Tutorial

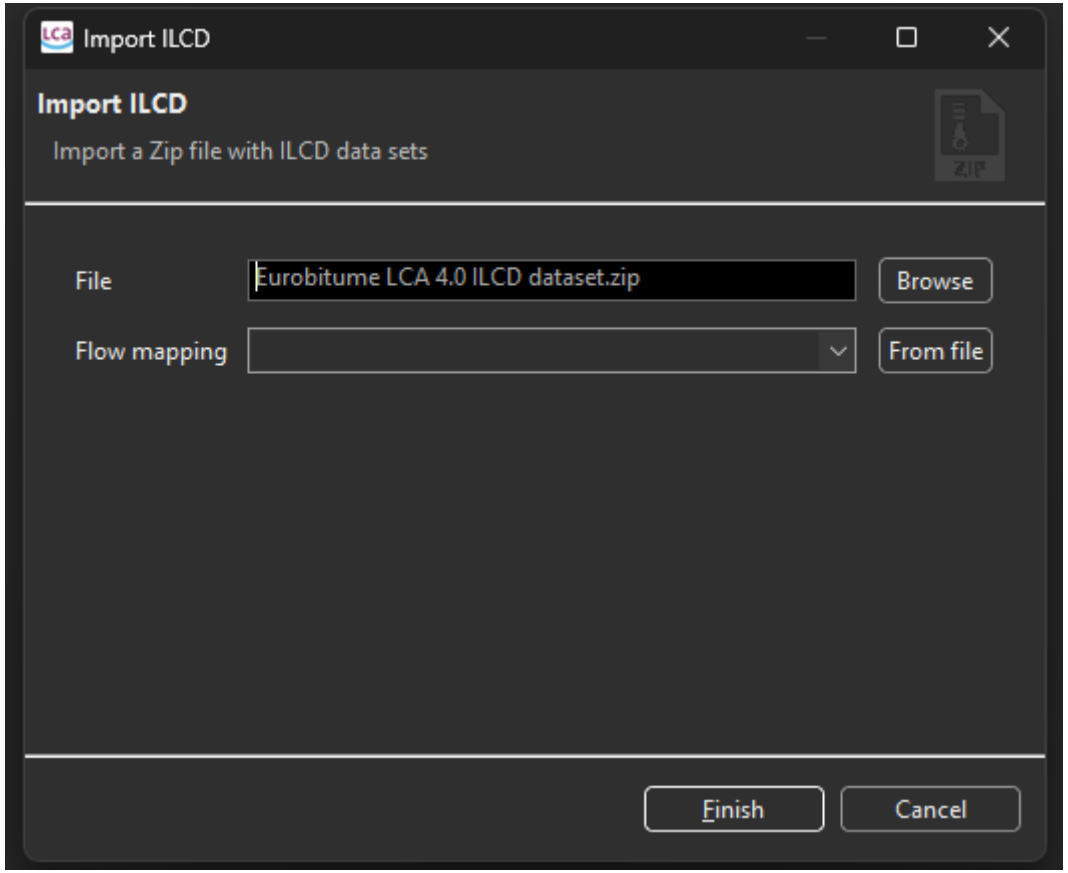
How to run a calculation in openLCA using the Eurobitume LCI 2025 (ILCD format)



