Designing Our Tomorrow

Business ↓
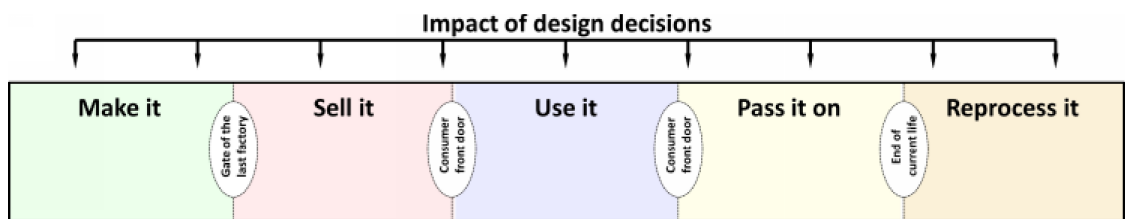
Life-cycle stages

This website describes a five stage life-cycle model. The boundaries between the different stages are clearly defined as the "gate of the last factory", "consumer front door" and "end of current life". The model presented here is for retail of consumer goods. Reducing life-cycle impacts may require complete transformation to existing perceptions of consumer ownership, and further alternative models will be added to this toolkit in due course.

Setting the boundary between current and next life
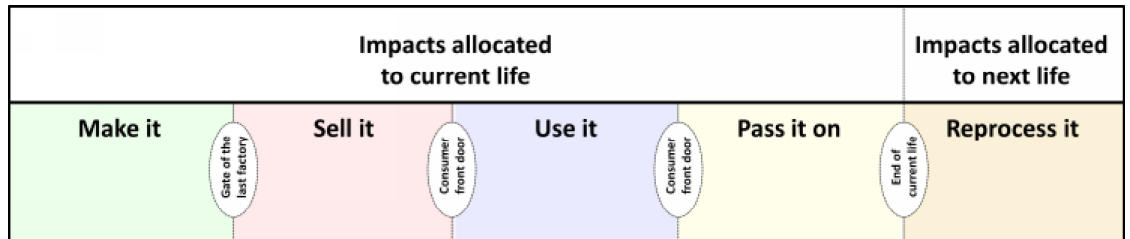
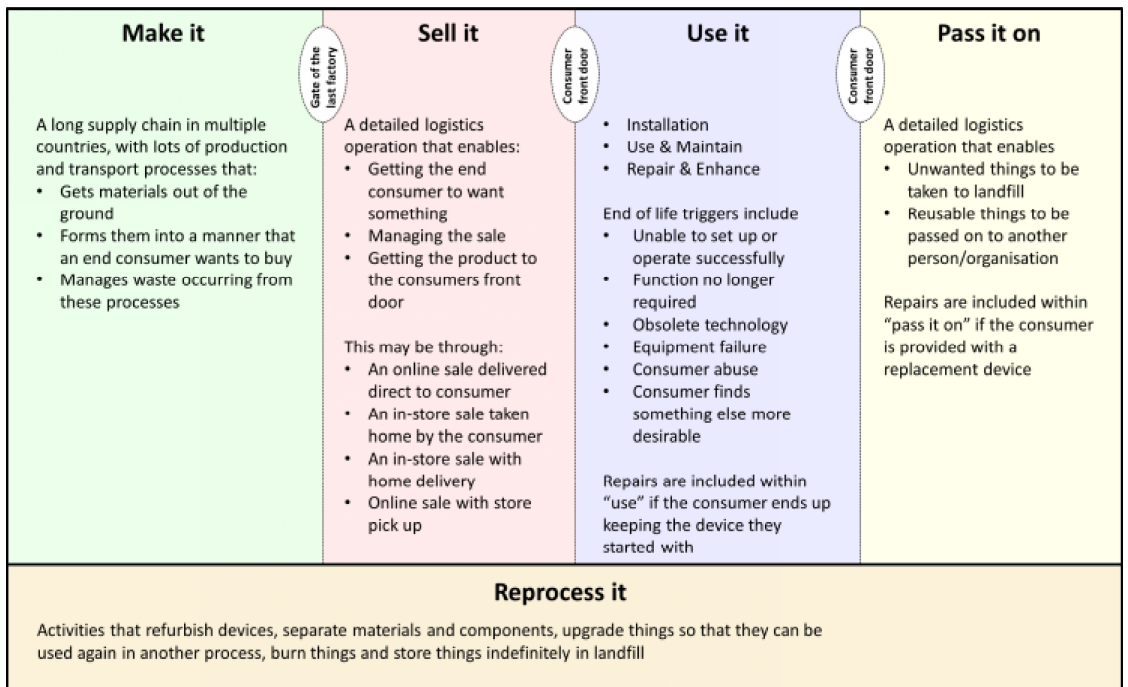Classifying the product "end of life" in this manner allows for a clear distinction between impacts that are allocated to the current life of the product, compared the impacts that will be allocated to a next life.
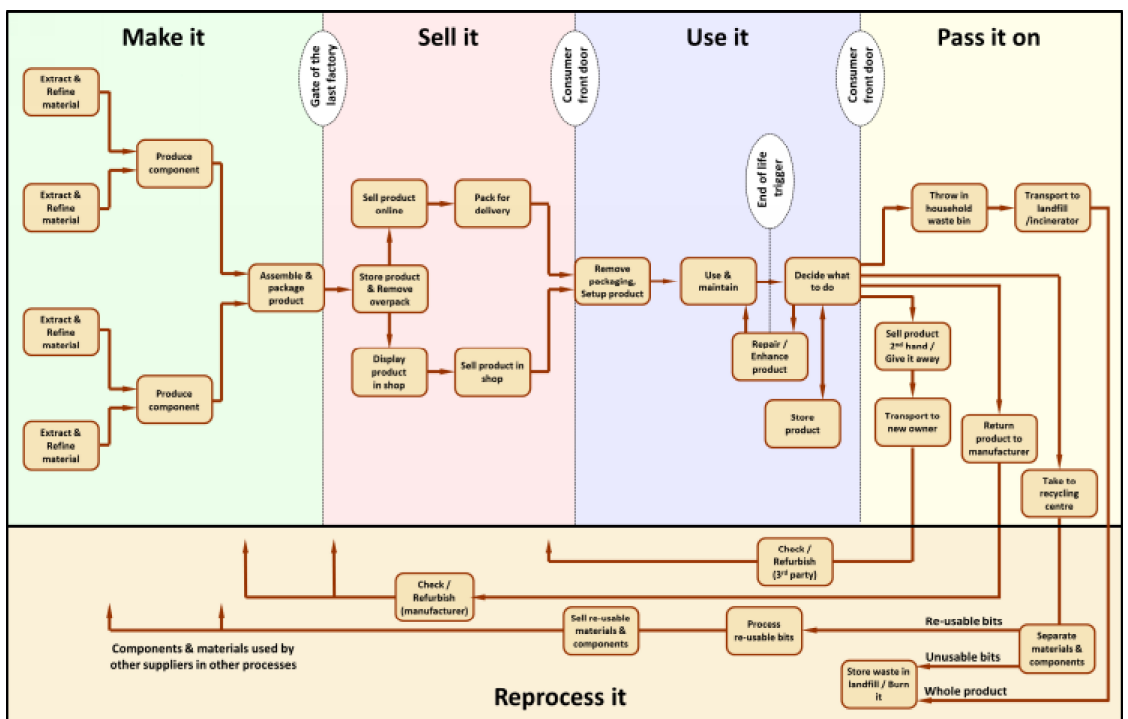
Impact of design

