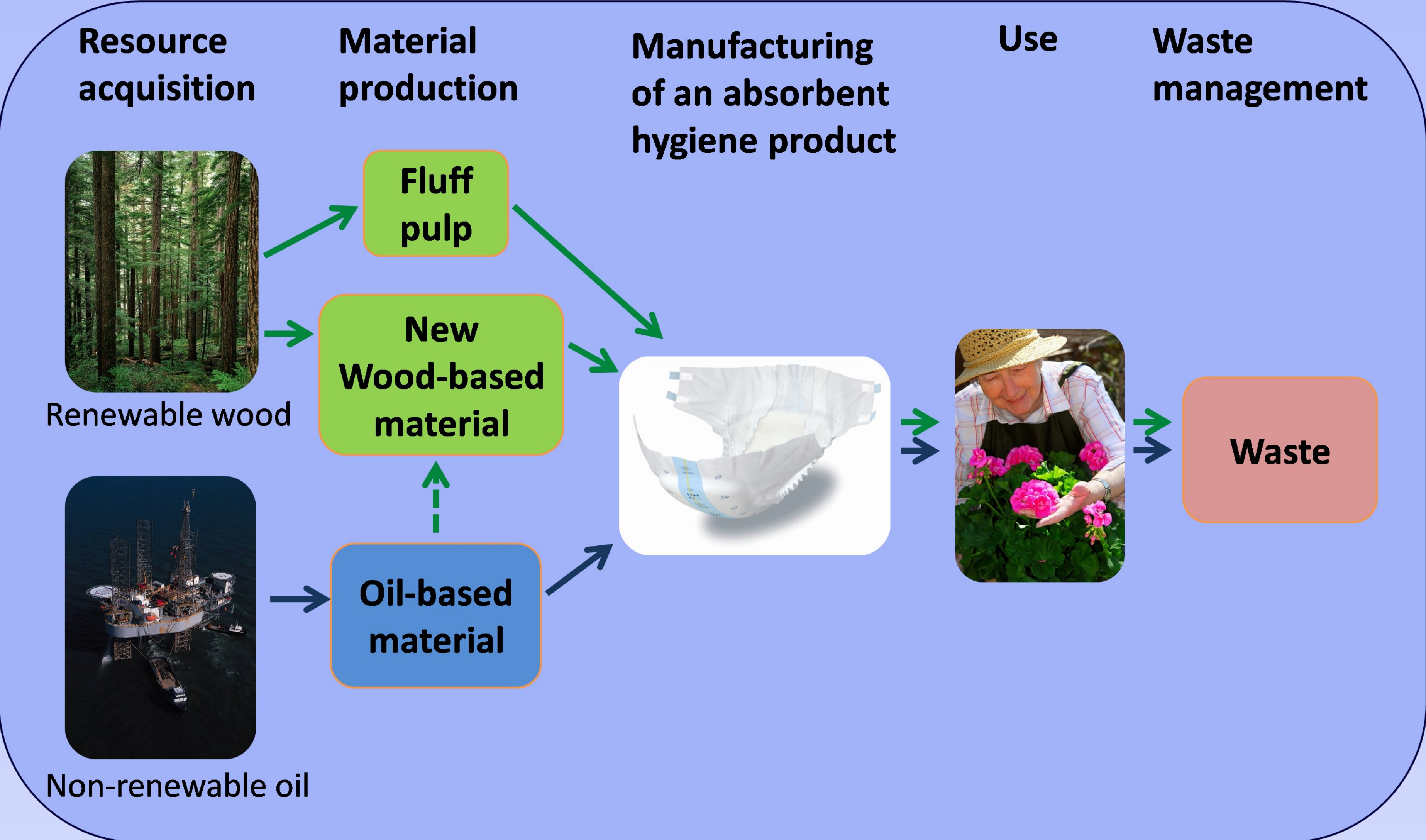
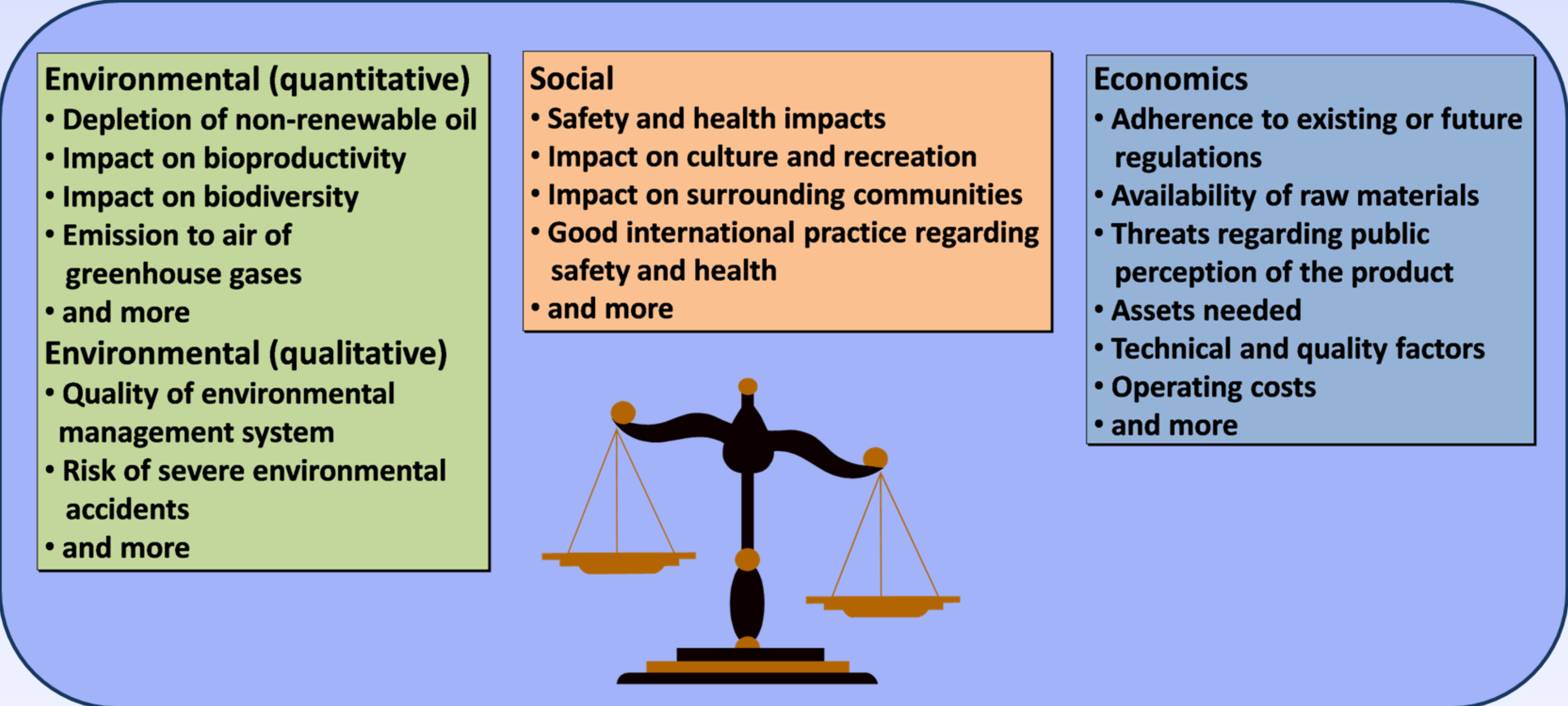