eurobitume
The European Bitumen Association

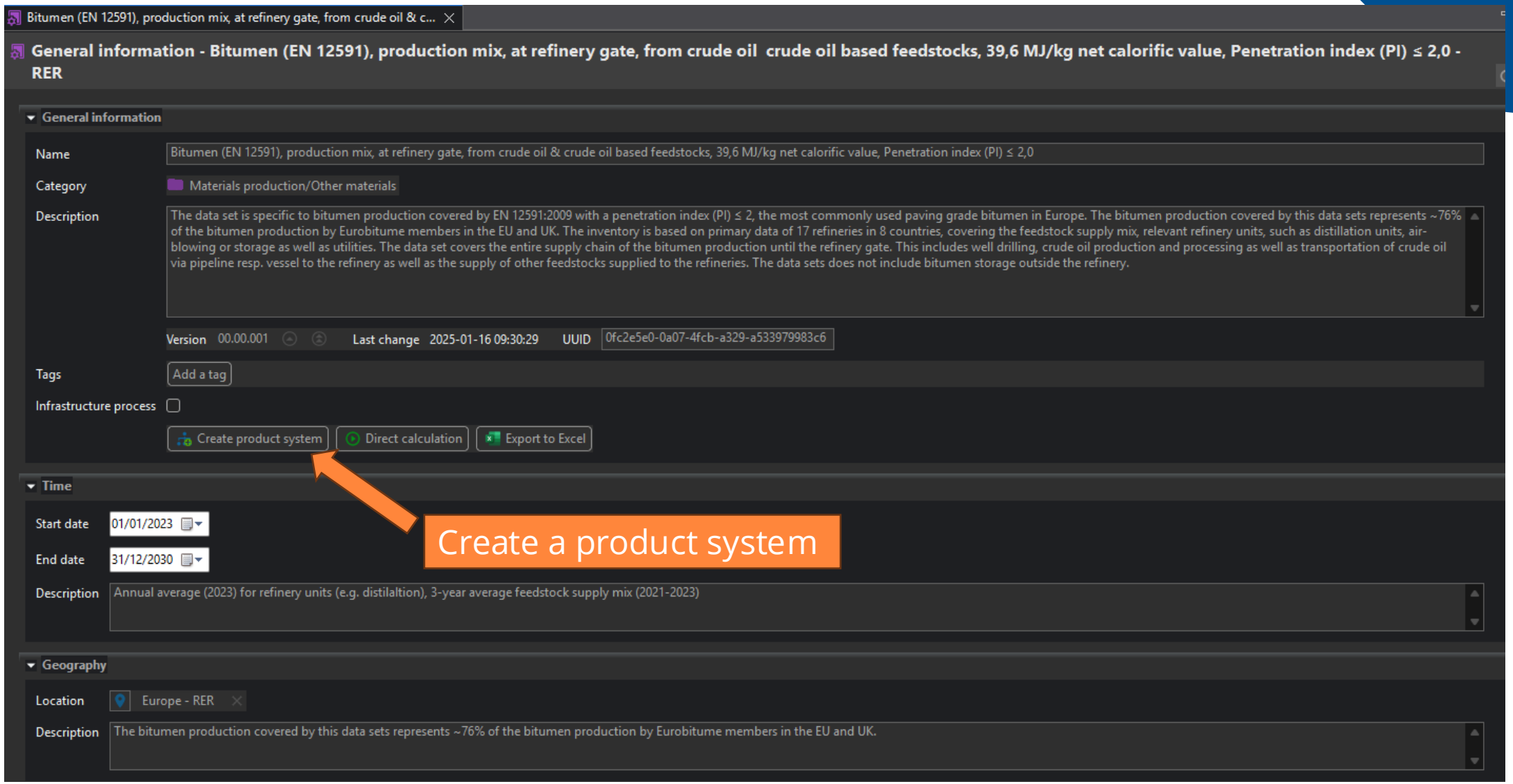
5 November 2026

1 – Import the ILCD file



