Short report

CORONET SpA

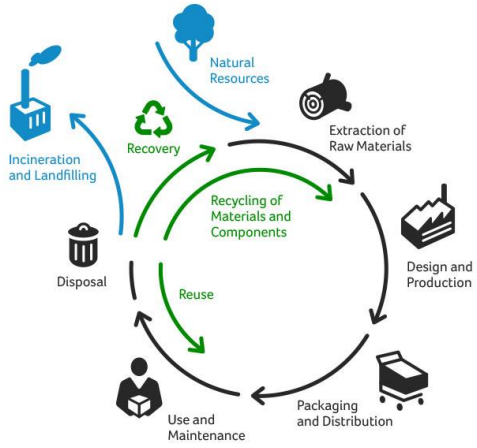
Redacted for: Coronet S.p.A.,

Coronet Spa LCA main data

Objective

Coronet SpA wanted to analyze the life cycle of their products to assess their environmental performance. The analysis was aimed at assessing the possible environmental impacts arising from the production cycle by comparing in particular the production of fabrics from fossil plastic compounds with those produced from renewable sources (biobased).

For the purposes of comparison, the confines of the system are identified in the modeling of the impacts of raw material, production and transport. Therefore, the applied approach proves to be a "cradle-to-gate" type of analysis (i.e. along the whole production process)



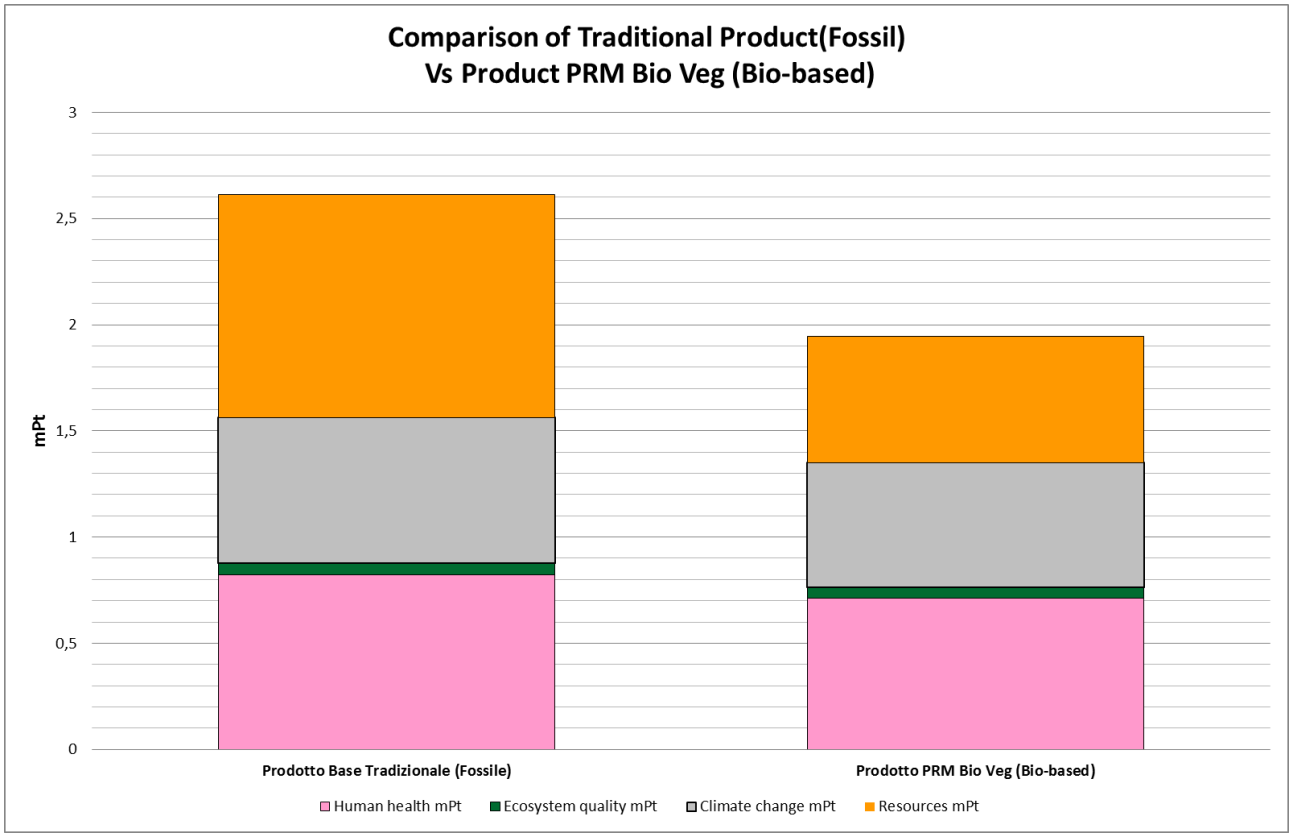
The impacts were quantified using the IMPACT 2002+ life cycle impact assessment methodology. The IMPACT 2002+ offers an intermediate solution between midpoint-oriented approaches (based on impact categories, such as CML and EDIP) and damage-oriented approaches (oriented to evaluation by damage categories, such as EPS and Eco-indicator 99), reducing the results obtained from the inventory analysis to fifteen impact categories.

This calculation method allows to visualize the results also in the form of "point(Pt)" or "millipoint(mPt)" and is an effective tool, as it allows to aggregate the results of an LCA in quantities or parameters easily understandable and usable, called Eco-indicators.

