



ctcon

Centro Tecnológico de la
Construcción

MATERIAL LEVEL LCA IN AIR.E

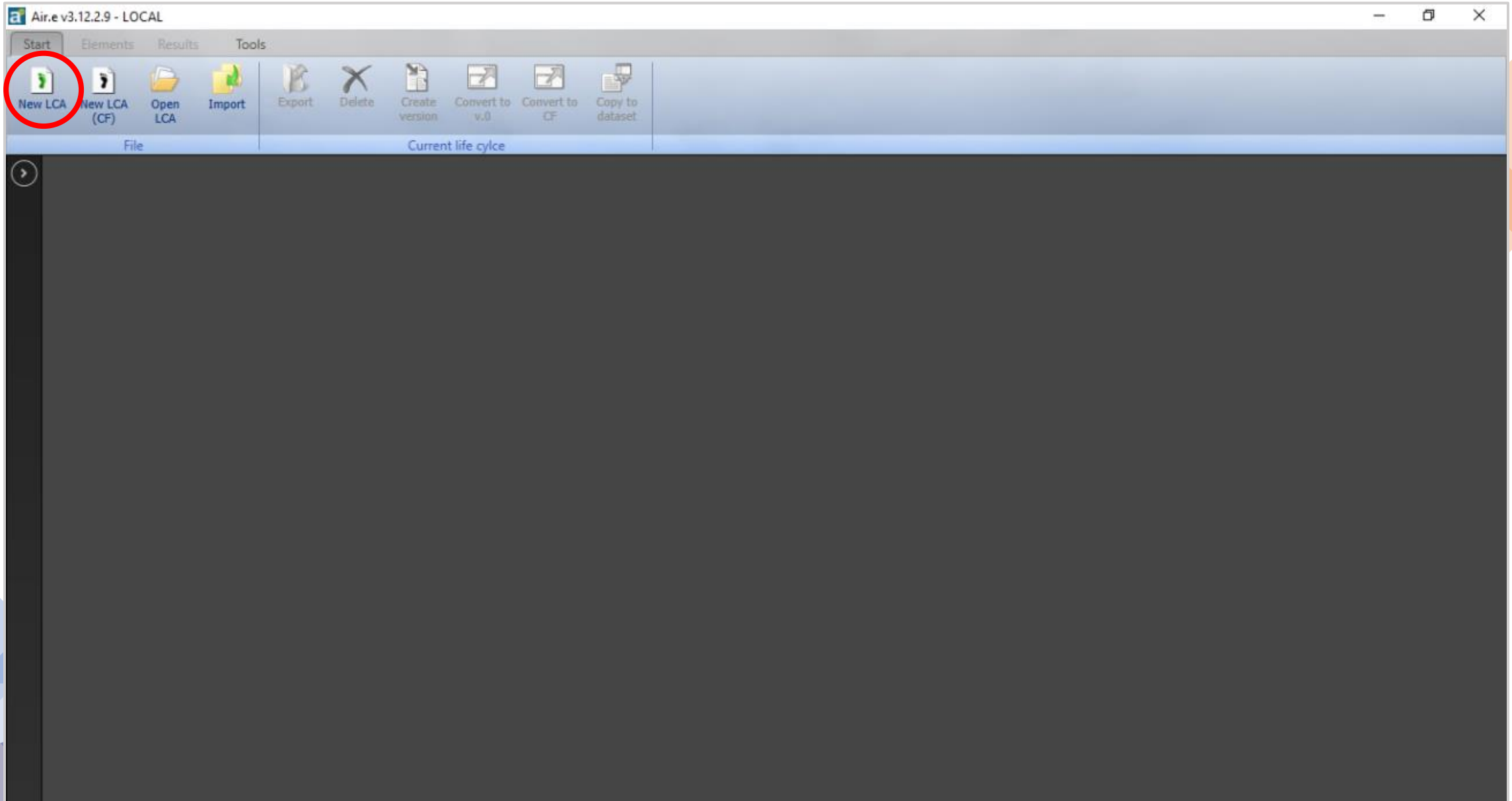
**BIM-LCA
Learning Activity**

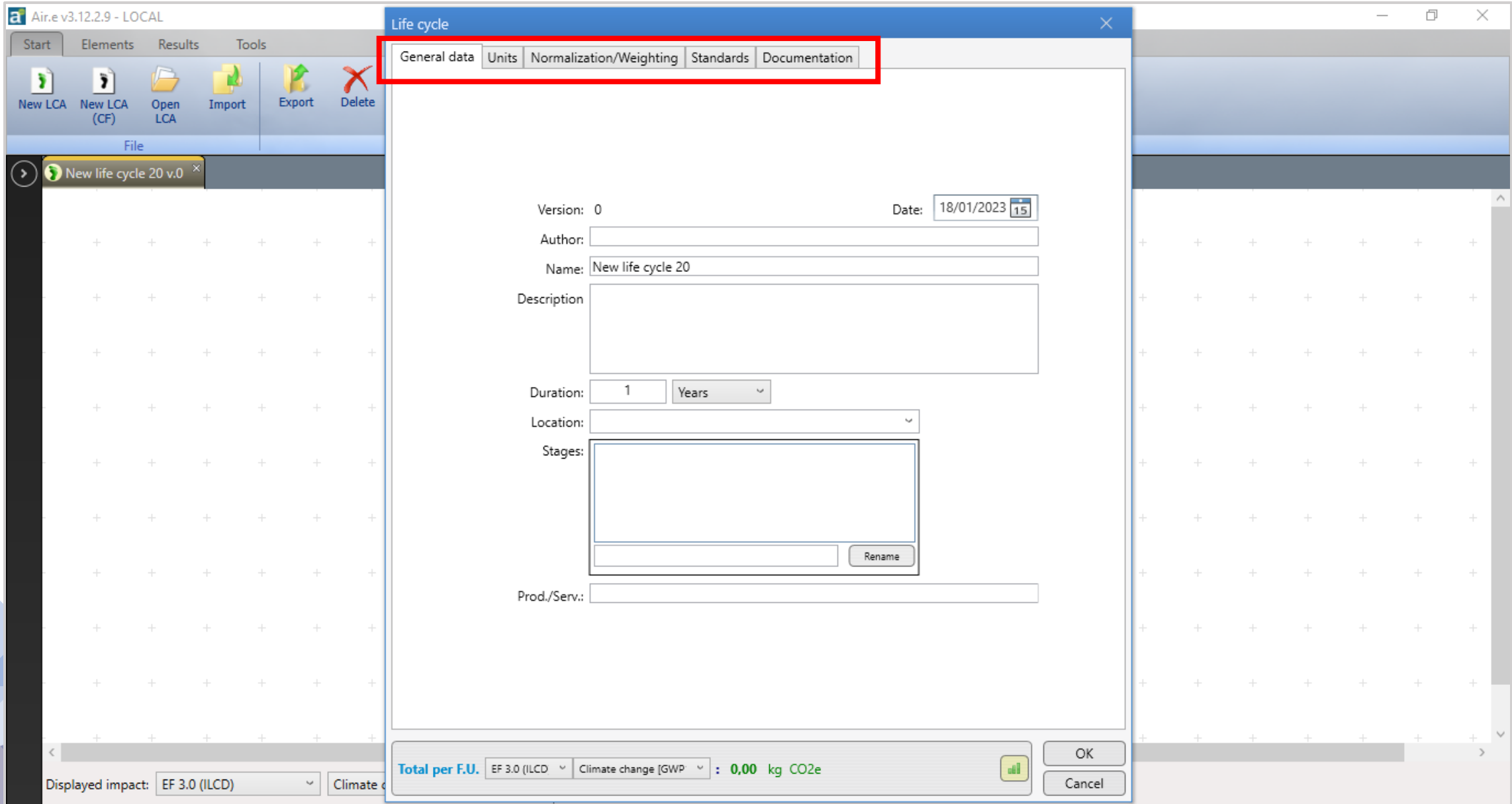


Co-funded by
the European Union

The logo for "aire LCA". The word "aire" is in a light blue, lowercase, sans-serif font. The dot above the "i" and the dot below the "e" are green. To the right of "aire" is a green circle containing the letters "LCA" in white. The logo is centered on the page and has a soft shadow below it.

HOME SCREEN

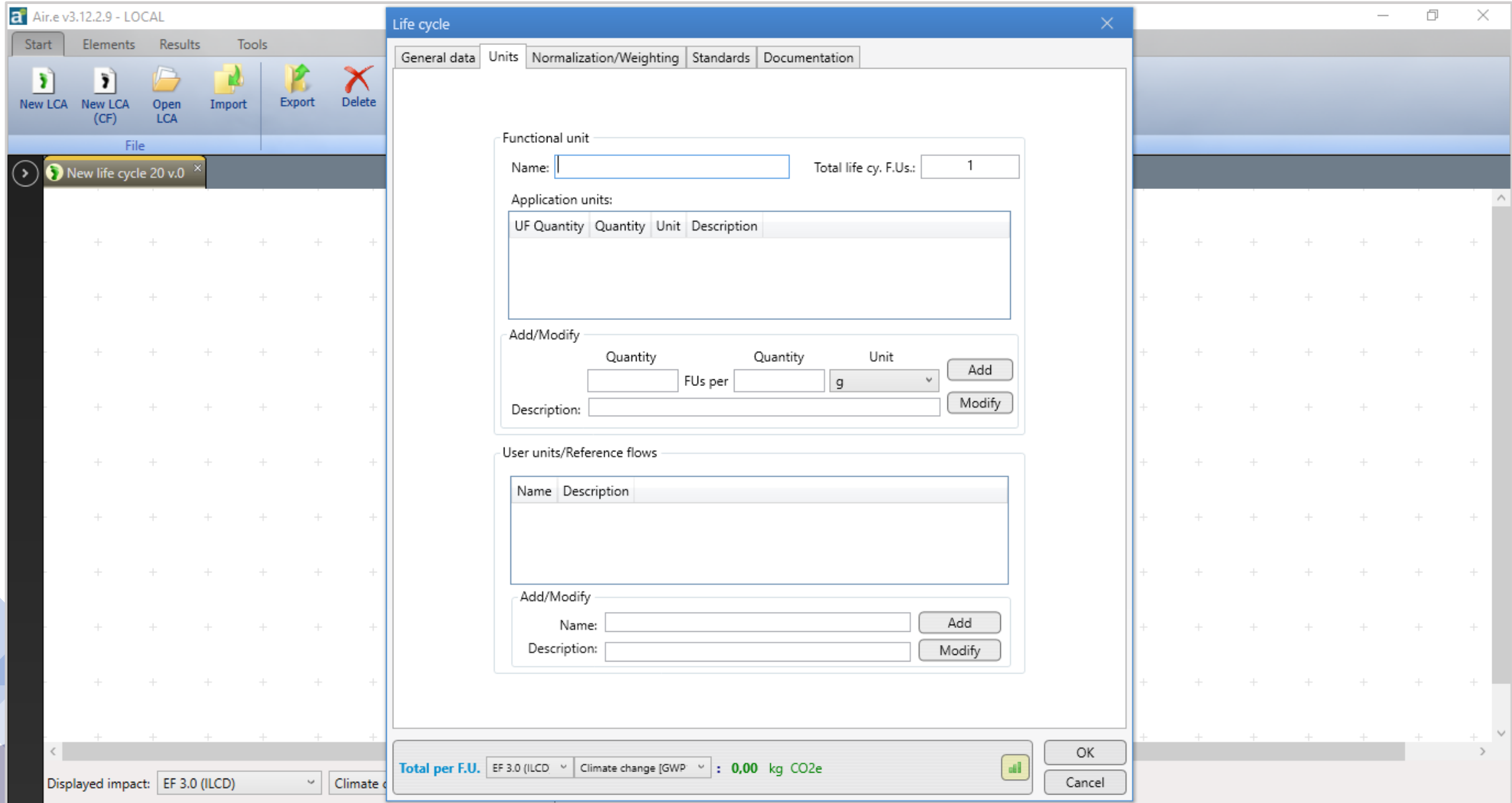




The screenshot displays the 'Life cycle' dialog box in the Air.e v3.12.2.9 - LOCAL software. The dialog box is titled 'Life cycle' and has a tabbed interface with the following tabs: 'General data', 'Units', 'Normalization/Weighting', 'Standards', and 'Documentation'. The 'General data' tab is currently selected and highlighted with a red rectangle. The 'General data' tab contains the following fields and controls:

- Version: 0
- Date: 18/01/2023 15
- Author:
- Name: New life cycle 20
- Description:
- Duration: 1 Years
- Location:
- Stages:
- Prod./Serv.:

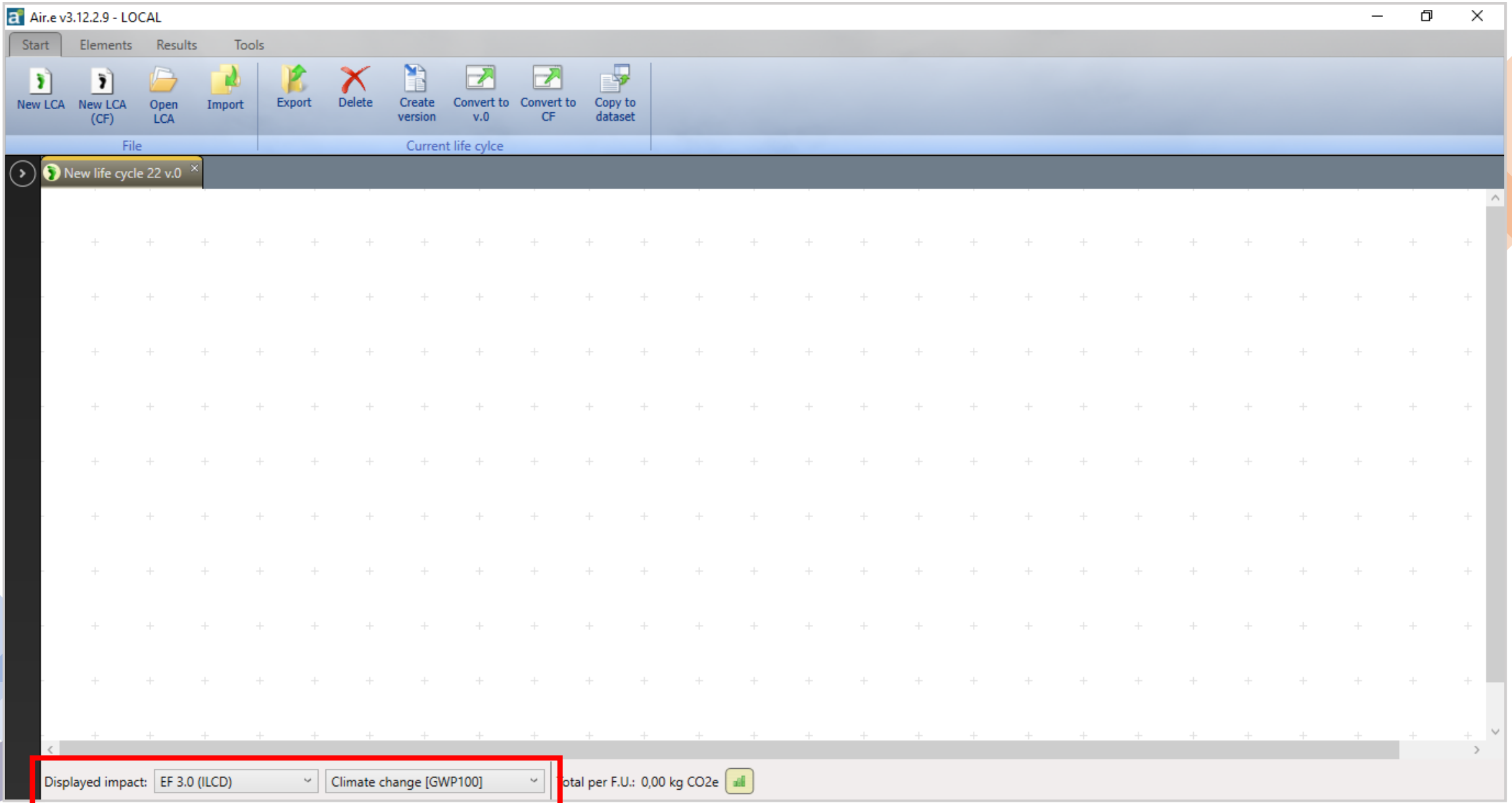
At the bottom of the dialog box, there is a summary bar showing the impact: **Total per F.U.** EF 3.0 (ILCD) Climate change [GWP] : 0,00 kg CO2e. There are 'OK' and 'Cancel' buttons at the bottom right of the dialog box.



The screenshot displays the 'Life cycle' dialog box in the Air.e v3.12.2.9 - LOCAL software. The dialog is divided into several sections:

- General data:** Includes a 'Name' input field and a 'Total life cy. F.U.s.' input field with the value '1'.
- Application units:** A table with columns 'UF Quantity', 'Quantity', 'Unit', and 'Description'. Below it is an 'Add/Modify' section with input fields for 'Quantity', 'FUs per', 'Unit' (set to 'g'), and 'Description', along with 'Add' and 'Modify' buttons.
- User units/Reference flows:** A table with columns 'Name' and 'Description'. Below it is an 'Add/Modify' section with input fields for 'Name' and 'Description', along with 'Add' and 'Modify' buttons.

At the bottom of the dialog, the 'Total per F.U.' is displayed as: **Total per F.U.** EF 3.0 (ILCD) Climate change [GWP] : **0,00 kg CO2e**. The dialog also features 'OK' and 'Cancel' buttons.



Air.e v3.12.2.9 - LOCAL

Start Elements Results Tools

New LCA New LCA (CF) Open LCA Import Export Delete Create version Convert to v.0 Convert to CF Copy to dataset

File Current life cycle

New life cycle 20 v.0

EF 3.0 (ILCD)

CML-IA, baseline
CML-IA, non baseline

ReCiPe, midpoints
ReCiPe, endpoints
ReCiPe, endpoints(HH)
ReCiPe, endpoints(EDT)
ReCiPe, endpoints(EDA)
ReCiPe, endpoints(EDM)
ReCiPe, endpoints(RD)

Displayed impact: EF 3.0 (ILCD) Climate change [GWP100] Total per F.U.: 0,00 kg CO2e

Air.e v3.12.2.9 - LOCAL

Start Elements Results Tools

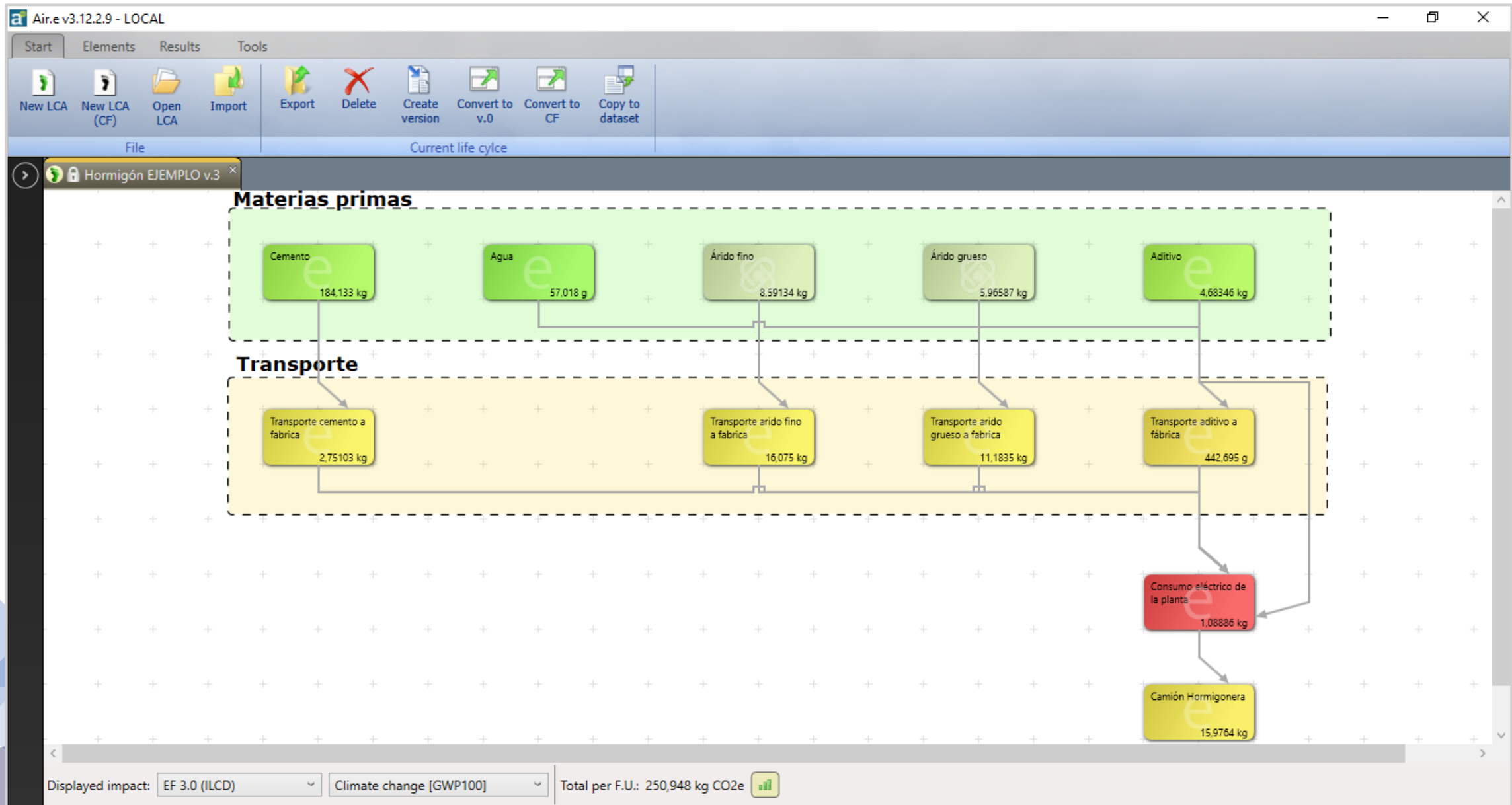
New LCA New LCA (CF) Open LCA Import Export Delete Create version Convert to v.0 Convert to CF Copy to dataset

