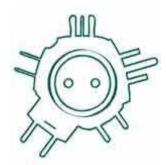
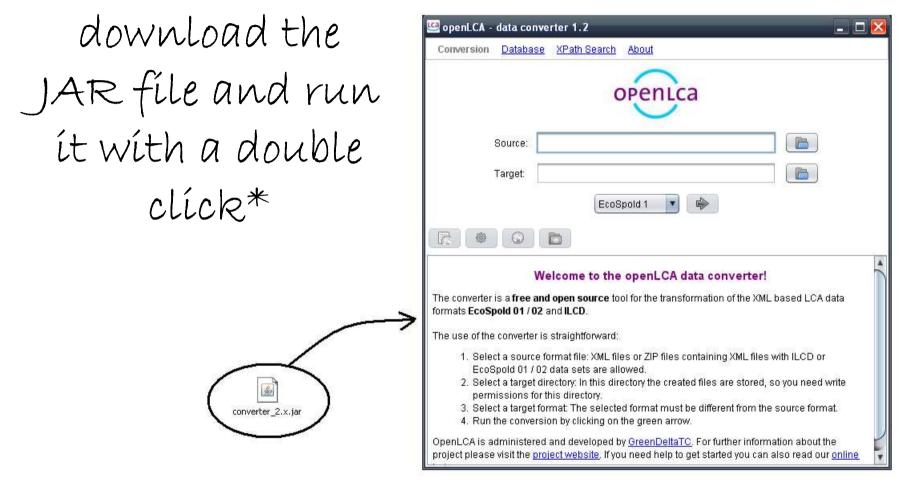
# How to use the openLCA converter 2.0?





\*requires that you have Java installed (http://java.com)



# Starting the first time, the converter extracts a database and a template folder

#### Convert a dataset

## Select a source file

Conversion       Database       XPath Search       About         Image:       Image
Source: stsamples\ES1\EcoSpoldExample_HeatOil_v1.0.xn Target: EcoSpold 1 EcoSpold 1 Welcome to the openLCA data converter! The converter is a free and open source tool for the transformation of the XML based LCA data formats EcoSpold 01 / 02 and ILCD. The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
Target: EcoSpold 1 P EcoSpold 1 P Welcome to the openLCA data converter! Welcome to the openLCA data converter! The converter is a free and open source tool for the transformation of the XML based LCA data formats EcoSpold 01 / 02 and ILCD. The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
EcoSpold 1       Image: Color Spold 1         Image: Color Spold 1
Welcome to the openLCA data converter! The converter is a free and open source tool for the transformation of the XML based LCA data formats EcoSpold 01 / 02 and ILCD. The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
The converter is a <b>free and open source</b> tool for the transformation of the XML based LCA data formats <b>EcoSpold 01 / 02</b> and <b>ILCD</b> . The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
The converter is a <b>free and open source</b> tool for the transformation of the XML based LCA data formats <b>EcoSpold 01 / 02</b> and <b>ILCD</b> . The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
EcoSpold 01 / 02 and ILCD. The use of the converter is straightforward: 1. Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.
<ol> <li>Select a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / 02 data sets are allowed.</li> </ol>
02 data sets are allowed.
permissions for this directory. 3. Select a target format: The selected format must be different from the source format. 4. Run the conversion by clicking on the green arrow.
OpenLCA is administered and developed by <u>GreenDeltaTC</u> . For further information about the project please visit the <u>project website</u> . If you need help to get started you can also read our <u>online help</u> .

#### Select a target file

🥶 openLCA -	data converter 1.2 📃 🗖 🔀
Conversion	Database XPath Search About
	openica
	Source: sttsamplestES1tEcoSpoldExample_HeatOil_v1.0.xml
	Target: Jkumente und Einstellungen\ms\Eigene Dateien\test
	EcoSpold 1
	Welcome to the openLCA data converter!
The converter EcoSpold 01 /	is a <b>free and open source</b> tool for the transformation of the XML based LCA data formats <b>02</b> and <b>ILCD</b> .
The use of the	e converter is straightforward:
	ct a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 / ata sets are allowed
2. Sele	ata sets are anowed. ct a target directory: In this directory the created files are stored, so you need write hissions for this directory.
	ct a target format: The selected format must be different from the source format. the conversion by clicking on the green arrow.
	dministered and developed by <u>GreenDeltaTC</u> . For further information about the project e <u>project website</u> . If you need help to get started you can also read our <u>online help</u> .

