

International Reference Life Cycle Data System (ILCD)

Documentation of LCA data sets

Final Draft

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1 Overview

This document provides the provisions for ILCD documentation-compliant LCA data sets under the ILCD Handbook and ILCD Data Network. The document also lists the general possibilities of the ILCD data set format for the documentation of LCA data sets for technical audience (e.g. LCA practitioners and reviewers). The term “LCA data sets” is used here as cover term for the following types of data sets: Process data set, Flow data set, Flow property data set, Unit group data set, Source data set, and Contact data set. The latest addition is the LCIA method data set.

Figure 1 shows the inter-relationships of these data set types, with the Process data set being the key data set, as it provides the Life Cycle Inventory. Via the characterisation factors of the LCIA method data set, LCIA results can be calculated from the process data set's inventory.

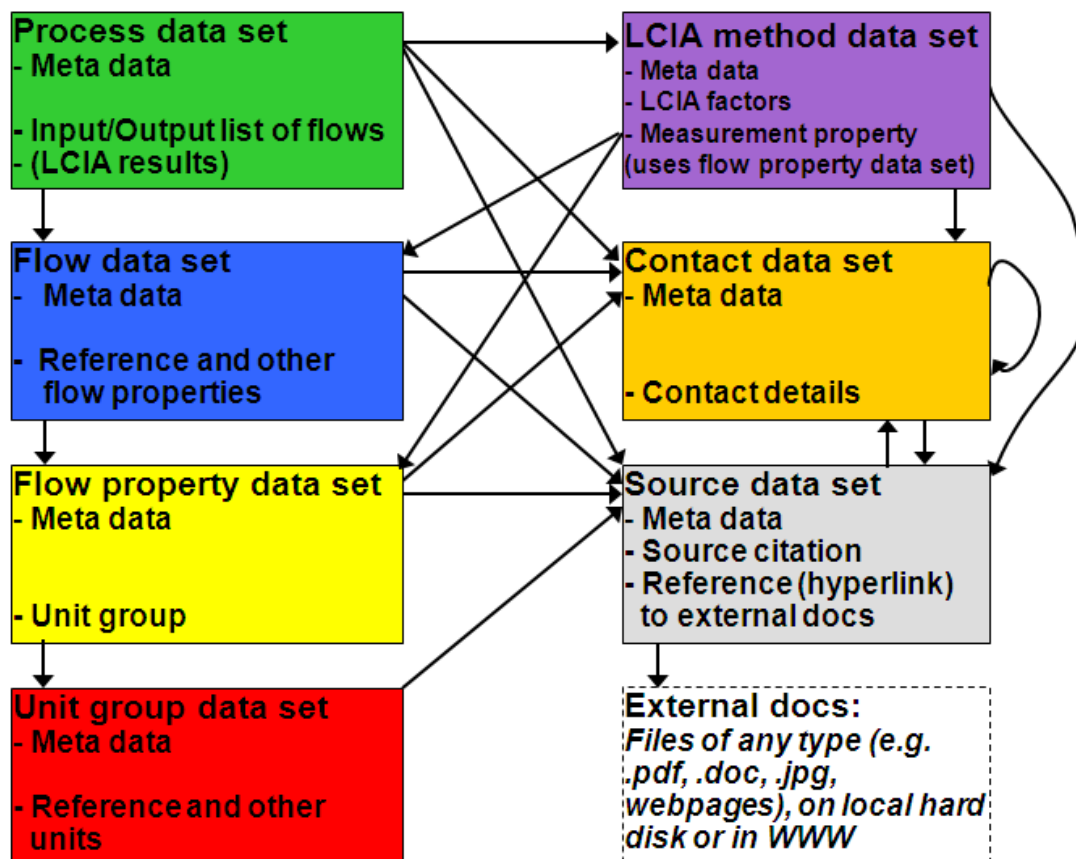


Figure 1 Inter-relationship of the data set types of the ILCD format and their core content, schematic.

Documenting data sets according to the provisions of this document ensures that the LCA practitioner gets the information that he/she needs to judge the quality and appropriateness of a data set for the specific application.

The ILCD data set format ensures that the information is provided in a well structured way and supports information loss-free electronic data exchange, avoiding errors that occur e.g. in manual transfer.

Note that applying the provisions of this document does not imply that the data meets a certain quality requirement or that the data set would be endorsed by any organisation.

Most but not all of the ILCD documentation provisions are also implemented in compliance stylesheets of the ILCD data set editor. These stylesheets support an efficient automatic checking of individual data sets and whole databases regarding the compliance of the extent of the documentation. However, the correctness and appropriateness of the documentation content can of course not be part of an automated check, but is to be judged by the LCA practitioner and/or reviewer.

Note that depending on the intended application (e.g. support of comparative studies) and target audience ("third-party report") of a data set and studies it is meant to support, further information may be mandatory in line with ISO 14044 and the ILCD Handbook.

2 Detailed provisions for LCA data set documentation

2.1 IT compatibility of data set files

An LCA data set complies with the ILCD data set format from IT perspective, if the data set is "ILCD format schema valid", i.e. it is actually provided in the ILCD format as defined in the XSD schema files and corresponding files. Note that this does not imply ILCD-compliant documentation, which includes also the extent and correctness of the documentation (see below).

[Note to developers: This schema-validity is also fulfilled if additional "namespaces" (i.e. for additional fields defined in other formats that may be integrated into the data set) are included in the data set, in the way specified in the ILCD schema files.]

2.2 Extent of ILCD documentation

The following sub-chapters provide the detailed provisions on the scope of documentation.

The ILCD data set format is made for wide compatibility and for allowing a complete documentation of the data sets. In practice, typically only a part of the total documentation possibilities will be regularly used. To guide provision of appropriately documented datasets and to ease/focus regular use, the tables of the following chapters define therefore the minimum requirements for a well documented, i.e. **"ILCD documentation-compliant"** LCA data set. To meet the minimum requirements for ILCD-compliant documentation, at least all the documentation sections and fields (i.e. elements) given in the following sub-chapters are present and used as defined in the ILCD format.

Note that some requirements refer to the informatics / technical format of the presented information, others to the correctness / appropriateness and extent of the information. The latter can not be judged automatically but has to be verified by e.g. a reviewer.

! Note that depending on the intended application (e.g. support of comparative studies) and target audience ("third-party report") of a data set and studies it is meant to support, **further information may be mandatory in line with ISO 14044 and the ILCD Handbook**. This includes e.g. documentation of the data collection procedures, lists of excluded processes and flows, a list of assumptions made, and other items that may alternatively be attached to the data set in a LCI study report. These items and the corresponding field (if any) beyond the basic documentation compliance requirements are NOT again identified in the following tables. Details see under "Reporting" in the "ILCD Handbook - General guide for LCA".

2.3 How to read the tables

Meaning of the key information columns in the following tables

- **“Max. No. characters”**: The maximum permissible number of characters is an additional compliance constraint below the number that is technically permitted for the given field type by the ILCD format. This serves to better differentiate the maximum number of chapters in a field (avoiding e.g. data set names of 500 characters) without introducing too many field types.
- **“Compliance requ. type”**: This column identifies which fields are to be filled in to have a **ILCD format schema valid data set (entry “V”)** and a **appropriately documented “ILCD documentation-compliant” data set according to this document (entry “C”)**. In the exceptional case that a specific field can also be empty, this is stated below by putting the requirement type into brackets (e.g. “(C)”). “O” means optional. Please note that depending on the specific data set, the use of some otherwise not required fields can be required to provide accurate information. For example, if it is stated that an independent external review has been performed, the reviewer name and the review results are to be given as well. This is to be judged case-wise by the LCA practitioner and/or reviewer. In some frequently relevant cases this is pointed out in the tables of the following chapters in the "Comment" column: **only in the specified cases the field is a required “C” field, otherwise its use is optional.** (Note also that the entries of this column are similar while not identical as those of column “Requ. filter indicator”; column “Requ. filter indicator” may serve as a general filter for the format fields for use in e.g. LCA software or editors.)
- **“Indicative text lengths IF field in use (chars)”**: The range given indicates a **typical extent of text** to be expected for an appropriately documented data set. This is however NOT a formal requirement that would need to always be met. [Note for developers: This information can be used to automatically check for deviations below or above the range and to provide feedback to the LCA practitioner.]
- **“Mandatory entry (if any)”**: The required specific entry is given here, in case such is mandatorily to be entered for an appropriately documented ILCD data set.

The columns with grey column heading provide additional information for IT developers interested to support ILCD documentation-compliance with electronic check.