File Current life cycle

New life cycle 20 v.0

Climate change [GWP100]
Climate change (biogenic) [GWP100bio]
Climate change (land use) [GWP100lu]
Climate change (fossil) [GWP100f]
Freshwater ecotoxicity [FETP]
Freshwater ecotoxicity (organic)
Freshwater ecotoxicity (inorganic)
Freshwater ecotoxicity (metals)
Eutrophication freshwater [FEP]
Eutrophication marine [MEP]
Eutrophication terrestrial [TEP]
Ionizing radiation (human) [IRP]
Ozone depletion [ODP100]

Displayed impact: EF 3.0 (ILCD) Climate change [GWP100] Total per F.U.: 0,00 kg CO2e



GENERAL DATA

The screenshot displays the 'Air.e v3.12.2.9 - LOCAL' software interface. A 'Life cycle' dialog box is open, showing the 'General data' tab. The dialog contains the following information:

- Version: 3
- Date: 23/05/2022
- Author: CTCON
- Name: Hormigón EJEMPLO
- Description: ACV de 1 m3 de hormigón
- Duration: 6 Months
- Location: (empty)
- Stages: (highlighted in red)
 - Extracción y procesado materias primas
 - Fabricación
 - Transporte a fábrica
 - Transporte a obra
- Prod./Serv.: (empty)

At the bottom of the dialog, the total impact is shown: **Total per F.U.** EF 3.0 (ILCD) Climate change [GWP] : **250,948 kg CO2e**. A 'Cancel' button is also present.

In the background, a process flow diagram is visible, showing the following components and their weights:

- Materias primas** (highlighted in green):
 - Cemento: 184.133 kg
- Transporte** (highlighted in yellow):
 - Transporte cemento a fabrica: 2.75103 kg
- Aditivo** (highlighted in green):
 - Aditivo: 4.68346 kg
- Transporte aditivo a fabrica** (highlighted in yellow):
 - Transporte aditivo a fabrica: 442.695 g
- Consumo eléctrico de la planta** (highlighted in red):
 - Consumo eléctrico de la planta: 1.08886 kg
- Camión Hormigonera** (highlighted in yellow):
 - Camión Hormigonera: 15.9764 kg

Air.e v3.12.2.9 - LOCAL

Start Elements Results Tools

New LCA New LCA (CF) Open LCA Import Export Delete

File

Hormigón EJEMPLO v.3

Materias primas

- Cemento: 184.133 kg

Transporte

- Transporte cemento a fabrica: 2.75103 kg

Life cycle

General data Units Normalization/Weighting Standards Documentation

Functional unit
Name: Total life cy. F.U.s.:

Application units:

UF Quantity	Quantity	Unit	Description
1	1	m ³	
12356	6	Months	

Add/Modify

Quantity FUs per Unit

Description:

User units/Reference flows

Name	Description

Add/Modify

Name:

Description:

Displayed impact: EF 3.0 (ILCD) Climate change [GWP] : **250,948** kg CO2e

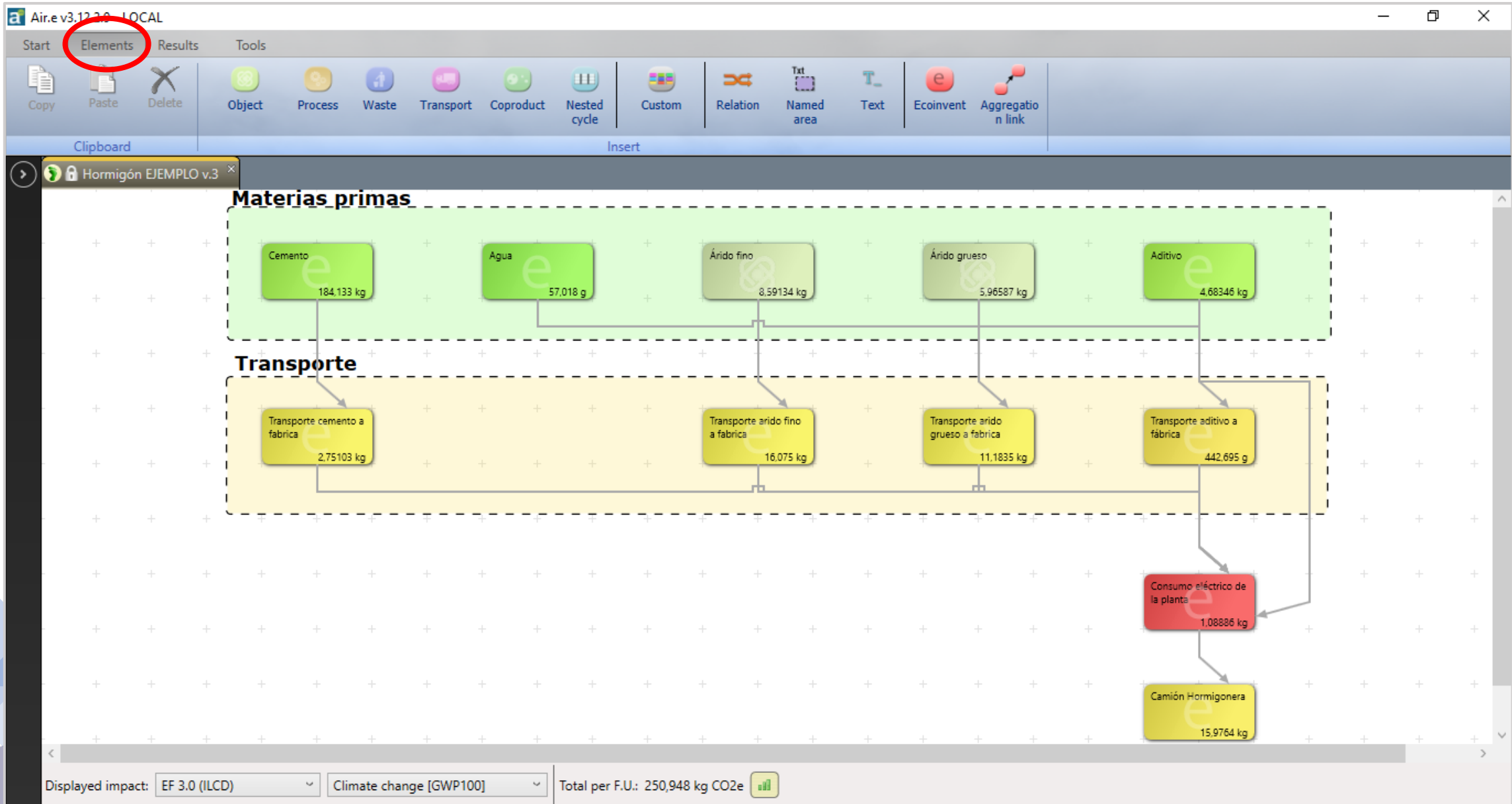
Cancel

Materias primas

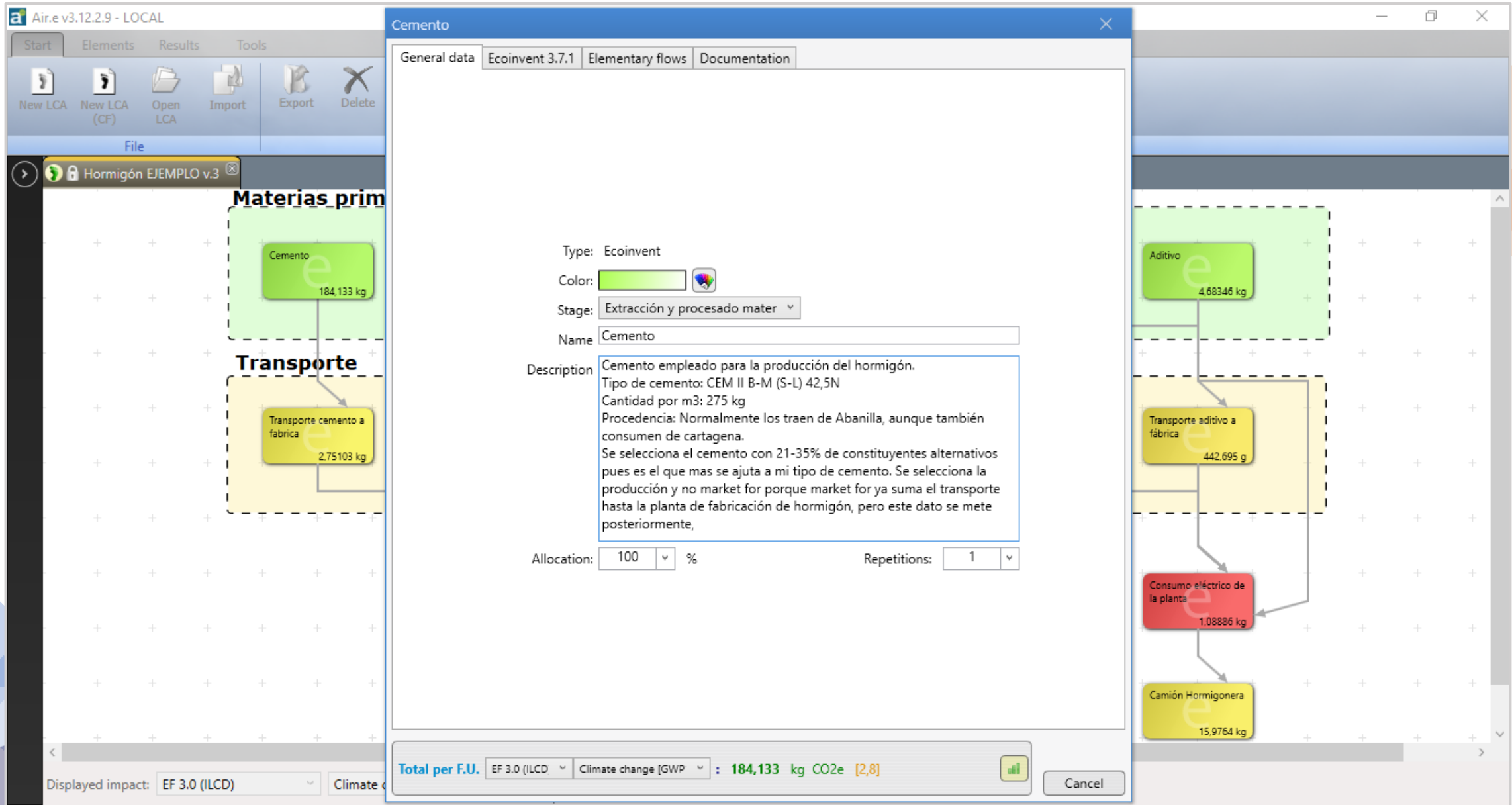
- Aditivo: 4.68346 kg

Transporte

- Transporte aditivo a fabrica: 442.695 g
- Consumo eléctrico de la planta: 1.08886 kg
- Camión Hormigonera: 15.9764 kg



ELEMENT DATA: CEMENT



The screenshot displays the 'Air.e v3.12.2.9 - LOCAL' software interface. A central dialog box titled 'Cemento' is open, showing the 'General data' tab. The dialog includes fields for 'Type' (Ecoinvent), 'Color', 'Stage' (Extracción y procesado mater), 'Name' (Cemento), and a detailed 'Description' in Spanish. It also features 'Allocation' (100%) and 'Repetitions' (1) settings. At the bottom of the dialog, the 'Total per F.U.' is calculated as 184,133 kg CO2e [2,8].

