



SimaPro

SimaPro and LCA

Take control of LCA and deliver fact-based sustainable value

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SimaPro modelling features

About basic modelling

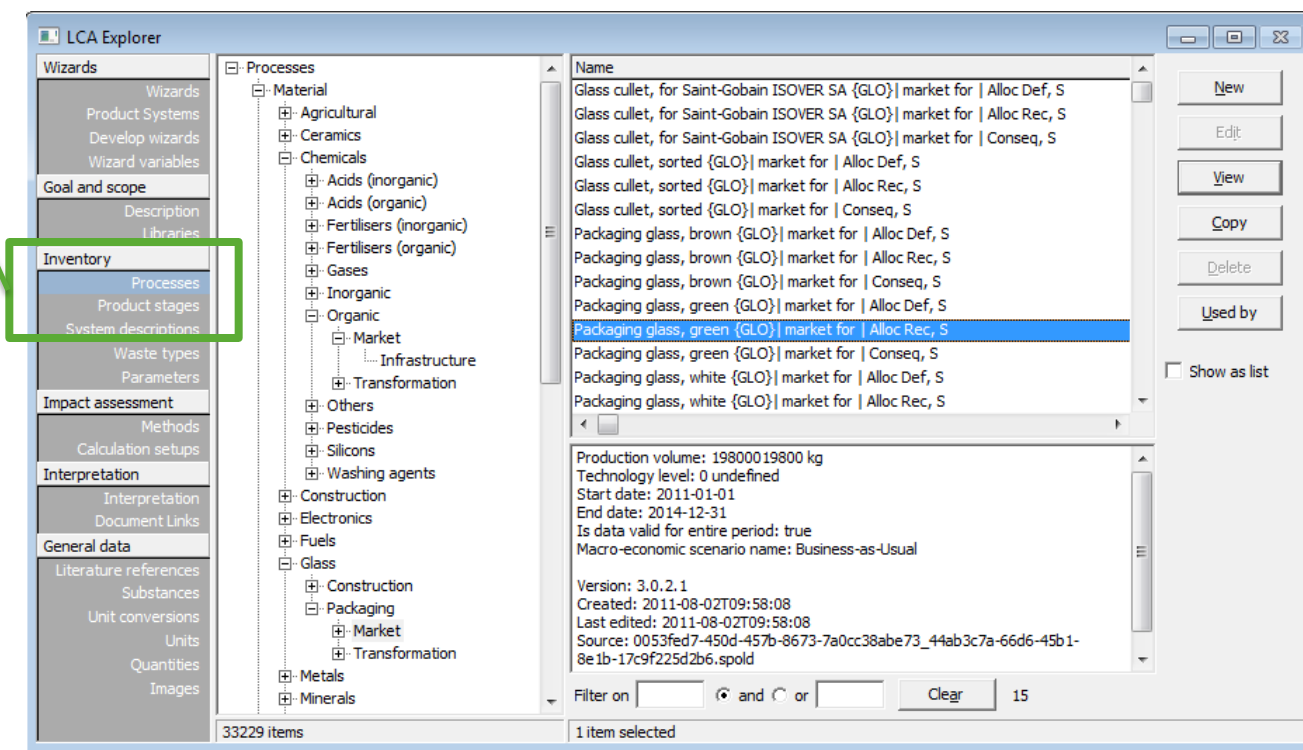


Building blocks of your product stages

Our libraries contain more than 72000 data sets to choose from
or create your own processes

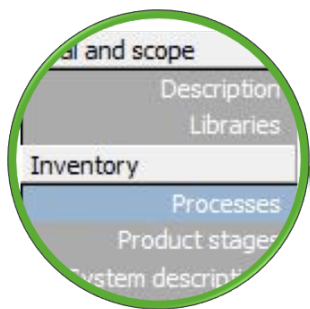
Goal and scope
Description
Libraries
Inventory
Processes
Product stages
System descriptions