# Select a target format

Conversion	<u>Databas</u>	e <u>XPath Sear</u>	ch About			
			open	са		
	Source:	st\samples\ES	31\EcoSpoldEx	ample_HeatOil_v	1.0.xml 📄	]
	Target:	okumente und	l Einstellungen	\ms\Eigene Date	en\test 📄	)
The converter	is a free a	Welcome t	NOC 19550 NOON NO	CA data conv		A data formats
EcoSpold 01 /		0.82				
The use of the	converter	is straightforwa	ırd:			
02 d: 2. Sele perm 3. Sele	ata sets an ct a target ( hissions fo ct a target f	e allowed. directory: In this r this directory.	directory the cr	es containing XMI reated files are st ust be different fro rrow.	ored, so you nee	d write
			A DECK CONTRACTOR OF THE ADDRESS OF	<u>ItaTC</u> . For further i started you can a		전 그는 것 같은 것 같은 것 같은 것을 가지?

#### Run the conversion

	- data converter 1.2 📃 🗖
Conversion	Database XPath Search About
	openica
	Source: st\samples\ES1\EcoSpoldExample_HeatOil_v1.0.xml
	Target: Skumente und Einstellungen\ms\Eigene Dateien\test
•	
	Welcome to the openLCA data converter!
	r is a <b>free and open source</b> tool for the transformation of the XML based LCA data formats / <b>02</b> and <b>ILCD</b> .
The use of the	e converter is straightforward:
	ect a source format file: XML files or ZIP files containing XML files with ILCD or EcoSpold 01 Jata sets are allowed
2. Sele	ect a target directory: In this directory the created files are stored, so you need write missions for this directory.
perm	
3. Sele	ect a target format: The selected format must be different from the source format. I the conversion by clicking on the green arrow.

The converter creates XML files and one HTML file with links to these XML files: the conversion index

🧐 openLCA -	data con	verter 1.2	_ 🗖 🔁
Conversion	<u>Databas</u>	e XPath Search About	
		openica	
	Source:	st\samples\ES1\EcoSpoldExample_HeatOil_v1.0.xml	
	Target:	okumente und Einstellungen\ms\Eigene Dateien\test	
17 files cre	ated (4 s	econds)	
crude oil, at pr	oduction o	ffshore	
process data set file:/C:/Dokumen		20Einstellungen/ms/Eigene%20Dateien/test/ILCD/ILCD/processes/385bb364-1e	6e-1fd5-475
		at long-range transport	
process data set file:/C:/Dokumen		20Einstellungen/ms/Eigene%20Dateien/test/ILCD/ILCD/processes/6494170o-b5	7 a-0631-fb5t
electricity, me	dium voltad	e, production UCTE, at grid	
process data set file:/C:/Dokumen		20Einstellungen/ms/Eigene%20Dateien/test/ILCD/ILCD/processes/00cdc206-fe	cb-80aa-Oeb
		er 10kW, non-modulating	
process data set			
-		)	

You can view the XML files in the converter (you can go back to the conversion índex by clicking on the index button)



