



PRACTICE ABSTRACT

Use Case and Showcase technology

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KEEPING TRACK OF YOUR TIMBER

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To strengthen forest biodiversity, the Austrian start-up [BeetleForTech](#) is providing ways to seamlessly trace single pieces of roundwood throughout the world. The solution developed in-house is based on mobile devices for tagging freshly logged trees on-site, dedicated scanning devices at the wood processing facilities, GNSS technology for the registration of the geolocation of trees, satellite data for verification and cloud infrastructure for centralized storage of relevant information to allow querying for data. Transmission of data is based on mobile (cellular) technologies.

To provide global traceability of roundwood that strengthens forest ecosystem resilience, the involvement of loggers, traders and processors is needed. **Tagging** (task 1), is carried out by the loggers on-site and allows to identify single trunks of roundwood. At the wood processing facility, after the arrival of the individual logged trees, the previously attached tag is automatically registered using a digital scanning technology; a process known as **Registration** (task 2). Additional information, e.g., the transport route provided by the operators and traders, is linked to each registered tree automatically within the system; this phase is referred to as **Combination** (task 3). Finally, the **Verification** (task 4) assesses the legality and origin of a single piece of roundwood by performing a query of the database of the cloud infrastructure.

Forests and their importance in the global carbon cycle, as well as deforestation-free supply chains, are now being actively debated. A system of global roundwood traceability could play a key role in fighting illegal logging activities. The positive impact would be a decrease in the loss of biodiversity, resulting in a more sustainable future for society. A lack of financing or support, as well as the high costs of system development and maintenance, are significant roadblocks to worldwide roundwood traceability systems.

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<p>Living Lab</p> <p>Round Wood Traceability</p>
<p>Use case statement</p> <p>Provision of global roundwood traceability</p>
<p>Key Digital Technologies and Actors</p> <p>GNSS, satellite data, tagging and scanning devices, cloud infrastructure, mobile broadband; loggers, operators and traders, processors</p>
<p>Keywords</p> <p>traceability, roundwood, illegality, biodiversity, deforestation, supply chains</p>
<p>More info: Living Lab Austria</p>

