

UC 2 - Power Electronic products designed for reduced e-waste

Main objective: Investigate and quantify possibilities of e-waste reduction for power electronics products from automotive industry

Inverter



WP3

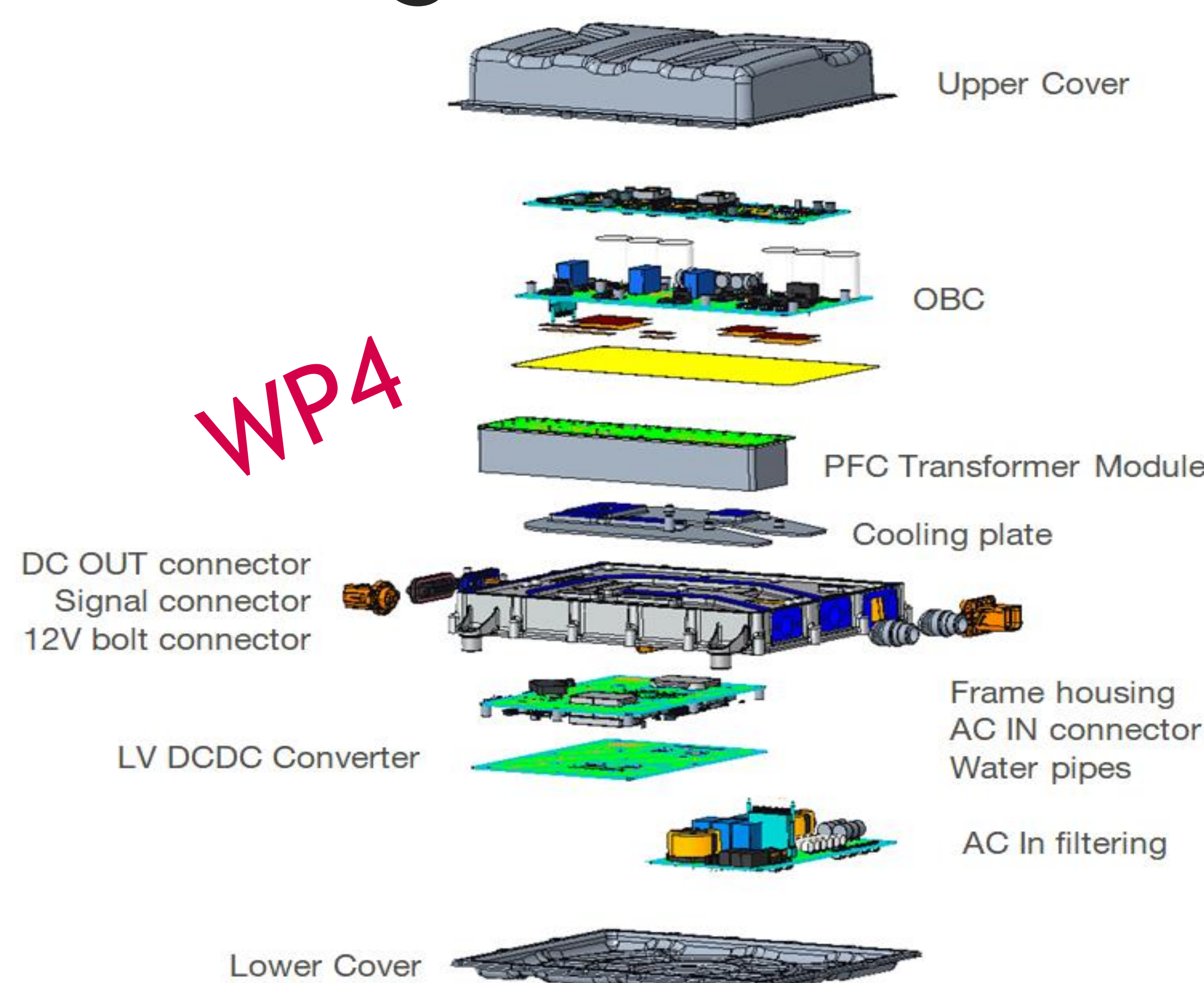
Objective: Investigate the possibilities to reuse and recycle a frozen product, not design for the reduction of E-waste

24 months

- ➔ Identify existing methods for repair and reuse (D2.6)
- ➔ Identify the recyclability of raw materials and the reuse of parts (D2.6)
- ➔ Define requirements and guidelines for ecodesign of HV project in automotive (D2.6)

36 months

HV box: charger + DCDC converter



Objective: Prepare the new generation of power electronics products to enhance the environmental footprint.

- ➔ Develop a design for repairability and second life potential (tool developed in WP3) (D3.3)
- ➔ Identify 2nd life potential thanks to modularity and standardization (D4.6, D4.7)
- ➔ Implement new technologies to reduce PCB's size (smart SiC, Wide Band Gap, interconnections) (D4.3)
- ➔ Evaluate concepts for health and condition monitoring for PCBs, substrate and HV box lifetime (D4.8, D4.9)

UC leader: Vitesco

Partners: SOITEC, SPHEREA, IFAT, INP-Gre, AT&S, Dassault Syst, WEECYCLING, PREMO, CEA