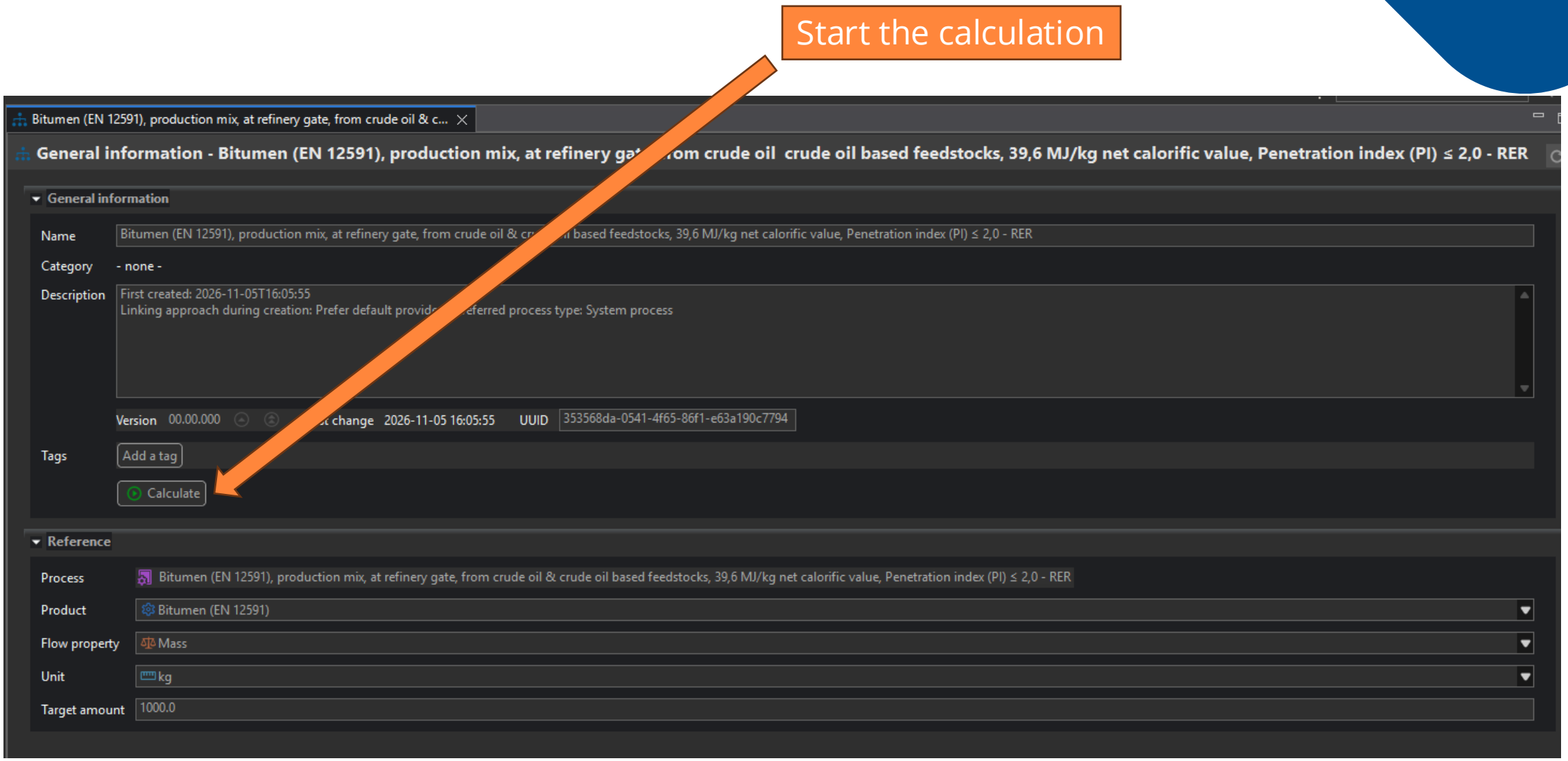
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2 – Create a product system