Meaning of the text colours in the following tables

- To ease the use of the following tables, for all entries that may actively to be dealt with by the LCA practitioner, the text is highlighted in dark green.
- **Among those entries that may need to be addressed by the practitioner, the REQUIRED entries (i.e. for “ILCD format schema valid” and “ILCD documentation-compliant” data sets) are further highlighted in bold.**
- For fields that are assumed to be filled in always by the LCA software tool or editor without user-interaction and fields that are just section or subsection

headings and need hence no entry are set in grey. Also all columns in the tables that are of no particular interest to the practitioner (while to IT implementers), the text is set in grey.

- The practitioner also has no direct interaction with the fields "Other content", i.e. the "namespace" extension points. The text in these rows is set in white.

2.4 Process data set

Preceding remark: How much effort is it to appropriately document a Process data set?

By pre-defining entries and requiring condensed text information, the effort to document a process data set in the ILCD format is by far lower than writing a full LCI study report. At the same time the data set already provides virtually all relevant information to the user and eases electronic exchange and management of the information: An appropriately documented process data set therefore can fulfil - together with background method reports - the ISO 14044 requirements for a "Third party report".

On the effort, for orientation and referring to a typical¹ data set: The data set type "Process data set" has a total of 123 fields that can carry a specific entry (i.e. without counting the 41 section and subsection headings that only structure the data set). 4 of these fields are mandatory for a schema-valid data set (and these are typically filled in automatically, e.g. the UUID and the data set version number), and 64 are required for an "ILCD documentation compliant" data set. Of these 64 fields, 54 are to be dealt with by the LCA practitioner (respectively reviewer). The other 10 fields are always automatically filled in by the LCA software or editor.

However, of the 54 fields that are to be handled by the practitioner and that are required for an appropriately documented ILCD data set, for 20 fields the practitioner is to select entries from predefined lists, e.g. via pull-down menus. 10 fields are references to other data sets (Source, Contact, Flow, or LCIA method data sets). (For the extent of information documented in these referenced data sets, see the subsequent chapters). Several of the other fields can often also automatically be filled in by the LCA software, especially can organisation-wide or user-specific defaults be defined on e.g. data set modeller, copyright, LCI method principle, etc. Only 20 fields require the practitioner to actually provide a short freely formulated text entry and 4 to enter numbers. In many cases several of the above counted 20 text fields will need to carry the entry "none" (e.g. in case of no deviations from method approaches, no access restrictions, etc.), limiting the actual effort. While a number of fields can have multiple occurrences (e.g. references to sources used, input/output flows, etc.), none of these multiple occurrence fields is a free text field. For all data set types case-wise it can be necessary to fill in additional fields to correctly document a data set; this is to be judged case-wise.

In addition to the fields in the Process data set, the referenced e.g. flow, contact and source data sets need to be documented as well; these are regularly reused across the various Process data sets.

¹ Note that for parameterised data sets 5 additional fields are to be filled in.

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Process data set	<i>processDataSet</i>	<i>m</i>	[1,1]			V				1
version	@version	m		<u>SchemaVersion</u>		V			The actual ILCD format schema version is to be referenced.	1-a
location	@locations	m		<u>String</u>		V			The file ILCDLocations.xml should be referenced, or another locations-file that includes the specified locations of the ILCDLocations.xml file.	1-b
Meta data only	@metaDataOnly	o		<u>boolean</u>		C			„yes“ only for data sets without the Inputs and Outputs and Mathematical model sections, i.e. for a purely descriptive meta data set without inventory data.	1-c
Process information	<i>processInformation</i>	<i>m</i>	[1,1]			V				1-1
Key Data Set Information	<i>dataSetInformation</i>	<i>m</i>	[1,1]			V				1-1-2
UUID of Process data set	UUID	m	[1,1]	<u>UUID</u>		V				1-1-2-1
Name	<i>name</i>	r	[0,1]			C				1-1-2-2
Base name	<i>baseName</i>	r	[1,1]	<u>StringMultiLang</u>	100	C	10 ... 50		Naming conventions of the „ILCD - Nomenclature and other conventions“ document shall be applied.	1-1-2-2-1
Treatment, standards, routes	<i>treatmentStandardsRoutes</i>	r	[0,1]	<u>StringMultiLang</u>	100	C	5 ... 30		Naming conventions of the „ILCD - Nomenclature and other conventions“ document shall be applied. If - in rare cases - the field has no meaningful entry, enter a blank (" ").	1-1-2-3
Mix and location types	<i>mixAndLocationTypes</i>	r	[0,1]	<u>StringMultiLang</u>	100	C	5 ... 30		Naming conventions of the „ILCD - Nomenclature and other conventions“ document shall be applied. If - in rare cases - the field has no meaningful entry, enter a blank (" ").	1-1-2-4

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Quantitative product or process properties	functionalUnitFlowProperties	r	[0,1]	StringMultiLang	100	C	5 ... 30		Naming conventions of the „ILCD - Nomenclature and other conventions“ document shall be applied. If - in rare cases - the field has no meaningful entry, enter a blank (" ").	1-1-2-5
<i>Other content</i>	<i>other</i>	o	[0,1]			O				0
Identifier of sub-data set	identifierOfSubDataSet	o	[0,1]	String		O				1-7-32-131
Synonyms	synonyms	o	[0,1]	FTMultiLang		O			It is recommended to ease the identification of monofunctional processes by adding synonyms, be it synonymous chemical names, trivial names or brand names.	1-1-2-6
<i>Complementing processes</i>	<i>complementingProcesses</i>	o	[0,1]			O				1-1-2-8
Complementing process	complementingProcess	o	[1,n]	GlobalReferenceType		O				1-1-2-8-1
<i>Classification information</i>	<i>classificationInformation</i>	r	[0,1]			C				1-1-2-7
<i>Classification</i>	<i>classification</i>	r	[0,n]			C				1-1-2-7-2
Name	@name	r		string	100	C	10 ... 75		The classes of the file ILCDClassification.xml shall be used. Classes of additional classification systems can be added only via separate "Classification" field sets.	1-1-2-7-2-a
Classes	@classes	r		anyURI		C				1-1-2-7-2-b
<i>class</i>	<i>class</i>	r	[1,n]			C				1-1-2-7-2-1
Hierarchy level	@level	r		LevelType		C				1-1-2-7-2-1-a
Unique class identifier	@classId	r		string	200	C	1 ... 150		The classes of the file ILCDClassification.xml shall be used. Classes of additional classification systems can be added only via separate	1-1-2-7-2-1-b

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									"Classification" field sets.	
Other content	other	o	[0,1]			O				0
General comment on data set	generalComment	o	[0,1]	FTMultiLang		O				1-1-2-12
Data set LCA report, background info	referenceToExternalDocumentation	o	[0,n]	GlobalReferenceType		O			It is recommended to provide a more comprehensive documentation via a referenced/attached LCI study report, ideally using the ILCD report template (which is optional). A report is required, if the data set is foreseen to be used for comparative studies and the documentation inside the data set does not meet the requirements of a "Third-party report" under ISO 14044 and the ILCD.	1-1-2-13
Other content	other	o	[0,1]			O				0
Quantitative reference	quantitativeReference	r	[0,1]			C				1-1-4
Type of quantitative reference	@type	r		TypeOfQuantitativeReferenceValues		C			Recommended to be of the type „Reference flow(s)“.	1-1-4-15
Reference flow(s)	referenceToReferenceFlow	r	[0,n]	Int6		C			If "Type of quantitative reference" is "Reference flow", at least one reference flow is to be identified among the input/output product or waste flows.	1-1-4-16
Functional unit, Production period, or Other parameter	functionalUnitOrOther	r	[0,n]	StringMultiLang		C	20 ... 100		Required ("C"), if field "Type of quantitative reference", is of type other than "Reference flow(s)". However also if of type "Reference flow(s)", it is recommended, to additionally give one or more functional units for the reference flow(s). If	1-1-4-17

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									the data set is foreseen to be used in comparative studies, this might be a formal requirement under ISO.	
Other content	other	o	[0,1]			O				0
Time representative	time	r	[0,1]			C				1-1-6
Reference year	referenceYear	r	[0,1]	<u>Year</u>		C			Note the definition of the field.	1-1-6-18
Data set valid until:	dataSetValidUntil	r	[0,1]	<u>Year</u>		C				1-1-6-19
Time representativeness description	timeRepresentativenessDescription	r	[0,1]	<u>FTMultiLang</u>		C	20 ... 100			1-1-6-20
Other content	other	o	[0,1]			O				0
Geographical representative	geography	r	[0,1]			C				1-1-8
<i>Location</i>	<i>locationOfOperationSupplyOrProduction</i>	r	[0,1]			C				1-1-8-21
Location	@location	r		<u>NullableString</u>	25	(C)	2 ... 20		Shall use one of the locations that are specified in the ILCDLocations.xml or other file, as referenced in the field „<processDataSet @locations>. Empty if geography-unspecific e.g. technology-model data set (i.e. ONLY enter "GLO" if the data set represents worldwide average data).	1-1-8-21
Latitude and Longitude	@latitudeAndLongitude	o		<u>GIS</u>		O			If a link to a GIS is foreseen: For country or other region-code representative data sets, the "Location" code can be used to identify the Latitude and Longitude shape data of the country/region;	1-1-8-23