**Easily pick or create
processes and product
stages to start
building your model**

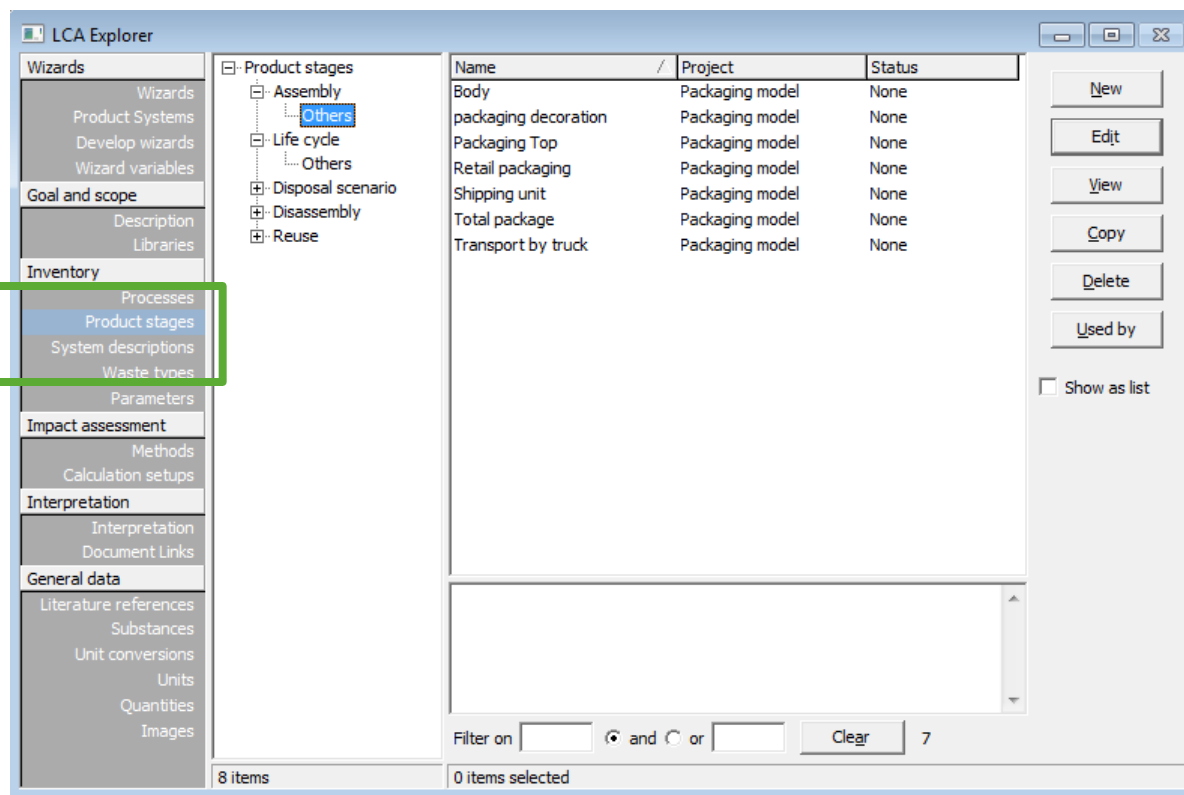


Building blocks of your product stages

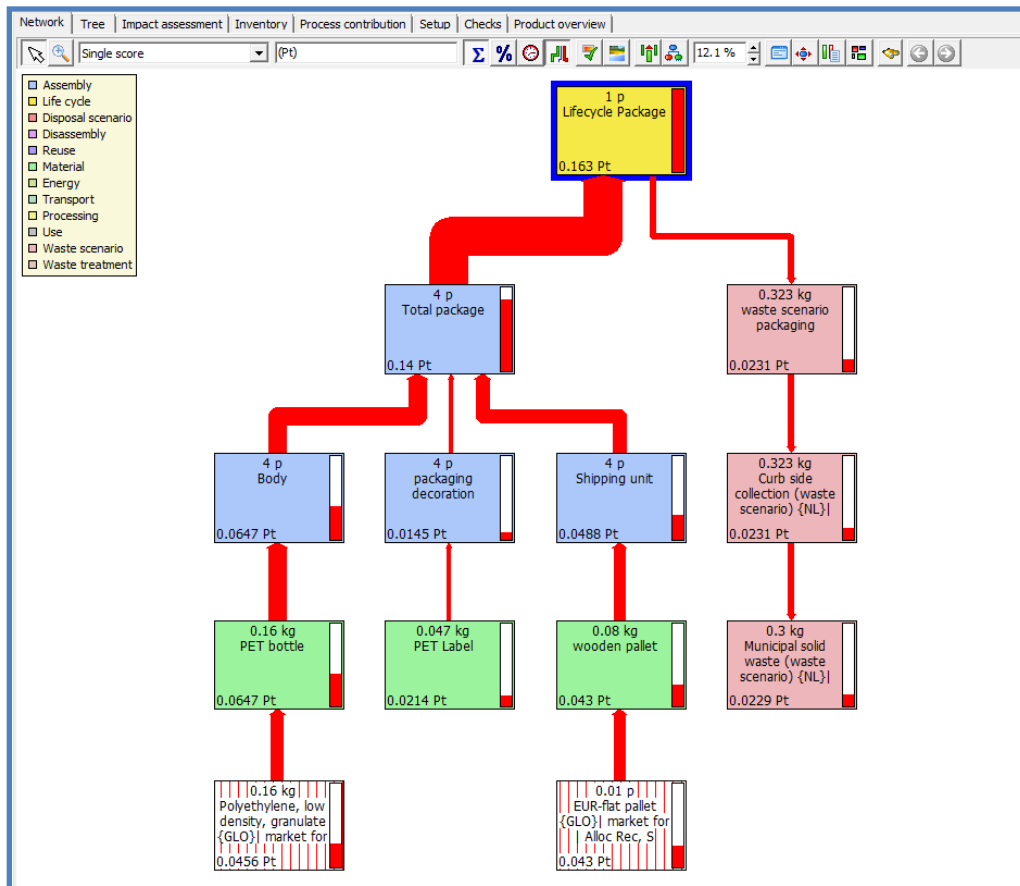
Build assemblies for each part of your product
or life cycle stage



Easily pick or create
processes and product
stages to start
building your model



Visualisation – Network view



The **network view** makes it easy to **quickly identify** the **most relevant impact** causes in your model