In the background, a flowchart titled 'Materias primas' shows the material flow for 'Hormigón EJEMPLO v.3'. The flow starts with 'Cemento' (184,133 kg) and 'Transporte cemento a fabrica' (2,75103 kg). This leads to 'Aditivo' (4,68346 kg), which then flows to 'Transporte aditivo a fabrica' (442,695 g). This step leads to 'Consumo eléctrico de la planta' (1,08886 kg), which finally leads to 'Camión Hormigonera' (15,9764 kg).

At the bottom left, the 'Displayed impact' is set to 'EF 3.0 (ILCD)' and 'Climate change [GWP]'. A 'Cancel' button is visible at the bottom right of the dialog.

ELEMENT DATA: CEMENT

The screenshot displays the 'Air.e v3.12.2.9 - LOCAL' software interface. The main window shows a process flow diagram with several elements: 'Cemento' (184,133 kg) under 'Materias primas', 'Transporte cemento a fabrica' (2,75103 kg) under 'Transporte', 'Aditivo' (4,68346 kg), 'Transporte aditivo a fabrica' (442,695 g), 'Consumo eléctrico de la planta' (1,08886 kg), and 'Camión Hormigonera' (15,9764 kg). A 'Cemento' dialog box is open, showing 'General data' for 'Ecoinvent 3.7.1'. The dialog includes fields for Type (Ecoinvent), Color, Stage (Extracción y procesado mater), Name (Extracción y procesado materias primas), Description (Transporte a fábrica, Trnsporte a obra), Allocation (100%), and Repetitions (1). The 'Description' field contains detailed text: 'Procedencia: Normalmente los traen de Abanilla, aunque también consumen de cartagena. Se selecciona el cemento con 21-35% de constituyentes alternativos pues es el que mas se ajusta a mi tipo de cemento. Se selecciona la producción y no market for porque market for ya suma el transporte hasta la planta de fabricación de hormigón, pero este dato se mete posteriormente.' The bottom of the dialog shows 'Total per F.U.' as '184,133 kg CO2e [2,8]'.

General data Ecoinvent 3.7.1 Elementary flows Documentation

Type: Ecoinvent
Color:
Stage: Extracción y procesado mater
Name: Extracción y procesado materias primas
Description: Transporte a fábrica el hormigón.
Trnsporte a obra
Procedencia: Normalmente los traen de Abanilla, aunque también consumen de cartagena. Se selecciona el cemento con 21-35% de constituyentes alternativos pues es el que mas se ajusta a mi tipo de cemento. Se selecciona la producción y no market for porque market for ya suma el transporte hasta la planta de fabricación de hormigón, pero este dato se mete posteriormente.
Allocation: 100 % Repetitions: 1

Displayed impact: EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]

ELEMENT DATA: CEMENT

The screenshot displays the 'Cemento' data entry window in the Air.e v3.12.2.9 - LOCAL software. The window is divided into several sections:

- General data:** A table with columns for Name, Type, Description, Dataset, Quantity, and Quantity 2. The entry for 'Cemento' is highlighted, showing 'Ecoinvent 3.7.1' as the Type and 'cement production, alternative constituents 21-35%' as the Dataset.
- Total per F.U.:** A summary bar showing 'EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]'.
- Selection data:** Fields for Name (Cemento), Description, and Dataset (cement production, alternative constituents 21-35%). It includes search filters for Ref. prod., Location, Category, and Model (Ecoinvent 3.7.1 [APOS]).
- Quantity and For:** Quantity is set to 275 kg, and For is set to 1 m³.
- Options:** Checkboxes for 'Indirect emission/Third party' (checked) and 'Energy consumption' (unchecked). Allocation is set to 100%.
- Quality and Cost:** Radio buttons for 'Quality*' and 'Cost'.
- Total per F.U. (bottom):** Another summary bar showing 'EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]'.

In the background, a flow diagram titled 'Materias primas' shows the following elements and their quantities:

- Cemento: 184,133 kg
- Transporte cemento a fabrica: 2,75103 kg
- Aditivo: 4,68346 kg
- Transporte aditivo a fabrica: 442,695 g
- Consumo eléctrico de la planta: 1,08886 kg
- Camión Hormigonera: 15,9764 kg

The software interface includes a menu bar (Start, Elements, Results, Tools) and a toolbar with icons for New LCA, Open LCA, Import, Export, and Delete. The background window is titled 'Hormigón EJEMPLO v.3'.

ELEMENT DATA: CEMENT

General data Ecoinvent 3.7.1 Elementary flows Documentation

Name	Type	Description	Dataset	Quantity	Quantity 2
Cemento	Ecoinvent 3.7.1	cement production, alternative constituents 21-35%			

Total per F.U. EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]

Description: The dataset describes the production of cement (CEM II/B)
Period: 2005-01-01 / 2020-12-31
Activity start: From cradle, i.e. including all upstream activities. As source of gypsum, waste gypsum from flue gas treatment is assumed.
From cradle, i.e. including all upstream activities.
Activity end: This activity ends with the cement produced in the cement mill. The dataset does not include packaging and administration.

Ref. prod.: cement, alternative constituents 21-... **Location:** RoW
Category: Manufacture of cement, lime and pl... **Model:** Ecoinvent 3.7.1 [APOS]
Per: Kilograms **D,Q,R:** 2,95
Characterization: 0,669575893175417 kg CO2e

Selection data
Name: Cemento
Description:
Dataset: cement production, alternative constituents 21-35%

Flow Diagram:

- Materias primas: Cemento (184,133 kg)
- Transporte: Transporte cemento a fabrica (2,75103 kg)
- Aditivo: Aditivo (4,68346 kg)
- Transporte: Transporte aditivo a fabrica (442,695 g)
- Consumo eléctrico de la planta: Consumo eléctrico de la planta (1,08886 kg)
- Camión Hormigonera: Camión Hormigonera (15,9764 kg)

Total per F.U. EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]

ELEMENT DATA: CEMENT

The screenshot displays the 'Air.e v3.12.2.9 - LOCAL' software interface. The main window is titled 'Cemento' and is divided into several sections:

- General data:** A table with columns 'Name', 'Type', 'Description', 'Dataset', 'Quantity', and 'Quantity 2'. It contains one entry: 'Cemento' (Type: Ecoinvent 3.7.1, Description: cement production, alternative constituents 21-35%).
- Total per F.U.:** A summary bar showing 'EF 3.0 (ILCD) Climate change [GWP] : 184,133 kg CO2e [2,8]'.
- Selection data:** Fields for 'Name: Cemento', 'Description:', and 'Dataset: cement production, alternative constituents 21-35%'. It also includes search filters for 'Ref. prod.', 'Location: (All)', 'Category: (All)', and 'Model: Ecoinvent 3.7.1 [APOS]'.
- Quantity and For:** A red box highlights the 'Quantity: 275 kg' and 'For: 1 m³' fields.
- Checkboxes:** 'Indirect emission/Third party' is checked, and 'Energy consumption' is unchecked.
- Allocation:** Set to '100 %'.
- Buttons:** 'Quality', 'Cost', and 'Cancel' are visible at the bottom.

In the background, a flowchart titled 'Materias primas' shows the following elements:

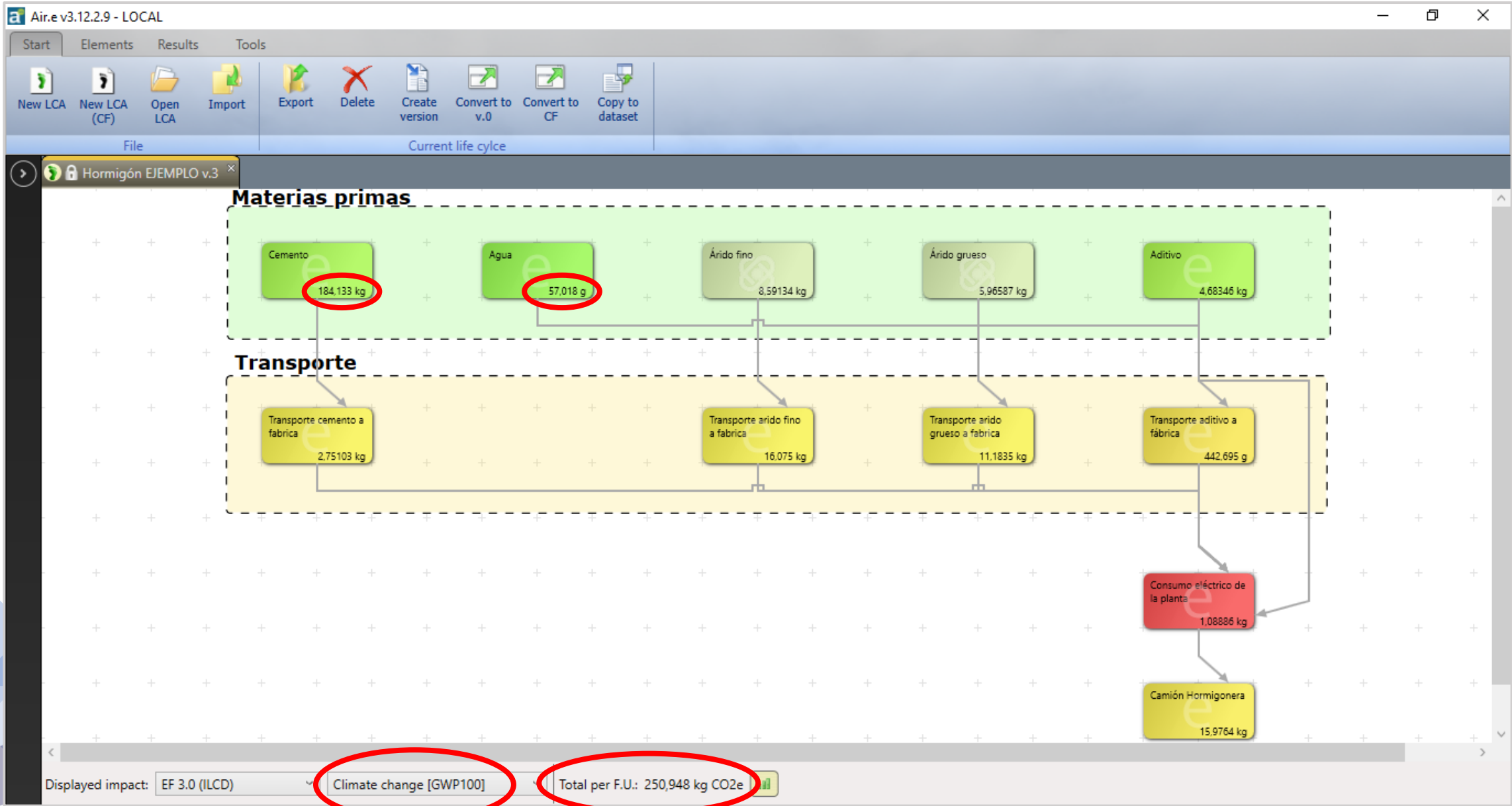
- Cemento:** 184,133 kg (green box)
- Transporte cemento a fabrica:** 2,75103 kg (yellow box)
- Aditivo:** 4,68346 kg (green box)
- Transporte aditivo a fabrica:** 442,695 g (yellow box)
- Consumo eléctrico de la planta:** 1,08886 kg (red box)
- Camión Hormigonera:** 15,9764 kg (yellow box)

The flowchart shows arrows indicating the flow of materials and energy between these components.