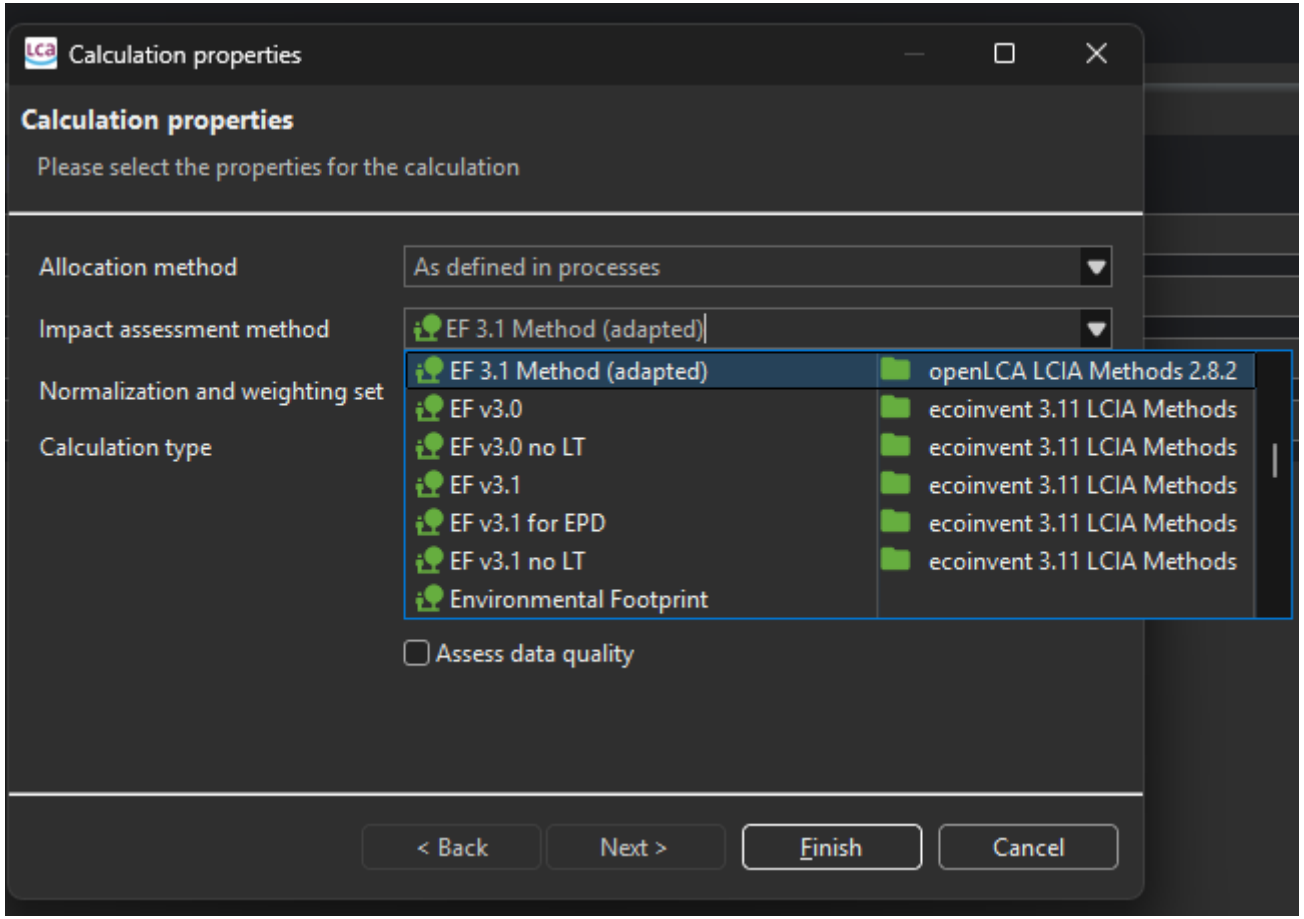
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3 – Start the calculation



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4 – Choose as suitable method

