



POLITECNICO
DI TORINO

Honors thesis

Master of Science in Sustainable Architecture

Abstract

**Study of a new insulation board for buildings, made of
shredded rice straw and plant-based binder**

Tutor

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by

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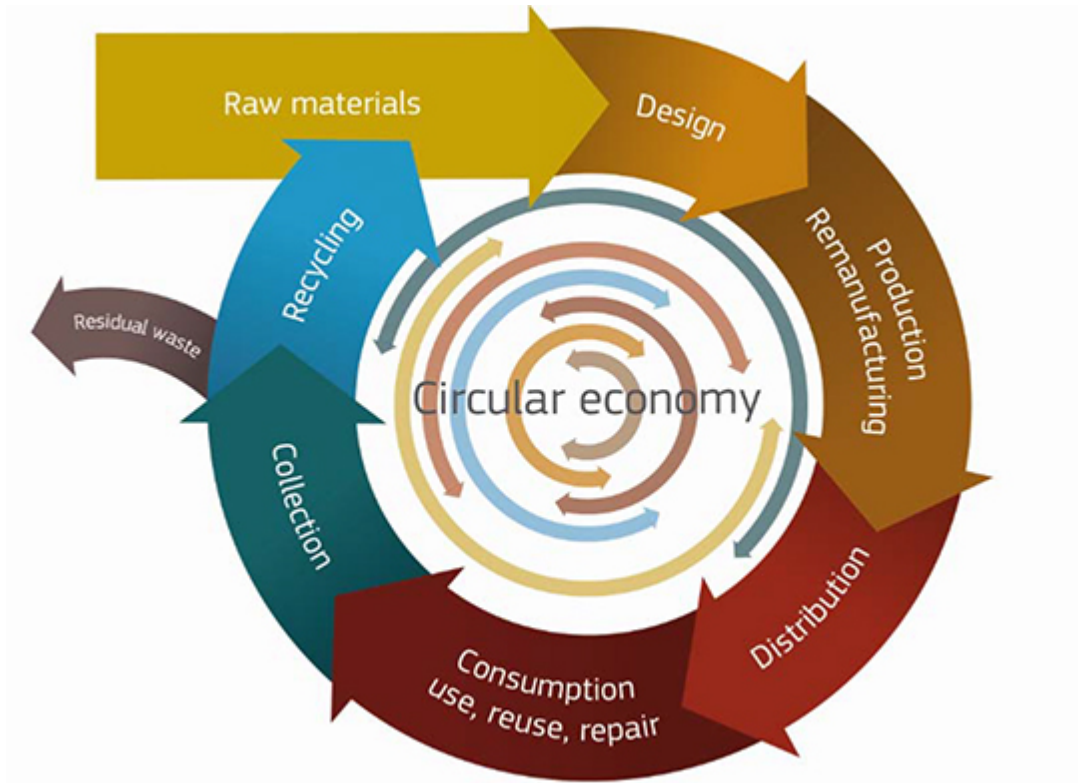
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The market of building insulating products supplies several options. However, a solution both economic and environmentally sustainable is actually missing, especially in the decommissioning phase.

