

Circularity accounting manual



For the calculation of HP's fiscal year 2020
circularity metric

Purpose of this document

The purpose of this document is to provide additional details on the calculation methodology for the Circularity metric of HP Inc. (HP) as communicated in HP's Sustainable Impact Report.

References to "the Company" in this document refer to HP Inc. as the operating entity during the November 1, 2019–October 31, 2020 (FY20) reporting period.

Circularity reporting standards and definitions

Standards

HP has created a circularity metric to measure the total annual product and packaging content, by weight, that comes from recycled and renewable materials and reused products and parts. For goals related to circularity, see [HP's Sustainable Impact Report](#). The objective of this metric and associated goals is to reduce the amount of finite resources used in products and packaging in favor of the principles of a circular economy. This circularity accounting manual is intended to describe the methodology and data sources that the Company uses to calculate its circularity metric.

There are other aspects of circularity that are incorporated into HP's Design for Sustainability requirements and [HP's Planet Partners](#) recycling program, but are not addressed directly by the Company's circularity metric. Dematerialization, longevity, and repairability are important to extend the life of products, thereby reducing the demand for finite resources. Requiring that products, packaging, and materials are recyclable within current infrastructure and are recycled at the end of their useful life is also key to a circular economy. Moving toward safer alternatives to hazardous chemicals ensures that products, parts, and materials can continue to cycle through the economy.

It is also important to note that certain materials may have high social, environmental, or supply availability (e.g. critical raw materials) impacts but do not comprise a large portion of the weight of materials shipped annually.

HP has a materials prioritization process to assess these impacts and determine appropriate actions.

There are many standards and scorecards that require reporting against certain aspects of circularity. However, HP's circularity calculation methodology is fundamentally distinct because there is no industry standard methodology to calculate the circularity of the products, parts, and packaging placed on the market annually. To advance disclosure within and across industries, HP reports publicly against the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) standards, which include metrics for reuse, recycled, and renewable materials. We also certify recycled content to the ISO 14021 standard and align with certain eco-label definitions (e.g. EPEAT, TCO Certified) in order to meet market access criteria. The definitions below are based on these standards and were chosen to ensure that the external reporting, certification, or market access requirements are being met. To inform metric and goal development, HP also completes the Ellen MacArthur Foundation Circulytics scorecard annually, which is a comprehensive circularity measurement system for companies.

Definitions

- Reused - Reused material is defined as recovered products or components of products that are used for the same purpose for which they were conceived¹.
- Recycled - Recycled material is defined as waste material that has been reprocessed or treated by means of production or manufacturing processes and made into a final product or a component for incorporation into a product¹.
- Pre-consumer / post-industrial - Material diverted from the waste stream during a manufacturing process. Excluded is reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it².
- Post-consumer: Material generated by households or by commercial, industrial, and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose².
- Renewable - Renewable material is defined as material that is derived from plentiful resources that are quickly replenished by ecological cycles or agricultural processes, so that the services provided by these and other linked resources are not endangered and remain available for the next generation³.

To supplement these definitions, HP has created guiding principles for each of the circularity attributes as follows:

- A reused product/part should replace a new product/part shipment; and the product/part needs to have been used by a customer and refurbished before being sent to a different user.
- For recycled content, the preference is to source post-consumer materials; if post-industrial content is included, it must be diverted from the waste stream per the ISO 14021 definition. To claim recycled content, substantiation needs to be obtained via credible certifications or supplier declarations.

¹ Based on the Sustainability Accounting Standards Board (SASB) definition

² Based on the ISO 14021 definition

³ Based on the Global Reporting Initiative (GRI) definition

- To count as renewable, materials must be sustainably sourced and, where applicable, certified through a credible 3rd party certification scheme.

Calculation methodology

The circularity metric is calculated as a percentage of the total annual product and packaging content, by weight, that comes from recycled and renewable materials and reused products and parts. The circularity percentage will be calculated annually and reported in HP's Sustainable Impact Report. The circularity metric includes HP products, parts, accessories, and product packaging that are shipped to customers or provided through HP services and support annually. Not included in the metric are materials used in the manufacturing process that are not part of product (e.g. process chemicals) or not provided to customers with the product (e.g. packaging used to ship parts between factories). The Company is working on improving its data sources to expand the scope of this calculation in the future. [Figure 1](#) shows the circularity loops captured by this metric and [Figure 2](#) shows the circularity metric formula.