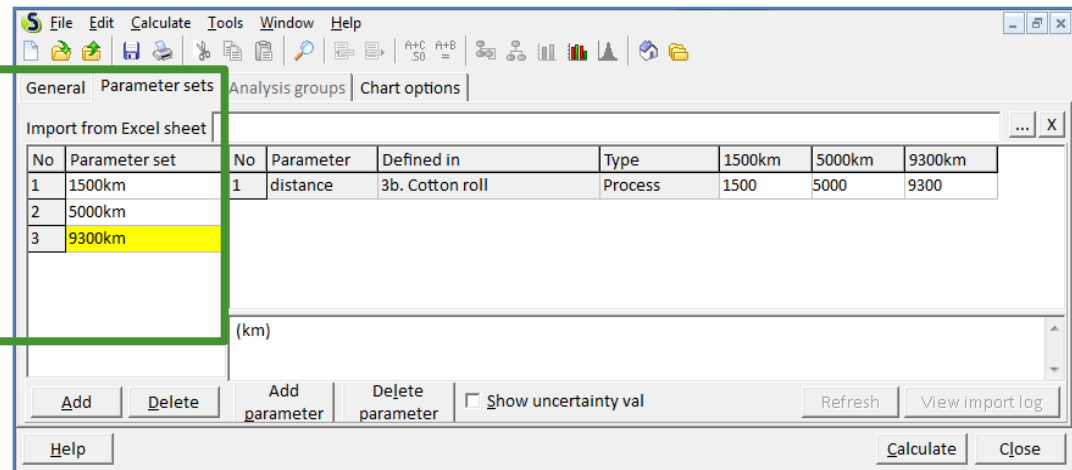
SimaPro modelling features

Advanced modelling and efficiency



Simplify your work & save time with parameters

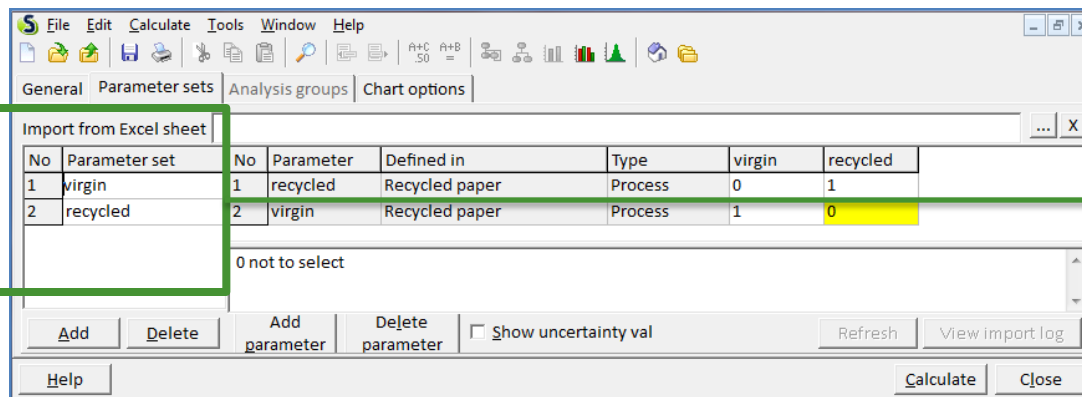
Set parameters for different transport distances



The screenshot shows the 'Parameter sets' dialog box with the 'Import from Excel sheet' tab selected. A green box highlights the 'Parameter set' column, which contains three entries: 1500km, 5000km, and 9300km. The '9300km' entry is highlighted in yellow. The dialog box also features a table with columns for 'No', 'Parameter', 'Defined in', 'Type', and three distance columns (1500km, 5000km, 9300km). The '1500km' column contains the value 1500, the '5000km' column contains 5000, and the '9300km' column contains 9300. The 'Type' column contains the value 'Process'. The 'Defined in' column contains the value '3b. Cotton roll'. The dialog box has buttons for 'Add', 'Delete', 'Add parameter', 'Delete parameter', 'Show uncertainty val', 'Refresh', 'View import log', 'Calculate', and 'Close'.

No	Parameter set	No	Parameter	Defined in	Type	1500km	5000km	9300km
1	1500km	1	distance	3b. Cotton roll	Process	1500	5000	9300
2	5000km							
3	9300km							

Set parameters for different material scenarios



The screenshot shows the 'Parameter sets' dialog box with the 'Import from Excel sheet' tab selected. A green box highlights the 'Parameter set' column, which contains two entries: virgin and recycled. The 'recycled' entry is highlighted in yellow. The dialog box also features a table with columns for 'No', 'Parameter', 'Defined in', 'Type', 'virgin', and 'recycled'. The 'virgin' column contains the value 0, and the 'recycled' column contains the value 1. The 'Type' column contains the value 'Process'. The 'Defined in' column contains the value 'Recycled paper'. The dialog box has buttons for 'Add', 'Delete', 'Add parameter', 'Delete parameter', 'Show uncertainty val', 'Refresh', 'View import log', 'Calculate', and 'Close'.