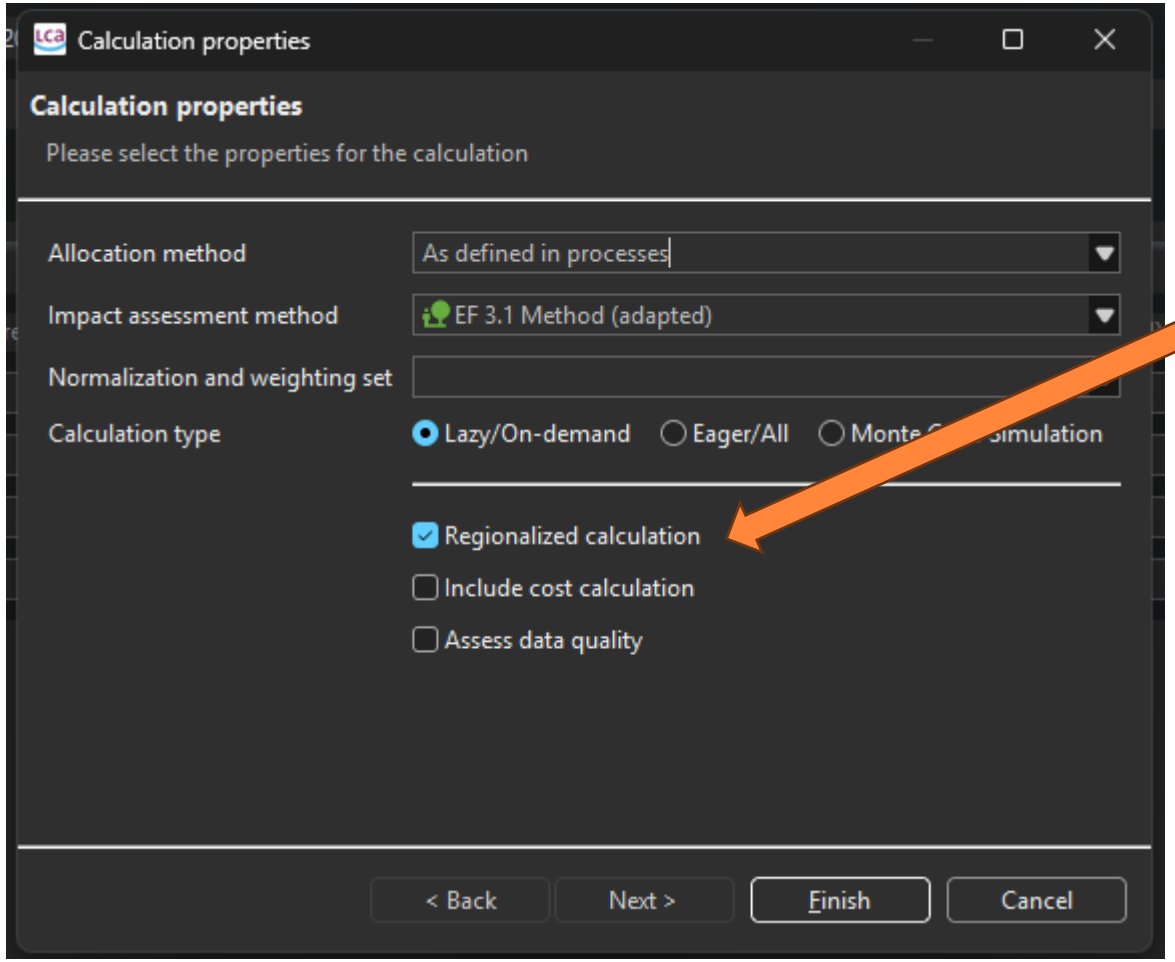


Choose a suitable method:

- Either Environmental Footprint (downloaded from the European platform)
- or EF 3.1, available in an openLCA methods package (e.g. 2.8.2)

Note: do not use the Ecoinvent method, as there will be a format issue

5 – Select the regionalised calculation



Then select the “Regionalised calculation” box

6 – Check the results

Check that the indicators obtained match the results from the report



Result - Bitumen (EN 12591), production mix, at refinery gate, from crude oil & crude oil based feedstocks, 39,6 MJ/kg net calorific value, Penetration index (PI) ≤ 2,0 - RER; 1000.00 kg; EF 3.1 Method (adapted); default alloc.

