



BEarOPEN

Lint

Collector

TED

(Today's Eco-Design)

Battling the problems of today!



Title: BEarOPEN Lint Collector Ted

Issue: Dryer lint disposal & waste material

Tumble dryer lint blocks dryers, limits their lifespan and causes fires as well as contributing to household waste. Obviously minimizing dryer lint production is key but employing it into reuse and giving it a second life might be a solution. Used clothing also produces

Overview of issue & approach:)

Ever since I've owned a dryer I've wondered why I throw out the dryer lint at the end of each use when this a lot of waste of material. Every time I wonder "What could I make out of this?" and every time without fail I say "Nah, I'll deal with it next time." and again and again. And to this day I have not taken action on this issue. If just my dryer produces so much waste, how much dryer lint is produced daily in the world?!

With this project I aim to redesign a safe, eco-friendly way to reuse dryer lint, in doing so reduce waste and potentially create a sustainable solution for decreasing the risks associated with it. Combining two separate design approaches I want to come up with an optimal solution for this minor but prevalent problem of today. Firstly, incremental redesign in compliance with ESPR regulations and also radical redesign which completely rethinks the use of dryer lint. By employing both of these techniques I hope to achieve an optimal proposal for dryer lint up-cycling.

Throughout this project I will take into consideration the whole lifecycle of the product from material sourcing to the end of life. The goal is to incorporate the ideas behind circular economy and touch on doughnut economics. The product designed should be promoting a sustainable future and benefiting the environment by extending the lifetime of materials or resulting in an eco-friendly disposal solutions. Practical uses, benefits and stakeholders will also be considered.

Project Description:

The BEarOPEN Lint collector TED (Today's Eco-Design) is a dryer lint collector. The product is a hand-made teddy bear casing that would commercialize dryer lint collection within the home. The casing is made of used clothing or fabrics that cannot have a second life through wearing it or their original intended use. The materials are collected at specially designated collection points and then used to manufacture the BEarOPEN teddy casings. The casings would be cut out and sewn together by hand leaving the stitches showing, to bring out a simple, cozy ambiance. The teddy casings are then given those who donate clothes depending on the amount of clothing you donate, the number of teddy casings you get increases. They can also be bought separately at the collection points.

Once the teddy casings reach the homes the lint collecting begins. Once you clean out your dryer simply fill up the casing with the lint produced from the wash. Keep filling it until its full and zip it up. Now you have a ready to go toy teddy bear plushie! After this there are a number of options. You can keep you teddy, bring it back to receive money back or another teddy casing and/or bring us the collected lint and keep your casing to refill again. All returned bears are sent to help children's charities, same with any clothes collected that are still in good enough condition to be worn again.

This is a fun way of promoting the up-cycling of used goods such as old clothing, buttons and dryer lint itself. By using the BEarOPEN lint collector we would be promoting tumble dryer users to empty their lint vents more regularly which in turn would prevent the risk of house fires. This would educate consumers on the contemporary sustainability concerns as well as prolonging the lifespan of clothing items, buttons, fabrics etc. which in turn reduces waste. Another benefit to using this lint collector would be the promotion or creativity and innovation in both adults and children. The teddy gives a homemade vibe that gives a sense of "making it yourself". Job and volunteer opportunities in the sales department, textiles and charity work would increase respectively. Finally, the product would help children in need and those who cannot afford be buy toys.

All in all reusing lint may seem like a minor issue. However, by providing a small product to incentivize consumer goods collection we can do more good than the naked eye can see. Some may simply see a teddy bear. Others will see a world of opportunity and constant innovation!

Stakeholders: (500 words)

Internal stakeholders would include employees of collection points, workers who create the casings and choose the materials, finally the designers of the teddy bear casing. External stakeholders include consumers: those who donate clothes, those who collect the lint and those who bring back the finished products also charities that would accept donations.

What is the Lint Collector Teddy?

- Dryer lint collecting system that gives dryer lint a second use instead of sending the waste straight to the rubbish bins.
- It uses **recycled clothing** reducing textile waste which currently stands at **92 million tonnes** of textiles waste is produced every year.

What is lint?

Build up of fabric fibers that shed from clothes produced by friction from wearing clothes/using a cloth etc.

Why do dryers produce lint?

Loosened fabric fibers (produced by friction) come off during washing/drying process.

Why does dryer lint build up?