Figure 1. HP Circularity metric loops

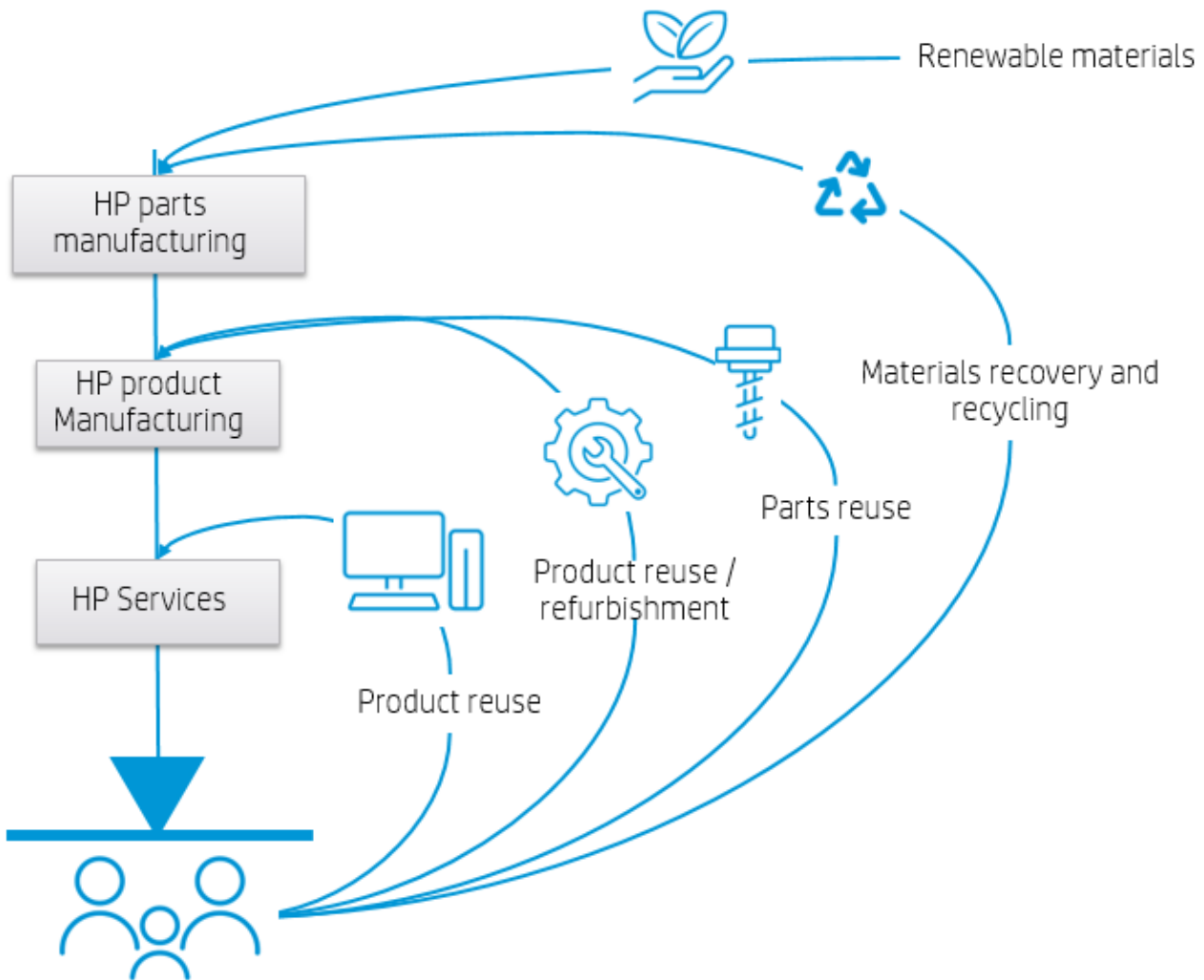
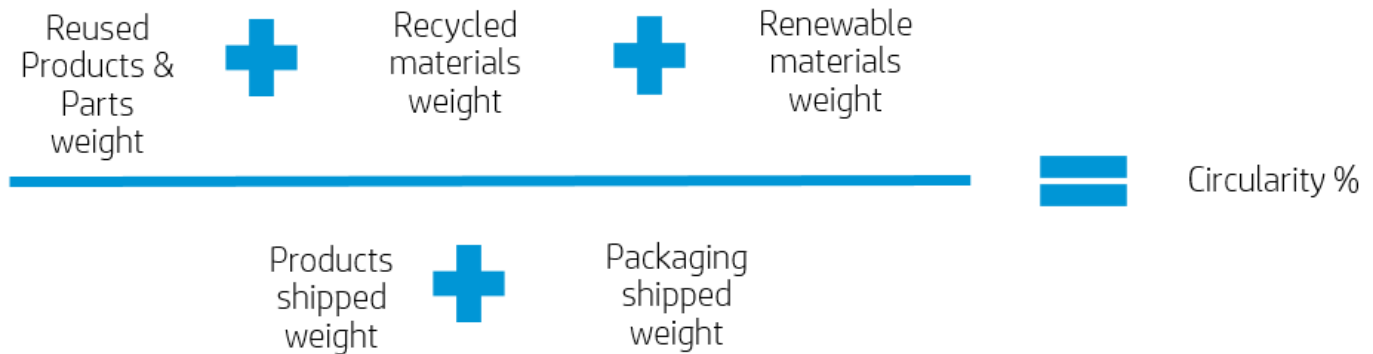


