Terminology of material recovery of post-consumer wood and wood residuals

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Version 1, December 11 2025

Berner Fachhochschule
Haute école spécialisée bernoise
Bern University of Applied Sciences

Flagship
unterstützt von

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Innosuisse – Schweizerische Agentur für Innovationsförderung

Imprint

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Architecture, Wood and Civil Engineering AHB
Institute for Materials and Biobased Products IBBM
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Innosuisse Flagship Think Earth – Regenerative Construction
This study was carried out with the support of Innosuisse and the following project partners: Brawand Zimmerei AG, ETH Zurich, OLWO AG, Pirmin Jung Schweiz AG, Schneider Umweltservice AG, Stadt Zürich Hochbauamt and Swiss Krono AG.

Suggested Citation
Fuchs P., L. Seidl, H. Thömen (2025). «Terminology of material recovery of post-consumer wood and wood residuals». Glossary. Bern University of Applied Sciences, Institute for Materials and Biobased Products, Biel

Correction of the translation by
Christopher Holmes, BFH, IBBM

Cover Image
Image source: Patrick Fuchs, BFH, IBBM

Introduction

In the Innosuisse Flagship Think Earth subproject 5, the Bern University of Applied Sciences, together with ETH Zurich and various industry partners, is investigating the recycling and reuse of wood. It became evident that neither within the project nor in discussions with external stakeholders does a unified terminology exist for the material recovery of post-consumer wood and wood residues. This lack of consistency repeatedly led to misunderstandings. To establish a common basis for the key terms, an overview graphic (Figure 1) and a glossary were developed during the project. The definitions in the glossary were compiled from various sources, discussed within the project team, and broadly agreed upon.

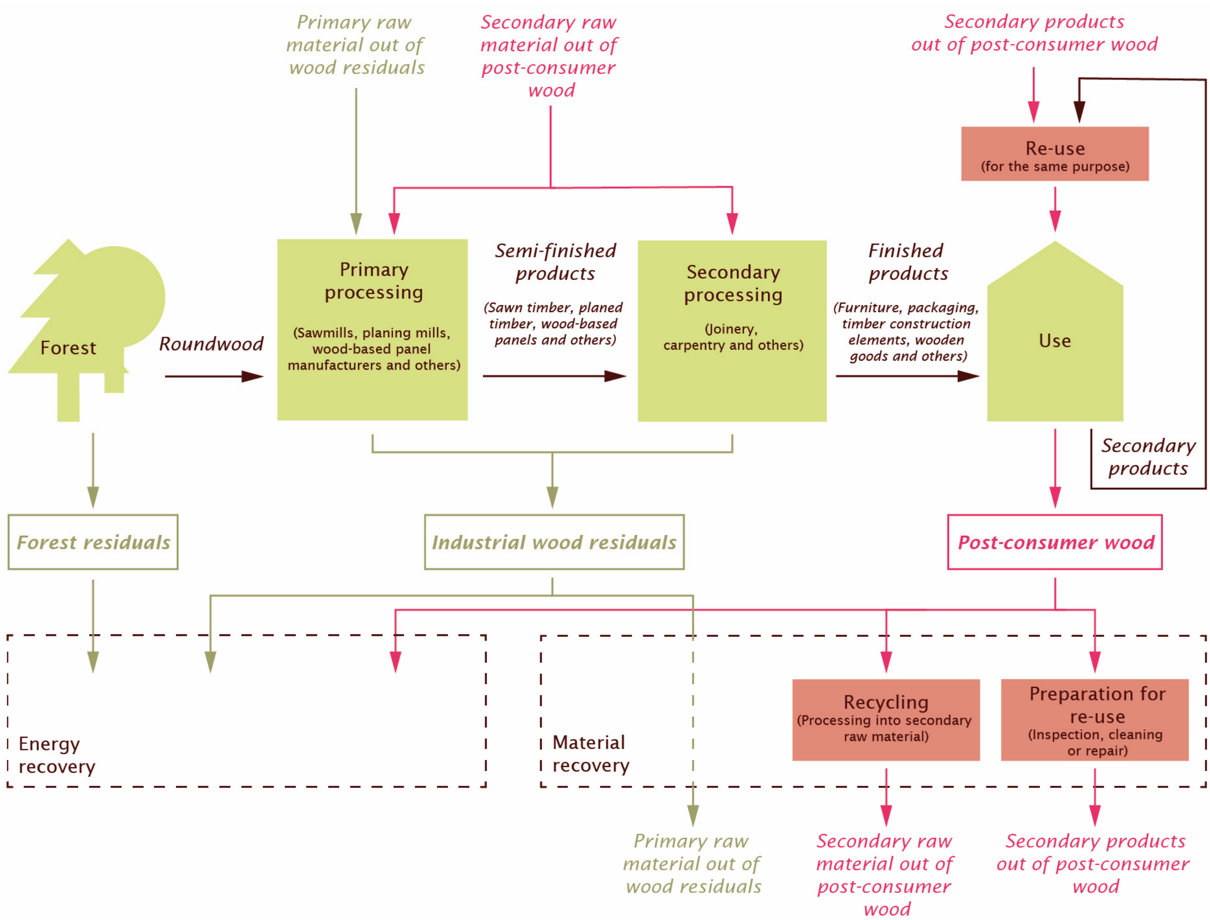

Figure 1: Relationships and definition of terminology for the material recovery of post-consumer wood and wood residuals.