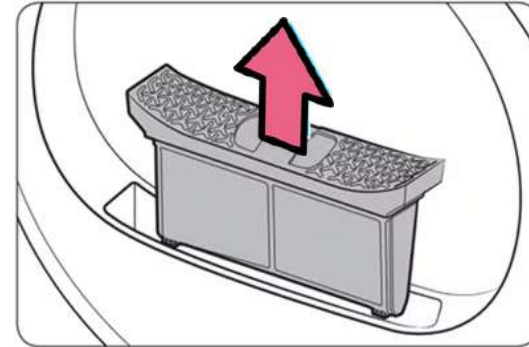
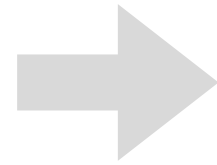
People forget to clean out the lint trap.
Overloading



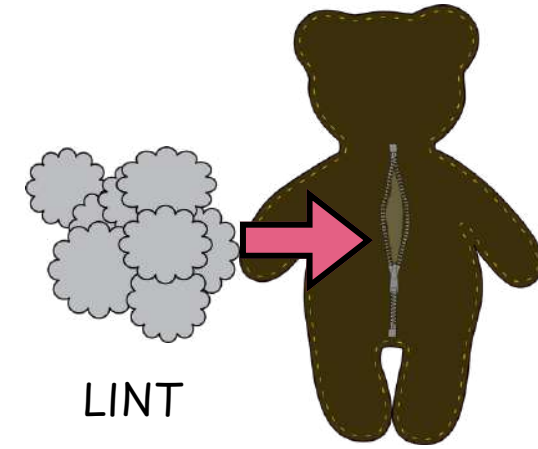
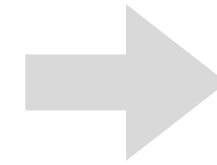
How does it work?



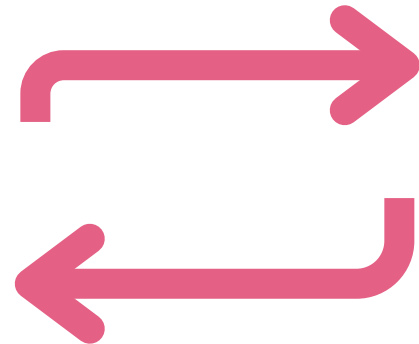
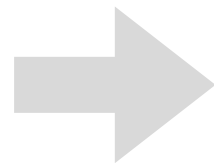
1. Wait for dryer load



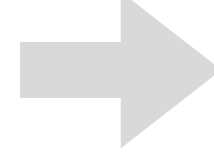
2. Empty lint drawer



3. Fill Teddy



4. Repeat for a number of washes



5. Zip up when full

Why reuse dryer lint?



House Fires

Dryers cause up to 15000 fires each year **27% of all fires**
Most are caused by failure to clean vents



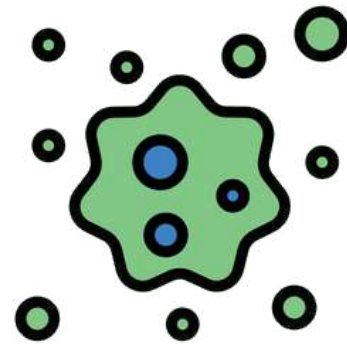
Microplastics

Can end up in and pollute water systems
- 641 tonnes of microfibers are poured down drains



Landfill waste

Approx. 300mg of microfibers are generated from 1kg of textile



Mold & Mildew production



Carbon monoxide poisoning

- negative indoor air quality impact



Dryer lifespan reduction

- efficiency of dryer reduced if clogged

Initial Ideation- Possible Solutions

Design Focus Statement: A way to safely dispose of or reuse dryer lint in order to encourage user to clean out the lint trap in turn reducing fire hazard risk and waste production in the home.

What to do with dry
How to commercialize co
system th
consum
dis
entivize



Safe fire starters



Production of fabrics



Lint Collector
-commercialization



Insulation



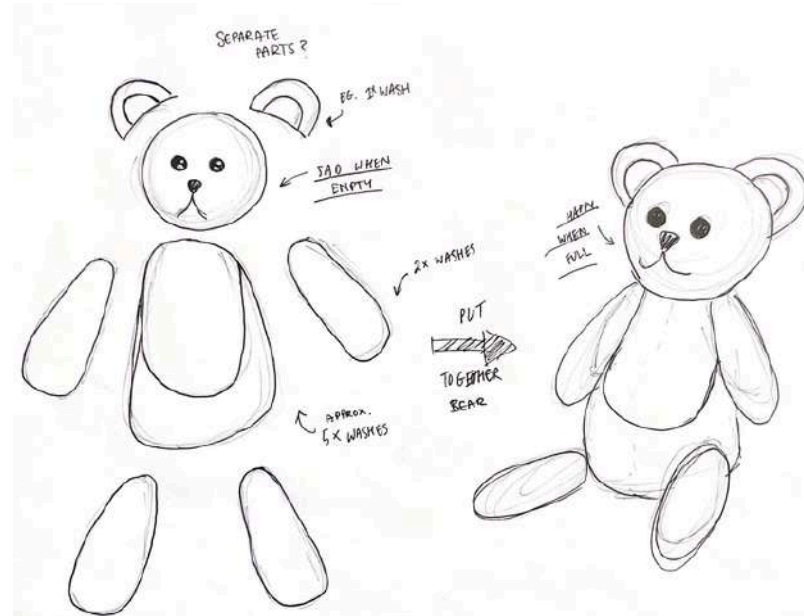
In home waste
collection
system



Crafts

What to do with dryer lint?
How to commercialize collection?
What system that reuse
Lint to reduce
the use of j
users to

