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## HOW TO TURN CAR FLUFF PROBLEM INTO AN OPPORTUNITY

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### Abstract

Car fluff is an important problem for the industrial compartment, especially for Italy, considering the huge amount of waste produced by the automotive sector, approx. 180.000 ton/year. Although car fluff (CER 191004) is suitable for CSS-Combustible production, with destination to cement factories, a very low amount of it reaches this destination.

An alternative way to transform this problem into an opportunity consists into the transformation of bioliquid after its thermo-chemical transformation (Reach qualified), applicable to the advanced fuel market as well as for the green bio-chemistry plants, transforming a typical destruction cost in the range of 150-200 €/TON (Lombardy region, Italy, internal market data) into an income of 700€/TON (internal market data), as well as the closing of the circular economy cycle.

A typical car fluff quality range will be defined in order to select only suitable car fluff for the process transformation; a mass balance and a treatment scheme will demonstrate the proposed solution. A case study with economical information and basic BP completes the presentation.

*Key words:* car-fluff, pyrolysis, circular economy, chemical material recovery, biorefinery, pyrolysis oil

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