🤐 openLCA - data converter 1.2 - 🗆 X Database XPath Search Conversion About openLca P st\samples\ES1\EcoSpoldExample\_HeatOil\_v1.0.xml Source: okumente und Einstellungen\ms\Eigene Dateien\test B Target: **ILCD** 🤐 Run validation Validate 08a91e70-3ddc-11dd-9383-0050c2490048 <?xml version="1.0" <?xml-stylesheet ver 2html.xsl" type="te cprocessDataSet xml; mmon="http://lca.j <processInformation Cancel <dataSetInforma <common:UUID>385bb364-1e6e-1fd5-4751-000027674b54</common:UUID> <name> <baseName xml:lang="en">crude oil, at production offshore</baseName> <baseName xml:lang="de">RohĶl, ab Produktion Offshore</baseName> </name> <classificationInformation> <common:classification name="ILCD"> <common:class classId="43174bb9-6946-44d7-babc-4a100c417e31" level="0"> <common:class classId="7a435950-ca6a-46e6-9e75-7916ab6e51bc" level="1"> </common:classification> </classificationInformation> </dataSetInformation>

You can validate the created XML files against their schemas...

#### \_ 🗆 🔀 🗠 openLCA - data converter 1.2 Conversion Database XPath Search About openLca B st\samples\ES1\EcoSpoldExample HeatOil v1.0.xml Source: okumente und Einstellungen\ms\Eigene Dateien\test Target: ILCD 2 D -Level Message INFO Validate file ILCDClassification.xml Validation of file ILCDClassification.xml: schema reference.4: Failed to read schema document 'http://www.w3.org/2001/xml.xsd', because 1) could not find the document; 2) WARNIN the document could not be read; 3) the root element of the document is not . Validation of file ILCDClassification.xml: src-resolve: Cannot resolve the name 'xml:lang' SEVERE to a(n) 'attribute declaration' component. Validation of file ILCDClassification.xml: s4s-elt-invalid-content.1: The content of SEVERE 'FTMultiLang' is invalid. Element 'attribute' is invalid, misplaced, or occurs too often. Validation of file ILCDClassification xml: s4s-elt-invalid-content.1: The content of SEVERE 'StringMultiLang' is invalid. Element 'attribute' is invalid, misplaced, or occurs too often. Validation of file ILCDClassification.xml: s4s-elt-invalid-content.1: The content of SEVERE 'STMultiLang' is invalid. Element 'attribute' is invalid, misplaced, or occurs too often. INFO Validate file ILCDFlowCategorization.xml Validation of file II CDFIowCategorization xml: schema\_reference 4: Failed to read

# ... and the converter creates a validation report

Additionally, you can open the index file in your browser or you can jump into the folder with the created content with the browser and file system button



# If the format and your browser support XML style-sheets you can get a more user friendly view on the data set

→ C file:///C:/Dokumente%20und	%20Einsteilungen/ms/Eigei	ne%20Datelen/test/IL0	
ocess data set: crude oil, at production offsho	re; (en)		
ole of Contents: Process Information - Modelling and validat	tion - Administrative informatio	on - Inputs and Outputs	
rocess information			
Key Data Set Information	NO		
Reference year	1990		
Name	Base name		
	crude oil, at production o	ffshore	
Technical purpose of product or process	mix of primary, secondary	and tertiary production m	nethods
Classification ( <u>EcoSpold - categories</u> )	Class name / Hierarchy I oil / production	evel	
Classification ( <u>EcoSpold - local categories</u> )	Class name / Hierarchy I Erdöl / Erdöl	evel	
	Copyright? Yes	Owner of data set (contact data set)	Ecoinvent Centre
Quantitative reference			
Reference flow(s)	crude oil, at production of	fshore - 1.0 kg (Mass)	
Time representativeness			
Data set valid until:	1994		
Geographical representativeness			
Technological representativeness			
Technology description including background system	oil exploration and produce separation of oil and wate		nal energy,

### What to do with the conversion output?

#### Pure technical conversion is limited.

# You should check and may edit the dataset before using it.

There are free editors, provided by the respective format authors, for doing this!

