

Parametric LCA based Ecodesign Process for Power Electronics Product Development

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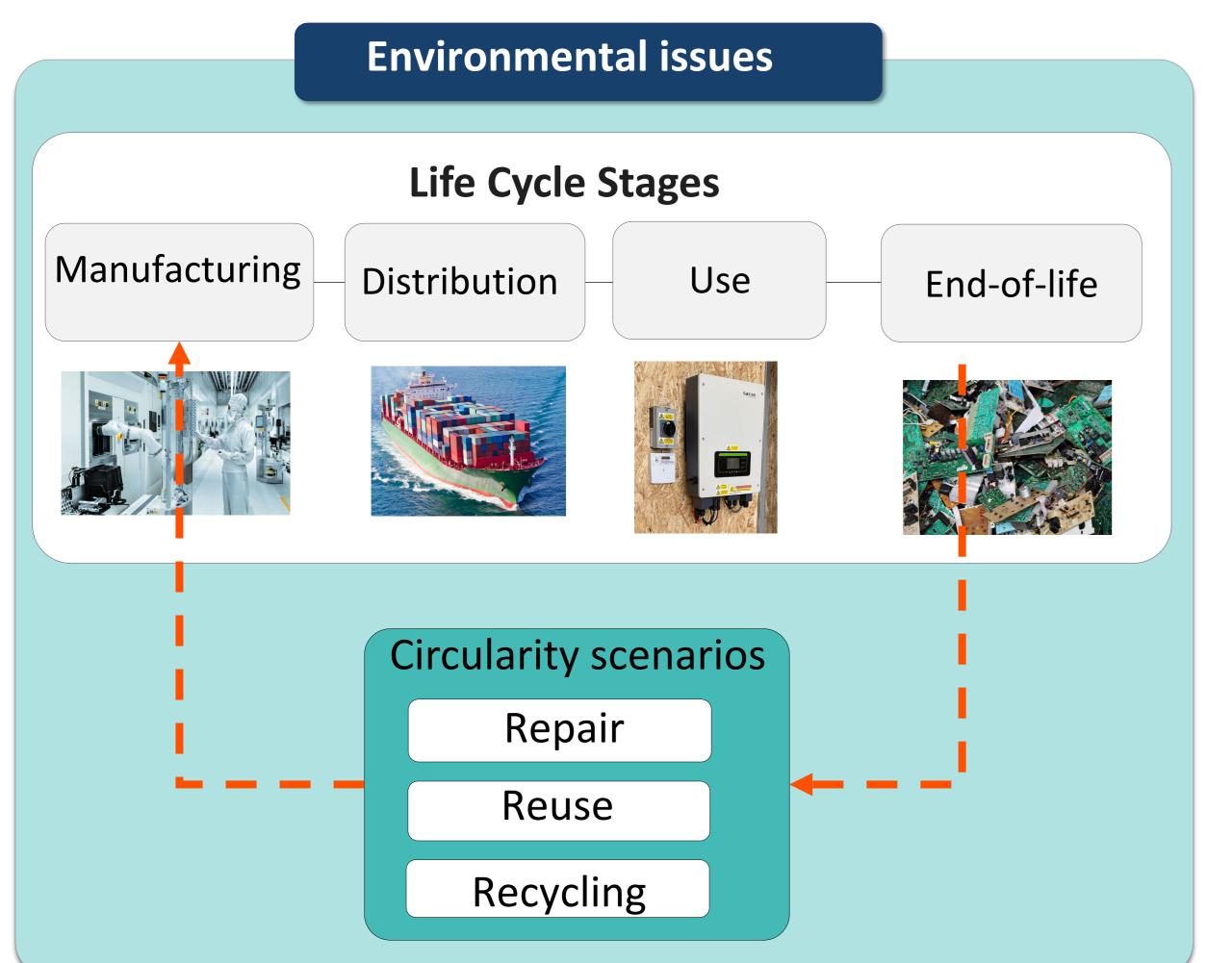
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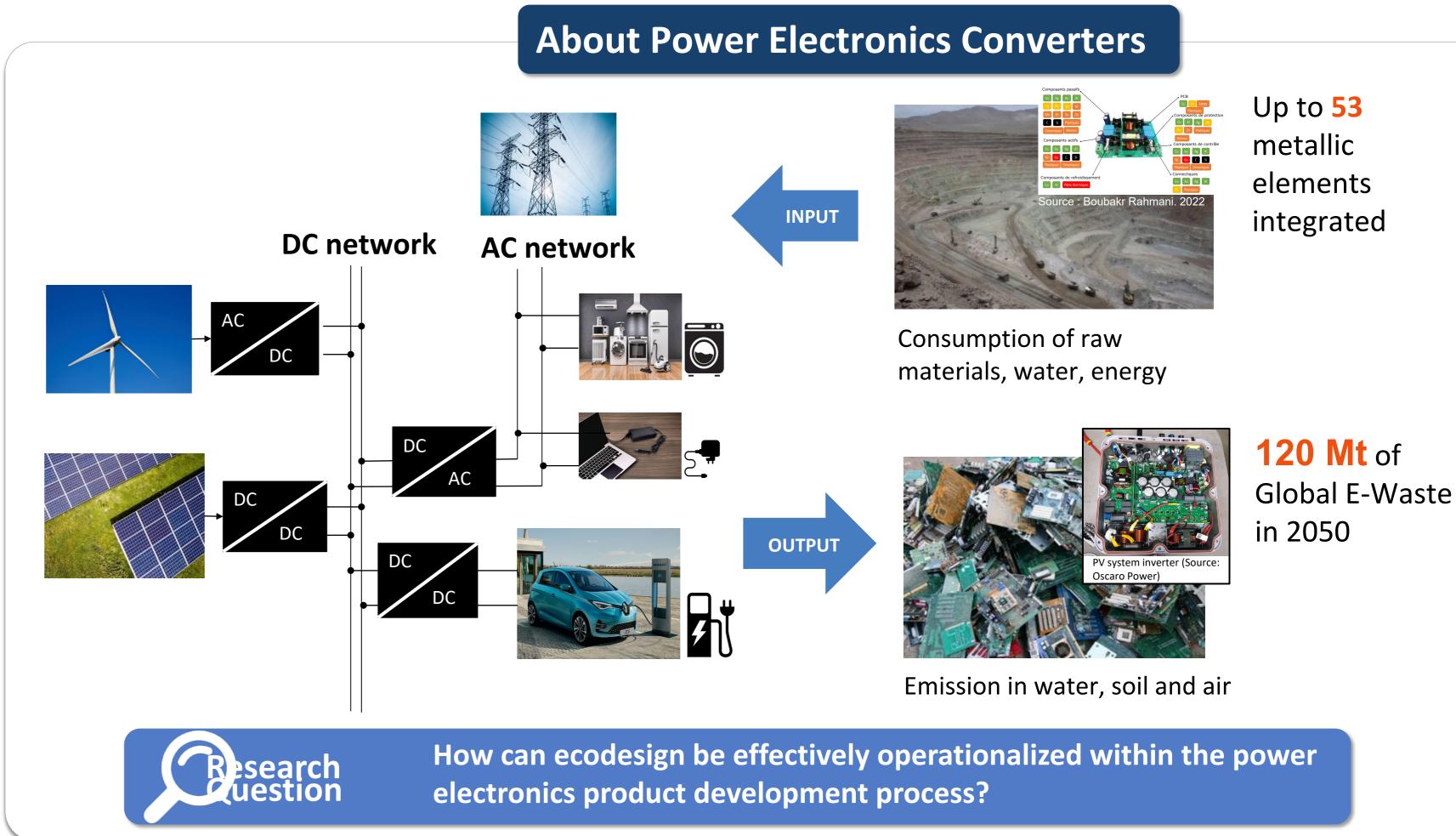
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