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									Alternatively it is recommended to use the data of the centre of the country/region.	
Geographical representativeness description	descriptionOfRestrictions	o	[0,1]	<u>FTMultiLang</u>		C	20 ... 200			1-1-8-24
Other content	other	o	[0,1]			O				0
<i>Sub-location(s)</i>	<i>subLocationOfOperationSupplyOrProduction</i>	o	[0,n]			O				1-1-8-22
Sub-location(s)	@subLocation	o		<u>String</u>	25	O	2 ...20		Note the field definition.	1-1-8-22
Latitude and Longitude	@latitudeAndLongitude	o		<u>GIS</u>		O				1-1-8-23
Geographical representativeness description	descriptionOfRestrictions	o	[0,1]	<u>FTMultiLang</u>		C	20 ... 500		Required ("C") only if field "Sublocation(s)" has an entry.	1-1-8-24
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Technological representativeness	technology	r	[0,1]			C				1-1-10
Technology description including background system	technologyDescriptionAndIncludedProcesses	r	[0,1]	<u>FTMultiLang</u>		C	200 ... 4000			1-1-10-25
Included data sets	referenceToIncludedProcesses	r	[0,n]	<u>GlobalReferenceType</u>		O			It is recommended to reference all quantitatively relevant ("key") included process data sets. Field should stay un-used only for single operation unit processes or if included processes are not	1-1-10-26

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									available/documented as separate ILCD-formatted data sets or meta data sets.	
Technical purpose of product or process	technologicalAp r plicability	r	[0,1]	FTMultiLang		C	50 ... 400			1-1-10-27
Pictogramme of technology	referenceToTec hnologyPictogra mme	o	[0,1]	GlobalRefe renceType		O				1-1-10-28
Flow diagram(s) or picture(s)	referenceToTec hnologyFlowDia grammOrPictur e	o	[0,n]	GlobalRefe renceType		C			System boundary diagram should be placed here as well. Technical flow charts are recommended to improve documentation of most data sets.	1-1-10-29
Other content	other	o	[0,1]			O				0
Mathematical model	mathematicalRel ations	o	[0,1]			C			This whole section is required only for parameterised LCI data sets.	1-1-12
Model description	modelDescriptio n	o	[0,1]	FTMultiLang		C	50 ... 4000		This entry is required ("C") only for parameterised LCI data sets, i.e. if at least one field "Name of variable" is in use.	1-1-12-31
Variable / parameter	variableParame ter	o	[0,n]			C				1-1-12-33
Name of variable	@name	o		MatV	25	C	5 ... 15		This entry is required ("C") only for parameterised LCI data sets, for at least on set of "Variable / parameter" fields.	1-1-12-33-1
Formula	formula	o	[0,1]	MatR		C			This entry is empty if the "Name of the variable" is a parameter that is defined by the "Mean value" given, i.e. a formula should be entered only if it actually is a variable that is calculated along a formula.	1-1-12-32
Mean value	meanValue	o	[0,1]	Real		C			This entry is required ("C") only for parameterised LCI data sets, if a "Name of variable" is given.	1-1-12-34

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									If this one is a variable the "Mean value" is the calculated result of the "Formula" field with the given parameterisation (i.e. with the default parameter settings).	
Minimum value	minimumValue	o	[0,1]	Real		O				1-1-12-35
Maximum value	maximumValue	o	[0,1]	Real		O				1-1-12-36
Uncertainty distribution type	uncertaintyDistributionType	o	[0,1]	Uncertainty Distribution TypeValues		O				1-1-12-37
Relative StdDev in %	relativeStandardDeviation95In	o	[0,1]	Perc		O				1-1-12-38
Comment, units, defaults	comment	o	[0,1]	StringMultiLang	200	C	5 ... 100		This entry is required ("C") only for parameterised LCI data sets.	1-1-12-39
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Modelling and validation	modellingAndValidation	r	[0,1]			C				1-3
LCI method and allocation	LCIMethodAndAllocation	r	[0,1]			C				1-3-14
Type of data set	typeOfDataSet	r	[0,1]	TypeOfProcessValues		C			Note the differences between "LCI result" and "Partly terminated system" data sets.	1-3-14-40
LCI method principle	LCIMethodPrinciple	r	[0,1]	LCIMethodPrincipleValues		C			Make sure that the entry fits with the approach declared in the section „Compliance declarations“ and the entry/ies in the field „LCI method approaches“. Note: For data sets that are made for the	1-3-14-41

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									Situations A, B, C1 or C2 of the ILCD Handbook, this fact is to be entered in the field "Compliance declarations".	
Deviation from LCI method principle / explanations	deviationFromLCIMethodPrinciple	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-14-42
LCI method approaches	IciMethodApproaches	r	[0,n]	LCIMethodApproachesValues		C			Make sure that the entry fits with the approach declared in the section „Compliance declarations“ and the entry/ies in the field „LCI method principle“.	1-3-14-43
Deviations from LCI method approaches / explanations	deviationsFromLCIMethodApproaches	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-14-44
Modelling constants	modellingConstants	r	[0,1]	FTMultiLang		C				1-3-14-45
Deviation from modelling constants / explanations	deviationFromModellingConstants	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-14-46
LCA methodology report	referenceToLCAMethodDetails	o	[0,n]	GlobalReferenceType		O			It is recommended to reference the methodology protocol applied. For ILCD-method compliant data sets this is the "ILCD Handbook - Specific guide for LCI data sets". Note that such a report might be required if the data set is intended to be used in comparative studies to ensure it meets the "third-party report" requirements of ISO14044 and the ILCD.	1-3-14-47
Other content	other	o	[0,1]			O				0
Data sources,	dataSourcesTree	r	[0,1]			C				1-3-16

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
<i>treatment, and representative ness</i>	<i>atmentAndRepresentativeness</i>									
Data cut-off and completeness principles	dataCutOffAndCompletenessPrinciples	r	[0,1]	FTMultiLang		C	100 ... 300		Make sure to meet the cut-off and completeness requirements as defined for the data quality level that you claim in sub-section "Validation/Data quality indicators" and the section „Compliance declarations“.	1-3-16-48
Deviation from data cut-off and completeness principles / explanations	deviationFromDataCutOffAndCompletenessPrinciples	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-16-49
Data selection and combination principles	dataSelectionAndCombinationPrinciples	r	[0,1]	FTMultiLang		C	50 ... 300		Make sure to meet the method requirements as defined for the data method type and quality level that you claim in the section „Compliance declarations“. For „LCI results“ and „partly terminated systems“ data sets also check the „Included processes“.	1-3-16-50
Deviation from data selection and combination principles / explanations	deviationsFromCutOffAndCompletenessPrinciples	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-16-51
Data treatment and extrapolation principles	dataTreatmentAndExtrapolationPrinciples	r	[0,1]	FTMultiLang		C	50 ... 300		Make sure to meet the technological, geographical and time representativeness requirements as defined for the data quality level that you claim in sub-section "Validation/Data quality indicators" and the section „Compliance	1-3-16-52

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									declarations“. Also check with entries you give in the respective „... representativeness“ sections.	
Deviation from data treatment and extrapolation principles / explanations	deviationsFromTreatmentAndExtrapolationPrinciples	r	[0,1]	FTMultiLang		C	4 ... 400		Enter "None", if no deviations.	1-3-16-53
Data handling report	referenceToDataHandlingPrinciples	o	[0,n]	GlobalReferenceType		O				1-3-16-54
Data source(s) used for this data set	referenceToDataSource	r	[0,n]	GlobalReferenceType		C			Provide citations/reference of all relevant data sources, including for the relevant ("key") included processes of the background system, if any.	1-3-16-55
Percentage supply or production covered	percentageSupplyOrProductionCovered	r	[0,1]	Perc		C			Especially for generic or average data sets, consider which market-relevant technologies are actually and explicitly addressed/included in the inventory of this data set.	1-3-16-57
Annual supply or production volume	annualSupplyOrProductionVolume	o	[0,1]	StringMultiLang		O	10 ... 20		Note that for data sets that are intended to be used in a decision context, it is recommended to document the "market size" here, to later be able to check whether a modelled scenario has large-scale consequences on the market.	1-3-16-58
Sampling procedure	samplingProcedure	o	[0,1]	FTMultiLang		O	20 ... 500			1-3-16-59
Data collection period	dataCollectionPeriod	o	[0,1]	StringMultiLang		O	10 ... 50			1-3-16-60
Uncertainty adjustments	uncertaintyAdjustments	o	[0,1]	FTMultiLang		O	4 ... 200			1-3-16-61