# Edít Eco.Spold 01 data sets

# Get EcoSpoldAccess from http://www.ecoinvent.org/database/ecos pold-data-format/ecospoldaccess/

EcoSpold Access	×
View EcoSpold Document	
Validate EcoSpold Document	
View EcoSpold Documentation	View simple EcoSpold Documentation
View EcoSpold Elementary Documentation	View simple EcoSpold Elementary Documentation
View EcoSpold Impact Documentation	View simple EcoSpold Impact Documentation
EcoSpold Access v1.9.10	Close

# Click on 'EcoSpold2Excel' and open an EcoSpold 01 process data set

Suchen in:	processes		<u>→</u> 🕈 E	• 🖬 🏜	
	and a second sec	4db8-a887-eb09300b7b7		18-62d7-4b8a-a2eb	14240 (24244 (d
		617-acd3-0fdb3cecf6c7.		24-3a58-4804-b6de	
Zuletzt verwendete D		df9-8715-659f71c6e28	이번 이번 비를 감압하는 것이?	b2-1d7d-4cb7-9abe	167999699
		c92-a694-748fb28070a9	2010년 - 1월 19 <b>12년</b> - 11월 11일 11일 11일 11일 11일 11일 11일 11일 11일	d6-bd1d-4ea3-8280	
		4a5b-8aea-2c4844cca498		ac-f96a-4e91-b187	17 M 17 M 17 M 17
Desktop	12 ······	11dd-ae16-0800200c9a66		6f-4a31-4348-a36a	1.1.1.1.1.1.1.1
5 controp	100 NO NO NO	894-ba15-da3957df2098		4a-4f7c-42f0-ba85	
<u> </u>	the second secon	4ff1-920c-209e9009dbe0 4808-b2cf-b348c109cb4a	Long .	N-f4b2-4254-8fca- 81 6925-4696-ba03	
	The second second	4008-0207-034801090048 4061-8a91-3e6d7bcc90c6	NYS 83	55-aaa2-44e3-adb	24422222222
Eigene Dateien		4061-6891-386070009006 193c-9629-0ab468bc6bf4		2f-a78a-47f5-a741	이는 것이 있었어?
		98c-9208-acf0a7f02379,	886 - <b>H</b> andard	e6-280d-4de0-a426	이 옷가 많은 것이다.
		45af-8b99-9fb095a33cc0		ec-c66f-4.75-aa9e	123322333310
32	presente and a second se	4d75-87ec-9c0d8a398859	Contraction of the second s	89-2ac4-48ac-b2d5	S. 1. 1 2 6 8 7 1 9 1
Arbeitsplatz		4937-95be-8b4a69b6b9a		4-e2a2-4d34 9087-	
				N N	>
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ung	Dateityp:	XML document (*.xml)		- Abb	nchen
	Dateityp.	AME document ( .xm)			Terion
	1				1

