AIAG
Automotive Industry Action Group

SUPPLIERS PARTNERSHIP FOR THE ENVIRONMENT

Measuring Renewable Content of Automotive Products

Guidance Document

January 2022

Established Scope

- The Suppliers Partnership for the Environment (SP) Materials Efficiency Work Group (MEWG) works to promote collaboration amongst automotive manufacturers and suppliers to increase use of sustainable practices, processes, and materials in the production and content of vehicles, and to incentivize sustainable innovation.

- While there are established definitions of certain key terms related to the topic of sustainable materials that have been developed by other organizations, investigation by SP indicates a range of definitions and interpretations of such terms may be in use across industry today. We are not aware of any organization that has developed a commonly accepted definition of key terms for measuring the use of sustainable materials in the automotive industry to date.

- Therefore, an SP MEWG Sustainable Materials Definitions Sub-team was formed with the objective to develop straightforward common definitions of key terms related to sustainable materials to minimize duplication of effort and promote consistent approaches in communications with suppliers, sustainability reporting and measuring industry progress.

- SP is collaborating with AIAG in the development of these definitions to promote common, consistent language across industry.

- The purpose of this guidance document is to outline a common industry-supported definition and approach for measuring renewable content of automotive products consistent with those approaches outlined in other standards. An accompanying guidance document related to recycled content has also been developed.

Next Steps: Going forward, the SP MEWG Sustainable Materials Definitions Sub-team intends to build on learnings from this process to address common definitions for additional aspects of sustainable materials where needed.

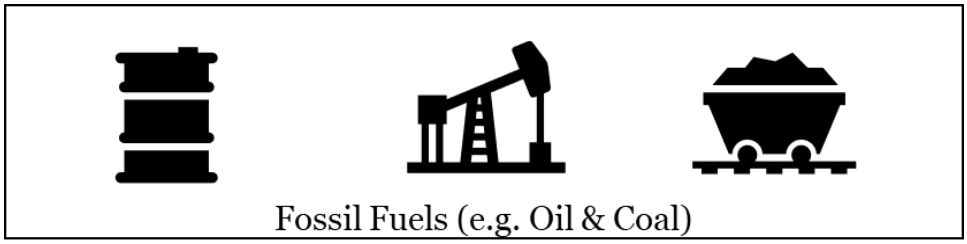
I. Defining Renewable Materials

Renewable Materials are natural resources that can be replenished at a rate equal to or greater than the rate of depletion with proper management.

Examples of renewable materials can include:

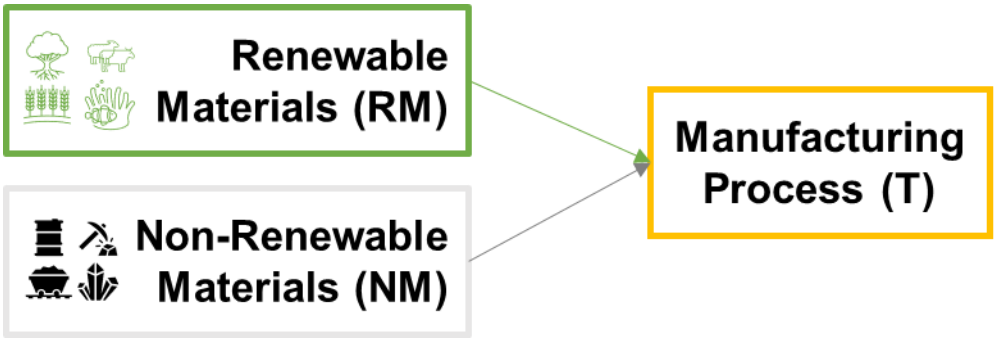
Non-Renewable Materials are finite natural resources that are depleted with use or that can only be replenished by natural cycles that are relatively slow at human scale.

Examples of non-renewable materials can include:



II. Measuring Renewable Materials

Product Renewable Content represents the proportion of renewable material, by mass, incorporated in the process.