Concept Development



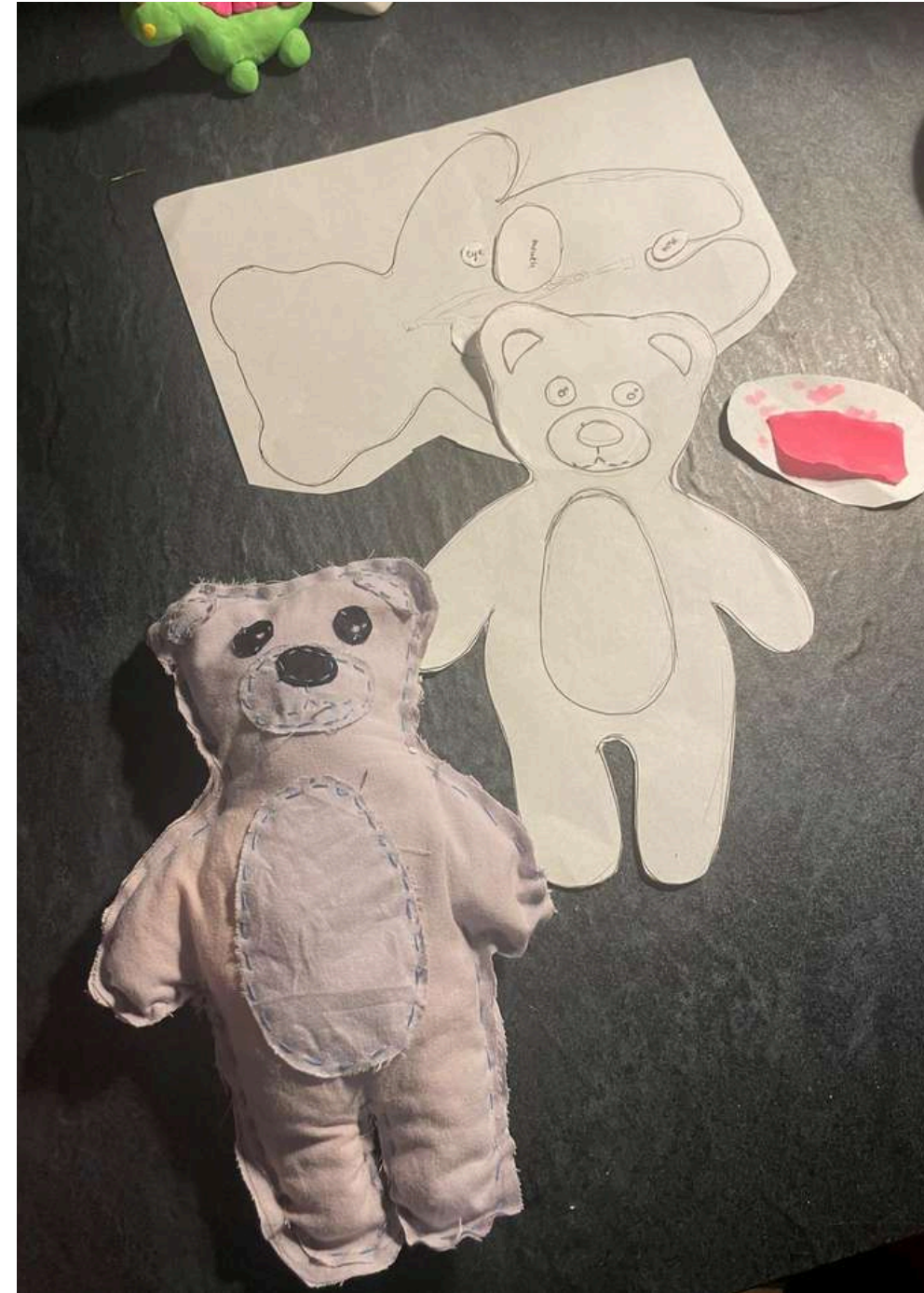
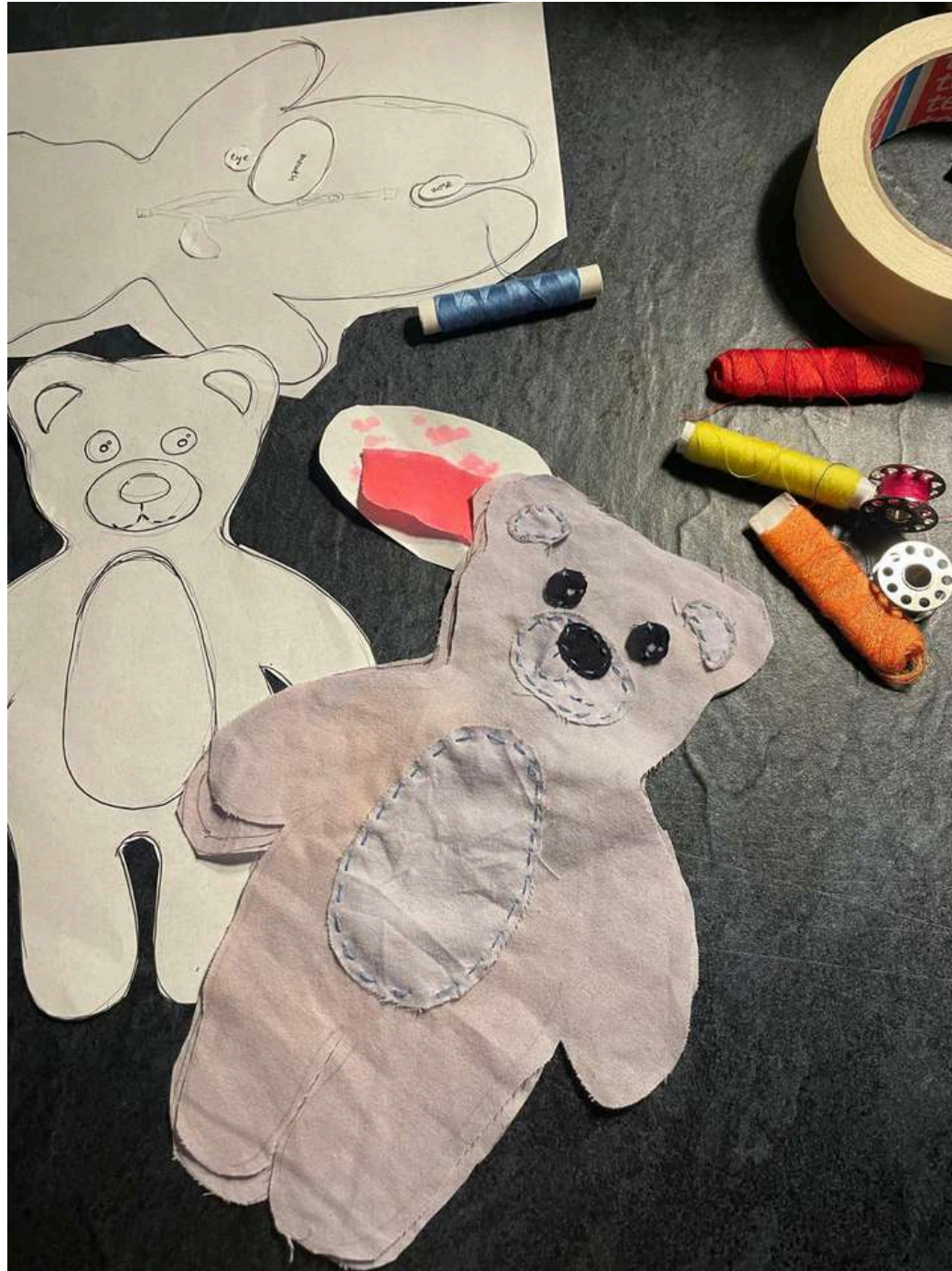
Lint Teddy Bear Collector