CONCRETE LCA: CLIMATE CHANGE



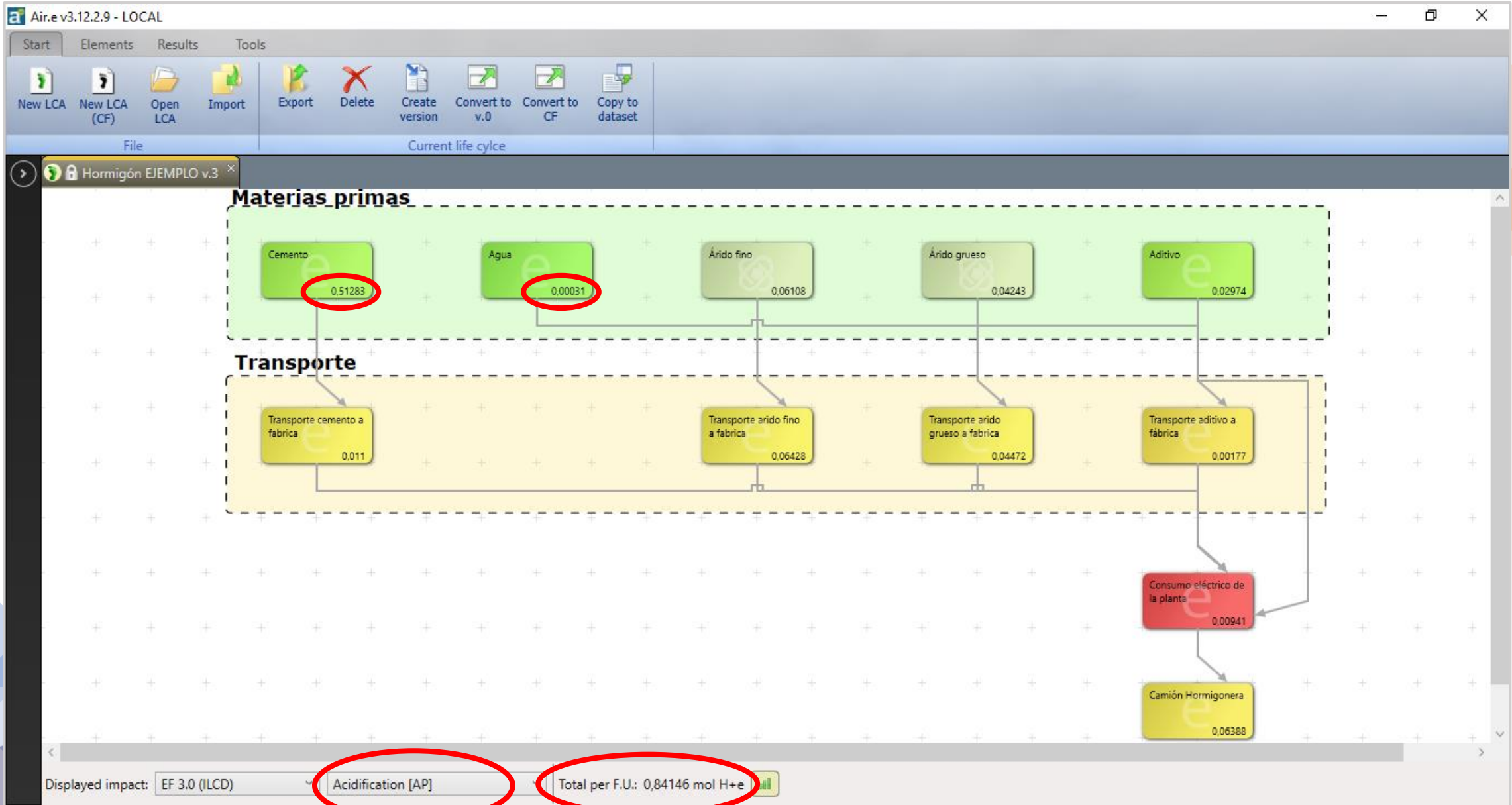
Co-funded by the European Union



CONCRETE LCA: ACIDIFICATION



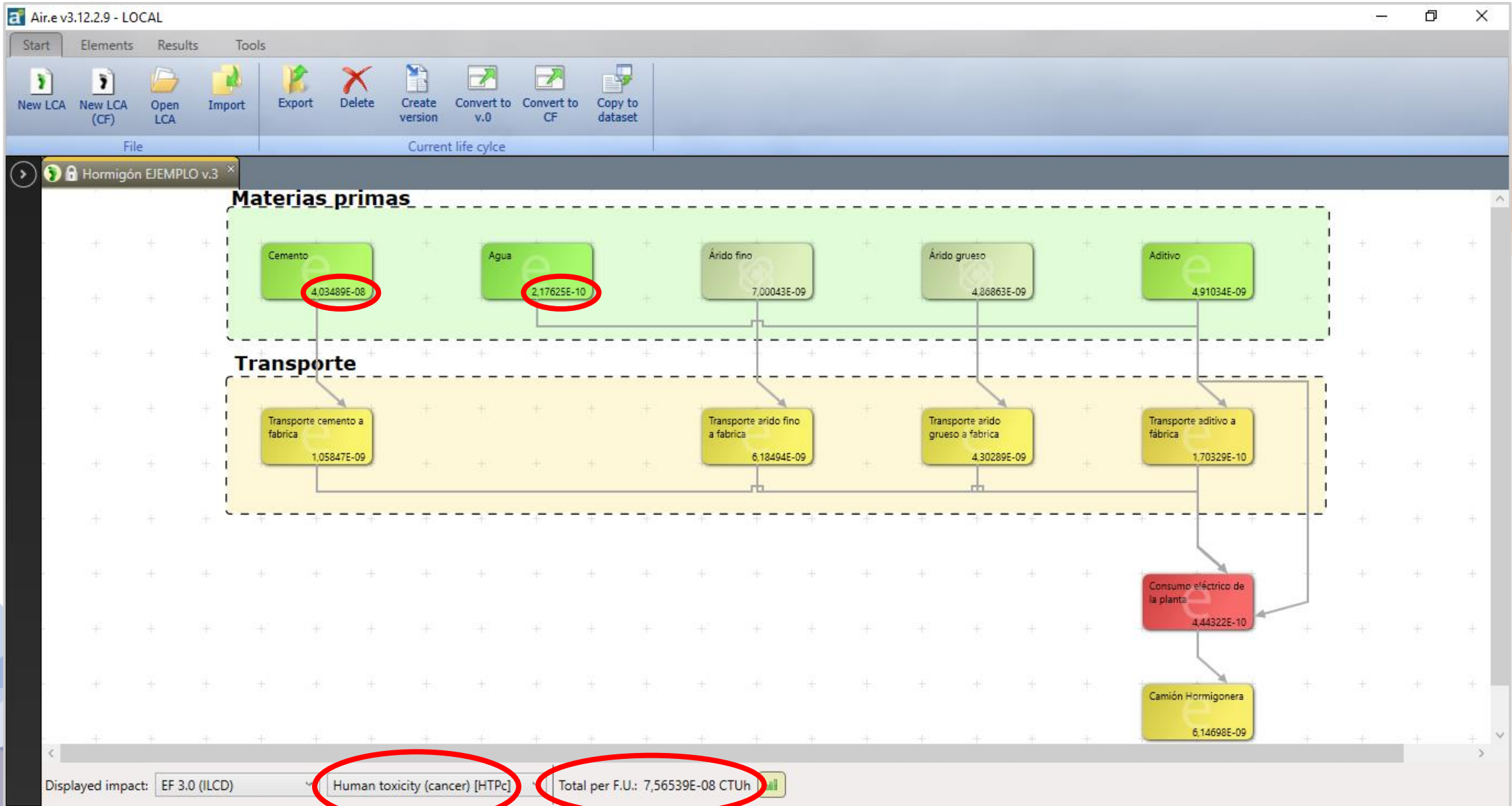
Co-funded by the European Union

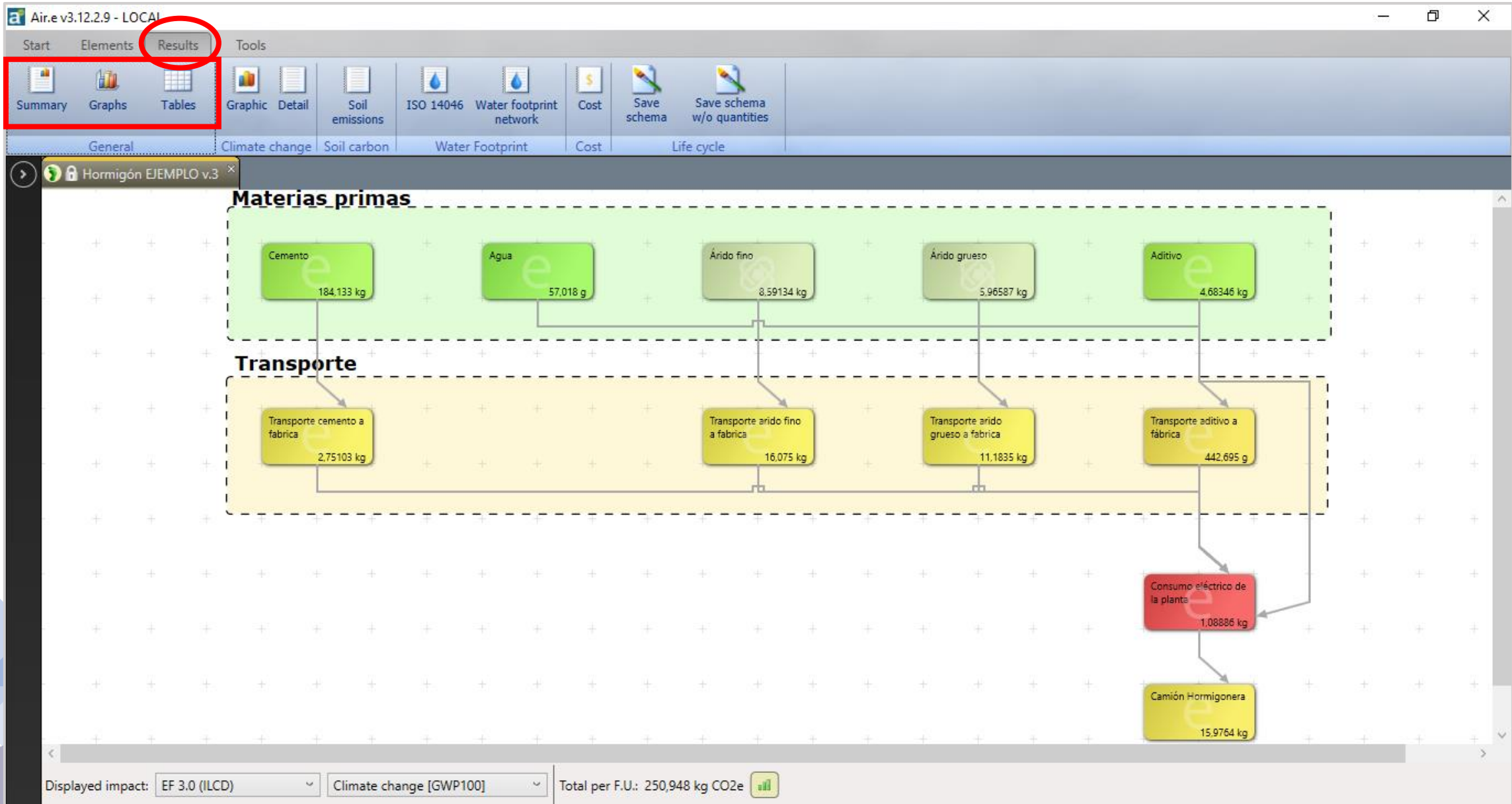


CONCRETE LCA: HUMAN TOXICITY



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Air.e v3.12.2.9 - LOCAL

Start Elements Results Tools

Summary Graphs Tables Graphic Detail Soil emissions ISO

General Climate change Soil carbon

Summary report

Normalization: (None)

Weighting: (None)

Impacts for the report:

- ReCiPe, endpoints
- ReCiPe, midpoints
- ReCiPe, endpoints(HH)
- ReCiPe, endpoints(EDT)
- ReCiPe, endpoints(EDA)
- ReCiPe, endpoints(EDM)
- ReCiPe, endpoints(RD)
- CML-IA, non baseline
- EF 3.0 (ILCD)
- CML-IA, baseline
- Water Footprint Net.
- IPCC 2001
- IPCC 2007
- IPCC 2013
- IPCC 2013 (cf)
- IPCC 2013[Ecoinvent]
- Cost

Generate report

Displayed impact: EF 3.0 (ILCD) Climate change [GWP100] Total per F.U.: 250,948 kg CO2e

```
graph TD; subgraph Left; direction TB; M1[Cemento 184.133 kg]; T1[Transporte cemento a fabrica 2.75103 kg]; end; subgraph Right; direction TB; A[Aditivo 4.68346 kg]; T2[Transporte aditivo a fabrica 442.695 g]; C[Consumo eléctrico de la planta 1,08826 kg]; Cam[Camión Hormigonera 15.9764 kg]; end; M1 --> T1; A --> T2; T2 --> C; C --> Cam;
```

Air.e v3.12.2.9 - LOCAL

Start Elements Results Tools

Summary Graphs Tables Graphic Detail Soil emissions ISO

General Climate change Soil carbon

Hormigón EJEMPLO v.3

Materias primas

Cemento 184,133 kg