Although design decisions are typically associated most with making the product, decisions made during concept design affect the entire life cycle.

Stage descriptions

Make it

A long supply chain in multiple countries, with lots of production and transport processes that:
- Gets materials out of the ground
- Forms them into a manner that an end consumer wants to buy
- Manages waste occurring from these processes

Gate of the last factory

Sell it

A detailed logistics operation that enables:
- Getting the end consumer to want something
- Managing the sale
- Getting the product to the consumers front door

This may be through:
- An online sale delivered direct to consumer
- An in-store sale taken home by the consumer
- An in-store sale with home delivery
- Online sale with store pick up

Consumer front door

Use it

- Installation
- Use & Maintain
- Repair & Enhance

End of life triggers include
- Unable to set up or operate successfully
- Function no longer required
- Obsolete technology
- Equipment failure
- Consumer abuse
- Consumer finds something else more desirable

Repairs are included within "use" if the consumer ends up keeping the device they started with

Consumer front door

Pass it on

A detailed logistics operation that enables
- Unwanted things to be taken to landfill
- Reusable things to be passed on to another person/organisation

Repairs are included within "pass it on" if the consumer is provided with a replacement device

Reprocess it

Activities that refurbish devices, separate materials and components, upgrade things so that they can be used again in another process, burn things and store things indefinitely in landfill

The types of activities associated with the life cycle stages are described in detail.

Specific activities

Specific activities that occur within the different life cycle stages are elaborated in detail.

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