Activity Mapping the Journey - Linear vs. Circular Product Lifecycle

Product: Coffee Machine



Objective: To visually contrast the traditional linear product lifecycle with potential circular pathways, highlighting value loss and retention points.

Task:

1. **Map the Linear Journey:** Including: Resource Extraction -> Material Processing -> Manufacturing -> Distribution -> Retail -> Consumer Use -> Disposal (Landfill/Incineration).

   Identify key inputs (energy, water) and outputs (waste, emissions) at each stage. Mark points where significant value is lost.

2. **Identify Circular Pathways:** Map potential circular loops for the same product. Consider:
   - *Design Changes:* How could it be designed differently (durability, repairability, modularity, material choice, disassembly)?
   - *Use Phase:* How could its life be extended (repair services, sharing models, rental)?
   - *End-of-Use:* What happens after the first user (resale, refurbishment, remanufacturing)?
   - *End-of-Life:* How are materials recovered (recycling – mechanical/chemical, composting for biological parts)? How can waste be eliminated?
3. Connect these pathways back to the **three core principles** (Eliminate Waste & Pollution, keep Products and Materials in Use, Regenerate Natural Systems). Identify where value is retained or created.