Rejoose

White paper: Data category descriptions

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Data Categories

Introduction

The following white paper provides definitions to data methods used by Rejoose and defines how to differentiate between the four current data methods used by Rejoose.

As a base the category average data method is used due to recommendations from the GHG protocol, but the decision will be yours to make: which data method is preferred and also which data sets will be 'tagged' with the method used.

Motivation

Ability to make distinctions between different types of data and underlaying calculation principals are relevant in numerous user scenarios.

◊ Auditing purposes
◊ Foundation for further calculations
◊ Reader comprehension
◊ Due diligence
◊ Comparison

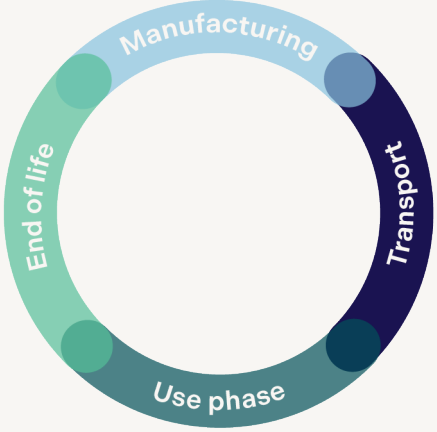
Delimitation

This white paper contains examples for each method definition and a short text to explain the methodology, by which data has been derived/calculated. This is done to specify the Rejoose terminology and avoid any potential misconceptions or fact distortion due to misunderstandings or indistinctness.

Data for all methods are always including the four phases of a IT product:

Phase	GHG scope
Manufacturing	Scope 3
Transport	Scope 3
Use phase	Scope 2
End of life	Scope 3

Scope 3 is calculated per phase and with the given per attribute(s).



Here is an example from defining a CA+ LCA data set for tablets:

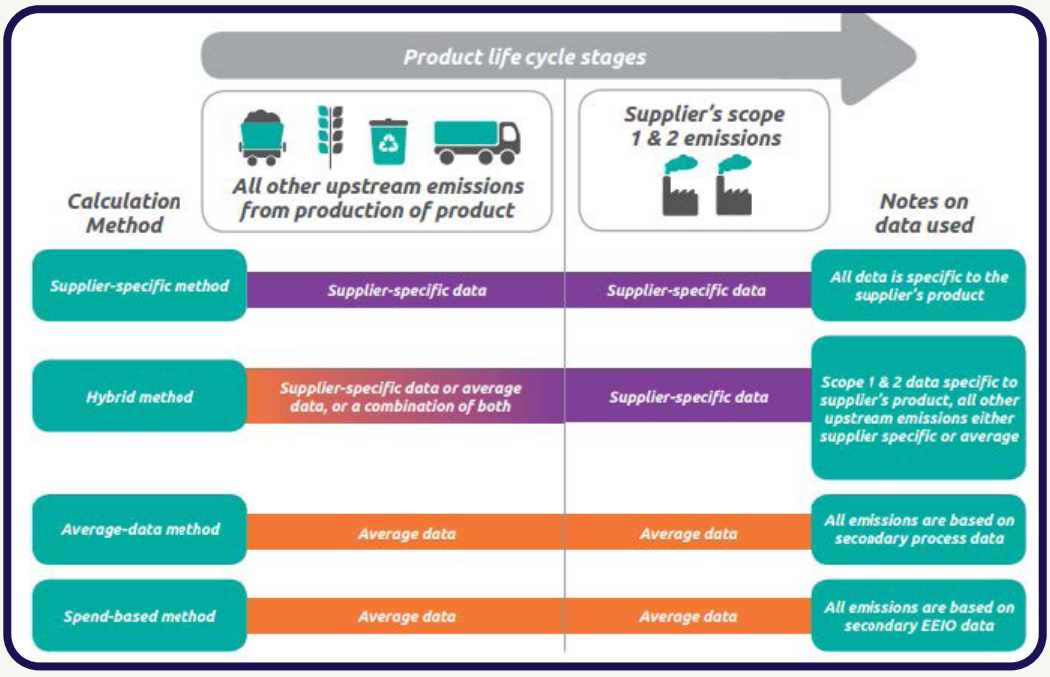
Tablet screen size x emboided GWP/Inch
+ Tablet storage x Allocation GWP/GB + Tablet use phase

Repeated for each phase: manufacturing, transportation, user phase and end of Life.

Rejoose can deliver even more specific data: Use phase is both country and customer use case specific, as well as the possibility to utilize refurbishment for end of life, instead of the traditional cycle.

All general data is tagged with date stamps and data will be used to define Category Averages within the same year. Category Average is data that is based on the average of a lot of products in a specific category. As there are more products in the category (because new ones come on the market or some disappear), the CA data changes. But within Rejoose we make sure the Category Averages is calculated on models from the same period (year).