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Use advice for data set	useAdviceForDataSet	r	[0,1]	FTMultiLang		C	100 ... 1000		In case no specific methodological use advice needs to be given, please enter "no specific methodological advice".	1-3-16-62
Other content	other	o	[0,1]			O				0
Completeness	completeness	o	[0,1]			O				1-3-18
Completeness product model	completenessProductModel	r	[0,1]	CompletenessValues		C			Make sure to meet the cut-off and completeness requirements as defined for the data quality level that you claim in subsection "Validation/Data quality indicators" and the section „Compliance declarations“.	1-3-18-63
Supported impact assessment methods	referenceToSupportedImpactAssessmentMethods	r	[0,n]	GlobalReferenceType		C			Usability of this field pending finalisation of the implementation of the "LCIA method data set". If specific data sets are unavailable, a reference to an empty default "LCIA method data set" can be put.	1-3-18-64
<i>Completeness elementary flows, per topic</i>	<i>completenessElementaryFlows</i>	r	[0,n]			C				1-3-18-65
completeness type	@type	r		CompletenessTypeValues		C				1-3-18-65-1
value	@value	r		CompletenessValues		C				1-3-18-65-2
Completeness other problem field(s)	completenessOtherProblemField	o	[0,1]	FTMultiLang		O	50 ... 200			1-3-18-80
Other content	other	o	[0,1]			O				0
Validation	validation	r	[0,1]			C				1-3-20
<i>Review</i>	<i>review</i>	r	[0,n]			C				1-3-21
Type of	@type	r		TypeOfRev		C			Make sure that the performed /	1-3-20-81

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
review				iewValues					stated review type meets the requirements of the „review compliance“ that you state in section „Compliance declarations“. The ILCD generally requires an independent review for externally provided data sets; details see "ILCD compliance" documentation.	
<i>Scope of review</i>	<i>scope</i>	<i>r</i>	<i>[0,n]</i>			<i>C</i>				<i>1-3-20-82</i>
Scope name	@name	r		ScopeOfReviewValues		C			Make sure that the performed / stated review scope meets the requirements of the „review compliance“ that you state in section „Compliance declarations“.	1-3-20-82-1
<i>Method(s) of review</i>	<i>method</i>	<i>r</i>	<i>[0,n]</i>			<i>C</i>				<i>1-3-20-83</i>
Method name	@name	r		MethodOfReviewValues		C			Make sure to meet the cut-off and completeness requirements as defined for the data quality level that you claim in subsection "Validation/Data quality indicators" and the section „Compliance declarations“. Make sure that the performed / stated review methods meets the requirements of the „review compliance“ that you state in section „Compliance declarations“.	1-3-20-83-1
<i>Data quality indicators</i>	<i>dataQualityIndicators</i>	<i>r</i>	<i>[0,1]</i>			<i>(C)</i>			<i>This section and in that case all fields in it are required if "Compliance system name" references one of the ILCD-compliance systems, EXCEPT for "ILCD Data Network - entry-level" requirements, for which this is</i>	<i>1-3-20-90</i>

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									<i>optional.</i>	
<i>Data quality indicator</i>	<i>dataQualityIndicator</i>	<i>r</i>	<i>[1,n]</i>			<i>(C)</i>			<i>see comment at "Data quality indicator"</i>	<i>1-3-20-91</i>
Name of data quality indicator	@name	r		<u>DataQualityIndicatorValues</u>		(C)			<i>see comment at "Data quality indicator". Make sure that the data quality indicator matches the requirements of the „quality“, „method“, „nomenclature“, „documentation“, and „review“ compliance that you state in section „Compliance declarations“.</i>	1-3-20-91-1
Value of data quality indicator	@value	r		<u>QualityValues</u>		(C)			<i>see comment at "Data quality indicator". Make sure that the data quality indicator matches the requirements of the „quality“, „method“, „nomenclature“, „documentation“, and „review“ compliance that you state in section „Compliance declarations“.</i>	1-3-20-91-2
Review details	reviewDetails	r	[0,1]	<u>FTMultiLang</u>		C	1000 ... 3000			1-3-20-84
Reviewer name and institution	referenceToNameOfReviewerAndInstitution	r	[0,n]	<u>GlobalReferenceType</u>		C				1-3-20-87
Other review details	otherReviewDetails	o	[0,1]	<u>FTMultiLang</u>		O	50 ... 500			1-3-20-88
Complete review report	referenceToCompleteReviewReport	r	[0,1]	<u>GlobalReferenceType</u>		O			May be required depending on compliance to be met and intended applications / target audience. Recommended also for other cases.	1-3-20-89
Other content	other	o	[0,1]			O				0

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Other content	other	o	[0,1]			O				0
Compliance declarations	complianceDeclarations	r	[0,1]			C				1-3-22
<i>Compliance</i>	<i>compliance</i>	<i>r</i>	<i>[1,n]</i>			<i>C</i>				1-3-22-1
Compliance system name	referenceToComplianceSystem	r	[1,1]	GlobalReferenceType		C		<p>One of the following entries and source data sets (Note: instead of "A", also "B", "C1" and "C2" may be used, as applicable):</p> <ul style="list-style-type: none"> "ILCD Data Network Entry-level" "ILCD-compliant, Situation A - High quality data" "ILCD-compliant, Situation A - Basic quality data" "ILCD-compliant, Situation A - Data estimate". See "ILCD Data Network: Compliance rules and entry-level requirements". 	<p>Must reference to the corresponding source data set of the most recent version of one of the ILCD compliance system variants. For the definitions for use in the ILCD Data Network see; see the separate document "ILCD : Compliance rules and entry-level requirements". For general ILCD-compliance requirements - for LCI data sets see also the "Specific guide for LCI data sets". Other compliance systems (e.g. of specific EPD schemes etc.) can be referenced in addition.</p>	1-3-22-90
Approval of overall	approvalOfOverallCompliance	o	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to	1-3-22-95

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
compliance	ce								meet the overall requirements; for an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	
Quality compliance	qualityCompliance	r	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the quality requirements. For an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-9X
Nomenclature compliance	nomenclatureCompliance	r	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the nomenclature requirements. For an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-92
Methodological compliance	methodologicalCompliance	r	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the method requirements. For for an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-91
Review compliance	reviewCompliance	r	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the review requirements. For an overview and specific settings for the ILCD Data Network see the separate	1-3-22-93

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
									document "ILCD Data Network: Compliance rules and entry-level requirements".	
Documentation compliance	documentationCompliance	r	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the documentation requirements. For an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-94
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrativeInformation	r	[0,1]			C				1-5
Commissioner and goal	commissionerAndGoal	r	[0,1]			C				1-5-24
Commissioner of data set	referenceToCommissioner	r	[0,n]	GlobalReferenceType		C			Note the definition of the field.	1-5-24-96
Project	project	o	[0,1]	StringMultiLang		O	20 ... 200			1-5-24-97
Intended applications	intendedApplications	r	[0,1]	FTMultiLang		C			Make sure the entry fits with the declared „LCI method principle“, „Compliance declarations“, any potential specific requirements on reporting put by ISO 14044 and the ILCD Handbook (e.g. "third-party report"), and the „Type of data set“.	1-5-24-98
Other content	other	o	[0,1]			O				0
Data set generator/modeller	dataGenerator	r	[0,1]			C				1-5-26
Data set	referenceToPer	r	[0,n]	GlobalRefe		C				1-5-26-99

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
generator / modeller	sonOrEntityGeneratingTheDataSet			<u>referenceType</u>						
Other content	other	o	[0,1]			O				0
Data entry by	dataEntryBy	r	[0,1]			C				1-5-28
Time stamp (last saved)	timeStamp	r	[0,1]	<u>dateTime</u>		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	<u>GlobalReferenceType</u>		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for additional information beyond the documentation scope of the ILCD format.)	1-5-28-105
Converted original data set from:	referenceToConvertedOriginalDataSetFrom	o	[0,1]	<u>GlobalReferenceType</u>		O				1-5-28-108
Data entry by:	referenceToPersonOrEntityEnteringTheData	o	[0,1]	<u>GlobalReferenceType</u>		C				1-5-28-103
Official approval of data set by producer/operator:	referenceToDataSetUseApproval	r	[0,n]	<u>GlobalReferenceType</u>		C			Used only if official approval is given by the good producer or service operator of the product represented by the data set. If such is not given, insert a reference to an empty default contact data set with a "No official approval" text entry.	1-5-28-109
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAndOwnership	r	[0,1]			C				1-5-30
Data set version	dataSetVersion	m	[1,1]	<u>Version</u>		V			Is typically automatically generated, but may need to be manually adjusted; make sure the proper format ("XX.XX.XXX") is used.	1-5-30-111