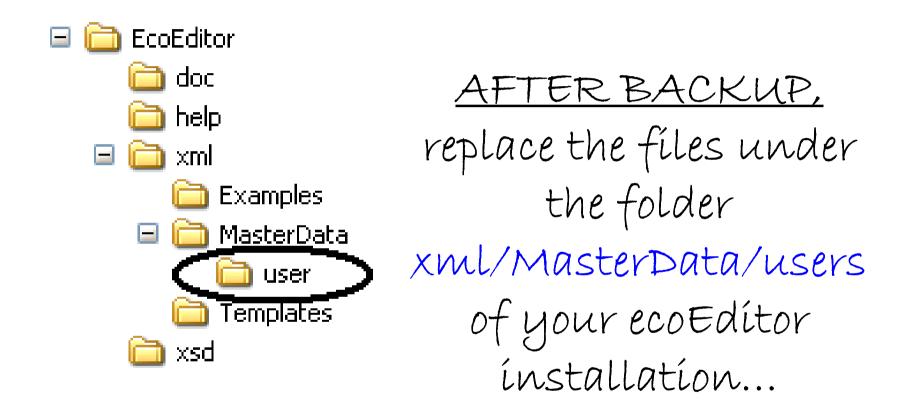
#### The result should look like this

	A	В	С	D	E	F	G	Н	I	J	К	L M
1		1										
2			ID	3503	3504	3702	3703	3506	3507	3508	3706	3707
3	Explanations 401			Input-Group	Output-Group	Name	Category	Sub-Category	Infrastructure- Process	Unit	electricity mix	
4			662			Location						EU-27
5			493			InfrastructureProcess						0
6			403			Unit						MJ
7		resource, in air		4		air		resource	in air		kg	2,74E+0
8				- 4		Energy, kinetic (in wind), converted		resource	in air		MJ	1,13E-1
9				- 4		Energy, solar, converted		resource	in air		MJ	9,76E-2
10				- 4		oxygen		resource	in air		kg	-7,29E-3
11				- 4		nitrogen		resource	in air		kg	3,37E-10
12			_	- 4		Carbon dioxide, in air		resource	in air		kg	1,01E-2
13		resource, in ground		4		barium sulfate		resource	in ground		kg	5,54E-14
14				- 4		baryte		resource	in ground		kg	1,91E-4
15				4		Basalt, in ground		resource	in ground		kg	6,52E-4
16				4		Aluminium, 24% in bauxite, 11% in crude ore, in ground		resource	in ground		kg	3,92E-6
17				- 4		Clay, bentonite, in ground		resource	in ground		kg	7,93E-5
18				- 4		Coal, brown, in ground		resource	in ground		kg	1,31E+0
19				- 4		Calcite, in ground		resource	in ground		kg	6,12E-3
20				- 4		calcium chloride		resource	in ground		kg	5,67E-12
21				- 4		chromium		resource	in ground		kg	4,20E-7
22				- 4		Clay, unspecified, in ground		resource	in ground		kg	4,11E-5
23				- 4		Colemanite, in ground		resource	in ground		kg	3,00E-7
24				- 4		copper		resource	in ground		kg	5,42E-7
25				- 4		Oil, crude, in ground		resource	in ground		kg	6,83E-1
26				- 4		Dolomite, in ground		resource	in ground		kg	2,22E-8
27				- 4		Fluorspar, 92%, in ground		resource	in ground		kg	2,79E-8
28				- 4		gold		resource	in ground		kg	2,31E-12
29		resource, in water		- 4		Water, salt, sole		resource	in water		m3	1,01E-3
30		resource, in ground		4		Gypsum, in ground		resource	in ground		kg	2,09E-5
31				4		Coal, hard, unspecified, in ground		resource	in ground		kg	2,03E+0
32				4		Metamorphous rock, graphite containing, in ground			in ground		kg	2,08E+0
33				4		iron			in ground		kg	9,22E-5
24				4		Kaolinite 24% in crude ore in ground			in around		ka	5.39E-7

## Edít EcoSpold 2 datasets

# Get the new ecoEdítor from http://www.ecoinvent.org/ecoinvent-V3/ecoedítor-V2/







... with the files from Content/MasterData of the conversion output

<u>E</u> dit <u>V</u> iew <u>H</u> elp									
📕 Activity Description 🛛 📲 🛛 🕅	1odelling and Administrative 🧧 Exchanges 🖷 Exchange Properties 📲 Parameters								
Activity	Process steam from light fuel oil, heat plant, consumption mix, at plant, MJ, BG, 2002 - 201								
Activity Name	Process steam from light fuel oil, heat plant, consumption mix, at plant, MJ								
Туре	2 - SystemTerminated								
Special Activity Type	0 - OrdinaryTransformingActivity								
Inheritance Depth	0 - NotAChild								
General Comment	Good overall data quality. Energy carrier mix information based on official statistical information including import / export. A detailed heat plant model was used, which combine measured emissions plus calculated values for not measured emissions of e.g. organics or heavy metals. Energy carrier extraction and processing data is of sufficient to good (e.g. refinery) data quality. Inventory is partly based on primary industry data, partly on secondary I								
Included Activities Start									
Included Activities End									
Synonym									
Tag									
Energy Values	0 - Undefined								
Master Allocation Property	< None >								
Allocation Comment	For the combined crude oil, natural gas and natural gas liquids production allocation by net calorific value is applied. Within the refinery allocation by net calorific value and mass is used.								
Dataset Icon									
Classifications									
System : Value	ILCD Classification: Energy carriers and technologies/Heat and steam								
Geography									
Shortname	BG								
Comment	The data set represents the country / region specific situation, focusing on the main technologies, and the region specific characteristics.								
Technology									
Technology Level	0 - Undefined								
Comment	The process steam is produced in a light fuel oil specific heat plant. The Bulgarian specific fuel supply (share of resources used, by import and / or domestic supply) including the Bulgarian specific energy carrier properties (e.g. element and energy contents) are accounted for. Furthermore Bulgarian specific technology standards of heat plants regarding efficiency, firing technology, flue-gas desulphurisation, NOx removal and dedusting are considered. The Bulgarian emission factors can be found in the table below in the corresponding column. The data set considers the whole supply chain of the fuels from exploration over extraction and preparation to transport of fuels to the heat plants. Furthermore the data set comprises the infrastructure as well as end-of-life of the plant. The background system is addressed as follows: Transports: All relevant and track transport processes used are included. Overseas transports including rula nd truck transport processes used are included.								