Please refer to GHG protocol 'Chapter 1' for information on below data methods. With the current data sets, Rejoose can support all but the spend-based methods. The reason for us not to support spend-based is that we want to promote the customers to transition into activity-based reporting.



Source: https://ghgprotocol.org/sites/default/files/standards_supporting/Chapter1.pdf

Disadvantages of the spend-based method

◊ Might generate data that do not accurately reflect a company's specific activities.

◊ Does not account for operational changes and investments made to reduce emissions.

◊ Could be challenging when quantifying emission reductions from specific actions.

◊ May limit the ability to track progress towards emission reduction targets due to it's inherent lack of precision.

Spend-based is great when you don't have access to more specific data. However, it will also mean that if the company invests more in a more efficient and climate-friendly solution, it will show the exact opposite when it comes to spend-based carbon emissions: *Higher price = higher emissions.*

Companies and their suppliers will benefit from transitioning to an activity-based method and the data and the automated solution to do this, is already here.

MS: Manufacturer Specific data
(GHG reference: Average-data method)

Description: Manufacturer specific data refers to the instances where a manufacturer/brand of a certain product or service provides an Environmental Product Description (EPD) that addresses a unique product ID with Carbon calculations based on a product or service unique set of characteristics, material composition and processing.

◊ The Manufacturing entity is the named and official publisher of the EPD for the dataset to be characterized as Manufacture Specific Data in the Rejoose terminology.

◊ Rejoose will utilize the manufacturer data for all Scope 3 phases and for Scope 2 use phase, and instead the country and company specific data is added.

CA+: Category Average data with attributes
(GHG reference: Average-data method)

CA+ is next level vs. standard CA, as each product has unique specs, and the primary factors of climate impact in these specs will be utilized to make a more product relevant set of climate data.

Description: If a product category (e.g. Tablet) has a CA Carbon footprint of X kg CO2e. Rejoose will add attributes to further refine the average data of the products carbon footprint. For tablets, the screen is a primary part of the carbon impact as well of the SSD capacity, which means Rejoose will use the Screen size and GB SSD capacity as attributes for CA+ for the tablets category.

Example: A small laptop have a 13'' screen and 256GB SSD, has a category average Carbon footprint of X kg CO2e. Another laptop B with a 12'' screen and 512GB SSD, will then have a different carbon footprint. So there will be a base part which is the same, and a correcting factor e.g. being the screen size and SSD capacity, which changes the data.

Tablet screen size x emboided GWP/Inch
+ Tablet storage x Allocation GWP/GB + Tablet use phase

Repeated for each phase, manufacturing, Transportation, End of Life.

◊ The use phase of the products is handled and added separately according to use country and use pattern of the end-customer.

CA: Category Average data
(GHG reference: Average-data method)

Description: Rejoose collects data from all brands and segment data into categories and subcategories. The data average across brands, within each category for the given production year, will then be used to define the Category Average data.

◊ If a product category (e.g. small laptops) has been assessed to have a Carbon footprint of X kg CO2e via average from all products within this category, all laptops within this category will be labeled with a Carbon footprint of X kg CO2e.

◊ The use phase of the products is handled and added separately according to use country and use pattern of the end-customer.

PS: Product Specific data
(GHG reference: Supplier-specific method)

Description: Product Specific data refers to the instances where a supplier/ vendor of a certain product or service provides an Environmental Product Description (EPD) that has been produced by a 3rd party. (Typically an expert consultancy company). The 3rd party EPD addresses a unique product ID with CO2 calculations based on a product or a service unique set of characteristics, material composition and processing.

◊ The 3rd party entity is the name and official publisher of the EPD for the data set to be characterized as Manufacture Specific data in the Rejoose terminology.

◊ The use phase of the products is handled and added separately according to use country and use pattern of the end-customer.

As a reporting company, you can choose to utilize more than one method for reporting. If you combine one or more methods you are using the hybrid method as defined on page 21.

Due to below facts stated by GHG protocol, we support all activity-based methods, and we let the supplier and customer decide which methods is the best match.

The difference between data specificity and data accuracy

"In fact, data collected from a supplier may actually be less accurate than industry-average data for a particular product."

Source: https://ghgprotocol.org/sites/default/files/2022-12/Chapter1.pdf page 22

Data validation

Within the product addition and request process, Rejoose makes sure that no vendor can submit carbon data which are very different from other manufacturers. For each product category there are data validation thresholds, with an upper and lower limit.

For example, within the Category Notebooks the typical carbon footprint is ranging from 230 to 350kg CO2. The threshold is defined at 200kg CO2e as the lower threshold, and 400kg as the high threshold. Products (SKUs) that is added and falls outside these data validation limits will be checked manually, and the vendor will be contacted. Until a verification of the footprint is completed, the product will instead utilize the CA or CA+ data.