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Date of last revision	dateOfLastRevision	r	[0,1]	dateTime		C				1-5-30-113
Preceding data set version	referenceToPrecedingDataSetVersion	o	[0,n]	GlobalReferenceType		O				1-5-30-112
Permanent data set URI	permanentDataSetURI	r	[0,1]	anyURI		O			It is strongly recommended to provide a URI that can be used to find the original version of the data set and verify changes or availability of new versions.	1-5-30-300
Workflow and publication status	workflowAndPublicationStatus	o	[0,1]	WorkflowAndPublicationStatusValues		O				1-5-30-110
Unchanged re-publication of:	referenceToUnchangedRepublication	o	[0,1]	GlobalReferenceType		O				1-5-30-114
Registration authority	referenceToRegistrationAuthority	o	[0,1]	GlobalReferenceType		O				1-5-30-200
Registration number	registrationNumber	o	[0,1]	String		O				1-5-30-201
Owner of data set	referenceToOwnershipOfDataSet	r	[0,1]	GlobalReferenceType		C				1-5-30-115
Copyright?	copyright	r	[0,1]	boolean		C				1-5-30-116
Entities or persons with exclusive access to this data set	referenceToEntitiesWithExclusiveAccess	o	[0,n]	GlobalReferenceType		O				1-5-30-117
License type	licenseType	r	[0,1]	LicenseTypeValues		C				1-5-30-119
Access and use restrictions	accessRestrictions	r	[0,1]	FTMultiLang		C	4 ... 400			1-5-30-118
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
<i>Inputs and Outputs</i>	<i>exchanges</i>	r	[0,1]			C				1-7
<i>Inputs and Outputs</i>	<i>exchange</i>	r	[0,n]			C				1-7-32
Data set internal ID	@dataSetInternalID	r		<u>Int6</u>		C				1-7-32-120
Reference to flow data set	referenceToFlowDataSet	r	[1,1]	<u>GlobalReferenceType</u>		C				1-7-32-119
Location	location	o	[0,1]	<u>String</u>	25	O	2 ... 20		Usually not used field. See field definition.	1-7-32-121
Reminder flow?	functionType	r	[0,1]	<u>ExchangeFunctionTypeValues</u>		O			For normal inventory flows, other than reminder flows, the field is to remain un-used.	1-7-32-122
Exchange direction	exchangeDirection	r	[0,1]	<u>ExchangeDirectionValues</u>		C				1-7-32-123
Variable	referenceToVariable	o	[0,1]	<u>string</u>		O			Required only for parameterised data sets and for those flows only that are scaled via one of the „Parameters“ or „Variables“ of the section „Mathematical model“.	1-7-32-124
Mean amount	meanAmount	r	[1,1]	<u>Real</u>		C				1-7-32-125
Resulting amount	resultingAmount	r	[0,1]	<u>Real</u>		C				1-7-32-126
Minimum amount	minimumAmount	o	[0,1]	<u>Real</u>		O				1-7-32-127
Maximum amount	maximumAmount	o	[0,1]	<u>Real</u>		O				1-7-32-128
Uncertainty distribution type	uncertaintyDistributionType	o	[0,1]	<u>UncertaintyDistributionTypeValues</u>		O				1-7-32-129
Relative StdDev in %	relativeStandardDeviation95In	o	[0,1]	<u>Perc</u>		O				1-7-32-130
<i>allocations</i>	<i>allocations</i>	o	[0,1]			O				1-7-32-200
<i>allocation</i>	<i>allocation</i>	o	[1,n]			O				1-7-32-201

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Internal reference to co-product	@internalReferenceToCoProduct	o		Int6		O				1-7-32-202
Allocated fraction	@allocatedFraction	o		Perc		O				1-7-32-203
Data source type	dataSourceType	o	[0,1]	DataSourceTypeValues		C			Required ("C") for unit process data sets only. (For the other, aggregated data set types the entry will almost always be „Mixed primary/secondary“ and is hence non-informative).	1-7-32-132
Data derivation type / status	dataDerivationTypeStatus	o	[0,1]	DataDerivationTypeStatusValues		C			Required ("C") only if "Type of data set" is "unit process, ...". Recommended also for other data set types.	1-7-32-133
Data source(s)	referencesToDataSource	o	[0,1]			O				1-7-32-134
Data source(s)	referenceToDataSource	o	[0,n]	GlobalReferenceType		O				1-7-32-134
Other content	other	o	[0,1]			O				0
Comment	generalComment	o	[0,1]	StringMultiLang		O	10 ... 100			1-7-32-136
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
LCIA results	lciaResults	o	[0,1]			O				1-8
LCIA result	lciaResult	o	[0,n]			O				1-8-1
LCIA method	referenceToLciaDataSet	o	[1,1]	GlobalReferenceType		O				1-8-1-100
Mean amount	meanAmount	o	[1,1]	Real		O				1-8-1-101
Uncertainty distribution type	uncertaintyDistributionType	o	[0,1]	UncertaintyDistributionTypeValues		O				1-8-1-102
Relative StdDev in %	relativeStandardDeviation95In	o	[0,1]	Perc		O				1-8-1-103

PROCESS DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (specific requirements, recommendations, explanations)	eDoc ID
Comment	generalComment	o	[0,1]	StringMultiLang		O	20 ...200			1-8-1-104
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

2.5 Flow data set

LCA practitioners should rarely need to create new elementary flow data sets, as a huge set is provided as ILCD reference elementary flow data sets. Product and Waste flows in contrast are regularly to be created by the practitioner. For naming and classifying new flow data sets and assigning appropriate reference flow properties and units, see the respective chapters of the "Nomenclature and other conventions" document.

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Flow data set	flowDataSet	m	[1,1]			V				2
	@version	m		SchemaVersion		V			The actual ILCD format schema version is to be referenced.	
	@locations	o		String		O			Only for Product and Waste flows and only if "Locations" are used for flow data sets: The file ILCDLocations.xml should be referenced, or another locations-file that includes the specified locations of the ILCDLocations.xml file.	
Flow information	flowInformation	m	[1,1]			V				2-9
Data set information	dataSetInformation	m	[1,1]			V				2-9-36
UUID of flow	UUID	m	[1,1]	UUID		V				2-9-36-137

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
data set										
<i>Name</i>	<i>name</i>	R	[0,1]			C				2-9-36-138-1
Base name	baseName	R	[1,1]	<u>StringMultiLang</u>	100	C	10 ... 50		Naming conventions of the „ILCD Handbook - Nomenclature and other conventions“ document are to be applied.	2-9-36-138
Treatment, standards, routes	treatmentStandardsRoutes	R	[0,1]	<u>StringMultiLang</u>	100	O	5 ... 30		Field will regularly be used for product and waste flows. Naming conventions of the „ILCD - Nomenclature and other conventions“ document are to be applied.	2-9-36-139
Mix and location types	mixAndLocationTypes	R	[0,1]	<u>StringMultiLang</u>	100	O	5 ... 30		Field will regularly be used for product and waste flows. Naming conventions of the „ILCD - Nomenclature and other conventions“ document are to be applied.	2-9-36-140
Quantitative flow properties	flowProperties	R	[0,1]	<u>StringMultiLang</u>	100	O	5 ... 30		Field will regularly be used for product and waste flows. Naming conventions of the „ILCD - Nomenclature and other conventions“ document are to be applied.	2-9-36-141
Other content	other	O	[0,1]			O				0
Synonyms	synonyms	O	[0,1]	<u>FTMultiLang</u>		O			It is recommended to ease the identification of product flows by adding synonyms, be it synonymous chemical names, trivial names or brand names.	2-9-36-142
<i>Category and classification information</i>	<i>classificationInformation</i>	R	[0,1]			C				2-9-36-143
<i>Elementary flow categorization</i>	<i>elementaryFlowCategorization</i>	R	[0,n]			C			<i>Required ("C") only if "Type of flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".</i>	2-9-36-144
Name of	@name	R		<u>string</u>	100	C	5 ... 50		Required ("C") only if "Type of	2-9-36-144-a

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
categoriz ation system									flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".	
Categories file	@categories	o		<u>anyURI</u>		C		Reference to "ILCDFlowCategorization.xml" required for elementary flows.	Required ("C") only if "Type of flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".	2-9-36-144-b
Category name	category	R	[1,n]			C			Required ("C") only if "Type of flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".	2-9-36-144-1
Hierarchy level	@level	o		<u>LevelType</u>		C			Required ("C") only if "Type of flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".	2-9-36-144-1-a
Unique category identifier	@catId	o		<u>string</u>	200	C	5 ... 100	Reference to one of the identifiers of "ILCDFlowCategorization.xml" required for elementary flows.	Required ("C") only if "Type of flow" is "Elementary flow". Not applicable if "Product flow" or "Waste flow".	2-9-36-144-1-b
Other content	other	o	[0,1]			O				0
Classification	classification	R	[0,n]			C			Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow" for additional classification(s).	2-9-36-145
Name	@name	R		<u>string</u>	100	C	10 ... 75		Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow" for additional classification(s).	1-1-2-7-2-a
Classes	@classes	R		<u>anyURI</u>		C		Reference to classification file n.xml required	Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow" for additional classification(s).	1-1-2-7-2-b