Inspiration: Most dryer owners include families often which have children, introducing a fun way to instigate lint collection will encourage families to clean out their dryer vents after every wash is dry.

Who doesn't want a cozy teddy that they can brag about that they made themselves?



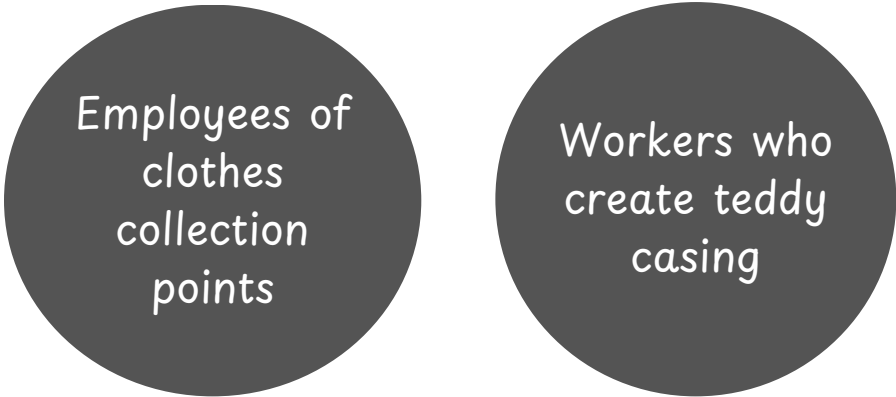
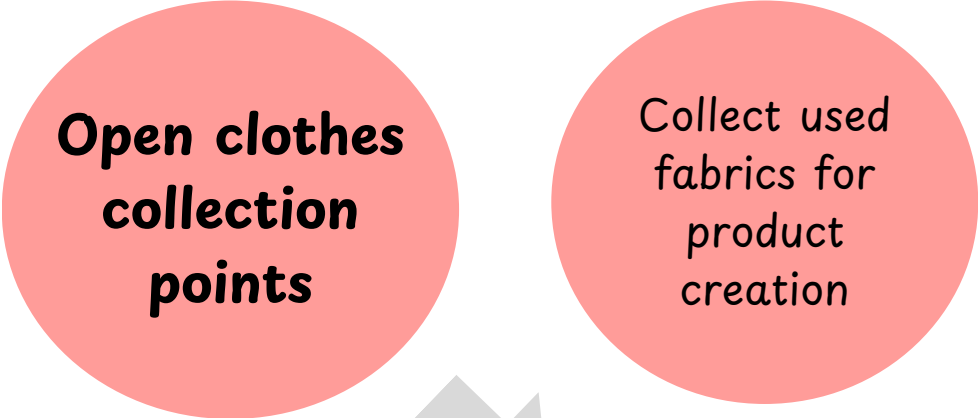
Prototyping



