

To the users of the Base IMPACTS® database,

Through this email, we would like to inform you of the work in progress within the Base IMPACTS® to modify the methods used to characterize environmental impacts.

The characterization methods will soon be upgraded from the ILCD 2011 version to the « EF reference package version 3.0 »¹ developed by the European Commission as part of the "Environmental Footprint" programme (PEF - Product Environmental Footprint and OEF - Organisation Environmental Footprint).

- This harmonization concerns :

i. The use of the modified nomenclature related to the elementary flows

This change will not be visible to users as the datasets are only made available as characterised results (LCIA results) and not as inventory (LCI).

As a reminder, only the elementary flows related to the "Climate Change" impact category indicator are available in the Base IMPACTS®.

In summary, the modification of the nomenclature mainly concerns:

- A change in the unique identifier associated with some elementary flows (UUID)
- A clarification concerning the origin and the emission source (biogenic, fossil, land use change)
- An addition of some contributing elementary flows

ii. The use of the new recommended characterization methods:

- a. Removal of the impact category indicators related to the final effects (also called "endpoint" or "damage")
- b. Removal of the impact category indicators related to the intermediate effects (also called "midpoint" or "impact") for the 3 following issues²:
 - Human health - Carcinogenic effects
 - Human health - Non-carcinogenic effects
 - Aquatic ecotoxicity
- c. Removal of the impact category indicator related to the water use³

¹ <https://eplca.jrc.ec.europa.eu/EnvironmentalFootprint.html>

² Regarding the toxicity indicators, many issues have been reported to ADEME both on the classification and the characterization method and on the inventory datasets. Therefore, ADEME recommends not to use these indicators for the environmental product labelling projects.

In addition, the number of elementary flows covered by the new recommendations is high and makes it difficult to implement in the Base IMPACTS® given its current technical characteristics

³ Regarding the "Water consumption" indicator, many issues have been reported to ADEME both on the classification and the characterization method and on the inventory datasets. Therefore, ADEME recommends not to use this indicator for the environmental product labelling projects.

d. Change of the characterization models used to convert the results of a dataset into the impact category indicator for the following environmental issues:

- Use of mineral, metal and fossil resources

The indicator is now divided into 2 distinct indicators:

- Use of mineral and metal resources [CML 2002 - ADP reserve base → CML 2002 - ADP ultimate reserves]
- Use of fossil resources (including nuclear) [CML 2002 - ADP reserve base → CML 2001 - ADP fossil]

- Land use [Soil Organic Matter (SOM) (Milà i Canals et al, 2007) → LANCA (Beck et al. 2010 and Bos et al. 2016)]

- Particulate matter [JRC 2011+Humbert 2009 → UNEP 2016 (Fantke et al 2016)]

e. Update of the characterization factors for the "Climate Change" impact category indicator [IPCC 100 years 2007 → IPCC 100 years 2013]

f. Provision of 4 impact category indicators related to "Climate Change":

1. Climate change, total (=Σ 2,3,4)
2. Climate change, fossil
3. Climate change - Contribution of biogenic C
4. Climate change - Land-use contribution

g. Removal of the availability of "Climate change" impact category indicators considering delayed emissions

This is an amendment from BP-X-30-323-0.

h. Correction of an error for the unit for the impact category indicator "photochemical ozone formation"

- The harmonization is only partial since it does not take into account the regionalisation provided for by the EF project for some impact category indicators such as :

- i. Particulate emissions
- ii. Acidification
- iii. Terrestrial eutrophication
- iv. Marine eutrophication
- v. Land use

This harmonization will be officially published on the Base IMPACTS® website in the last quarter of 2019.

Previous versions of the Base IMPACTS® will only be available via the download function of the database accessible via the home page of the Base IMPACTS® website. The download results in a folder containing XLS and CSV files.

Feel free to ask us any questions you may have on this subject via the ticketing system.