This method analyses four different types of damage (endpoints): *Human healt, Ecosystem quality, Climate change, Resource*.

To visualize the benefits of using a bio-based compound, a traditional finished product is compared with a fabric made from bio-based products with the same technical characteristics.

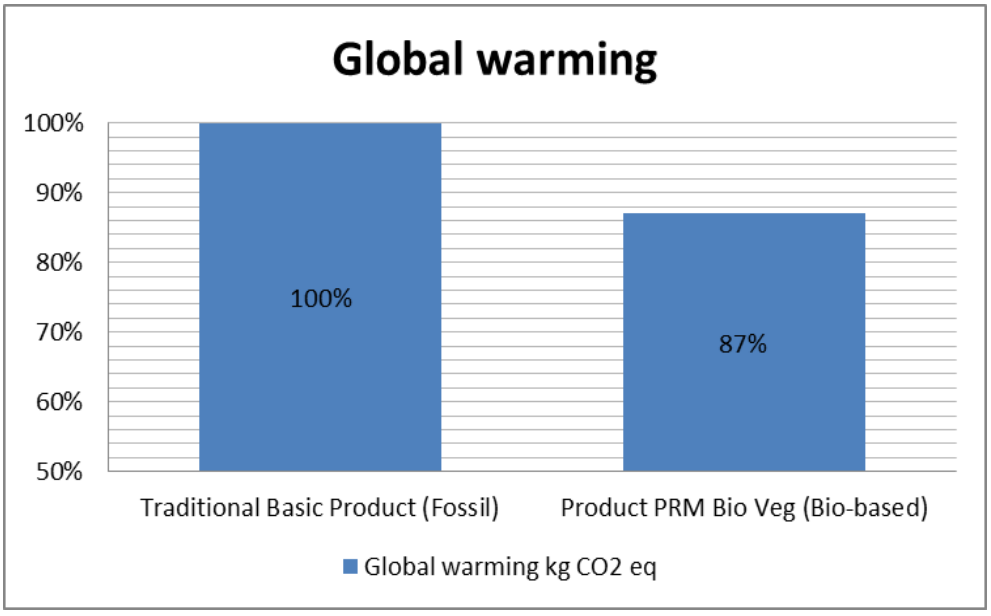
This graph shows the results grouped in Eco-indicators.



In particular, assessing several impact categories, we can verify some important reductions.

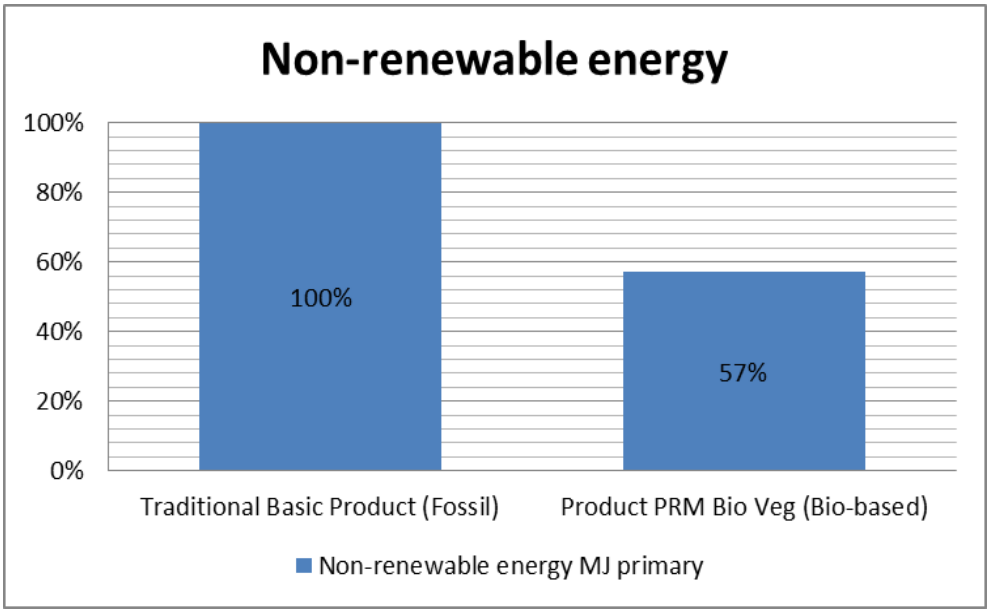
Global Warming Potential

The Global Warming Potential (GWP) characterisation factor is based on kg of CO2 equivalent and is used to measure the GWP (Global Warming Potential) of greenhouse gases, in other words their global warming potential. For the impact category GWP Global Warming Potential, the analysis of greenhouse gas emissions produced by a series of production using compounds from renewable sources (biobased) compared to the use of fossil compounds allows a reduction in CO2 emissions of about **15%** compared to synthetic products. We can therefore say that we have improved our Carbon Footprint by 15%.



Use of non-renewable resources

The new product PRM Bio-veg also allows significant reductions in terms of resource consumption, especially in the consumption of energy from non-renewable sources, which are significantly reduced by **44%** improving the environmental performance of the product.



Ozone layer depletion

Ozone layer depletion (geq CFC-11 in air): represents the depletion of the atmospheric ozone layer. This graph shows how the contribution of emissions contributing to the depletion of the atmospheric ozone layer is reduced by **32%**.