No	Parameter set	No	Parameter	Defined in	Type	virgin	recycled
1	virgin	1	recycled	Recycled paper	Process	0	1
2	recycled	2	virgin	Recycled paper	Process	1	0



Increase efficiency with parameters

New material process

Documentation | Input/output | Parameters | System description

Known inputs from technosphere (materials/fuels)

Name	Amount	Unit	Distribution	SD^2 or 2*SD	Min
Electricity, low voltage {NL} market for Alloc Def, S	D:\[LCA1.xlsx]Sheet1!B3 = 134	MWh			
(Insert line here)					

Known inputs from technosphere (electricity/heat)

Name	Amount	Unit	Distribution
(Insert line here)			

Outputs

Emissions to air

Name	Sub-compartment	Amount	Unit	Distribution	SD^2
Carbon dioxide		D:\[LCA1.xlsx]Sheet1!B4 = 7	ton		
Sulfur dioxide		77	kg	Undefined	
Nitrogen oxides		13	kg	Undefined	
(Insert line here)					

Import parameter sets or **link values** from Excel

Select external link

Type

☒ Excel ☐ Database

Filename D:\[LCA1.xlsx] Browse

77

	A	B	C	D
1	Data Supplier			
2		Qty	Unit	
3	Electricity	134	MWh	
4	CO2	7	ton	
5	SO2	77	kg	
6	Nox	13	kg	
7				

Sheet1 / Sheet2 / Sheet3

Database link Query

Select Cancel





Working with LCA and other stakeholders

Working with the COM Interface



Make LCA accessible with the COM interface

Create **your own interface** to select processes and calculation method from a SimaPro database

ProcessType: Material

Products: Glass, virgin/RER S demo7

Methods: ReCiPe Endpoint (E)

NWSet: Europe ReCiPe E/A

Show the impact results that are relevant for your audience

Overview 1 Overview 2 Analyse Network Tree Substance Process ProcessLines ProcessLine ParamLines ParamLine PjParams DBParams						
AnalyseResult						
No	Name	Amount	UnitName	SubCompartment	MainCompartment	
1	Climate change Human Health	4.89046788183005E-6	DALY			
2	Ozone depletion	2.8386222066253E-10	DALY			
3	Human toxicity	2.3293090843201E-6	DALY			
4	Photochemical oxidant formation	2.15445782756326E-10	DALY			
5	Particulate matter formation	1.1507183442642E-6	DALY			
6	Ionising radiation	2.9507129641369E-9	DALY			
7	Climate change Ecosystems	2.60543970853778E-8	species.yr			
8	Terrestrial acidification	1.5769120142577E-10	species.yr			
9	Freshwater eutrophication	6.0107149296E-13	species.yr			
10	Terrestrial ecotoxicity	3.10876910730636E-10	species.yr			
11	Freshwater ecotoxicity	1.88512481040125E-12	species.yr			
12	Marine ecotoxicity	9.01485417265711E-10	species.yr			
13	Agricultural land occupation	3.0849614076E-9	species.yr			
14	Urban land occupation	1.96915231584E-10	species.yr			
15	Natural land transformation	2.32004112E-8	species.yr			
16	Metal depletion	0.00157447040891775	\$			
17	Fossil depletion	0.05299522254	\$			

ResultCount	
ResultType	Count
rtCharacterisation	17
rtDamage	3
rtNormalisation	3
rtWeighting	3
rtSingleScore	1
rtInventory	1000



Make LCA accessible with the COM interface

Create **your own interface** to select processes and calculation method from a SimaPro database

ProcessType: Material

Products: Glass, virgin/RER S demo7

Methods: ReCiPe Endpoint (E)

NWSet: Europe ReCiPe E/A

Show inventory results the way you want – all or a filtered section

Overviews 1 Overviews 2 Analyse Network Tree Substance Process ProcessLines ProcessLine ParamLines ParamLine PjParams DBParams									
ResultCount		AnalyseResult							
ResultType	Count	No	Name	Amount	UnitName	SubCompartment	MainCompartment		
rCharacterisation	17	1	Ammonia	6.5296E-6	kg	(unspecified)	airborne emission		
rDamage	3	2	Benzene	6.1548E-7	kg	(unspecified)	airborne emission		
rNormalisation	3	3	Cyanide	3.1131E-7	kg	(unspecified)	waterborne emission		
rWeighting	3	4	Acetic acid	9.5861E-8	kg	(unspecified)	airborne emission		
rSingleScore	1	5	Benzo(a)pyrene	3.0044E-10	kg	(unspecified)	airborne emission		
rInventory	1000	6	Cobalt	2.5102E-11	kg	(unspecified)	airborne emission		
		7	Ethylene oxide	2.8878E-13	kg	(unspecified)	airborne emission		
		8	Ethyne	3.5713E-10	kg	(unspecified)	airborne emission		
		9	Formaldehyde	9.6702E-8	kg	(unspecified)	airborne emission		
		10	Methanol	4.8314E-8	kg	(unspecified)	airborne emission		
		11	Phenol	4.8273E-10	kg	(unspecified)	airborne emission		
		12	Toluene	2.5888E-7	kg	(unspecified)	airborne emission		
		13	Xylene	2.5725E-7	kg	(unspecified)	airborne emission		
		14	Formaldehyde	1.4908E-8	kg	(unspecified)	waterborne emission		
		15	Methanol	4.4725E-9	kg	(unspecified)	waterborne emission		
		16	Phenol	1.4908E-9	kg	(unspecified)	waterborne emission		
		17	Fluoride	5.6213E-8	kg	(unspecified)	emission to soil		
		18	Water	1.9091E-5	kg	(unspecified)	airborne emission		
		19	Ammonia	2.6516E-6	kg	low pop.	airborne emission		
		20	Ammonia	9.0094E-9	kg	high pop.	airborne emission		
		21	Benzene	9.6659E-7	kg	low pop.	airborne emission		