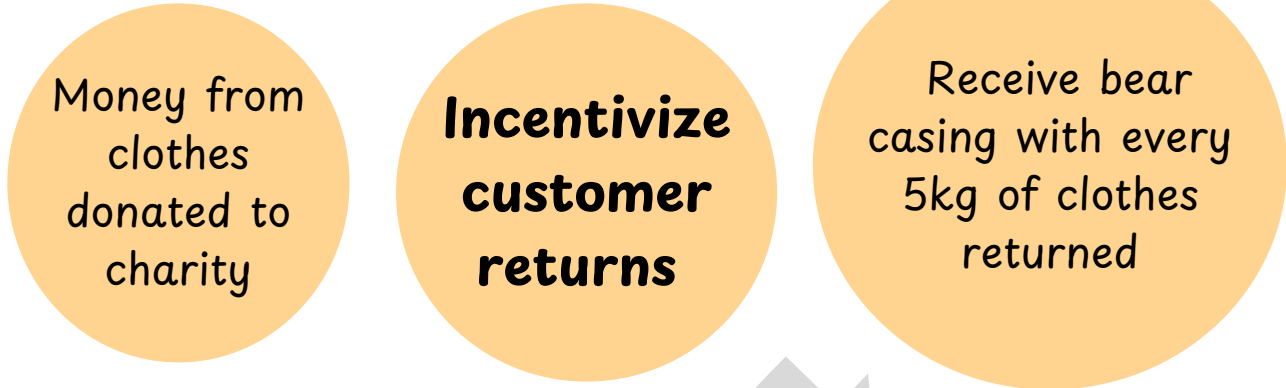
Product lifeline

Internal Stakeholders

1.



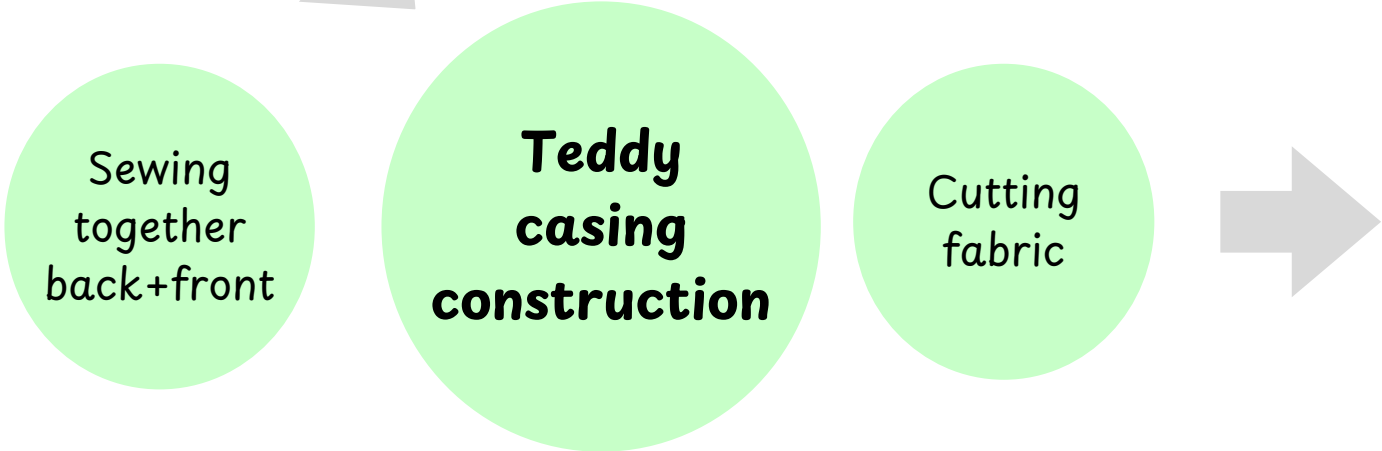
2.