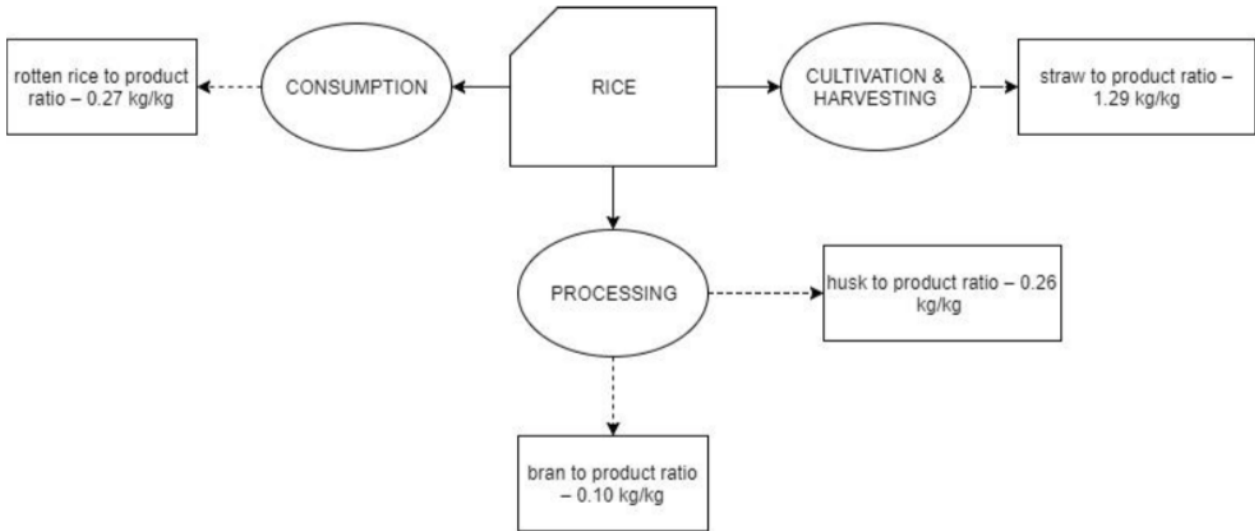
The objective of this study, carried out in collaboration with RiceHouse srl, is the search for a new, recyclable and compostable insulation board, made of shredded rice straw and polylactic acid.

Before the above background, fibers, rice and its by-products, and bioplastics were treated and analyzed. Thanks to the help of two companies, two different samples were produced. This made successfully possible to carry out a qualitative comparison, set out in the last part of this thesis.

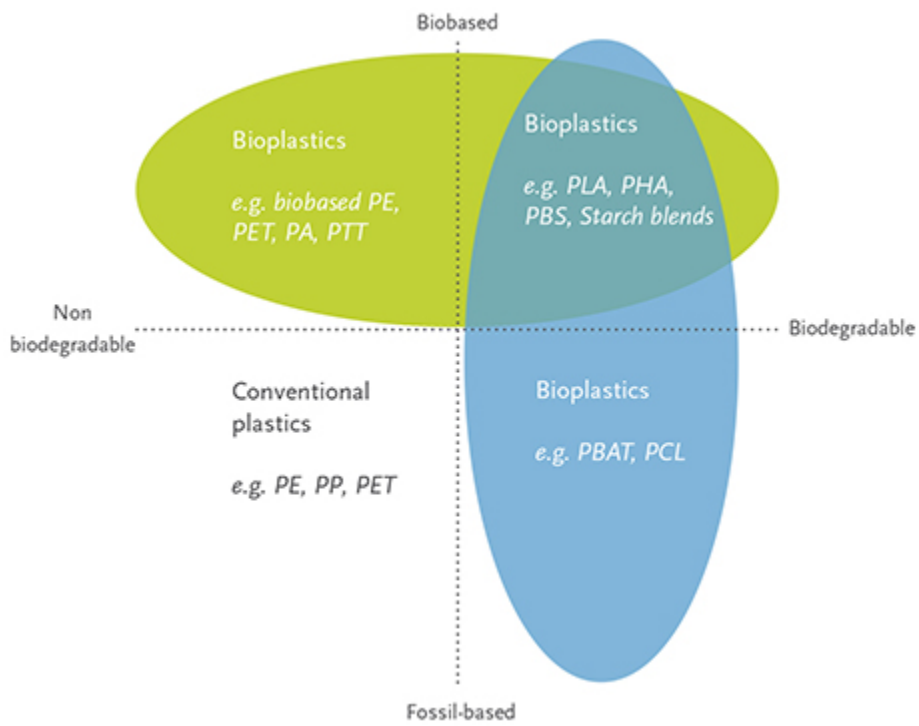
Future research may resume and further explore this theme with the aim of finally placing the product on the market.



Source: COM(2014) 398 final/2



Source: Agrocycle



Source: European Bioplastics