Transporte

Transporte cemento a fabrica 2,75103 kg

Aditivo

Aditivo 4,68346 kg

Transporte aditivo a fabrica

Transporte aditivo a fabrica 442,695 g

Consumo eléctrico de la planta

Consumo eléctrico de la planta 1,08886 kg

Camión Hormigonera

Camión Hormigonera 15,9764 kg

Summary report

Normalization: (None)

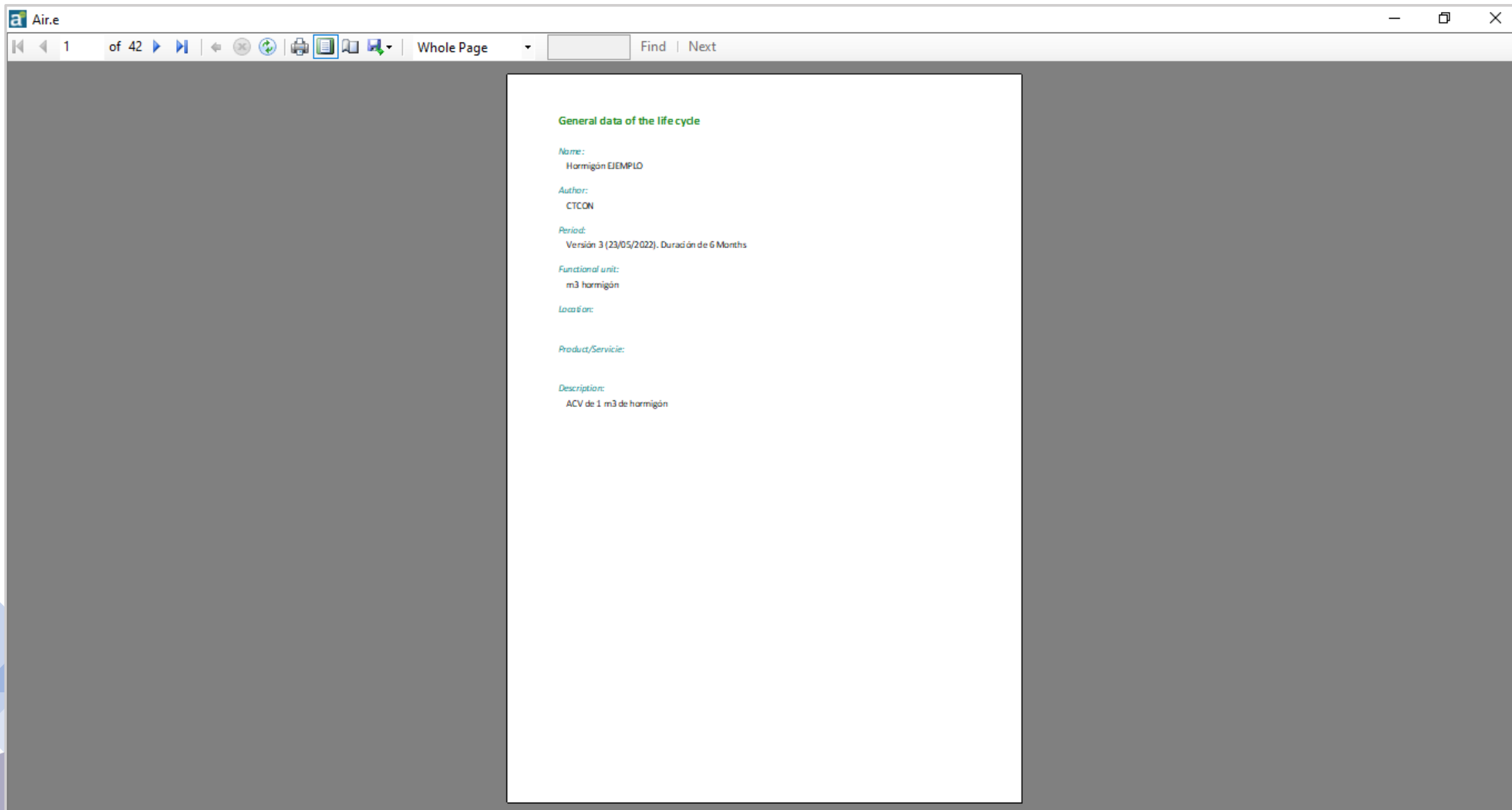
Weighting: (None)

Impacts for the report:

- ReCiPe, endpoints(RD)
- CML-IA, non baseline
- EF 3.0 (ILCD)
 - Abiotic depletion (fossil fuels) [ADPff] MJ
 - Abiotic depletion (ultimate reserves) [ADPeI,ur] kg
 - Acidification [AP] kg
 - Climate change (biogenic) [GWP100bio] kg
 - Climate change (fossil) [GWP100f] kg
 - Climate change (land use) [GWP100lu] kg
 - Climate change [GWP100] kg
 - Eutrophication freshwater [FEP] kg
 - Eutrophication marine [MEP] kg
 - Eutrophication terrestrial [TEP] kg
 - Freshwater ecotoxicity (inorganic)
 - Freshwater ecotoxicity (metals)
 - Freshwater ecotoxicity (organic)
 - Freshwater ecotoxicity [FEED]

Generate report

Displayed impact: EF 3.0 (ILCD) Climate change [GWP100] Total per F.U.: 250,948 kg CO2e



The screenshot shows a software window titled "Air.e" with a navigation bar at the top. The navigation bar includes a search field with the text "Find | Next" and a "Whole Page" dropdown menu. The main content area displays the following information:

General data of the life cycle

Name:
Hormigón EJEMPLO

Author:
CTCON

Period:
Versión 3 (23/05/2022). Duración de 6 Months

Functional unit:
m³ hormigón

Location:

Product/Service:

Description:
ACV de 1 m³ de hormigón

Air.e

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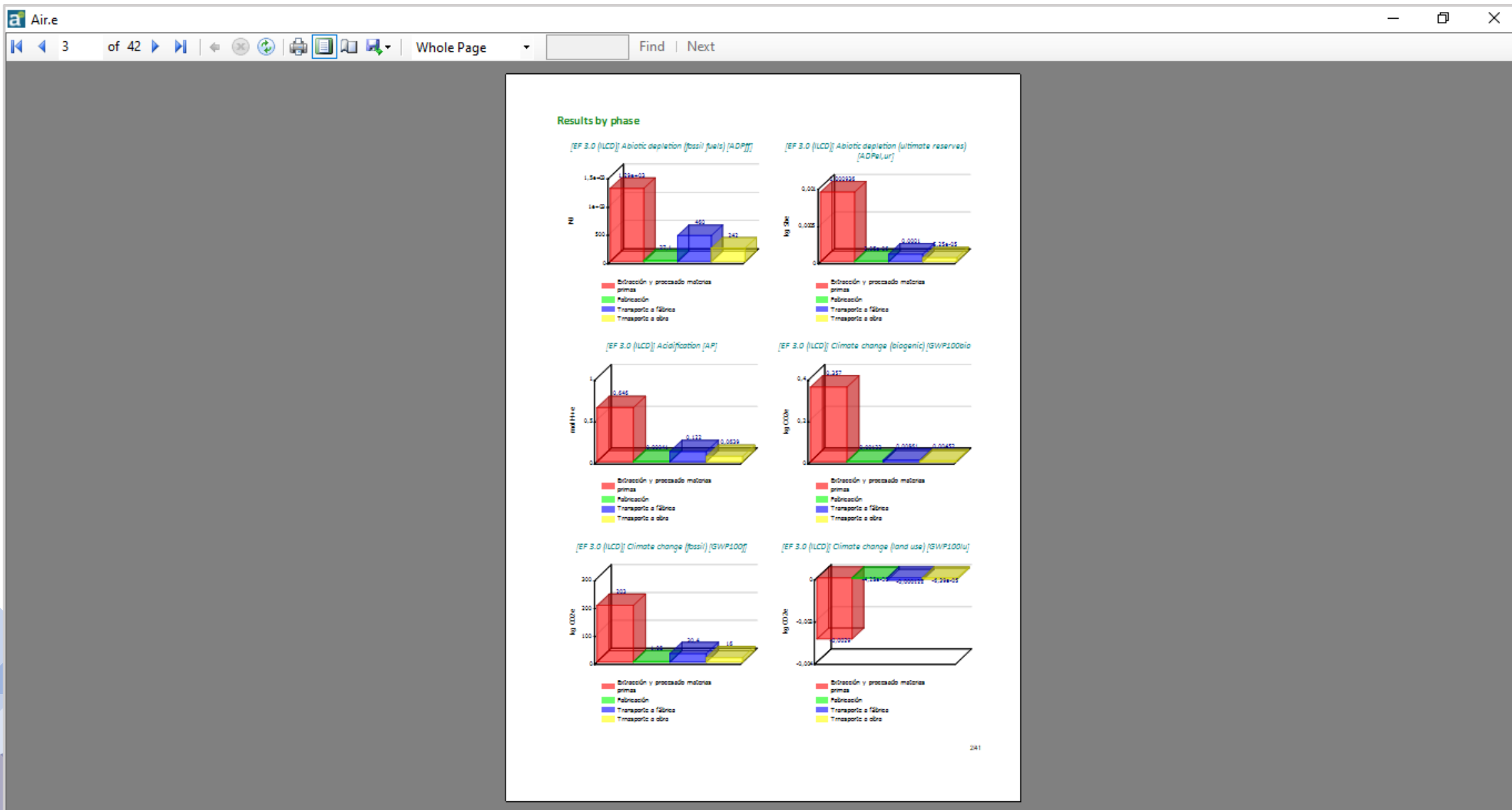
Whole Page

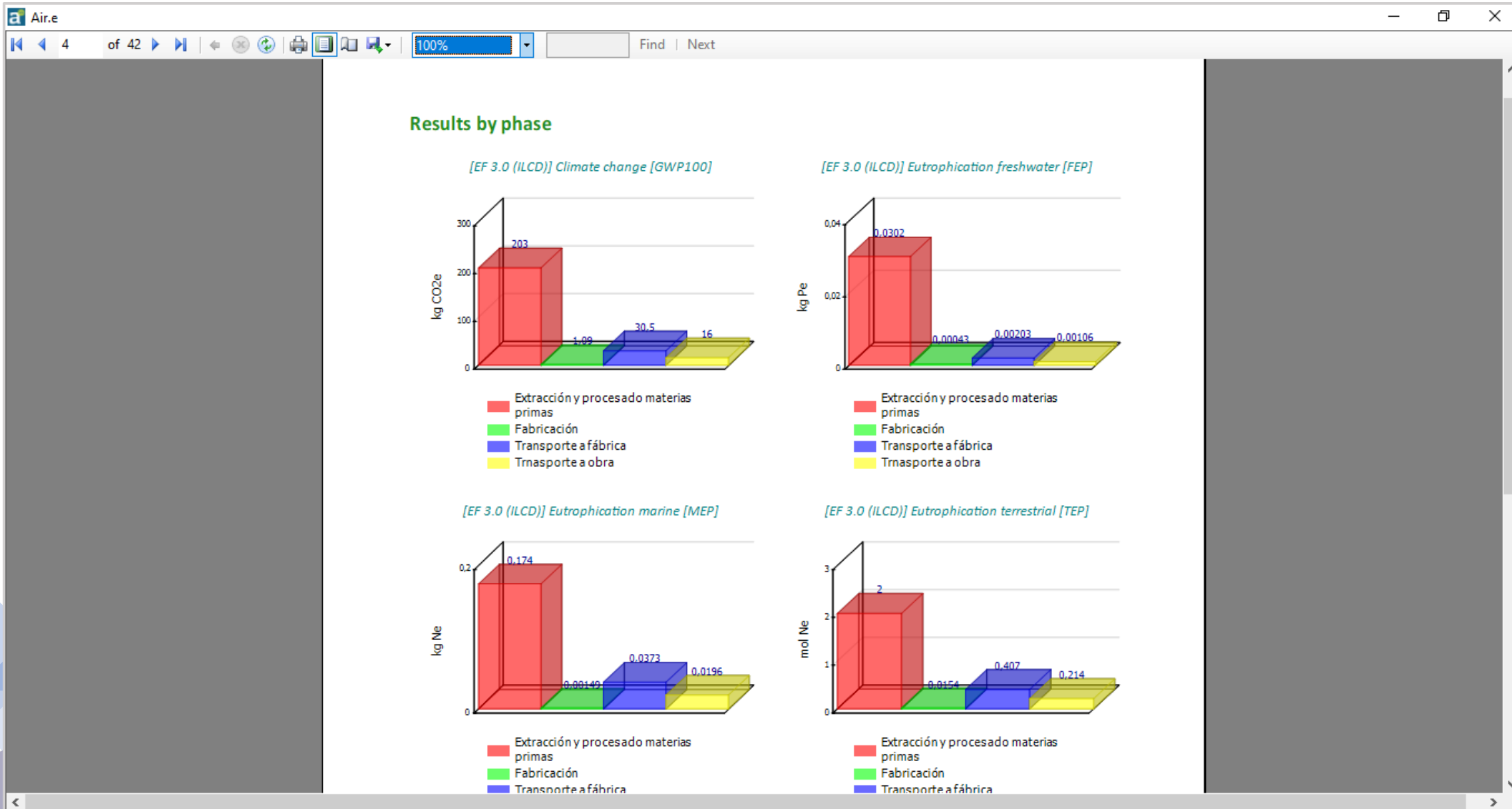
Find | Next

Results for the life cycle

Impact	Total
[EF 3.0 (ILCD)] Abiotic depletion (fossil fuels) [ADPF]	2,023,3717 MJ
[EF 3.0 (ILCD)] Abiotic depletion (ultimate reserves) [ADPeLur]	0,0011 kg Sbe
[EF 3.0 (ILCD)] Acidification [AP]	0,8415 mol H+e
[EF 3.0 (ILCD)] Climate change (biogenic) [GWP100bio]	0,3711 kg CO2e
[EF 3.0 (ILCD)] Climate change (fossil) [GWP100f]	250,4413 kg CO2e
[EF 3.0 (ILCD)] Climate change (land use) [GWP100lu]	-0,0031 kg CO2e
[EF 3.0 (ILCD)] Climate change [GWP100]	250,9485 kg CO2e
[EF 3.0 (ILCD)] Eutrophication freshwater [FEP]	0,0337 kg Pe
[EF 3.0 (ILCD)] Eutrophication marine [MEP]	0,2327 kg Ne
[EF 3.0 (ILCD)] Eutrophication terrestrial [TEP]	2,6379 mol Ne
[EF 3.0 (ILCD)] Freshwater ecotoxicity (inorganic)	495,6469 CTUe
[EF 3.0 (ILCD)] Freshwater ecotoxicity (metals)	2,957,7640 CTUe
[EF 3.0 (ILCD)] Freshwater ecotoxicity (organic)	73,8889 CTUe
[EF 3.0 (ILCD)] Freshwater ecotoxicity [FETP]	3,527,2998 CTUe
[EF 3.0 (ILCD)] Human toxicity (cancer, inorganic) [HTPcoi]	2,7999E 16 CTUh
[EF 3.0 (ILCD)] Human toxicity (cancer, metals) [HTPcom]	4,4281E 08 CTUh
[EF 3.0 (ILCD)] Human toxicity (cancer, organic) [HTPcoo]	3,1372E 08 CTUh
[EF 3.0 (ILCD)] Human toxicity (cancer) [HTPc]	7,5654E 08 CTUh
[EF 3.0 (ILCD)] Human toxicity (non cancer, inorganic) [HTPncoi]	4,5975E 07 CTUh
[EF 3.0 (ILCD)] Human toxicity (non cancer, metals) [HTPncm]	1,7608E 06 CTUh
[EF 3.0 (ILCD)] Human toxicity (non cancer, organic) [HTPncoo]	5,4871E 08 CTUh
[EF 3.0 (ILCD)] Human toxicity (non cancer) [HTPnc]	2,2639E 06 CTUh
[EF 3.0 (ILCD)] Ionizing radiation (human) [IRP]	12,0525 kBq U235e
[EF 3.0 (ILCD)] Land use [LUP]	3,928,1692 pt
[EF 3.0 (ILCD)] Ozone depletion [ODP100]	0,0000 kg CFC 11e
[EF 3.0 (ILCD)] Particulate matter formation [PMFP]	8,9636E 06 D.J.
[EF 3.0 (ILCD)] Photochemical ozone formation [POFP]	0,6909 kg NMVOCe
[EF 3.0 (ILCD)] Resource depletion (water) [WDP]	4,132,8398 m³ W.ed