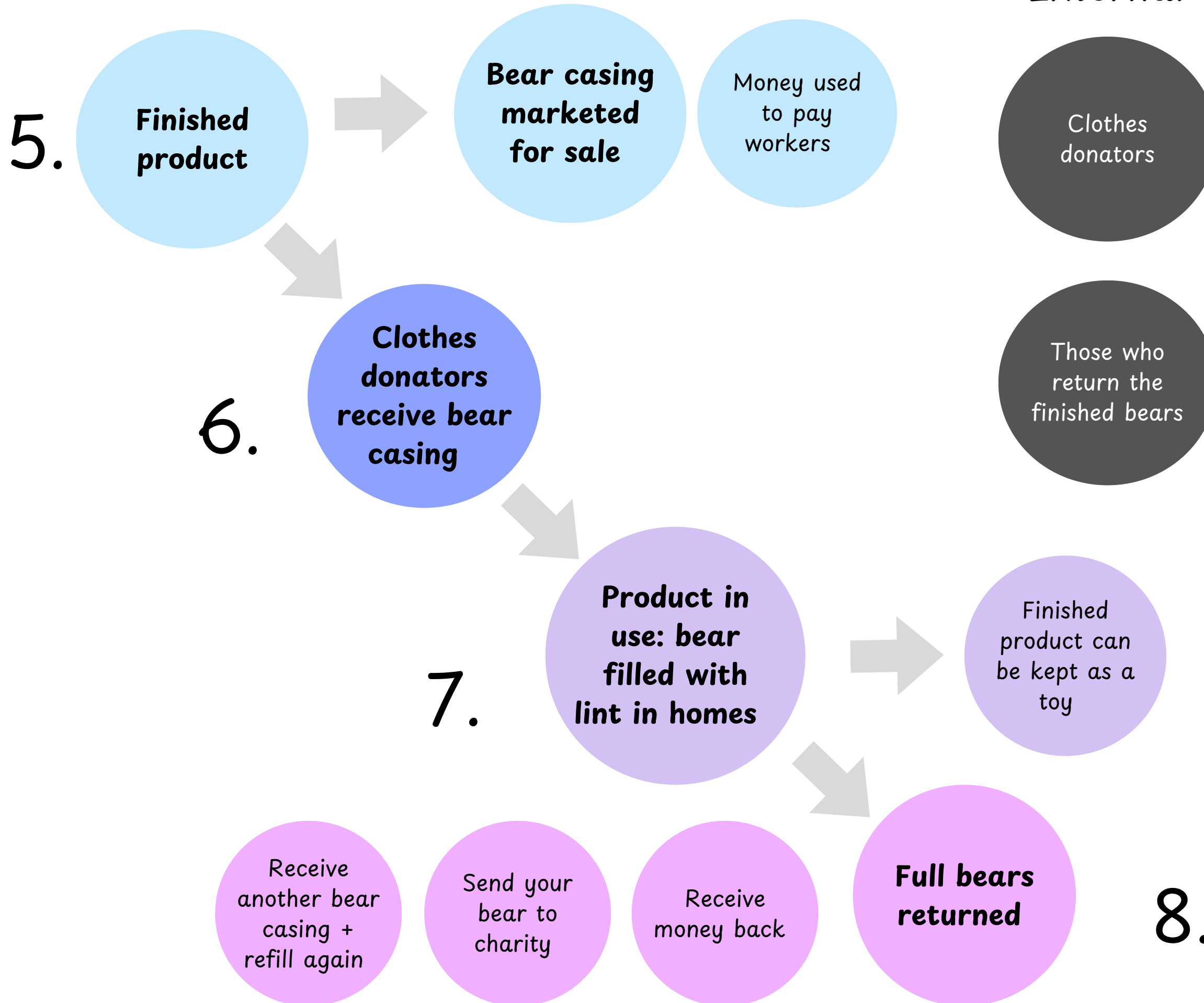
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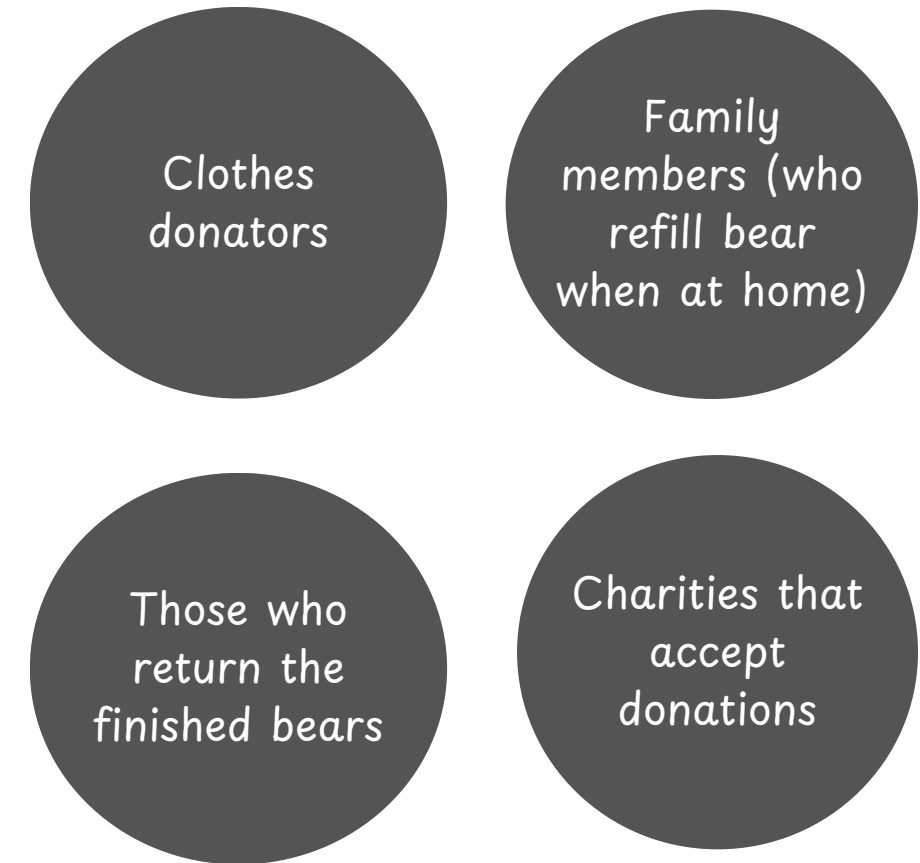
4.



