



What's New in SimaPro 8.2

# Colophon

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### 1 Introduction

This document describes the changes in the SimaPro 8.2 software and database.

A major update of the ecoinvent database to version 3.2 is included for all users. ecoinvent 3.2 includes more than 2,500 new and updated datasets. Specifically, the update includes an update of the electricity sector, refrigerated transportation, market groups, and updates to cement, waste, and wood. Additionally, six new datasets from Plastics Europe have been added to the Industry Data 2.0 library. Regarding changes in the software, a number of small improvements and bug fixes have been implemented.

We trust that the 8.2 release offers you enhanced contents in various data libraries that you are looking for.

### What's New in SimaPro 8.2.3

SimaPro 8.2.3 is an intermediate release which includes all the updates offered in the official 8.2.0 release. In this version two data libraries: USA Input Output and LCA Food DK are no longer provided. In addition, SimaPro 8.2.3 fixes a few bugs discovered in the previous version.

## 2 Updated Data Libraries

#### 2.1 ecoinvent 3.2

The new update to ecoinvent includes more than 2,500 new and updated datasets, including the following:

- Electricity Sector The electricity sector data has been updated using the newest grid mixes and the
  latest available data on electricity production. This includes over 2,200 datasets, covering 89% of the
  world's electricity production across 56 countries. Several new technologies, such as combined heat
  and power (CHP) and geothermal power are included in the database. A number of new countries,
  such as Iceland and Estonia, were added as well as more specific electricity data for 32 Chinese
  regions.
- **Refrigerated Transport** Data on refrigerated transport for all different modes of transport (water, rail, road, and air) are now included.
- Market Groups ecoinvent has introduced a new type of dataset called market groups. These market processes exist for a selection of regions, countries, and products. For example, while previously the US market was divided by region there is now a "market group" for the entire United States electricity mix. This is also applicable for the regions of UCT, ENTSO-E and entire continents.
- **New Datasets** In addition, a number of new datasets are also included in the update, especially in the areas of cement, wood, and waste treatment. Also noteworthy are the European aluminum production datasets.



For more detailed information about the update, please refer to the ecoinvent website at <a href="http://www.ecoinvent.org/">http://www.ecoinvent.org/</a>.

### ecoinvent Allocation Default Library

ecoinvent has changed the name of the allocation default library to "allocation at the point of substitution" or APOS. Please be advised that PRé has not implemented this name change in SimaPro

#### Older ecoinvent data

A number of processes from ecoinvent 3.1 are no longer supported and are considered obsolete. As such, PRé created special replacement files to allow you to change most of these obsolete links in your projects from ecoinvent 3.1 to the correct processes in ecoinvent 3.2 automatically. However, please be aware that some processes do not have a direct replacement and a replacement will need to be chosen manually.

As a number of users are still using ecoinvent 2.2, replacement files to update from ecoinvent 2.2 to the allocation default library or recycled content library in ecoinvent 3.2 also exist.

How to use the replacement files is described in the update manual.

### 2.2 Industry Data 2.0

The following processes were updated or added to the Industry Data 2.0 library from Plastics Europe.

- Acrylonitrile butadiene styrene (ABS)
- Expandable polystyrene (EPS), white and grey
- Polyvinyl chloride, from emulsion process, E-PVC
- Styrene acrylonitrile (SAN)
- Polyvinyl chloride, from suspension process, S-PVC
- Vinyl chloride monomer

### 3 Changes in Impact Assessment Methods

The most important changes in impact assessment methods are listed below. For more details, please see the comment section of the individual methods in SimaPro.

### 3.1 Cumulative Exergy Demand

The substance 'Energy, from uranium' was removed from impact category 'Non renewable, fossil' and added to 'Non renewable, nuclear'.

### 3.2 IPCC 2013 GWP 20a and IPCC 2013 GWP 100a

Introduced changes will have a minor impact on results. Characterization factors for 106 substances were aligned with the IPCC report; previously they were based on Hodnebrog et al. (2013). For substances, which in the IPCC report have a factor "<1", characterization factors from Hodnebrog et al. (2013) are applied. One new substance was added.

### 3.3 IPCC 2013 GWP 500a

This method was moved to superseded because it is not supported by IPCC. Based on the IPCC report: "The confidence in the ability to provide useful metrics at time scales of several centuries is very low due to nonlinear effects, large uncertainties for multi-century processes and strong assumptions of constant background conditions. Thus, we do not give metric values for longer time scales than 100 years (see discussion in Supplementary Material Section 8.SM.11)."

#### 3.4 ILCD

Several land use and land transformation flows were removed and characterization factors for biogenic emissions were changed. These corrections were introduced to better align this implementation with the file published by the JRC.

### 3.5 Ecological Footprint

This method was also moved to superseded and will no longer be supported.

### 3.6 Ecological Scarcity 2013

Two characterization factors were added to Ecological Scarcity.

### 4 Contact Us

Please contact us or your local partner if you have questions about new features in the SimaPro software or database, or if you have any other questions related to the update.

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