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Air.e

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Whole Page

Find | Next

Next Page

Cemento

Results

Impact	Total
(EF 3.0 (ILCD)) Abiotic depletion (fossil fuels) (ADPF) (MJ)	932,382
(EF 3.0 (ILCD)) Abiotic depletion (ultimate reserves) (ADPeLur) (kg Sbc)	0,0007
(EF 3.0 (ILCD)) Acidification (AP) (mol H+e)	0,51283
(EF 3.0 (ILCD)) Climate change (biogenic) (GWP100bio) (kg CO2e)	0,32167
(EF 3.0 (ILCD)) Climate change (fossil) (GWP100f) (kg CO2e)	183,702
(EF 3.0 (ILCD)) Climate change (land use) (GWP100lu) (kg CO2e)	0,0024
(EF 3.0 (ILCD)) Climate change (GWP100) (kg CO2e)	184,133
(EF 3.0 (ILCD)) Eutrophication freshwater (FEP) (kg Po)	0,02001
(EF 3.0 (ILCD)) Eutrophication marine (MEP) (kg Ne)	0,14748
(EF 3.0 (ILCD)) Eutrophication terrestrial (TEP) (mol Ne)	1,67468
(EF 3.0 (ILCD)) Freshwater ecotoxicity (inorganic) (CTUe)	302,938
(EF 3.0 (ILCD)) Freshwater ecotoxicity (metals) (CTUe)	2,339,87
(EF 3.0 (ILCD)) Freshwater ecotoxicity (organic) (CTUe)	26,2618
(EF 3.0 (ILCD)) Freshwater ecotoxicity (FEIP) (CTUe)	2,669,07
(EF 3.0 (ILCD)) Human toxicity (cancer, inorganic) (HTPci) (CTUh)	1,40403E 16
(EF 3.0 (ILCD)) Human toxicity (cancer, metals) (HTPcm) (CTUh)	2,26441E 08
(EF 3.0 (ILCD)) Human toxicity (cancer, organic) (HTPco) (CTUh)	1,77048E 08
(EF 3.0 (ILCD)) Human toxicity (cancer) (HTPc) (CTUh)	4,03489E 08
(EF 3.0 (ILCD)) Human toxicity (non cancer, inorganic) (HTPnci) (CTUh)	2,09099E 07
(EF 3.0 (ILCD)) Human toxicity (non cancer, metals) (HTPncm) (CTUh)	1,10728E 06
(EF 3.0 (ILCD)) Human toxicity (non cancer, organic) (HTPnco) (CTUh)	2,19307E 08
(EF 3.0 (ILCD)) Human toxicity (non cancer) (HTPnc) (CTUh)	1,33067E 06
(EF 3.0 (ILCD)) Ionizing radiation (human) (IRP) (kBq U235e)	3,52993
(EF 3.0 (ILCD)) Land use (LUP) (pt)	2,012,62
(EF 3.0 (ILCD)) Ozone depletion (ODP100) (kg CFC 11e)	5,93897E 06
(EF 3.0 (ILCD)) Particulate matter formation (PMFP) (D.J.)	4,23735E 06
(EF 3.0 (ILCD)) Photochemical ozone formation (POFP) (kg NMVOCe)	0,41151
(EF 3.0 (ILCD)) Resource depletion (water) (WDPI) (m³ W.ed)	21,2557

841

Graphs □ ×

Step 1 (Selection)

All elements
 Selected element/s

Named area

Step 2 (Content to compare)

Element contents
 Elements
 Stages
 Composition (UPR)
 Characterization (LCI)
 Sections
 Types of element
 Named areas

Step 3 (Type of content)

Compare one impact
 Compare between impacts
 Show various impacts

Step 4 (Methodology)

Normalization:

Weighting:

Impacts for the report:

- EF 3.0 (ILCD)
- Abiotic depletion (fossil fuels) [ADPF]
- Abiotic depletion (ultimate reserves) [ADPeLur]
- Acidification [AP]
- Climate change (biogenic) [GWP100bio]
- Climate change (fossil) [GWP100f]
- Climate change (land use) [GWP100lu]

Step 5 (Visible content/ N. bars)

Most significant (max. 200)
 Without null values
 +5 selectables

Selected (max. 200) Corte (%)

Calculate selectables and generate graph

Aspect

Width (px.): Height (px.):

Unit: Scientific n. Decimals(1-7):

Type of graphic:

Bar Stacked bar Stacked bar 100%

Column Stacked column Stacked col. 100%

Pie

GRAPH

Material	Value
Aditivo	0,01
Agua	0,00
Árido fino	0,02
Árido grueso	0,01
Camión Hormigonera	0,03
Cemento	0,12
Consumo eléctrico de la planta	0,00
Transporte aditivo a fábrica	0,00
Transporte arido grueso a fabrica	0,03
Transporte arido fino a fabrica	0,02
Transporte cemento a fabrica	0,01

Graphs ✖

Step 1 (Selection)

All elements
 Selected element/s
 Named area

Step 2 (Content to compare)

Element contents
 Elements
 Stages
 Composition (UPR)
 Characterization (LCI)
 Sections
 Types of element
 Named areas

Step 3 (Type of content)

Compare one impact
 Compare between impacts
 Show various impacts

Step 4 (Methodology)

Normalization: EF 3.0 (ILCD) (Global (2010))
 Weighting: EF 3.0 (ILCD) (Global (2010))

Impacts for the report:

- Land use [LUP]
- Ozone depletion [ODP100]
- Particulate matter formation [PMFP]
- Photochemical ozone formation [HOPF]
- Resource depletion (water) [WDP]
- CML-IA, baseline
- ReCiPe, midpoints

Step 5 (Visible content/ N. bars)

200 Most significant (max. 200)
 Without null values
 +5 selectables
 Selected (max. 200) Corte (%): 0

Calculate selectables and generate graph

Aspect

Width (px): 850 Height (px): 500

Unit: Scientific n. Decimals(1-7): 2

Type of graphic:

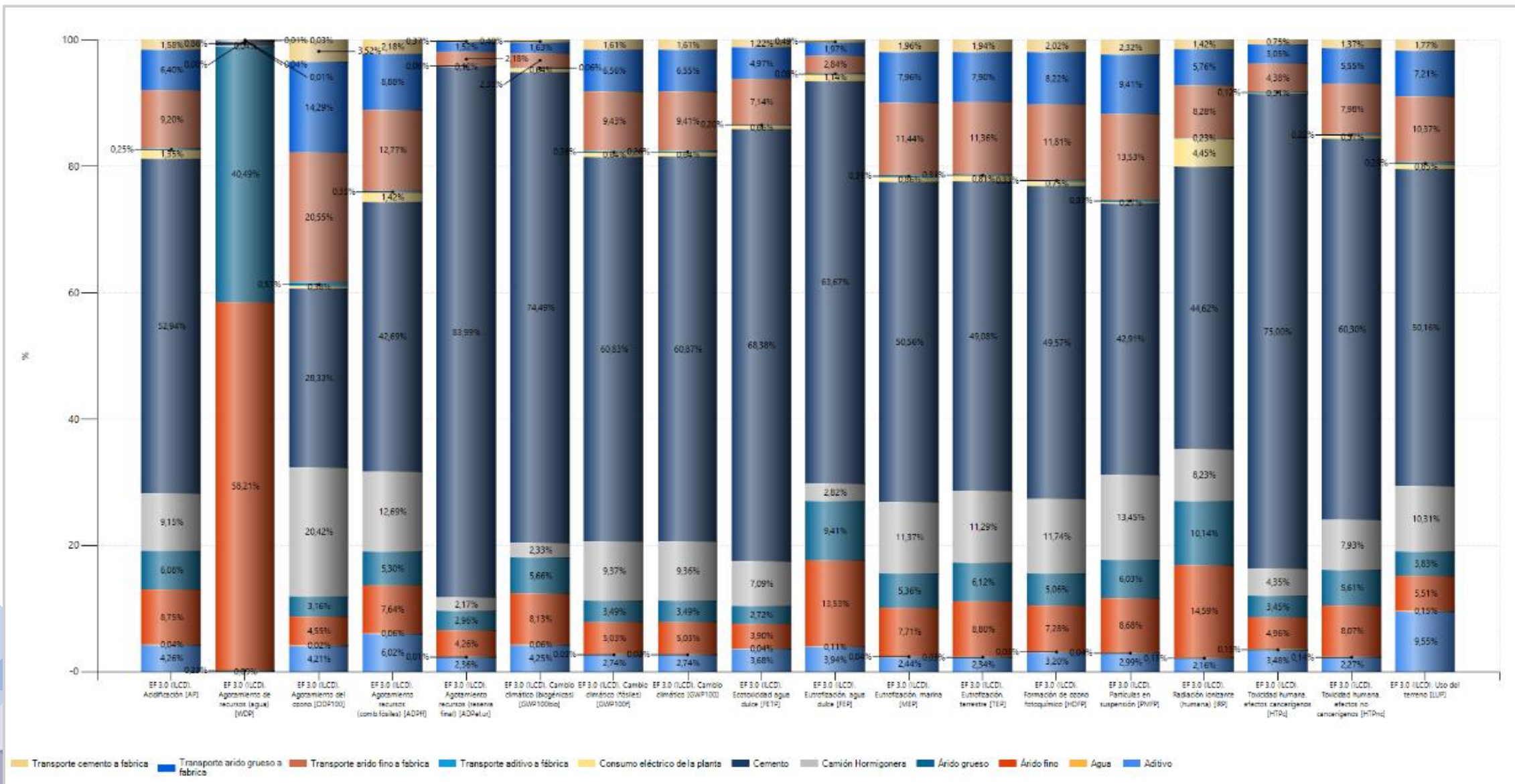
Bar Stacked bar Stacked bar 100%
 Column Stacked column Stacked col. 100%
 Pie

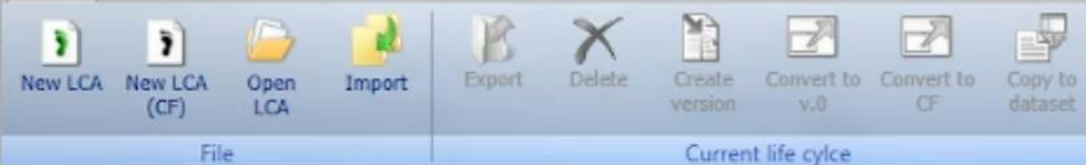
GRAPH

Impact Category	Extracción y procesado materias primas (%)	Transporte a fábrica (%)	Fabricación (%)	Trasporte a obra (%)
EF 3.0 (ILCD), Abiotic depletion (fossil fuels) [ADPF]	63,97%	22,75%	1,34%	11,94%
EF 3.0 (ILCD), Acidification [AP]	76,82%	1,12%	14,47%	7,59%
EF 3.0 (ILCD), Climate change [GWP100]	81,06%	0,43%	12,13%	6,37%
EF 3.0 (ILCD), Eutrophication freshwater [FEP]	89,55%	1,28%	3,16%	6,01%
EF 3.0 (ILCD), Eutrophication marine [MEP]	74,90%	0,64%	16,04%	6,01%
EF 3.0 (ILCD), Eutrophication terrestrial [TEP]	75,88%	0,58%	15,44%	8,42%
EF 3.0 (ILCD), Freshwater ecotoxicity [FETP]	83,63%	0,51%	10,41%	8,10%
EF 3.0 (ILCD), Human toxicity (cancer) [HTPc]	75,80%	0,59%	15,49%	5,44%
EF 3.0 (ILCD), Human toxicity (non-cancer) [HTPnc]	75,48%	0,59%	15,69%	8,13%
EF 3.0 (ILCD), Ionizing radiation (human) [IRP]	63,79%	5,68%	20,03%	8,27%
EF 3.0 (ILCD), Land use [LUP]	69,87%	0,83%	19,22%	10,54%
EF 3.0 (ILCD), Ozone depletion [ODP100]	43,18%	0,36%	37,03%	10,08%
EF 3.0 (ILCD), Particulate matter formation [PMFP]	63,66%	0,25%	23,67%	19,43%
EF 3.0 (ILCD), Photochemical ozone formation [HOPF]	72,05%	0,60%	17,94%	12,42%
EF 3.0 (ILCD), Resource depletion (water) [WDP]	99,88%	0,41%	9,41%	0,04%

■ Transporte a obra
 ■ Transporte a fábrica
 ■ Fabricación
 ■ Extracción y procesado materias primas

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THANK YOU



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