Comparing the sustainability of using a non-renewable oil based material in an absorbent hygiene product with that of using a renewable wood based material



The sustainability of a product is dependent on management during its entire life cycle (above) . The new wood-based absorbing material with different raw material origin will e.g. impact all the phases of its life cycle, not only resource acquisition but also material production, manufacturing of product, use and waste management.

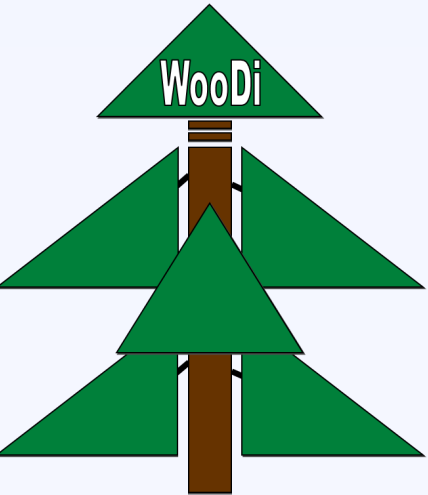


Many different sustainability criteria have been used in different product evaluations, see some examples above. None of these can by themselves describe sustainability performance, but can provide input to a sustainability assessment. The need for a systematic approach in defining and assessing sustainability is obvious.

Aim
The overall aim of the WooDi project is to make a new absorbent hygiene product that is more sustainable than today's product, by replacing non-renewable oil-based material with renewable wood-based material.
This calls for a way to compare the sustainability of using different materials.

Some results from the literature study
•Comparisons of fossil fuels and bio-fuels focus almost exclusively on greenhouse gases
•Backcasting procedures can be used to define relevant sustainability aspects
•Forest management systems cover maintenance of biodiversity and bioproductivity, but do not involve quantitative figures directly comparable with crude oil production
•There are diverse weighting/valuation methods for Life Cycle Impact Assessment (L CIA), but they do not include land use in situations with strong land availability constraints

Conclusion
There is no readily available method for comparing the sustainability of non-renewable oil and renewable wood as raw material in products.
There is a need for a systematic approach in selecting criteria appropriate for a specific product as well as integrating and evaluating results regarding the set of criteria used.



The WooDi project - the Wood based Diaper, is a research collaboration between industry and university.