Product lifeline

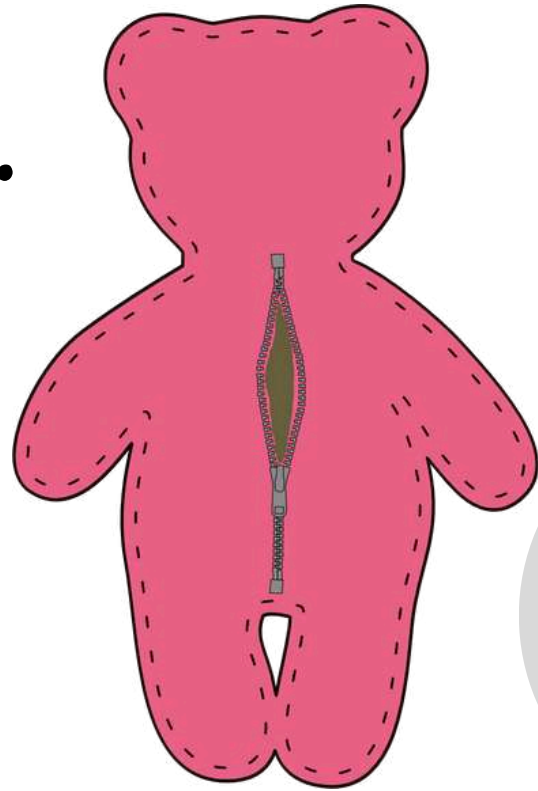


External Stakeholders

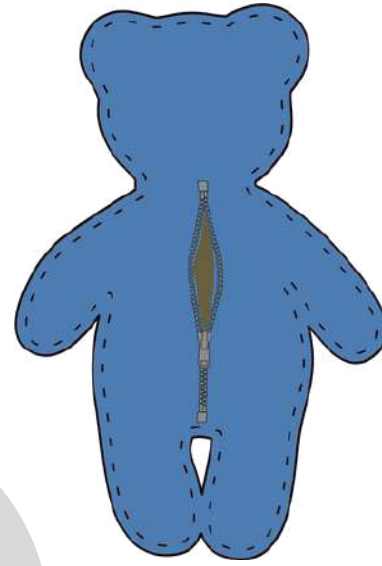


What to do with the finished bear casing?

9.



Want to keep your bear casing?



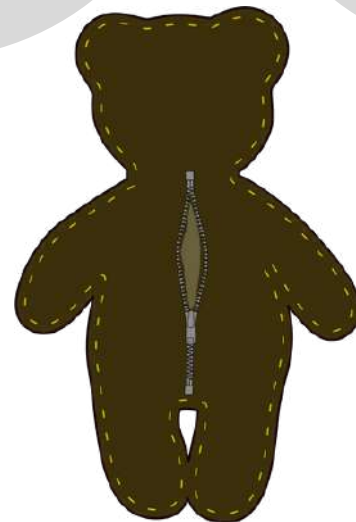
Finished (returned) bears marketed for sale

Money sent to charities

Return to us, we take the lint & reuse it to make another bear.

