



Integrated
Photovoltaic
Conference

25 – 26 November 2025
Chamber of Commerce
Florence, Italy

Assessing Sustainability and Circularity in Agrivoltaic Systems: background and future work

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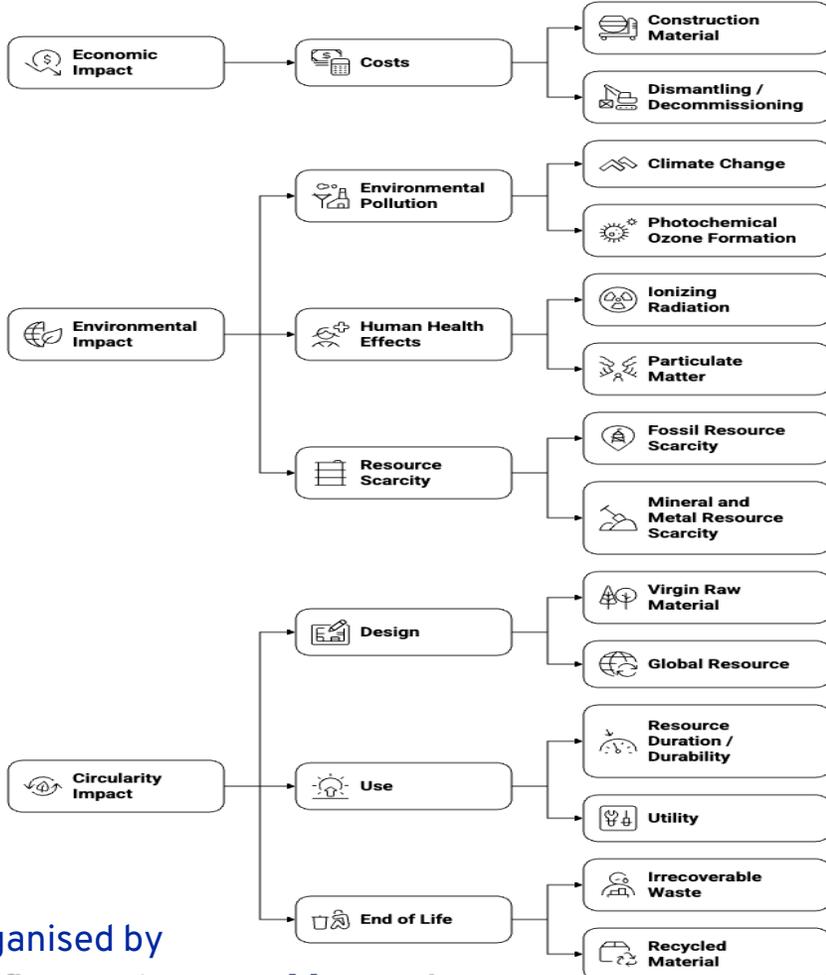
Contents

- Multicriteria assessment of structural elements
- Life Cycle Assessment (LCA) of structures and PV panels
- Future work

Sustainability and circularity of structural elements

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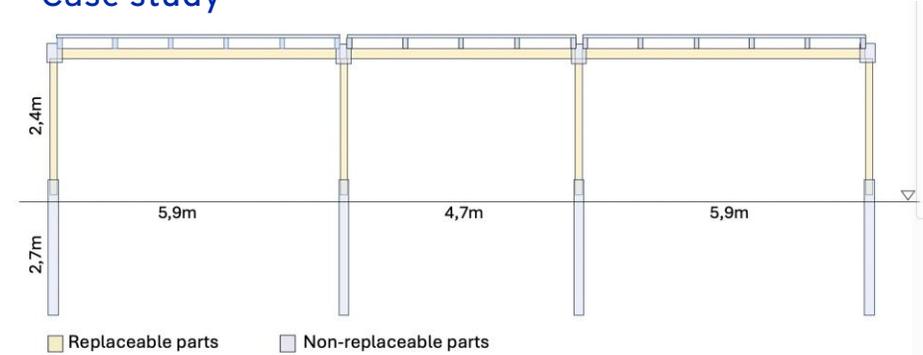
MIVES decision tree (multicriteria analysis)



