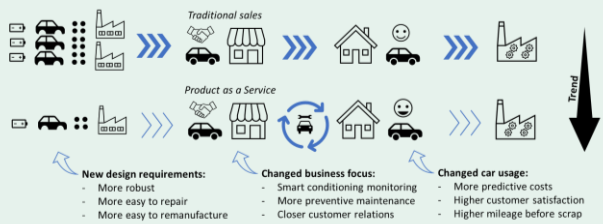
Ecosystem for reuse of automotive components

The automotive industry is a key actor in the transition to a sustainable development and towards a mobility setting with new business models and new prerequisites on vehicles. Increased number of users per car will increase the wear and tear of automotive components, which places new type of demands on automotive components and an opportunity for increased reuse and remanufacturing and less environmental impact.

Changes in product and component flows



PROJECT NAME
SE:Kond2Life

PROJECT START
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The aim of the SE:Kond2Life project is to demonstrate how an ecosystem of circular value chains can be realized, in combination with a business logic for sustainable reuse of automotive components over multiple product life cycles.

Efficient remanufacturing systems

- Interviews
- Value Stream Mapping
- Car disassembly

➢ Existing car part remanufacturing / disassembly for reuse is efficient
➢ Future remanufacturing / disassembly for reuse is more challenging due to more and new type of knowledge requirements

Traceability and analysis of degraded components during use

- Interviews
- Literature study
- Car disassembly

➢ The use of sensor data from across the vehicle's lifecycle at the end-of-life of the vehicle largely overlooked in previous research
➢ A lifecycle approach of sensor data and synergies with other key vehicle health capability concepts has a good potential to support enhanced remanufacturing of automotive parts

Service based business models and logistics for increased circularity

- Interviews
- Workshops
- Literature review

➢ Understanding customer characteristics and mobility requirements is important to identify innovative solutions to existing challenges
➢ Multi-stakeholder collaboration will enable mobility service providers to access a wider customer base

Sustainability assessment

- Life cycle assessment, LCA
- Recycling plus New production compared with Check and Remanufacturing

➢ Check and Remanufacturing often less environmental impact
➢ Design for remanufacturing of parts with critical / expensive raw materials

VINNOVA
Sweden's Innovation Agency

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