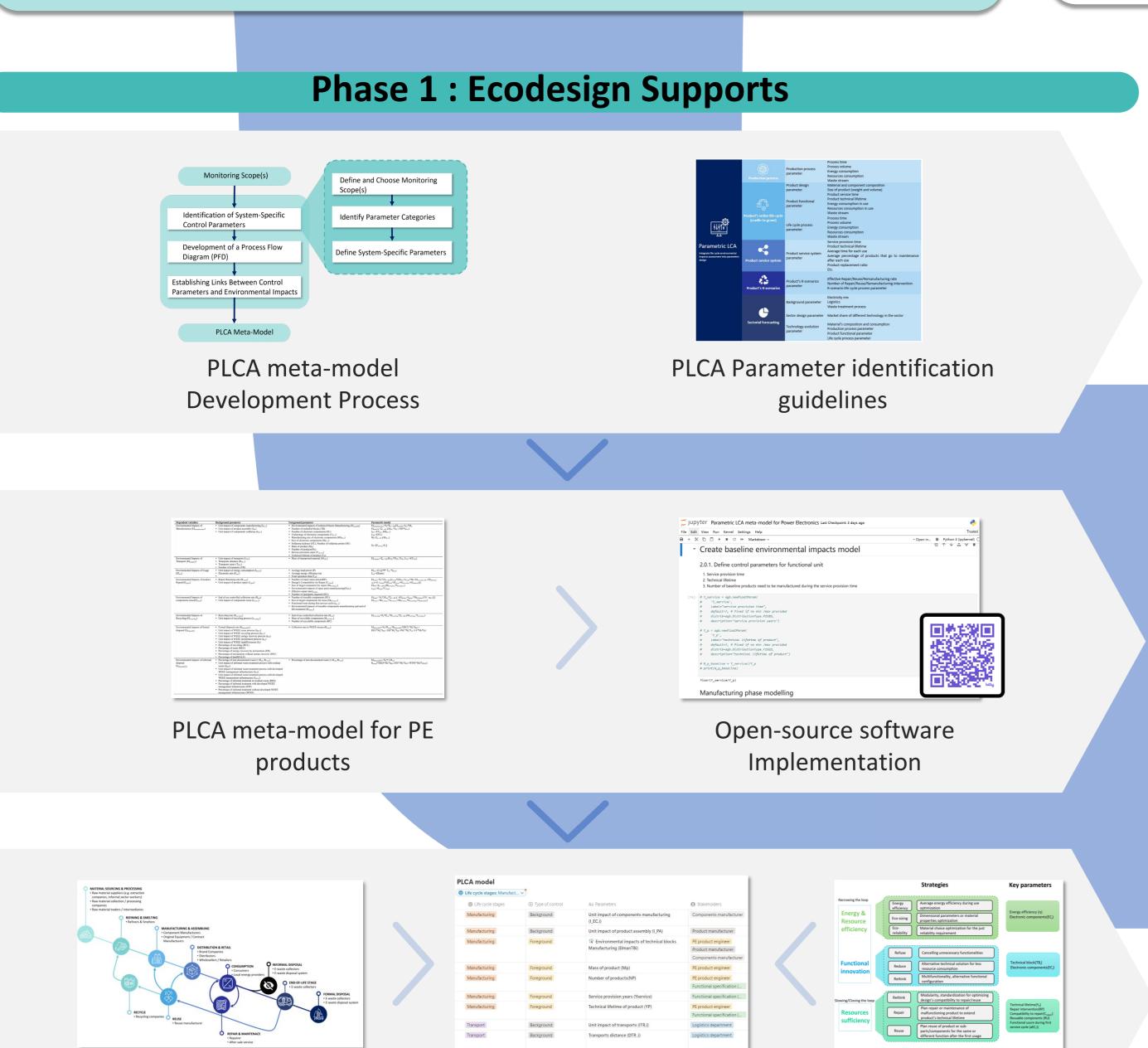
Parametric LCA based Ecodesign Process for Power Electronics Product Development