Then, after a restart, you can open the activity data sets of the Content folder with the ecoEdítor

#### Edít ILCD datasets

# Get the new ILCD Editor from http://lct.jrc.ec.europa.eu/assessment/ tools

🛃 ILCD			eta 2					🛛
File Wind	dow He	lp						
Archive	D	2	Dataset	1	<b>a</b>	Gen UUID	۶	2]

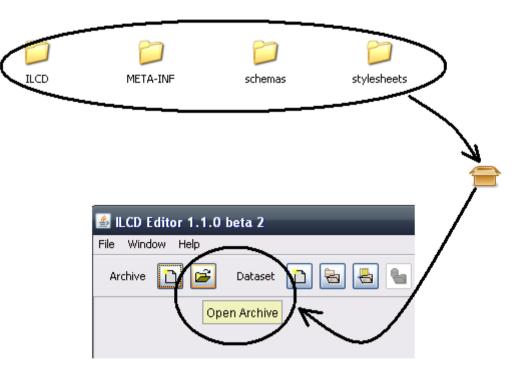
## You can open and edit created data sets with the function 'Open Dataset from Disk'

≝ ILCD Editor 1.1.0 beta 2		
File Window Help		
Archive 🗋 🖻 Dataset 🔽 🔄 🔄 🔚 🔛 💽 🖉 🕼 💷 🖳	Show fields:	💿 all
Open Dataset from Disk		

# You can edit a dataset and check the ILCD conformity...

Archive	🛅 🖻 Datase	t 🗅 🗧 📥 🐂 (		1	Show fields:	💿 all  recom	mended 🔘 mano	dato
		C:\Dok	umente und Einstellungen	ms\Eigene Da	teien\test\ILCD\ILCD\p	rocesses\7f9e188	lc-02a2-c714-91	31-
Proce	ess information \ Mod	lelling and validation 🕇 Adm	inistrative information	outs and Outpu	Its LCIA results			
	Ref. to flow	Short description	Exchange direction	Location	Resulting amount	Mean amount	Uncertainty	
edi	it/flows/0892	light fuel oil, at regional	Input	RER	0.0269	0.0269	log-normal	
edi	it/flows/1449	steel, low-alloyed, at pl	Input	RER	2.1E-5	2.1E-5	log-normal	
edi	it/flows/5197	electricity, medium volta	Input	UCTE	3.6E-7	3.6E-7	log-normal	
edi	it/flows/08a9	carbon dioxide (fossil)	Output		0.085	0.085	log-normal	
edi	it/flows/fe0ac	sulfur dioxide	Output		8.0E-5	8.0E-5	log-normal	
edi	it/flows/08a9	nitrogen dioxide	Output		2.9E-5	2.9E-5	log-normal	
edi	it/flows/750fb	heat, light fuel oil, at boi	Output	RER	1.0	1.0		
								>

# You can also pack the created ILCD folders and use it as an ILCD archive



### More information at openIca.org

