Circular Economy Case Study: Gerard Street

The Challenge

The consumer electronics industry is strongly correlated with rapid advances in technology (for example: digital processing power doubles every 18 months according to Moore’s Law). This means that the ‘latest model’ for electronic gadgets, is soon surpassed by an even ‘better model, lighter, more connected, more functionality’.

The result, for example in the high-quality headphone market, is that customers who want to keep up with the technology have to spend a lot; and 15 million kg of discarded headphones are landfilled annually.

How can we reduce waste in this sector as well as allowing customers access to cutting edge headphones in an affordable way?
Take a more circular approach, but what exactly does that mean? What are the essential features for a circular hardware offering?

Essential features for circular hardware
Important questions - How will my product be used? How can it be kept in use?
Five specific approaches:

1. Design for durability - includes physical, component and emotional durability
2. Design for maintenance and repair by technician - ease of product inspection and repair; availability of spare parts.
3. Design for maintenance and repair by user - ease of product inspection and repair; availability of spare parts.
4. Design for adaptability and upgradability - ease of component identification and replacement; compatibility of components.
5. Design for refurbishment and remanufacturing - ease of component maintenance, ease of restoring aesthetics, durability/repairability of components.

A Solution

Gerard Street, a Dutch start-up, has embraced two key building blocks of the circular economy, to create a ‘headphone service’ that reuses 85% of components.
and allows subscribers to never have to worry about repairs or not having the most up to date technology:

The **design** of the products is modular and no glue is used so they are easy to disassemble, repair or upgrade single components. The components are durable so they can be looped into future models. Memory foam is used in the ear enclosures to create adaptability to many different users.

The **business model** offered to the customer is a subscription rather than a purchasing model. For around 10 Euros/month the customer has use of the headphones, and if any repairs or upgrades are required, the customer can order parts or return the phones in exchange for new ones.