

Addressing Climate Challenges through the Valorisation of Calamity Wood in the Alps-Adriatic Region

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The WoodInnovate project addresses pressing challenges facing the forest-wood value chain in the Alps-Adriatic region, which are intensifying due to climate change. Rising temperatures and frequent natural disasters are degrading wood quality and increasing pest outbreaks, particularly from bark beetles. These environmental shifts jeopardize forest ecosystems, reduce the economic viability of timber harvesting, and compromise regional sustainability. WoodInnovate aims to assess and enhance the utilization of storm- and pest-damaged wood through advanced modification techniques, innovative product design, and strategic cross-border collaboration. The project explores climate-resilient tree species and determines optimal uses for lower-grade wood. Stakeholder involvement is essential, including academic institutions, forestry clusters, and industry partners from Italy and Slovenia. Activities include pilot tests, prototype development, knowledge transfer, and regional workshops. The ultimate goal is to transform wood waste from environmental catastrophes into valuable resources, fostering a circular economy and reinforcing forest resilience. The project contributes to climate adaptation strategies while promoting economic revitalization through sustainable material innovation. By enabling cross-sector collaboration, WoodInnovate not only strengthens the forest-wood value chain but also supports EU green objectives, making wood from damaged trees a tool for environmental and social progress.

Keywords: climate change, damaged wood, sustainable forest management, innovative wood utilization, cross-border cooperation

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