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
								for prdoct and waste flows.		
<i>class</i>	<i>class</i>	R	[1,n]			C			Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow" for additional classification(s).	1-1-2-7-2-1
Hierarch y level	@level	r		<u>LevelType</u>		C			Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow" for additional classification(s).	1-1-2-7-2-1-a
Unique class identifie r	@classId	r		<u>string</u>	200	C	1 ... 150	One of the classes of the file ILCDClassificati on.xml is to be used.	Required ("C") only if "Type of flow" is "Product flow" or "Waste flow". Optional if "Elementary flow".	1-1-2-7-2-1-b
Other content	other	o	[0,1]			O				0
CAS Number	CASNumber	r	[0,1]	<u>CASNumb er</u>		C			Required ("C") if existing and only for elementary flows. Only to be used for single substance flows.	2-9-36-146
Sum formula	sumFormula	r	[0,1]	<u>String</u>		O			Recommended, only for single substances.	2-9-36-147
General comment on data set	generalComme nt	o	[0,1]	<u>FTMultiLan g</u>		O				2-9-36-150
Other content	other	o	[0,1]			O				0
Quantitative reference	quantitativeRefe rence	r	[0,1]			C				2-9-38
Reference flow property	referenceToRef erenceFlowPro perty	r	[1,1]	<u>Int5</u>		C			Rules for which „Reference flow property“ and „Reference unit“ to choose are documented in the „ILCD Handbook - Nomenclature and other conventions“ document.	2-9-38-151
Other content	other	o	[0,1]			O				0
Geography	geography	o	[0,1]			O				2-9-42

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Location of supply	locationOfSupply	o	[1,1]	StringMultiLang	25	O	2 ... 20		Only used if "Locations" are used and only for "Product flows" and "Waste flows". (Note: Locations of emissions are documented directly with the Process' Inputs and Outputs.) Shall use one of the locations that are specified in the ILCDLocations.xml or other file, as referenced in the field „<flowDataSet @locations>“.	2-9-42-152
Other content	other	o	[0,1]			O				0
Technological representativeness	technology	o	[0,1]			O				2-9-43
Technical purpose of product or waste	technologicalApplicability	o	[0,1]	FTMultiLang		O			Recommended for Product and Waste flows; not applicable to Elementary flows.	2-9-43-1
Technical specification	referenceToTechnicalSpecification	o	[0,n]	GlobalReferenceType		O			Recommended for Product flows, especially for complex products and products of multifunctional processes.	2-9-43-2
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Modelling and validation	modellingAndValidation	r	[0,1]			C				2-11
LCI method	LCIMethod	r	[0,1]			C				2-11-48
Type of flow	typeOfDataSet	r	[1,1]	FlowTypeValues		C				2-11-48-153
Other content	other	o	[0,1]			O				0
Compliance declarations	complianceDeclarations	r	[0,1]			C				2-11-56
Compliance	compliance	r	[1,n]			C				1-3-22-1
Compliance system name	referenceToComplianceSystem	r	[1,1]	GlobalReferenceType		C		The following entry and source data set is to be used: • "ILCD-	Must reference to the corresponding source data set of the most recent version of the ILCD compliance system. For the definitions for use in the	1-3-22-90

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
								compliant"	ILCD Data Network see; see the separate document "ILCD Data Network: Compliance rules and entry-level requirements". Other compliance systems (e.g. of specific EPD schemes etc.) can be referenced in addition.	
Approval of overall compliance	approvalOfOverallCompliance	o	[0,1]	<u>ComplianceValues</u>		C			For the ILCD related compliance system entries: Make sure to meet the overall requirements; for an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-95
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrative information	r	[0,1]			C				2-13
Data entry by	dataEntryBy	r	[0,1]			C				2-13-62
Time stamp (last saved)	timeStamp	r	[0,1]	<u>dateTime</u>		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	<u>GlobalReferenceType</u>		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for additional information beyond the documentation scope of the ILCD format.)	1-5-28-105
Data entry by:	referenceToPersonOrEntityEnteringTheData	o	[0,1]	<u>GlobalReferenceType</u>		O				1-5-28-103

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAndO wnership	r	[0,1]			C				2-13-64
Data set version	dataSetVersion	m	[1,1]	<u>Version</u>		V			Is typically automatically generated, but may be manually adjusted.	1-5-30-111
Preceding data set version	referenceToPre cedingDataSetV ersion	O	[0,n]	<u>GlobalRefe renceType</u>		O				1-5-30-112
Permanent data set URI	permanentData SetURI	R	[0,1]	<u>anyURI</u>		O			It is strongly recommended to provide aURI that can be used to find the original version of the data set and verify changes or availability of new versions.	1-5-30-300
Owner of data set	referenceToOw nershipOfDataS et	R	[0,1]	<u>GlobalRefe renceType</u>		O				1-5-30-115
Other content	other	O	[0,1]			O				0
Other content	other	O	[0,1]			O				0
Flow properties and LCIA factors	flowProperties AndLCIAFactor s	R	[0,1]			C				2-15
Flow properties	flowProperties	R	[1,1]			C				2-15-66
Flow property	flowProperty	R	[1,n]			C				2-15-66-1
Data set internal ID	@dataSetInte rnalID	R		<u>Int5</u>		C				2-15-66-191
Flow property	referenceToFl owPropertyDa taSet	r	[1,1]	<u>GlobalRefe renceType</u>		C			Must be a reference to one of the ILCD reference flow property data sets, unless a flow property is required and referenced that is not defined under the ILCD.	2-15-66-190
Mean value (of flow property)	meanValue	r	[1,1]	<u>Real</u>		C				2-15-66-192
Minimum	minimumValu	r	[0,1]	<u>Real</u>		O				2-15-66-193

FLOW DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
value	e									
Maximum value	maximumValue	r	[0,1]	Real		O				2-15-66-194
Uncertainty distribution type	uncertaintyDistributionType	o	[0,1]	Uncertainty Distribution TypeValues		O				2-15-66-195
Relative StdDev in %	relativeStandardDeviation95In	r	[0,1]	Perc		O				2-15-66-196
Data derivation type / status	dataDerivationTypeStatus	r	[0,1]	FlowDataDerivationTypeStatusValues		O				2-15-66-198
Comment	generalComment	o	[0,1]	StringMultiLang		O				2-15-66-199
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

2.6 Flow property data set

LCA practitioners will only rarely need to create a new flow property data set. Such cases are e.g. if specific substance contents are to be modelled (e.g. “Ethane content (volume)” in natural gas) or specific market prices (e.g. “Market value JP 2010, bulk prices” for cost modelling or economic allocation purposes). An otherwise complete set of Flow property data sets is provided as part of the ILCD reference flow property data sets. Before creating a new flow property data set, it is advised to therefore carefully evaluate the need and verify that it does not yet exist. If new flow property data sets are to be created, see the document “Nomenclature and other conventions” and the existing examples on “Methane content (volume)” and “Market value US 2000, bulk prices” as part of the ILCD reference flow property data sets.

FLOW PROPERTY DATA SET: Field name	Element / attribute name	Requ. Filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance Requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
<i>Flow property data set</i>	<i>flowPropertyDataSet</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>4</i>
	@version	m		SchemaVersion		V			The most recent ILCD format schema version is to be referenced.	
<i>Flow property information</i>	<i>flowPropertiesInformation</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>4-25</i>
<i>Data set information</i>	<i>dataSetInformation</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>4-25-104</i>
UUID of flow property data set	UUID	m	[1,1]	UUID		V				4-25-104-273
Name	name	r	[0,1]	StringMultiLang	100	C	3 ... 50		Naming conventions of the „ILCD Handbook - Nomenclature and other conventions" document are to be applied.	4-25-104-274
Synonyms	synonyms	o	[0,1]	FTMultiLang		O				4-25-104-275
<i>Classification information</i>	<i>classificationInformation</i>	<i>r</i>	<i>[0,1]</i>			<i>C</i>				4-25-104-276
<i>Classification</i>	<i>classification</i>	<i>r</i>	<i>[0,n]</i>			<i>C</i>				1-1-2-7-2
Name	@name	r		string	100	C	10 ... 75		The classification file ILCDClassification.xml shall be used.	1-1-2-7-2-a
Classes	@classes	r		anyURI		C				1-1-2-7-2-b
<i>class</i>	<i>class</i>	<i>r</i>	<i>[1,n]</i>			<i>C</i>				1-1-2-7-2-1
Hierarchy level	@level	r		LevelType		C				1-1-2-7-2-1-a
Unique class identifier	@classId	r		string	200	C	1 ... 150		The classes of the file ILCDClassification.xml shall be used.	1-1-2-7-2-1-b
Other	other	o	[0,1]			O				0