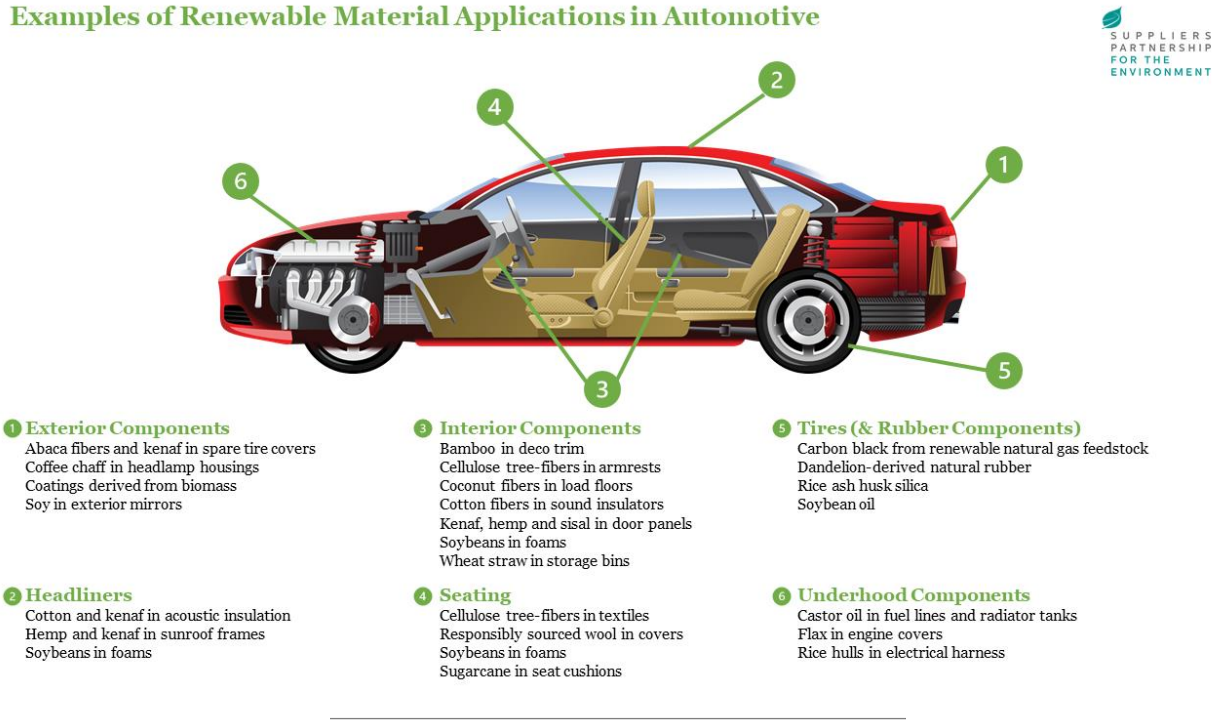
$$\mathbf{X}\ (\%) = \frac{\mathrm{RM}}{\mathrm{RM+NM}}$$

$$\text{Total Material Input to Process. T} = \mathrm{RM+NM}$$

Additional Considerations for Measuring Renewable Content

- Where a claim of renewable content is made, the percentage by mass of renewable material (dry weight) to the total mass shall be stated.
- To determine renewable content of a multi-material product, each material that goes into a product should be evaluated individually and the result of all materials summed to determine the total proportion of renewable material in the finished product. Companies should be transparent in reporting their calculation methods, including any estimation or assumptions, and maintain data necessary to substantiate reporting for each material.
- The percentage of renewable content (mass fraction) for products and packaging shall be separately stated and shall not be aggregated.
- Unless a company has substantiation for all express and reasonably implied claims, they should clearly and prominently qualify any renewable materials claims. For example, companies may minimize the risk of unintended implied claims by identifying the material used and explaining why the material is renewable.
- It is possible that an input material can be both renewable and recycled (e.g. cotton, paper). The percentage of each aspect shall be calculated and reported separately using the relevant calculation method.
- Note that this document focuses on manufacturing process inputs. While some losses may occur in the production process it is assumed that the output of renewable content will be the same as the input providing losses to non-renewable and renewable input materials are equivalent.

III. Automotive Renewable Material Applications



A few examples of renewable material applications commonly cited in industry sustainability reporting include:

- Soybean-based foams may be used in vehicle seating and headliners.
- Bio-based plastics and composites (composed in whole or part of plant material such as castor oil, corn, sugarcane, kenaf, wheat straw, rice hulls, coconut, bamboo, agave fiber, coffee chaff) may be used in seat cushions, interior components, exterior components, engine covers, battery covers, fuel lines, and other applications.
- Rubber products may be developed using materials such as dandelion-derived natural rubber, rice husk ash silica, soybean oil, and carbon black produced from renewable feedstocks.
- Wood and tree-fibers may be used in interior components, like deco trim and headliners, and spare tire covers.
- Responsibly sourced wool may be used in seat covers and other fabrics.

Conclusion

The purpose of this document is to outline a common industry-supported definition and approach for measuring renewable content of automotive products. When providing information on the use of renewable content, companies may minimize the risk of unintended implied claims by clearly identifying the percentage and type of material used and explaining why the material is renewable. Note that this document is a simple representation of what can be a complex system and is intended for illustrative purposes only. There are a range of potential benefits and tradeoffs that a company will need to assess when evaluating the sustainability impacts of renewable and other material inputs. We fully expect that this document will not answer all questions a company may have but it is intended to provide a common industry-supported framework for determination of renewable content.

References for Further Information

- Federal Trade Commission (FTC) Green Guides, 2012.
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- OECD (2008), Measuring material flows and resource productivity – OECD guide; based on OECD (2001) Sustainable development – Critical issues, Chapter 10. Natural Resource Management, OECD, Paris; and on United Nations et al. (2003), Integrated Environmental and Economic Accounting 2003- Handbook on national accounting, New York.
- Measuring Recycled Content of Automotive Products, Suppliers Partnership for the Environment, Automotive Industry Action Group, 2021.