

Major update to PIQET – 14th June 2021

Timing

The tool will be unavailable for 2 hours on the 14th of June 2021 due to a major update.

The down time will occur during the hours of:

4:00 pm to 6:00 pm Australian Eastern Daylight Time (AEDT);

1:00 am to 3:00 am Central Daylight Time (CDT);

7:00 am to 9:00 am British Summer Time (BST);

8:00 am to 10:00 am Central European Time (CEST).

Data updates

PIQET tool update:

Some significant changes are being made to the background database used in PIQET.

We are updating to ecoinvent 3.6 background processes (from ecoinvent 3.3). This update will encompass 3 years of updates from the ecoinvent datasets, including more regions for material supply as well as new material processes.

Improved definitions

Names and definitions will be improved to reduce ambiguity in materials and processes. All polymers will now be listed with their full name, their abbreviation as well as the state of the material. For example, what used to be listed as **PP** is now listed as **Polypropylene (PP) resin**. Similar improvements have been added to conversion processes and trucks.

New data

New **materials** data will be added, particularly for coating and adhesives:

- Adhesive acrylic
- Adhesive latex
- Acrylic varnish
- Polybutylene adipate terephthalate (PBAT) resin
- Lithium-ion battery
- Printed circuit board
- Light emitting diode (LED)
- Stainless steel sheet
- Acrylic paint (water based)
- Alkyd paint (oil based)

New **conversion** processes added:

- Injection moulding PET preform
- Blow moulding, from PET preform
- Moulding paper pulp
- Laminating films
- Shrink wrapping
- Glass forming/finishing
- Polymer foaming
- Cork moulding
- Veneer production

Also note that the current “blow bottle” conversion process has been renamed to “Combined PET preform and blow moulding”.

Also, glass which has always had its conversion process included in the material, is now listed separately as a conversion process. PIQET will automatically add this glass conversion process to existing processes using glass, which do not have a conversion process included.

Mixed conversion processes now available in custom materials and custom conversions

When making custom materials and custom conversions, users can now apply a mix of conversion processes at different amounts – for example 0.5 kg of extrusion process, 0.2kg of injection moulding etc. as well as the existing option of directly adding the energy use per kg of custom material or custom conversion.

New regionalisation approaches

The regionalisation approach now will assume that the first one or two layers of the supply chain are produced in the selected region, with further upstream inputs coming from regional or global supply chains as determined in ecoinvent. This better represents the realities of the global economy. In the prior data set, it was assumed that the entire material supply chain was based in the selected region.

New regions

There will now be 54 regions included in PIQET (up from 16). For Europe, the material supply remains a European average however, all conversion and manufacturing inputs come from the specific country in Europe. We now also have a “global” region available, in case the country of supply is unknown.

Significant changes to data

New impact data on glass manufacture has been sourced as the prior process was out of date – this will reduce the impacts of glass melt and manufacture by around 30-40%, depending on the region.

Polyethylene will increase by around 10-15% due to data updates in the ecoinvent database.

Some electricity grids have changed significantly in regard to the global warming potential:

New Zealand -61.02%.	India -11.51%.
Japan -7.35%	Indonesia +17.84%.
USA -15.72%.	Singapore -30.11%.
United Kingdom -18.97%	Thailand +11.43%.
Canada -5.59%.	Vietnam -20.41%.
Brazil -9.04%.	

Also note that shifting from the EU average to country specific inventories in Europe will also change results for clients based in the EU.

Note that the current PIQET version will be transferred to <https://App2.piqet.com> and will be available for the next two months to check/complete projects in the old version.