FLOW PROPERTY DATA SET: Field name	Element / attribute name	Requ. Filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance Requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
content										
General comment on data set	generalComment	o	[0,1]	FTMultiLang		O				4-25-104-278
Other content	other	o	[0,1]			O				0
Quantitative reference	quantitativeReference	r	[0,1]			C				4-25-106
Reference unit	referenceToReferenceUnitGroup	r	[1,1]	GlobalReferenceType		C			Conventions of the „ILCD Handbook - Nomenclature and other conventions" document are to be applied.	4-25-106-279
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Modelling and validation	modellingAndValidation	o	[0,1]			O				4-27
Data sources, treatment and representativeness	dataSourcesTreatmentAndRepresentativeness	o	[0,1]			O				4-27-118
Data source	referenceToDataSource	o	[1,n]	GlobalReferenceType		O			Recommended for „Economic flow properties“, i.e. (market) prices.	4-27-118-280
Other content	other	o	[0,1]			O				0
Compliance declarations	complianceDeclarations	r	[0,1]			C				1-3-22
Compliance	compliance	r	[1,n]			C				1-3-22-1
Compliance system name	referenceToComplianceSystem	r	[1,1]	GlobalReferenceType		C		The following entry and source data set is to be used: • "ILCD-compliant"	Must reference to the corresponding source data set of the most recent version of the ILCD compliance system. For the definitions for use in the ILCD Data Network see; see the separate document "ILCD Data Network: Compliance rules and entry-level requirements". Other compliance systems (e.g. of specific EPD schemes etc.)	1-3-22-90

FLOW PROPERTY DATA SET: Field name	Element / attribute name	Requ. Filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce Requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
									can be referenced in addition.	
Approval of overall compliance	approvalOfOverallCompliance	o	[0,1]	<u>ComplianceValues</u>		C			For the ILCD related compliance system entries: Make sure to meet the overall requirements; for an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-95
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrativeInformation	r	[0,1]			C				4-29
Data entry by	dataEntryBy	r	[0,1]			C				4-29-130
Time stamp (last saved)	timeStamp	r	[0,1]	<u>dateTime</u>		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	<u>GlobalReferenceType</u>		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for additional information beyond the documentation scope of the ILCD format.)	1-5-28-105
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAndOwnership	r	[0,1]			C				4-29-132
Data set version	dataSetVersion	m	[1,1]	<u>Version</u>		V			Is typically automatically generated, but may be manually adjusted.	1-5-30-111
Preceding data set version	referenceToPrecedingDataSetVersion	o	[0,n]	<u>GlobalReferenceType</u>		O				1-5-30-112
Permanent data set URI	permanentDataSetURI	r	[0,1]	<u>anyURI</u>		O			It is strongly recommended to provide a URI that can be used to	1-5-30-300

FLOW PROPERTY DATA SET: Field name	Element / attribute name	Requ. Filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce Requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
									find the original version of the data set and verify changes or availability of new versions.	
Owner of data set	referenceToOwnershipOfDataSet	r	[0,1]	GlobalReferenceType		O				1-5-30-115
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

2.7 Unit group data set

LCA practitioners should very rarely need to create new unit group data sets or insert new units. A complete set of such data sets is provided as part of the ILCD reference unit group data sets. Before creating a new unit group data set, it is advised to therefore carefully evaluate the need and verify that it does not yet exist; see also the document "Nomenclature and other conventions".

UNIT GROUP DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
<i>Unit group data set</i>	<i>unitGroupDataSet</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>5</i>
	@version	m		SchemaVersion		V			The most recent ILCD format schema version is to be referenced.	
<i>Unit group information</i>	<i>unitGroupInformation</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>5-33</i>
<i>Data set information</i>	<i>dataSetInformation</i>	<i>m</i>	<i>[1,1]</i>			<i>V</i>				<i>5-33-138</i>
UUID of unit group data set	UUID	m	[1,1]	UUID		V				5-33-138-306

UNIT GROUP DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. character s	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Name	name	r	[0,1]	<u>StringMultiLang</u>	100	C	3 ... 50		Naming conventions of the „ILCD Handbook - Nomenclature and other conventions“ document are to be applied.	5-33-138-307
<i>Classification Information</i>	<i>classificationInformation</i>	r	[0,1]			C				5-33-138-308
<i>Classification</i>	<i>classification</i>	r	[0,n]			C				1-1-2-7-2
Name	@name	r		<u>string</u>	100	C	10 ... 75		The classification file ILCDClassification.xml is to be used.	1-1-2-7-2-a
Classes	@classes	r		<u>anyURI</u>		C				1-1-2-7-2-b
<i>class</i>	<i>class</i>	r	[1,n]			C				1-1-2-7-2-1
Hierarchy level	@level	r		<u>LevelType</u>		C				1-1-2-7-2-1-a
Unique class identifier	@classId	r		<u>string</u>	200	C	1 ... 150		The classes of the file ILCDClassification.xml shall be used.	1-1-2-7-2-1-b
Other content	other	o	[0,1]			O				0
General comment	generalComment	o	[0,1]	<u>FTMultiLang</u>		O				5-33-138-309
Other content	other	o	[0,1]			O				0
Quantitative reference	quantitativeReference	r	[0,1]			C				5-33-140
Reference unit	referenceToReferenceUnit	r	[1,1]	<u>Int5</u>		C				5-33-140-310
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Modelling and validation	modellingAndValidation	r	[0,1]			C				5-35
Compliance declarations	complianceDeclarations	r	[0,1]			C				5-35-158
<i>Compliance</i>	<i>compliance</i>	r	[1,n]			C				1-3-22-1

UNIT GROUP DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. character s	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Compliance system name	referenceToComplianceSystem	r	[1,1]	GlobalReferenceType		C		The following entry and source data set is to be used: • "ILCD-compliant"	Must reference to the corresponding source data set of the most recent version of the ILCD compliance system. For the definitions for use in the ILCD Data Network see; see the separate document "ILCD Data Network: Compliance rules and entry-level requirements". Other compliance systems (e.g. of specific EPD schemes etc.) can be referenced in addition.	1-3-22-90
Approval of overall compliance	approvalOfOverallCompliance	o	[0,1]	ComplianceValues		C			For the ILCD related compliance system entries: Make sure to meet the overall requirements; for an overview and specific settings for the ILCD Data Network see the separate document "ILCD Data Network: Compliance rules and entry-level requirements".	1-3-22-95
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrative information	r	[0,1]			C				5-37
Data entry by	dataEntryBy	r	[0,1]			C				5-37-164
Time stamp (last saved)	timeStamp	r	[0,1]	dateTime		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	GlobalReferenceType		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for	1-5-28-105

UNIT GROUP DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. character s	Complian ce requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
									additional information beyond the documentation scope of the ILCD format.)	
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAndOwnership	r	[0,1]			C				5-37-166
Data set version	dataSetVersion	m	[1,1]	<u>Version</u>		V			Is typically automatically generated, but may be manually adjusted.	1-5-30-111
Preceding data set version	referenceToPrecedingDataSetVersion	o	[0,n]	<u>GlobalReferenceType</u>		O				1-5-30-112
Permanent data set URI	permanentDataSetURI	r	[0,1]	<u>anyURI</u>		O			It is strongly recommended to provide a URI that can be used to find the original version of the data set and verify changes or availability of new versions.	1-5-30-300
Owner of data set	referenceToOwnershipOfDataSet	r	[0,1]	<u>GlobalReferenceType</u>		O				1-5-30-115
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Units	units	r	[0,1]			C				5-39
Unit	unit	r	[1,n]			C				5-39-168
Data set internal ID	@dataSetInternalID	r		<u>Int5</u>		C				5-39-168-324
Name of unit	name	r	[1,1]	<u>String</u>	25	C	1 ... 15			5-39-168-323
Mean value (of unit)	meanValue	r	[1,1]	<u>Real</u>		C				5-39-168-325
Comment	generalComment	o	[0,1]	<u>StringMultiLang</u>		C			The long/full name of the unit shall be given here.	5-39-168-326
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

2.8 Source data set

Source data sets serve to document all kinds of information sources used, ranging from data collection sheets, publications, method reports, images, to LCI background databases used, etc.

