Interview – Navigating the Remanufacturing Trilemma:
Balancing Customer, Manufacturer, and Lawmaker Interests

Interviewee background

Date: 06.02.2025

Time: 11:00 – 12:00

Business Area: Remanufacturing (Automotive Supplier)

Occupation: Plant Manager

Professional Experience: 18 years in a Leading role

Disclaimer: The interview was conducted in German and has been translated

(State) subsidies and incentives

The customer (B2B) wants incentives. Remanufactured products need an incentive. Remanufacturer suppliers benefit from returned products. The Legislator sees waste as a problem, so waste should be treated as a raw material. The free market does not allow the recycling of waste; therefore, legislators must legislate the categorization of waste properly to make recycling possible. Even the EU does not treat the topic of "waste" in a standardized way. Different countries might declare waste differently and this prevents export or trade with the materials. The declaration of waste products is a major topic that needs more consideration. If material is declared as waste, it cannot be used as a raw material again. Onsite waste officer is necessary to avoid improper declarations.

Branding and (Intellectual) property

Remanufacturing can work well for branding purpose if the performance is the same compared to "normal" product. The circular economy is becoming more important as a vision for companies and the market is continuing to develop in this direction. Especially the improved availability of resources is a driving factor and provides an advantage.

Circular/Sustainable business models

A cycle from customer to supplier back to customer is great for a steady supply. Like exchanging an empty bottle for a full one. The price is cheaper, and the quality is good and sometimes even better. The business model already works without legislators' involvement.

Compliance with Regulations

Compliance with specifications corresponds to the conventional parts. The customers want the same ruling and quality as a standard product. The goal is to ensure as good as new quality for remanufactured products. Nevertheless, auditing needs efforts. A certain amount of pressure is exerted by the legislator. This is helpful for the Remanufacturing business model, but if the legislator really wanted to, this could be enforced stronger.

Data Handling

Data handling connected to remanufactured products is the same as with the standard serial products. Regarding the deletion of data, removing a products history would be disadvantageous. Further, deleting usage data, e.g. for a completely remanufactured vehicle, may not matter to the customer if the wear and tear has been eliminated. A digital product passport can negatively affect the compatibility of old products with future processes. For parts with multiple life times 10 years of data storage might not be sufficient.

Information transparency

The customer wants to know basically everything. The Manufacturer doesn't want to reveal anything. The Legislators advocates for more transparency.

Process Design

The process can change but the finished product is at least as good as the series. Processes may be unnecessary, e.g. painting, if the product is already painted. Waste should be understood as incorrectly sorted residual material. The customer accepts the process at the end and is therefore interested in the potential savings. E.g. chrome-plated products can also be partially chrome-plated.

Product Characteristics

Customers still request new products. Regarding recyclability, conflicts caused by inferior plastics can be avoided if higher quality materials are used. Also, there are plastics that can be cycled more often. Composite materials are very problematic here.

Product Design

Sustainable product design is an important issue for Remanufacturers. However, customers do not necessarily want to be restricted. Some product features might change.

Product Labeling

A label for recyclability would be great. Especially remanufacturers could benefit from the improved visibility. More Labeling is also a form of control and needs efforts. For a manufacturer of standard products labels would be less favorable.

Strategic Co-operation

Increased and extended co-operation has great potential, since close cooperation leads to a win/win. However, dependency could arise. Close co-operation is very important in difficult times when a certain give and take balance is present.

Further Discussion

An important angle for further discussion is who does Repair and who does Remanufacturing. Each stakeholder has access to different information and material streams. Another challenge comes from generational changes in products. Even small changes can render returned products useless as a resource. E.g. Why does a washing machine necessarily need a new motor? Another problem with supply is that the running production has hardly any returns; the old production, on the other hand, has lots of return parts. This problem must be tackled like an interface when changing generations.