Working with LCA and other stakeholders

Data collection



Collect your data with SimaPro Collect

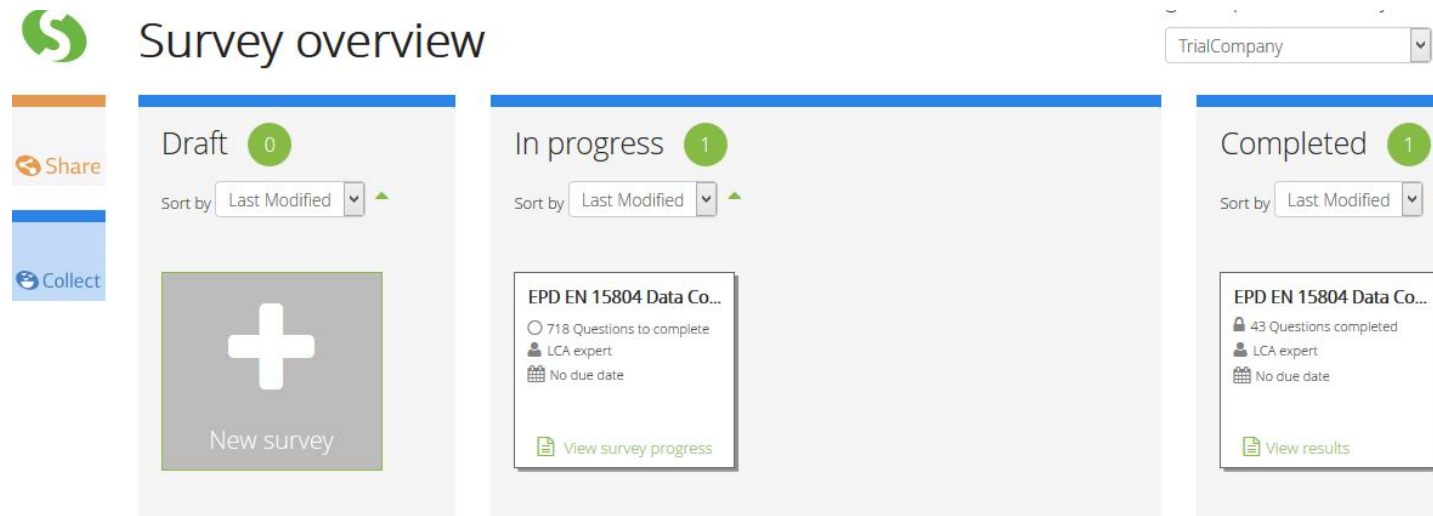
Stop going
back and forth
with **Excel sheets**
and e-mail



Ensure the **accuracy**
and make **data**
collection insightful



Create, send & monitor surveys to collect data with Collect



The screenshot displays the 'Survey overview' dashboard. At the top left is the Collect logo, followed by the title 'Survey overview'. On the right, a dropdown menu shows 'TrialCompany'. Below the title, there are three main sections: 'Draft' (0 surveys), 'In progress' (1 survey), and 'Completed' (1 survey). Each section has a 'Sort by' dropdown set to 'Last Modified'. The 'Draft' section features a large grey button with a white plus sign and the text 'New survey'. The 'In progress' and 'Completed' sections each display a card for a survey titled 'EPD EN 15804 Data Co...'. The 'In progress' card shows '718 Questions to complete', 'LCA expert' as the assignee, 'No due date', and a 'View survey progress' link. The 'Completed' card shows '43 Questions completed', 'LCA expert' as the assignee, 'No due date', and a 'View results' link. On the far left, there are two vertical buttons: 'Share' (orange) and 'Collect' (blue).

Survey overview

TrialCompany

Draft 0

Sort by Last Modified

New survey

In progress 1

Sort by Last Modified

EPD EN 15804 Data Co...

718 Questions to complete

LCA expert

No due date

View survey progress

Completed 1

Sort by Last Modified

EPD EN 15804 Data Co...

43 Questions completed

LCA expert

No due date

View results

Share

Collect



Standard templates available for your surveys



EPD EN 15804 Data Collection demo

Training and pre-sustainability

TrialCompany

Sent by: LCA expert (honee@pre-sustainability.com) from Template-Library

Sections

Basic Information

A1 - A2: Raw Materials

A3: Manufacturing

A4-A5: Transport and
Installation

B1-B7: Use

C1-C4: End of Life

Preview. Answers will not be
saved.

33. Does the product require any water/energy during its use? (Excluding requirements for maintenance)

☐ Yes

☐ No

C1-C4: End of Life

This section concerns the end-of-life scenario of the product.