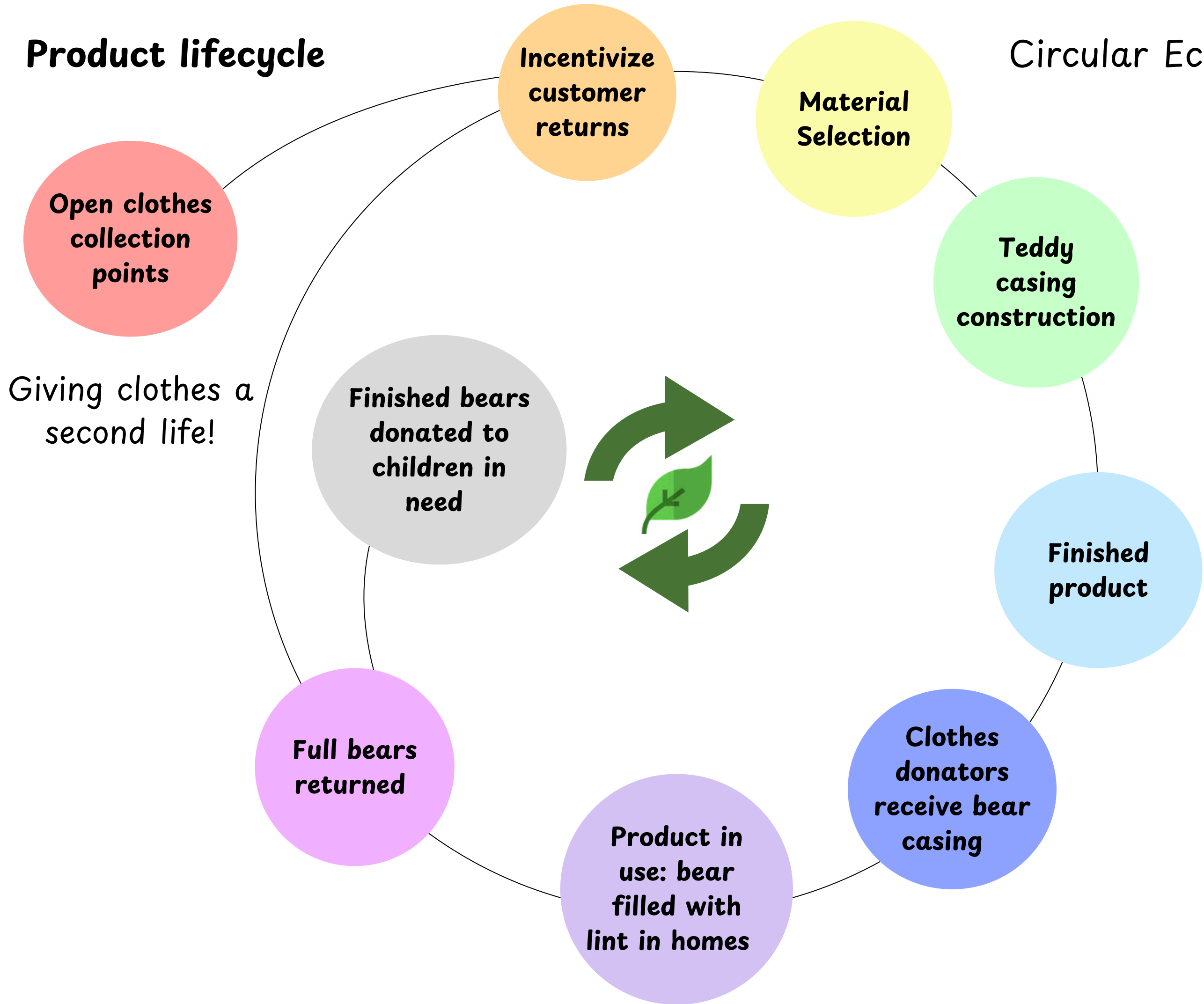
You get your bear casing back and can keep reusing it again and again by returning lint to us.

Finished bears donated to children in need



Product lifecycle

Circular Economy



**Open clothes
collection
points**

**Incentivize
customer
returns**

**Material
Selection**

**Teddy
casing
construction**

**Finished
product**

**Clothes
donators
receive bear
casing**

**Product in
use: bear
filled with
lint in homes**

**Full bears
returned**

**Finished bears
donated to
children in
need**

Giving clothes a
second life!

Final Design



Supporting the ActNow for Zero-Waste Fashion Challenge



Battling the problems of today!



Benefits



**Prevents
House Fires**



**Educates
consumers about
sustainability**



**Unleashes children's
creative mindset**



**Provides job & volunteer
opportunities**



**Helps children
in need**



**Reduces
textile waste**

Conclusion



The initial goal was to solve a problem of today. I initially started to solve a small issue concerning the lint formed in a dryer, however from the research conducted I believe I am solving a bigger problem of today that I even intended to. After deciding to simply create a teddy bear for lint collection, I ended up creating a solution to reusing clothing and minimizing textile waste, which is and even bigger problem in today's world.

Evaluation



By introducing this system not only is dryer lint getting a second use and textiles being recycled but jobs are created and people are being educated and incentivized to lead a more eco-friendly lifestyle. Donating and volunteering would be promoted and the initial problem of risk of house fires is reduced.

Reflection



I believe I have taken into consideration most of the overall product lifecycle and provided an optimal solution to my initial design criteria. I designed a closed system that would have a positive impact on the world around us in terms of sustainability and circular economy. The next steps would be to move towards a more doughnut economic model that further prolong the life of this product.

References



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The logo for the Sustainable Development Goals, featuring the text "SUSTAINABLE DEVELOPMENT GOALS" in blue, with a circular icon of 17 colored segments representing the goals.

SUSTAINABLE
DEVELOPMENT
GOALS

**Thank you for
reviewing my
submission!**