Li Fang^{a,b,*}, Pierre Lefranc^b, Maud Rio^a

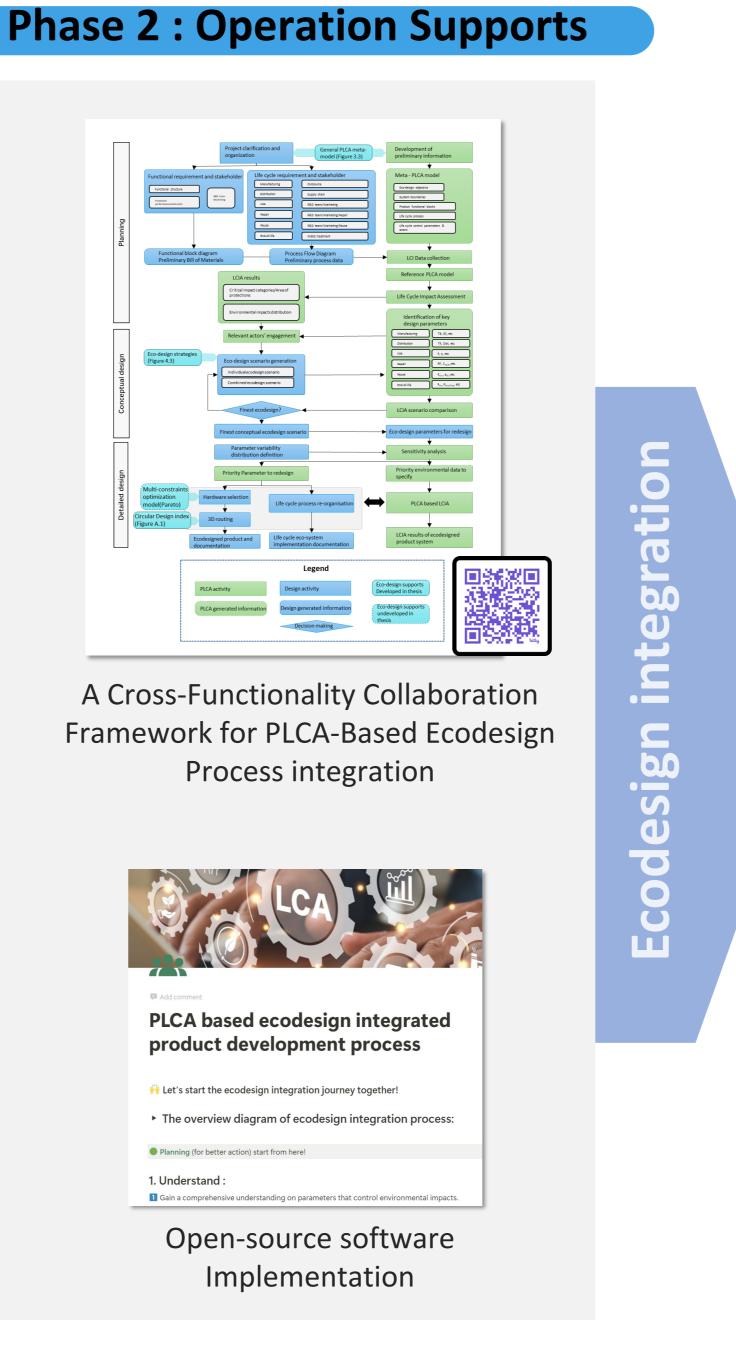
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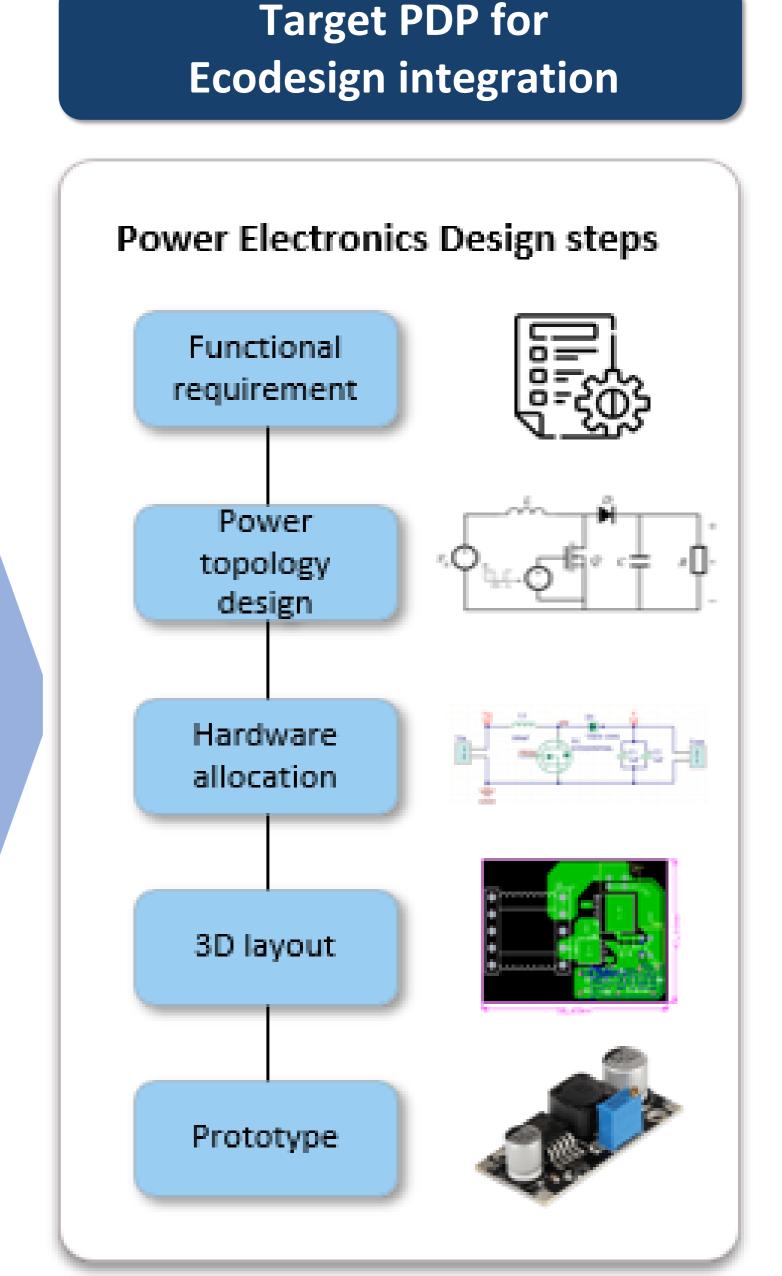






Characterisation of





PE Product Development Process (PDP)



and marketing

- Functional innovation : system architecture reconfiguration

- Resource sufficiency: components reuse

Mapping of value chain

Limitations and Future works

Electrical design parameters not yet integrated

Establishing links between PE electrical design parameters and PLCA control parameters

Simplified model for repair and reuse processes

Detailing model for specific R-scenarios under repair and reuse

Ecodesign strategies

recommendation framework

Limited monitoring scope

PLCA meta-model for PE

Towards dynamic and prospective

Business model development process is not yet investigated

Integrating PLCA meta-model into upstream business model design

Hypothesis on PE design team and value chain actors have fundamental knowledge on LCA and ecodesign

Developing training
Programs for the PE design
team and Value Chain Actors

Generalizability of the framework towards other industrial application is not yet fully tested and validated

Case study in other industries

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