40. End of life scenario details

End of life scenario	Quantity (kg)	Transport Type	Transport Distance (km)	Comments
Re-used				
Recycled				
Incineration				
Landfill				
Other (please specify)				





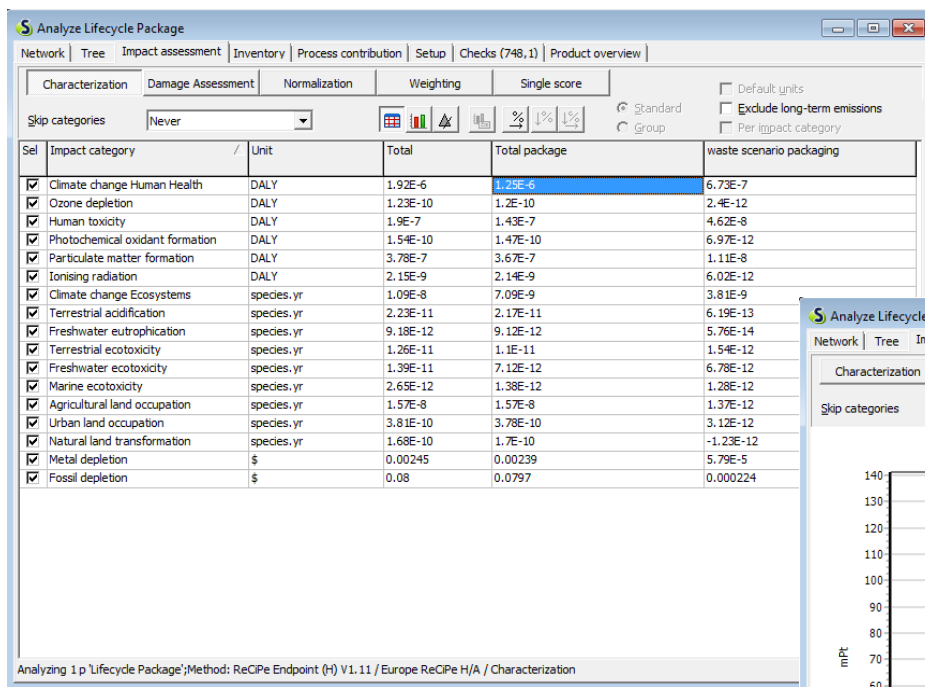
Working with LCA and other stakeholders

Calculating & communicating LCA results

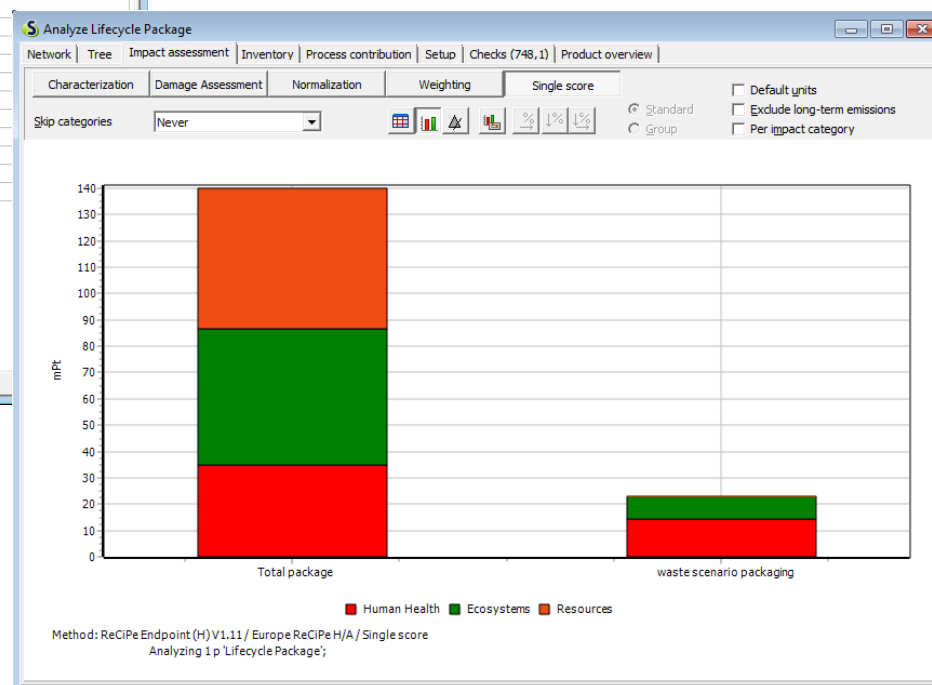


Calculate your results in SimaPro

Results can be presented in a **table** or **chart**



Sel	Impact category	Unit	Total	Total package	waste scenario packaging
<input checked="" type="checkbox"/>	Climate change Human Health	DALY	1.92E-6	1.25E-6	6.73E-7
<input checked="" type="checkbox"/>	Ozone depletion	DALY	1.23E-10	1.2E-10	2.4E-12
<input checked="" type="checkbox"/>	Human toxicity	DALY	1.9E-7	1.43E-7	4.62E-8
<input checked="" type="checkbox"/>	Photochemical oxidant formation	DALY	1.54E-10	1.47E-10	6.97E-12
<input checked="" type="checkbox"/>	Particulate matter formation	DALY	3.78E-7	3.67E-7	1.11E-8
<input checked="" type="checkbox"/>	Ionising radiation	DALY	2.15E-9	2.14E-9	6.02E-12
<input checked="" type="checkbox"/>	Climate change Ecosystems	species.yr	1.09E-8	7.09E-9	3.81E-9
<input checked="" type="checkbox"/>	Terrestrial acidification	species.yr	2.23E-11	2.17E-11	6.19E-13
<input checked="" type="checkbox"/>	Freshwater eutrophication	species.yr	9.18E-12	9.12E-12	5.76E-14
<input checked="" type="checkbox"/>	Terrestrial ecotoxicity	species.yr	1.26E-11	1.1E-11	1.54E-12
<input checked="" type="checkbox"/>	Freshwater ecotoxicity	species.yr	1.39E-11	7.12E-12	6.78E-12
<input checked="" type="checkbox"/>	Marine ecotoxicity	species.yr	2.65E-12	1.38E-12	1.28E-12
<input checked="" type="checkbox"/>	Agricultural land occupation	species.yr	1.57E-8	1.57E-8	1.37E-12
<input checked="" type="checkbox"/>	Urban land occupation	species.yr	3.81E-10	3.78E-10	3.12E-12
<input checked="" type="checkbox"/>	Natural land transformation	species.yr	1.68E-10	1.7E-10	-1.23E-12
<input checked="" type="checkbox"/>	Metal depletion	\$	0.00245	0.00239	5.79E-5
<input checked="" type="checkbox"/>	Fossil depletion	\$	0.08	0.0797	0.000224



For every step in
impact assessment



Share and interpret your results



Sharing results to increase impact




Scenario projects overview



Draft 1

Sort by Modified date ▼ ▲



New project

Sustainable lemonade ...

- 7 Hotspots
- LCA expert
- 27-May-2015

Edit scenario project

Published 1

Sort by Modified date ▼ ▲

Sustainable lemonade ...

- 10 Scenarios built
- LCA expert
- 27-May-2015


View scenario project

- A SimaPro Multi-user license enables your entire team to work in a single database simultaneously, even when working from different locations around the world.
