Stakeholder-oriented article no 3

Studying the demolition process of buildings

Why are we study the process of demolition?

Currently, the use of recovered wood and wood products from demolition as a secondary resource is neglected in most European countries. Instead, most recovered wood from demolition is landfilled or used for energy generation and thus lost for a further use in material applications despite the fact that it has a high intrinsic resource value. This situation will be further aggravated in the future by the decreasing availability of softwoods, the main resource for current wood and wood products within buildings, caused by climate change. It is thus necessary to increase the resource efficiency of wood use in the built environment as also suggested by several EU initiatives and national regulations.

One strategy is to recover useable wood and wood-products from demolished buildings and reuse the material in a cascade before using it for energy generation.

Current demolition practices, however, prioritize the speed and cost of demolition over the recovery of wood suitable for re-use or re-processing in solid form. Consequently, much of the materials' utility is lost through breakage and contamination with non-wood materials, or ignored through lack of proper segregation on-site.

Why are we studying the motivations of demolition contractors?

If we want to increase the resource efficiency of wood use through cascading, we are facing a "chicken and egg" situation. Without a market for cascaded solid wood products, there is little incentive for demolition contractors and waste recyclers to recover wood intact and segregate it properly, and without classification of good condition solid wood from demolition, there is no material to create that market! To try to overcome this impasse, we are studying the demolition process from offer to delivery and engaging with demolition professionals and experts to understand both the demolition process itself and the motivations of demolition contractors. We hope that by understanding the demolition process we will be able to identify ways of recovering a higher proportion of material from the demolition process suitable for cascading and consequently enable the development of a market for recovered solid wood.

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