Glossary

Post-consumer wood
(DE: Altholz, FR: Bois usagé)

Also used wood: «Wood that has already been used for a particular purpose and is available for a subsequent use cycle. This includes, for example wood recovered from the demolition of buildings or disposal of furniture and packaging. Depending on its origins, waste wood is left in its original state or treated» [7].

Finished products
(DE: Endprodukte, FR: Produits finis)

Products for final consumption (such as furniture, packaging, timber construction elements and wooden goods) [4].

Energy recovery
(DE: Energetische Verwertung, FR: Valorisation énergétique)

«Recovery process in which waste is used as an energy source during its disposal». Translated from [1].

Semi-finished products
(DE: Halbfabrikate, FR: Produits semi-finis)

Products from the primary processing stage (such as sawn timber, planed timber and wood-based panels) [4].

Wood preservative
(DE: Holzschutzmittel, FR: Produit de protection du bois)

«Substance used to protect processed wood from external factors». Translated from [6].

Cascade use
(DE: Kaskaden-Nutzung, FR: Utilisation en cascade)

«Cascaded and multiple use of wood and wood products, keeping them in the economic system for as long as possible to postpone their use for energy recovery». Translated from [6].

Circular Economy
(DE: Kreislaufwirtschaft, FR: Economie circulaire)

Circular economy is the prevention and recovery of waste [5].

Use
(DE: Nutzung, FR: Utilisation)

Usage phase of the finished products.

Primary raw material
(DE: Primärrohstoff, FR: Matière première primaire)

Raw material that has not yet undergone a usage phase and serves as a starting material for new products.

Recycling
(DE: Recycling, FR: Recyclage)

Material recovery process in which waste is processed by shredding or reshaping so that it can be reused as secondary raw materials for its original purpose or for another purpose [2].

Wood recycling rate
(DE: Recyclingquote Holz, FR: Taux de recyclage du bois)

Share of the annual material recovered post-consumer wood (domestically or abroad) in relation to the total annual amount of post-consumer wood generated in a country (excluding post-consumer wood imports) [8].

Wood residuals
(DE: Restholz, FR: Sous-produits du bois)

Divided in forest residuals and industrial wood residuals: Forest residuals: «Part of timber harvest that cannot be used as round wood, *i.e.* stems and branches that do not have the lengths and diameters required for the round wood assortment, and brushwood.» Industrial wood residuals: «Production residues such as wood shavings and sawdust from wood processing, for example, in sawmills, planing mills and carpentry workshops» [7].

Roundwood
(DE: Rundholz, FR: Bois rond)

«Stemwood, industrial wood, and energy wood assortments generated in the forest.» Translated from [4].

Wood collection rate
(DE: Sammelquote Holz, FR: Taux de collecte du bois)

Share of the annually collected and reported post-consumer wood in relation to the total annual amount of post-consumer wood generated in a country (excluding post-consumer wood imports) [8].

Secondary products
(DE: Sekundärprodukte, FR: Produits secondaires)

Products that are prepared or directly brought back for re-use.

Secondary raw material
(DE: Sekundärrohstoff, FR: Matière première secondaire)

«Raw material that is recovered through recycling and serves as a starting material for new products.» Translated from [6].

Material recovery
(DE: Stoffliche Verwertung, FR: Valorisation matière)

«Any recovery operation, other than energy recovery and the reprocessing into materials that are to be used as fuels or other means to generate energy. It includes, *inter alia*, preparing for re-use, recycling and backfilling» [2].

Contaminants
(DE: Störstoffe, FR: Contaminants)

«Inorganic or organic non-wood substances, in particular soil material, stones, concrete, metal parts, paper, cardboard, textiles, plastics, or films that adhere to, are mixed with, or connected to the waste wood, insofar as they hinder recycling.» Translated from [3].

Recovery
(DE: Verwertung, FR: Valorisation)

«Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy» [2].

Preparation for re-use
(DE: Vorbereitung zur Wiederverwendung, FR: Préparation en vue de la réutilisation)

«Recovery process in which waste is prepared through treatment steps such as inspection, cleaning, and repair so that it can be reused.» Translated from [1].

Re-use
(DE: Wiederverwendung, FR: Réutilisation)

«Process in which items and their components that are not waste, or have lost their waste status after undergoing a recovery process, are reused for the same or a comparable purpose for which they were originally intended.» Translated from [1].

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