- With SimaPro **Share** LCA practitioners can make their results accessible to a broad business audience, providing valuable insights for the company sustainability adoption.
- SimaPro **Collect** enables to collect data via surveys and to monitor progress

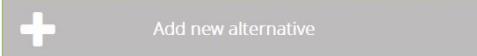


Create hotspots and add choices for your stakeholders with Share



Amount in one package The 1000 ml of lemonade can be packaged in multiple smaller packages. You can modify the predetermined amount total must be 1000 ml Edit hotspot	Packaging body Type and quantity of material required to produce the packaging body. You can use up to three materials. Edit hotspot	Packaging top Type and quantity of material required to produce the packaging top i.e. the closure. You can use one or two materials. Edit hotspot
Packaging decoration Type and quantity of material required to produce the packaging decoration i.e. the label Edit hotspot	Retail packaging The lemonade packages are combined in one package to be sold at the retail. Please specify the amount of packages in the retail unit and the amount of Edit hotspot	Packaging to ship to re... The retail packages are put in a box and on a EURO pallet to be transported to the retail facility. Please specify the amount of packages in one box and Edit hotspot
Transport to retail Km by truck to the retail facility. You can adjust the distance Edit hotspot		

Edit your hotspot - Packaging decoration

Hotspot: Packaging decoration ✓	Short title material
Choice: material	Question to user
Alternative: 	Input type to vary <input checked="" type="radio"/> Input process [?] <input type="radio"/> Parameter value [?]
	Parent process packaging decoration
	Input to vary PET Label
	Default amount 8 g
	<div><div>grams PET Label</div><div>8 (from 0 to 50)</div></div>
	<div><div>grams paper label</div><div>0 (from 0 to 50)</div></div>
	<div><div>grams poly vinyl label</div><div>0 (from 0 to 50)</div></div>
	<div></div>



Easily create scenarios for your business users and assign users to your project



Overall results

Product scenarios

+ Add new scenario

- Collapse scenarios

View scenarios from user...

4 Bottles of 250 ml ☒

Default values for hotspots.

Amount in one package

250 ml in one package

Amount in ml in one package

Packaging body

40 grams PET bottle

material 1

0 Select new material

Material 2

Select new material

Material 3

Packaging top

5 HDPE Cap

5 cartons of 200 ml ☐

Default values for hotspots.

Amount in one package

250 ml in one package

Amount in ml in one package

Packaging body

25 grams kraft paper unbleached

material 1

5 grams PET

Material 2

Select new material

Material 3

Packaging top

10 LDPE cap

1L drink carton ☐

Standard drink carton with twist cap.