Bitumen (EN 12591), production mix, at refinery gate, from crude oil crude oil based feedstocks, 39,6 MJ/kg net calorific value, Penetration index (PI) ≤ 2,0 - RER

Impact analysis - EF 3.1 Method (adapted)

Sub-group by Processes Flows | Don't show < 1 %

Name	Category	Inventory result	Characterization factor	Impact assessment result
Acidification - 2017	Environmental Footprint			1.72211 mol H+ equivalents
Climate change - 2017	Environmental Footprint			530.28885 kg CO2 Equivalents
Climate change-Biogenic - 2017	Environmental Footprint			2.15506 kg CO2-Equivalents
Climate change-Fossil - 2017	Environmental Footprint			527.86840 kg CO2 Equivalents
Climate change-Land use and land use change - 2017	Environmental Footprint			0.26539 kg CO2-Equivalents
Ecotoxicity, freshwater - 2017	Environmental Footprint			2.84911E4 CTUe
Ecotoxicity, freshwater_inorganics - 2017	Environmental Footprint			2.83158E4 CTUe
Ecotoxicity, freshwater_organics - 2017	Environmental Footprint			175.31256 CTUe
EF-particulate Matter - 2017	Environmental Footprint			2.68330E-5 disease incidence
Eutrophication marine - 2017	Environmental Footprint			0.44384 kg N equivalents
Eutrophication, freshwater - 2017	Environmental Footprint			0.00044 kg P equivalents
Eutrophication, terrestrial - 2107	Environmental Footprint			4.85812 mol N equivalents
Human toxicity, cancer - 2018	Environmental Footprint			4.96222E-7 CTUh
Human toxicity, cancer_inorganics - 2018	Environmental Footprint			4.83230E-7 CTUh
Human toxicity, cancer_organics - 2018	Environmental Footprint			1.29920E-8 CTUh
Human toxicity, non-cancer - 2018	Environmental Footprint			1.43360E-5 CTUh
Human toxicity, non-cancer_inorganics - 2018	Environmental Footprint			1.39118E-5 CTUh
Human toxicity, non-cancer_organics - 2018	Environmental Footprint			4.24243E-7 CTUh
Ionising radiation, human health - 2017	Environmental Footprint			7.54679 kBq U235 equivalents
Land use - 2017	Environmental Footprint			262.98945 dimensionless (pt)
Ozone depletion - 2017	Environmental Footprint			3.32359E-10 kg CFC11 equivalents
Photochemical ozone formation - human health - 2017	Environmental Footprint			2.03186 kg NMVOC equivalents
Resource use, fossils - 2017	Environmental Footprint			4.57615E4 MJ
Resource use, minerals and metals - 2017	Environmental Footprint			0.00010 kg Sb equivalents
Water use (adapted spatialization)	openLCA LCIA Categories 2.8.2/EF 3.1 Method (adapted)			0.00000 m3 world eq
Water use - 2017	Environmental Footprint			7.21237 m3-world equivalents

Table 4-1. EN 15804+A2 impact indicators for bitumen

EN15804+A2 Impact Indicators (Based on EF 3.1)	Units	Total	Feedstock-Supply	Feedstock-Transport	Distillation	Air-Recti-fication	Bitumen Storage	Overhead
Environmental Impact Indicators								
Climate change, total	[kg CO_2 eq.]	5,30E+02	3,73E+02	4,17E+01	7,24E+01	2,67E+00	3,13E+01	9,10E+00
Climate change, fossil	[kg CO_2 eq.]	5,28E+02	3,71E+02	4,17E+01	7,23E+01	2,67E+00	3,14E+01	8,97E+00
Climate change, biogenic	[kg CO_2 eq.]	2,10E+00	2,12E+00	-1,26E-01	1,01E-01	6,00E-03	-1,29E-01	1,27E-01
Climate change, land use and land use change	[kg CO_2 eq.]	2,65E-01	1,02E-01	1,47E-01	1,09E-02	1,59E-04	2,46E-03	2,50E-03
Ozone depletion	[kg CFC-11 eq.]	3,32E-10	4,41E-11	8,09E-12	1,73E-10	7,42E-12	5,58E-11	4,39E-11
Acidification	[Mole of H+ eq.]	1,72E+00	7,87E-01	6,93E-01	1,51E-01	5,32E-03	6,75E-02	1,77E-02
Eutrophication, freshwater	[kg P eq.]	4,45E-04	1,77E-04	4,67E-05	5,83E-05	2,03E-06	2,76E-05	1,33E-04

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