**Business Model Case Study Description**

**UBD Cleantech – Brake calipers**

**Company:** UBD Cleantech AB  
**Locations:** Höör (Sweden) and Stettin (Poland)  
**Type:** Independent/Contracted Remanufacturer  
**In reman:** Since 1980  
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**Product**  
Brake calipers

**Core Sourcing**  
Cores are retrieved from car workshops, car dismantlers and core traders.

**Business Model**

UBD Cleantech AB is performing remanufacturing on brake calipers on many different models. The brake calipers are bought from different sources e.g. car workshops, car dismantlers and core traders. The used brake calipers come in different conditions and volumes depending on how easy they are to retrieve from the market. Upon arrival the used brake calipers are sorted. When a customer order a specific number of brake calipers are found the actual remanufacturing process starts with cleaning and disassembling necessary parts. Some wear and tear parts e.g. gaskets are always replaced with new parts. The brake calipers are reassembled and tested again to ensure it meets the customer needs. The customers (retailors e.g. Mekonomen or even OES) retrieves the remanufactured brake calipers to a lower price than newly manufactured brake calipers which allows them to sell them to a cheaper price to the end users (usually car owners) while still making good profit. The warranty time given on the remanufactured brake calipers are two years which is the same or same as given for newly manufactured brake calipers.

The remanufacturing process for remanufacturing brake caliper is:

1) Inspection, 2) Disassembly, 3) Cleaning, 4) Reassembly, 5) Testing

The drivers for UBD are to earn money and at the same time environmentally friendly. The value for the car dealer (customer) is that get better utilization of the casted bodies. The end-user (car drivers) gets a cheaper spare part than a new spare part.

The challenges for UBD are wide e.g. the competition from new produced brake calipers from low labor markets e.g. in Asia. A technical challenge is to renovate the electric function of the newer brake caliper designs. The key resource is the staff. They need to be skilled enough to be able to buy the right cores to the right quality.

**Economic Benefits**

At these services the customer can get the question if he or she wants to have a new brake caliper or a remanufactured brake caliper, the price is usually around 30% lower.

**Environmental Benefits**

At 9,8 kg of carbon emissions, the manufacture of a brake caliper comes with a heavy environmental impact. However, remanufacturing the same filter leaves a much lighter 0,53 kg carbon footprint.

**Social Benefits – Jobs, Upscaling, etc.**

The amount of people working with the brake caliper remanufacturing at UBD is around 20.

**Advanced Materials Recovery**

90% of the cast iron brake calipers can be remanufactured. For aluminium housing the yield is lower: 50% due to galvanic corrosion.