SOURCE DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Source data set	sourceDataSet	m	[1,1]			V				7
version	@version	m		<u>SchemaVersion</u>		V			The most recent ILCD format schema version is to be referenced.	1-a
Source information	sourceInformation	m	[1,1]			V				7-43
Data set information	dataSetInformation	m	[1,1]			V				7-43-174
UUID of source data set	UUID	m	[1,1]	<u>UUID</u>		V				7-43-174-354
Short name of source	shortName	o	[0,1]	<u>StringMultiLang</u>	100	C	2 ... 40			7-43-174-355
Classification information	classificationInformation	r	[0,1]			C				7-43-174-357
Classification	classification	r	[0,n]			C				1-1-2-7-2
Name	@name	r		<u>string</u>	100	C	10 ... 75		The classification file ILCDClassification.xml shall be used.	1-1-2-7-2-a
Classes	@classes	r		<u>anyURI</u>		C				1-1-2-7-2-b
class	class	r	[1,n]			C				1-1-2-7-2-1
Hierarchy level	@level	r		<u>LevelType</u>		C				1-1-2-7-2-1-a
Unique class identifier	@classId	r		<u>string</u>	200	C	1 ... 150		The classes of the file ILCDClassification.xml shall be used.	1-1-2-7-2-1-b

SOURCE DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
er										
Other content	other	o	[0,1]			O				0
Source citation	sourceCitation	r	[0,1]	ST		C	20 ... 500			7-43-174-356
Publication type	publicationType	o	[0,1]	PublicationTypeValues		C			Required ("C") only if the source is an image (in support of embedded display in process data sets). General use of field recommended.	7-43-174-359
Source description or comment	sourceDescriptionOrComment	o	[0,1]	FTMultiLang		O				7-43-174-360
Link to digital file	referenceToDigitalFile	o	[0,1]			O				7-43-174-361
	@uri	o		anyURI		O				
Belongs to:	referenceToContact	o	[0,n]	GlobalReferenceType		O				6-41-172-344
Logo of organisation or source	referenceToLogo	o	[0,1]	GlobalReferenceType		O				6-41-172-346
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrative information	r	[0,1]			C				1-5
Data entry by	dataEntryBy	r	[0,1]			C				1-5-28
Time stamp (last saved)	timeStamp	r	[0,1]	dateTime		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	GlobalReferenceType		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for additional information beyond the documentation scope of the ILCD	1-5-28-105

SOURCE DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
									format.)	
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAndOwnership	r	[0,1]			C				1-5-30
Data set version	dataSetVersion	m	[1,1]	Version		V			Is typically automatically generated, but may be manually adjusted.	1-5-30-111
Preceding data set version	referenceToPrecedingDataSetVersion	o	[0,n]	GlobalReferenceType		O				1-5-30-112
Permanent data set URI	permanentDataSetURI	r	[0,1]	anyURI		O			It is strongly recommended to provide a URI that can be used to find the original version of the data set and verify changes or availability of new versions.	1-5-30-300
Owner of data set	referenceToOwnershipOfDataSet	r	[0,1]	GlobalReferenceType		O				1-5-30-115
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0

2.9 Contact data set

Contact data sets serve to identify organisations, persons and the like. These can be the experts that have modelled a data set, reviewers, data set owners, etc.

CONTACT DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Contact data	contactDataSet	m	[1,1]			V				6

CONTACT DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance req. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
set										
version	@version	m		SchemaVersion		V			The most recent ILCD format schema version is to be referenced.	1-a
Contact information	contactInformation	m	[1,1]			V				6-41
Data set information	dataSetInformation	m	[1,1]			V				6-41-172
UUID of Contact data set	UUID	m	[1,1]	UUID		V				6-41-172-327
Short name for contact	shortName	o	[0,1]	StringMultiLang	25	C	2 ... 40			6-41-172-328
Name of contact	name	r	[0,1]	StringMultiLang	100	C				6-41-172-329
<i>Classification Information</i>	<i>classificationInformation</i>	r	[0,1]			C				6-41-172-336
<i>Classification</i>	<i>classification</i>	r	[0,n]			C				1-1-2-7-2
Name	@name	r		string	100	C	10 ... 75		The classification file ILCDClassification.xml shall be used.	1-1-2-7-2-a
Classes	@classes	r		anyURI		C				1-1-2-7-2-b
<i>class</i>	<i>class</i>	r	[1,n]			C				1-1-2-7-2-1
Hierarchy level	@level	r		LevelType		C				1-1-2-7-2-1-a
Unique class identifier	@classId	r		string	200	C	1 ... 150		The classes of the file ILCDClassification.xml shall be used.	1-1-2-7-2-1-b
Other content	other	o	[0,1]			O				0
Contact address	contactAddresses	o	[0,1]	STMultiLang		O				6-41-172-338
Telephone	telephone	o	[0,1]	String		O				6-41-172-339
Telefax	telefax	o	[0,1]	String		O				6-41-172-340

CONTACT DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
E-mail	email	o	[0,1]	<u>String</u>		O				6-41-172-341
WWW-Address	WWWAddress	r	[0,1]	<u>ST</u>		O				6-41-172-342
Central contact point	centralContactPoint	r	[0,1]	<u>STMultilingual</u>		C				6-41-172-343
Contact description or comment	contactDescriptionOrComment	o	[0,1]	<u>STMultilingual</u>		O				6-41-172-345
Belongs to:	referenceToContact	o	[0,n]	<u>GlobalReferenceType</u>		O				6-41-172-344
Logo of organisation or source	referenceToLogo	o	[0,1]	<u>GlobalReferenceType</u>		O				6-41-172-346
Other content	other	o	[0,1]			O				0
Other content	other	o	[0,1]			O				0
Administrative information	administrative information	r	[0,1]			C				1-5
Data entry by	dataEntryBy	r	[0,1]			C				1-5-28
Time stamp (last saved)	timeStamp	r	[0,1]	<u>dateTime</u>		C				1-5-28-104
Data set format(s)	referenceToDataSetFormat	r	[0,n]	<u>GlobalReferenceType</u>		C		„ILCD format“	Must include the reference to the most recent ILCD format version, with its original source data set and UUID / URI. (Can have additional references to other formats („namespaces“) that might be used in the data set for additional information beyond the documentation scope of the ILCD format.)	1-5-28-105
Other content	other	o	[0,1]			O				0
Publication and ownership	publicationAnd Ownership	r	[0,1]			C				1-5-30
Data set version	dataSetVersion	m	[1,1]	<u>Version</u>		V			Is typically automatically generated, but may be manually adjusted.	1-5-30-111

CONTACT DATA SET: Field name	Element / attribute name	Requ. filter indicator	Min / max occ.	Data type	Max. No. characters	Compliance requ. type	Indicative text lengths IF field in use (chars)	Mandatory entry (if any)	Comment (requirements, recommendations, explanations)	eDoc ID
Preceding data set version	referenceToPrecedingDataSetVersion	o	[0,n]	GlobalReferenceType		0				1-5-30-112
Permanent data set URI	permanentDataSetURI	r	[0,1]	anyURI		0			It is strongly recommended to provide a URI that can be used to find the original version of the data set and verify changes or availability of new versions.	1-5-30-300
Owner of data set	referenceToOwnershipOfDataSet	r	[0,1]	GlobalReferenceType		0				1-5-30-115
Other content	other	o	[0,1]			0				0
Other content	other	o	[0,1]			0				0
Other content	other	o	[0,1]			0				0

2.10 LCIA method data set

LCIA method data sets serve to document the characterisation factors of the respective method as well as underlying models and data sources used. LCIAS method data sets can also represent a complete LCIA methodology, i.e. a compilation of LCIA methods that are foreseen to be used jointly and cover typically a range of complementary impact categories.

Specific requirements for documentation-compliance have not yet been defined for LCIA method data sets. The complete LCIA method data set format specification is available in the ILCD format developer kit, same as for the other data set types.

2.11 For all data set types applies moreover...

Information in a data set may be given in any language, but all information to be provided according to the above compliance rules has to be given at least once and in the same language. The used language is to be correctly identified by giving the correct *lang* attribute inside each format tag (see format specifications; this is usually done by the LCA software/editor supporting the documentation).

The preferred language is English (xml:lang="en"), but also other languages can be used alternatively (and in addition).

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Abstract

Life Cycle Thinking (LCT) and Life Cycle Assessment (LCA) are the scientific approaches behind modern environmental policies and business decision support related to Sustainable Consumption and Production (SCP). The International Reference Life Cycle Data System (ILCD) provides a common basis for consistent, robust and quality-assured life cycle data and studies. Such data and studies support coherent SCP instruments, such as Ecolabelling, Ecodesign, Carbon footprinting, and Green Public Procurement. This document supports the International Reference Life Cycle Data System (ILCD) Data Network. It provides the provisions for ILCD documentation-compliant LCA data sets under the ILCD Handbook and ILCD Data Network. The document also lists the general possibilities of the ILCD data set format for the documentation of LCA data sets for technical audience (e.g. LCA practitioners and reviewers). The term “LCA data sets” is used here as cover term for the following types of data sets: Process data set, Flow data set, Flow property data set, Unit group data set, Source data set, and Contact data set, as well as LCIA method data sets. The principle target audience for this document is the LCA practitioner and reviewer. This document is based on and conforms to the ISO 14040 and 14044 standards on LCA.

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