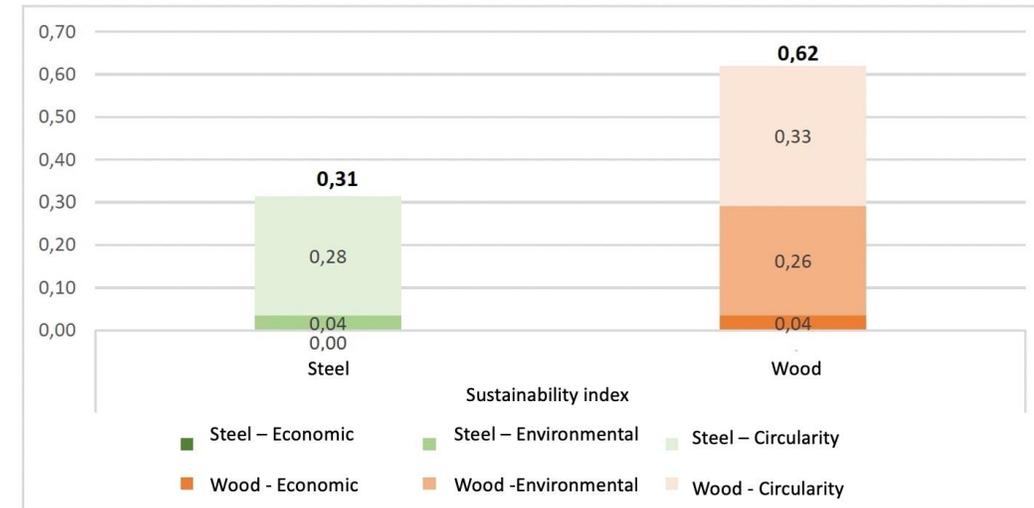
24
Indicators

5
Ponderation scenarios

Case study

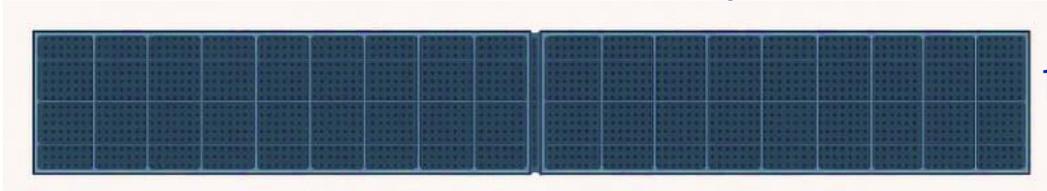


Sustainability index



LCA of structures and PV panels

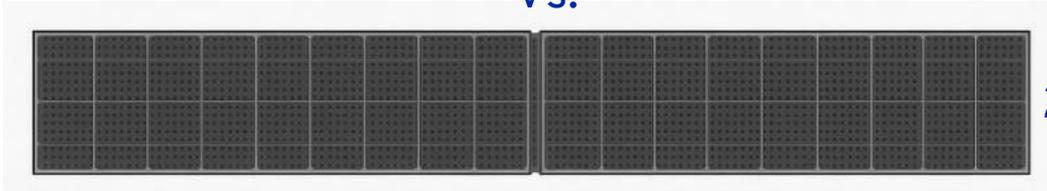
LCA methodology (ISO 14040/14044) and the European Environmental Footprint (EF 3.0) method.