Amount in one package

1000 ml in one package

Amount in ml in one package

Packaging body

20 grams kraft paper unbleached

material 1

5 grams PET

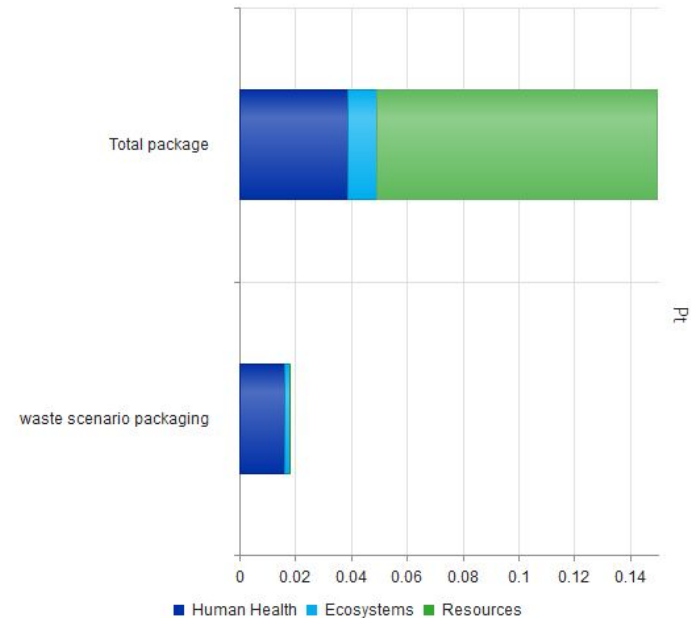
Material 2

2 Aluminium foil

Material 3

Packaging top

10 HDPE Cap



Impact of the selected packaging material. Method ReCiPe single score

Selected scenario is '4 Bottles of 250 ml'

 View process

 Adjust settings

 Download scenarios

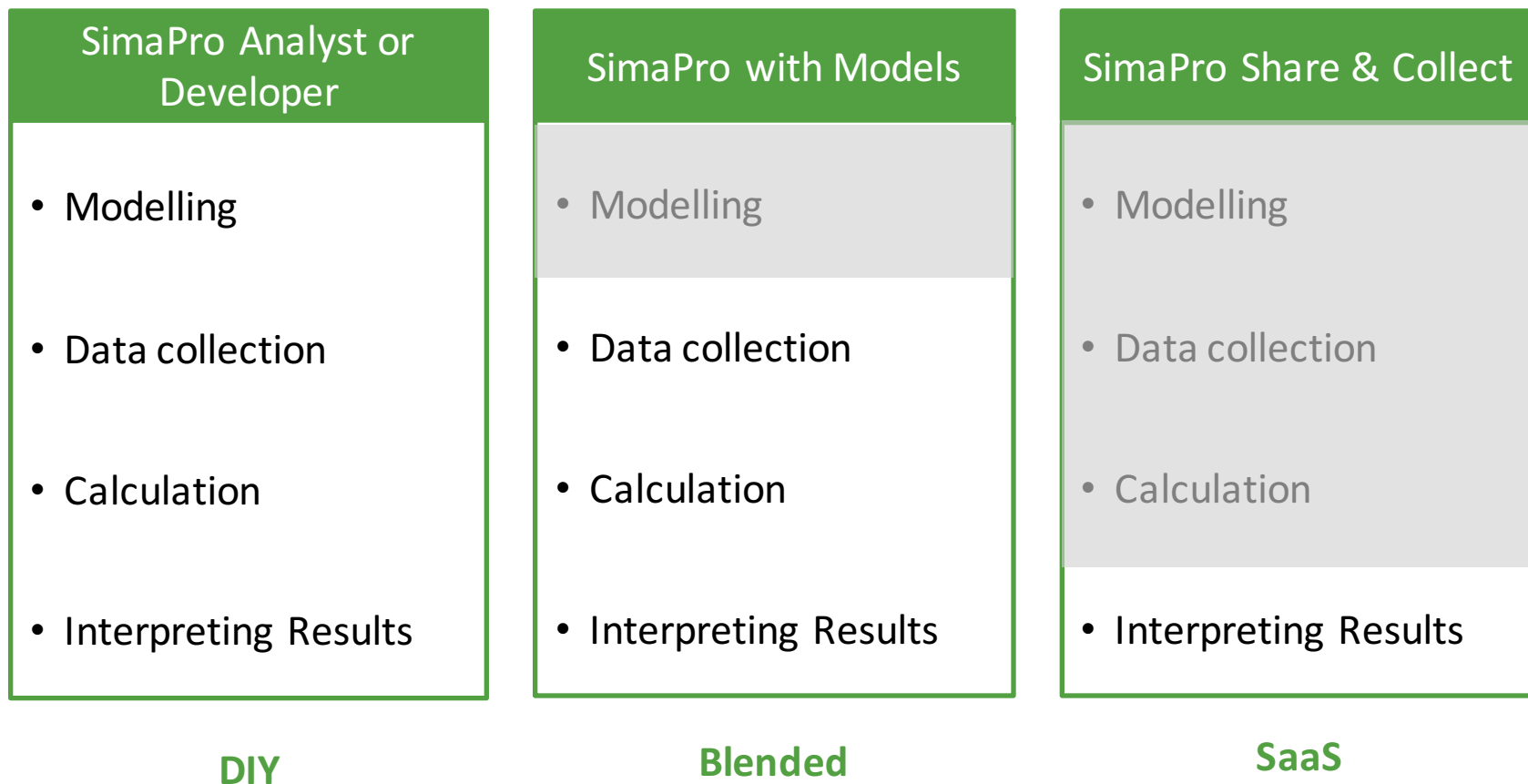
Assign users

Preview

Publish project



Different service models available





How can we help you?



Contact:
jessica@simapro.co.uk