

**Life Cycle Assessment Reporting Checklists**  
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**Checklist - Executive Summary**

Goal of the Study

- State the intended application of the study
- State the reasons for carrying out the study
- State the intended audience of the study
- State whether the results are to be used in comparative assertions disclosed to the public
- State unambiguous research question(s)
- State the classification of the assessed CCU technology

Scope of the Study

- State the functional unit clearly and unambiguously according to the Guidelines; report any changes due to resolving multi-functionality
- State the system boundaries according to the Guidelines
- State relevant issues concerning data quality and assumptions
- State the technology readiness level (TRL) of processes and sub-processes
- State the production or storage capacity
- State the geographical scope
- State the software (and version) and data library (and version) used
- State the type of review and provide additional information about reviewers

Life Cycle Inventory and Life Cycle Impact Assessment

- State the main results of life cycle inventory and life cycle impact assessment
- If the results are reported on a relative basis, report this basis
- Describe the uncertainty and sensitivity analyses and report results separately

Interpretation

- State any conclusions, recommendations, and limitations

**Checklist - Main Report**

Goal of the Study

- State the intended application of the study
- State the reasons for carrying out the study
- State the intended audience of the study
- State whether the results are to be used in comparative assertions disclosed to the public
- State unambiguous research question(s)
- State the classification of the assessed CCU technology
- State limitations due to the assumptions and methods, e.g., if the study is preliminary
- State the commissioner of the study and other influential actors
- State the technology readiness level (TRL) of processes and sub-processes
- State the production or storage capacity

- State the review process and review experts, if any

#### Scope of the Study

- State the functional unit clearly and unambiguously according to the Guidelines; report any changes due to resolving multi-functionality
- State the performance characteristics, any omission of additional function in comparison, and how performance is measured (e.g., products where chemical structure and composition differ from conventional counterparts)
- State the system boundaries according to the Guidelines; state cut-off criteria; include a flow chart showing the system boundaries
- State any omitted life cycle stages and processes (e.g., products where chemical structure and composition differ from conventional counterparts)
- State relevant issues concerning data quality and assumptions
- State the method(s) used to resolve multi-functionality
- State the impact assessment methods
- State the data quality needs and how energy and material inputs/outputs are quantified
- State the software (and version) and data library (and version) used
- State the type of review and provide additional information about reviewers

#### Life Cycle Inventory

- Include a flow diagram of the assessed process system(s)
- State the types and sources of required data and information
- State the calculation procedures
- State all assumptions made
- Describe the sensitivity analysis for refining system boundaries
- Include full calculated LCI results (if this does not breach confidentiality)
- State the representativeness and appropriateness of LCI data
- If the results are reported on a relative basis, report this basis
- State the results of scenario analysis (including the scenarios) and threshold values, if any

#### Life Cycle Impact Assessment

- Include the results of life cycle impact assessment
- State whether impact category coverage is reduced (e.g., in the case of carbon footprinting)
- If the results are reported on a relative basis, report this basis
- State whether delayed emissions occur: if so, include the emission time profile
- If applied, state the discounting method and discounted results

#### Life Cycle Interpretation

- Include and describe the results
- Negative emission in cradle-to-gate studies shall not be interpreted as CO<sub>2</sub> sinks if the life cycle does not end with permanent carbon fixation
- Emission reductions due to substitution effects shall be interpreted as environmental benefits but not as negative emissions
- Describe the uncertainty and sensitivity analyses and report results separately
- Include a completeness check

- Include a consistency check
- State assumptions and limitations associated with interpretation of the results
- Include conclusions
- Include recommendations, if any