1- Opaque PV

30 kWp

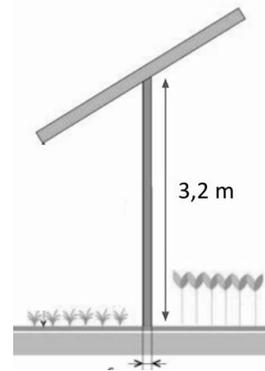
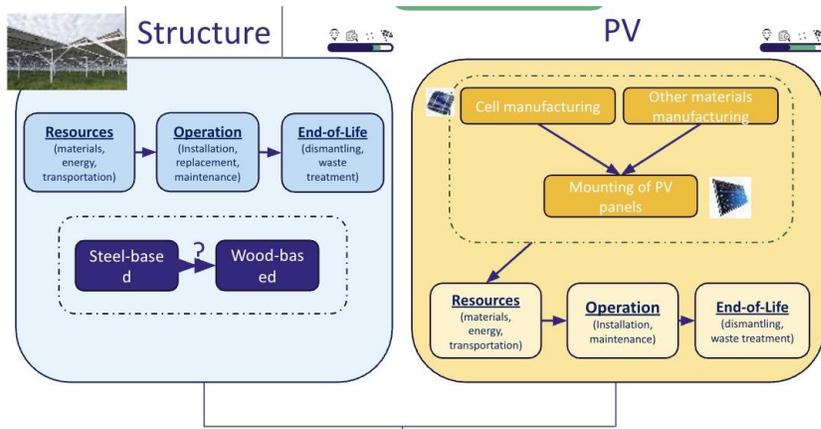
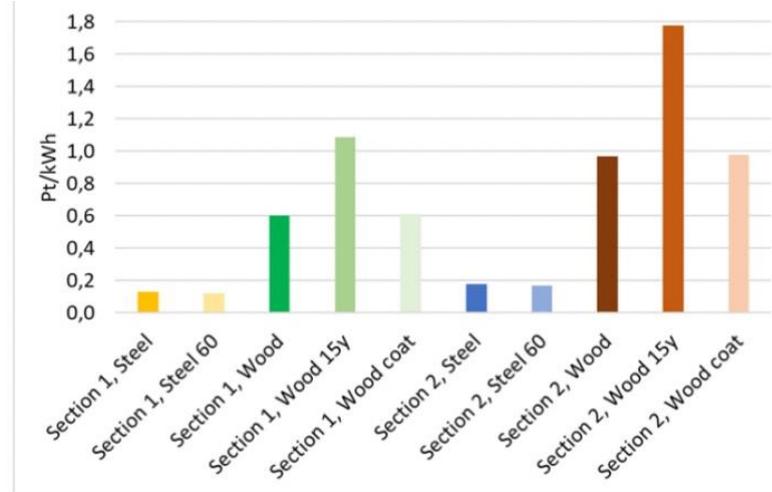
Vs.



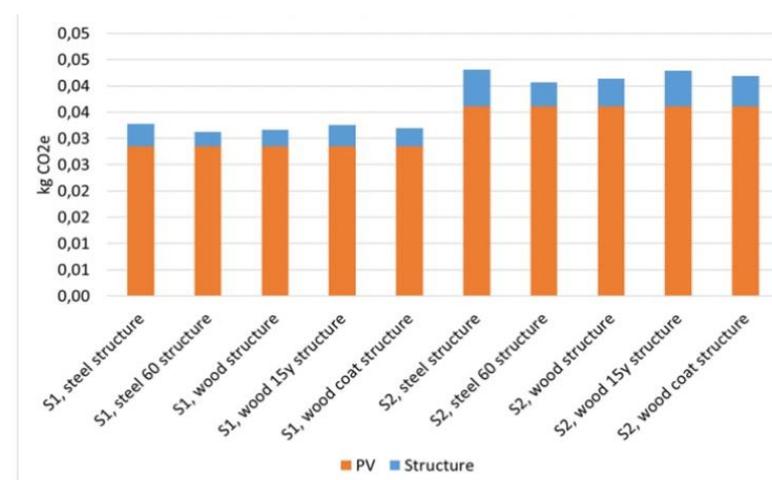
2- Trans-lucid PV

18 kWp

Land use



Climate change



Future work: LCA + crops

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SYMBIOSYST DEMO in Barcelona

10 trackers/15 PV panels each
75 opaque + 75 trans-lucid
50,25 kWp

Ongoing:

Primary data collection

Solving multifunctionality of agrivoltaic systems

Life cycle of costs + Social LCA



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