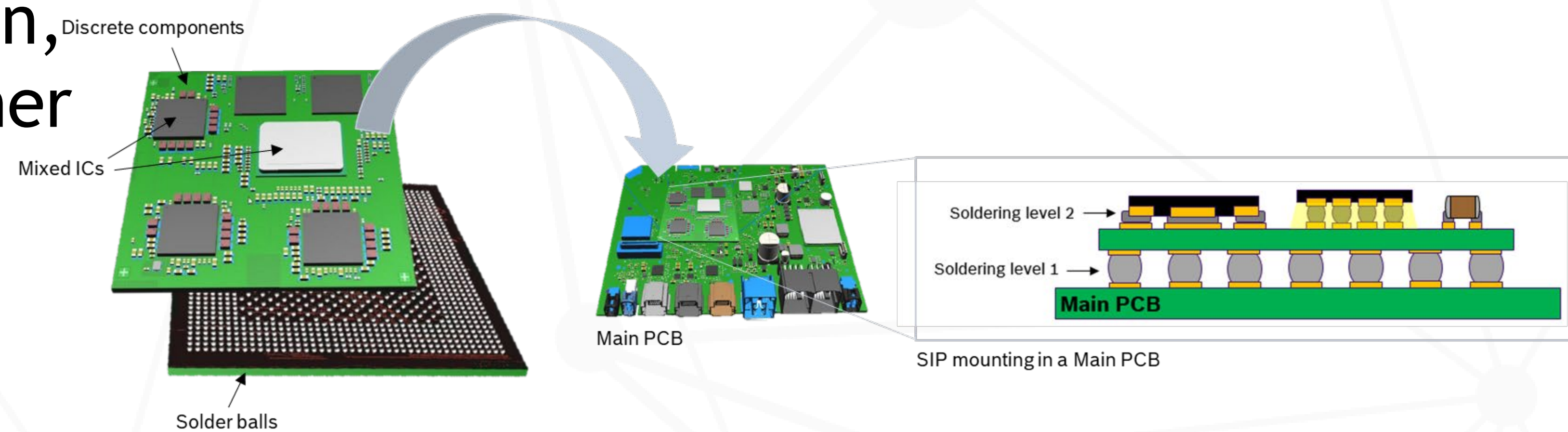


UC-01: Reducing e-waste from Electrical Control Units (ECUs) for Automotive Industry

Motivation and objectives (WP4)

Reduction of e-waste:

by designing modular systems, miniaturization, usage of less materials by having either thinner PCBs, less Cu in inner layers of PCBs and change of fabrication technology for conductive trace fabrication on PCBs (PhD).



Reuse for less e-waste:

by re-use of the components and extension of life-time, re-use of connector and reliability test of various interconnection technologies such as Surface Mount (SMT) or Press-Fit (PFT) Technologies.

Involved partners and resources

AT&S, Infineon, Bosch-PT, Bosch-HU

Timeline and iterations

07.2023 - 06.2024

Phase 1

Deliverables	Pre-definition of requirements with partners	Focus on sub-tasks in collaboration with Partners	Preliminary Report
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Proposed way of collaboration including interrelation with work packages

- Collaboration between Bosch and AT&S for definition of sustainable PCBs.
- Collaboration between Bosch and Infineon for re-use of electrical component.
- Investigation on re-use of connectors as well as PCBs considering the requirements for automotive industry.

Next steps (1/2 - 1 year timeframe)

- Detail planning of tasks, deliverables, and timeline between Bosch and partners.
- Start of the sub-tasks based on alignment with partners.
- Start of PhD with focus on additive Cu tracing technology development.
- Summary of requirement definition for UC1 with the focus on the PCB fabrication in collaboration with AT&S (M6).