

Summary of LCA Methodology Harmonization Workshop, Brussels, 2023

The overarching goal of this workshop was to connect different groups/institutes conducting LCA within diverse EU projects. This robust workshop had an outstanding turn-out of participants (both online and in-person) from **26 different institutions** which included **over 50 participants** from universities, research institutes and the industry. This only proved that such a workshop at a regular interval is deemed beneficial within the LCA/sustainability assessment community. Supported by the projects [VIPERLAB](#), [PILATUS](#) and [VALHALLA](#), and the [R²ES Lab](#) at University of Siena, this workshop, succeeded in bringing together **11 EU PV technology LCA projects** along, current and completed, as well as **1 industry LCA project** under the spotlight. The sample size highly complemented the aim of this workshop, which was to *align and initiate harmonization of the LCA methodology and subsequent results comparability for perovskite solar cells and, to a larger extent, for innovative PV and PV technology in general.*

The first day of the workshop opened with an introduction of the EU projects with a focus on the LCA parameters. Four sessions dedicated to LCA provided presentations from practitioners and experts which generated discussions and awareness on important topics such as-

- selection of temporally and spatially representative electricity datasets from database for the production mix
- selection of impact assessment methods that is inclusive of all production materials
- current and future end-of-life LCA modelling trends for low TRL PV technologies
- currently used default parameters (e.g. lifetime, performance ratio, solar irradiation, etc.)
- necessary inclusion in an LCA report to provide a comprehensive reader experience.

Moreover, the aim of the workshop also included *fostering the creation of a “think tank” on sustainability assessment for supporting the development of the European technology roadmap for PV.* Therefore, one session was also dedicated to sustainability beyond LCA. Valuable insights were provided on the topics of *prospective LCA, criticality assessment, social LCA and sustainability labels.* As methodologies of these assessments and labels are still under development and as the EU commissioned projects are increasingly including such sustainability assessments and labels, future projects will benefit from the discussions and cooperations that were initiated at this session.

The second day of the workshop opened with dynamic break-out sessions where participants also had the opportunity to voice their thoughts and observations. The hybrid part of the workshop finished through discussions on training for non-LCA experts and this provided a fruitful example for the participants to improve their own LCA communication with other experts within a project.

In conclusion, a follow-up workshop was planned for the end of this year, where the goal, among others, is to agree on the LCA parameters identified in this workshop within a larger group involving most EU commissioned low TRL PV technology LCA projects. These agreed upon LCA parameters will be subsequently published, preferably as an extension to current rules to avoid creation of multiple rules. Relevant partners will be notified with follow-ups when further details are available.

The presentations shown during the workshop can be obtained from [here](#).