product sales 		<p><u>Channels</u></p> <ul style="list-style-type: none"> • Sales units • Commercial registers • Online IT platform 	

Cost Structure

- Labour costs, equipment, maintenance, administration and paperwork

Revenue Streams

- Sale of services and subsidies
- Sale of products: chestnuts, pruning residues, firewood, wood for furniture, carbon credits
- Eventually public funding

THE PARTNERSHIP



Italian Biomass Association



ABOUT BRANCHES

BRANCHES is a H2020 “Coordination Support Action” project, that brings together 12 partners from 5 different countries. The overall objective of BRANCHES is to foster knowledge transfer and innovation in rural areas (agriculture and forestry), enhancing the viability and competitiveness of biomass supply chains and promoting innovative technologies, rural bioeconomy solutions and sustainable agricultural and forest management.

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