**Product lifetime extension - Real-life Case Studies**

**GERAÇÃO ECOXTRÓNICOS**

**Business strategy:** Repair and recovery Initiative: Items received from user’s disposal or need for repair are fully recovered and returned to the market. **Social relevance:** Capable of satisfying local people in vulnerable situations and introduce them to the market to improve waste treatment infrastructure, enabling people to deal with e-waste in proper ways. **Results:** The strategy generates an average amount of 1 ton of waste per month, capable of being used as raw material or be recycled. **Barriers:** Irregular demand from consumers and their preference for new products / Regulation and documentation issues / Limited clientele (lack of efficient marketing service).

**NEPTUNO PUMPS**

**Business strategy:** Remanufacturing Initiative: Improve products and optimize their efficiency by repairing or replacing components to offer same-as-new products and satisfy the customers’ needs. **Innovative business model:** Pump system focused on the efficient use of resources and the waste reduction of materials that are still in good condition from the mining industry / Embded circular economy principles in their strategy and design thinking. **Results:** Remanufacturing reduces the emissions of GHG by 60%, avoids 70% of waste generation and lowers costs of production by 30%, compared to manufacturing. **Barriers:** Acceptance of a new business model that is still not yet widely known and competition with global and bigger companies / Requires reverse logistics and remanufacturing infrastructure.

**RETAILHAR**

**Business strategy:** Upcycling Initiative: Receive uniforms from large companies and offer them textile recycling and upcycling, providing raw material to produce new items. **Social impact business:** Avoid waste generation by transforming the fabric into donations to charity entities and people in vulnerable situations / Employ seamstress from cooperatives. **Results:** 63,237 kg of fabric transformed, equivalent to 160,000 uniforms, 473 m³ not occupied in landfills and 929,581 tons of CO₂eq avoided emissions. **Barriers:** Lack of legal incentives to adequate waste disposal from textile industry / Sometimes the waste amount exceed their transformation capacity.

**OLX**

**Business strategy:** Second hand market Initiative: Online second-hand marketplace where selling products meets the need to earn extra money and also represents savings to those who need to purchase more affordable items. **Business model:** Enable people to sell products they no longer need and to purchase second-hand items, allowing savings and re-using products. **Results:** Helps to build a more collaborative society: It provides the opportunity to raise extra money for those who sell the products, while generating savings for those who can purchase more affordable products. **Barriers:** Emotional attachment of consumers to their goods / The mainstream second-hand market in Brazil is still restricted to a few, often more expensive items.

**CATERPILLAR**

**Business strategy:** Remanufacturing Initiative: Exchange model: when a product needs to be replaced, a dealer is called to retrieve the non-functional item and replace it by a remanufactured product. **Innovative business model:** Pioneer in an innovative and attractive business model in financial and practical ways / Communicate how business models benefits consumers and provide solutions that lead to more sustainable production and consumption models. **Results:** Financial gain for consumers due to its lower operation costs for providing same-as-new performance, and offer more repairing options. **Barriers:** Lack of legislation that recognizes remanufactured products (especially in developing regions).

**REFAZENDA**

**Business strategy:** Upcycling Initiative: Through upcycling, the company adds value to products by using patchworks from fabric leftovers as raw material for the design of new items. **Social impact business:** Work with traditional lacemakers community and develop local economies / Higher durability than the average fashion market, creating emotional attachment to the piece. **Results:** Received the ‘Zero Waste Award’, for reducing the amount of solid waste in their activities to zero, due to patchworks’reuse and upcycling. **Barriers:** Brand with high value on consumers’ perception, but lower sales than expected.

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**These cases form part of the project: ‘Product Lifetime Extension’. The full case studies and background material are available on the Product Life Extension Hub. The aim is to inspire and encourage organisations to shift to more circular models by improving their businesses towards extending a product’s lifetime.**