Figure 2. HP Circularity metric formula



Products shipped weight: To determine the total product shipped weight, data is collected for a representative product configuration to determine the weight of components and materials including plastics, metals, display panels, power supplies, cables, wires, and batteries. This weight is then multiplied by the annual shipments for the products. The total is summed to determine the weight of these materials and components used in products.

Packaging shipped weight: To determine the total packaging shipped weight, data is collected for each product's packaging to determine the weight of paper, plastic, metal, wood, and composite packaging. This weight is then multiplied by the annual shipments for the product. The total is summed to determine the weight of these materials used in packaging.

Reused products & parts weight: Reused product weight is calculated by tracking the number of units that are reused, then using a representative product weight for each product category (e.g. displays, notebooks, etc.) to calculate the total weight. In the future, we will include reused parts as we put processes in place to track this information.

Recycled materials weight: Currently included in our circularity calculation are recycled plastics in products and packaging, and recycled fiber in HP brand paper and paper-based packaging. In the future, we will include recycled metals and other recycled materials as we source these materials and put processes in place to track the recycled content.

- Recycled materials weight for products is determined from supplier reported data and part weights at a per unit of mass approach for some products and estimated based on HP's General Specification for the Environment (GSE) requirements and supplier conformance declarations for other products.
- Plastic packaging recycled content is calculated based on the total weight of plastic packaging, then an estimate of the recycled content is applied for each packaging type based on HP's GSE requirements and supplier conformance declarations.
- HP brand paper and paper-based packaging recycled content weight is reported by suppliers. Suppliers estimate the weight for each paper or packaging type and provide the annual average recycled content for the material.

Renewable materials weight: Currently included for renewable materials is certified sustainably managed fiber (with a preference for fiber certified to the Forest Stewardship Council (FSC) standard) used in HP brand paper and packaging. Certified materials weight for HP brand paper and paper-based packaging comes from supplier-reported data. Suppliers estimate the weight for each paper or packaging type and provide the certification type (e.g. FSC) for the material. We may include other materials as renewable in the future if it is determined that these materials meet HP's sustainable sourcing requirements and the GRI definition of renewable materials.

Method maintenance

Each year, HP considers the way materials are used throughout its value chain to confirm that its circularity calculation methodology captures the key sources of the Company's materials usage in products and packaging. HP also considers the evolution of publicly available circularity accounting standards, definitions, methodologies and data to evaluate how these tools can inform the Company's circularity calculation methodology.