



Hackathon: the circular diaper

Team 9 - Koala

The Circular Diaper



TEAM KOALA

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PLANT A TREE AND MAKE A DIFFERENCE

Who we are ?

Our goals:

- Recycle 100% of our diapers to create a greener environment
- Guarantee diapers to our customers every day
- Contribute to our planet by planting trees

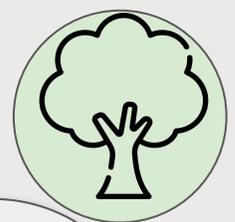
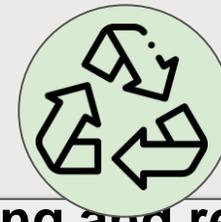
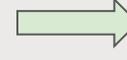
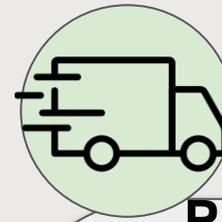


Our mission:

- Work on the well-being of the present and future generations
- Protect the environment
- Be transparent with customers and share progress



Diaper Circular Solution



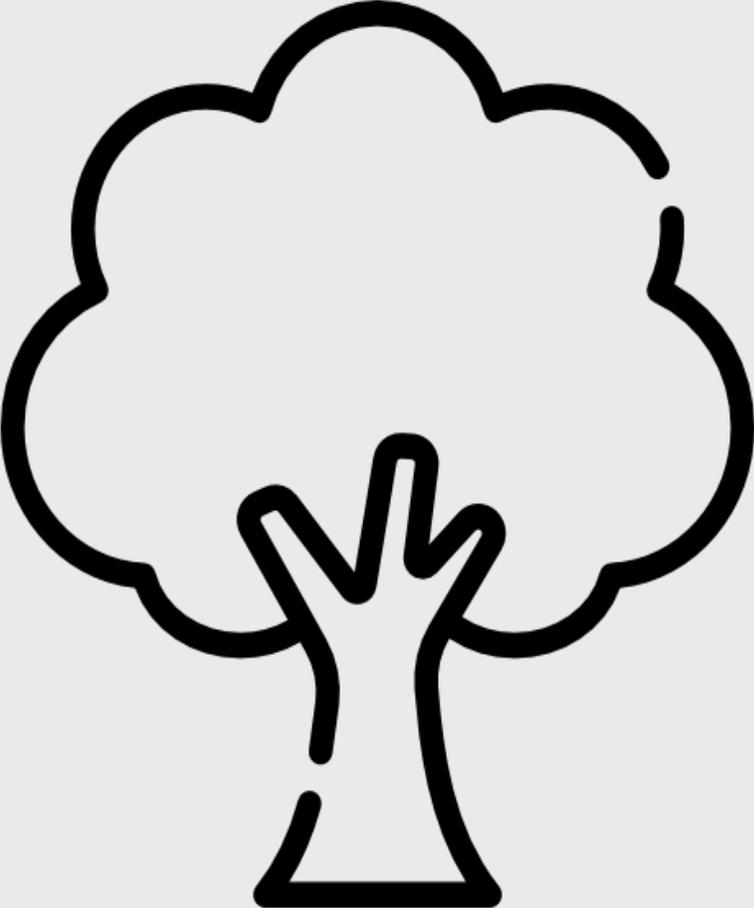
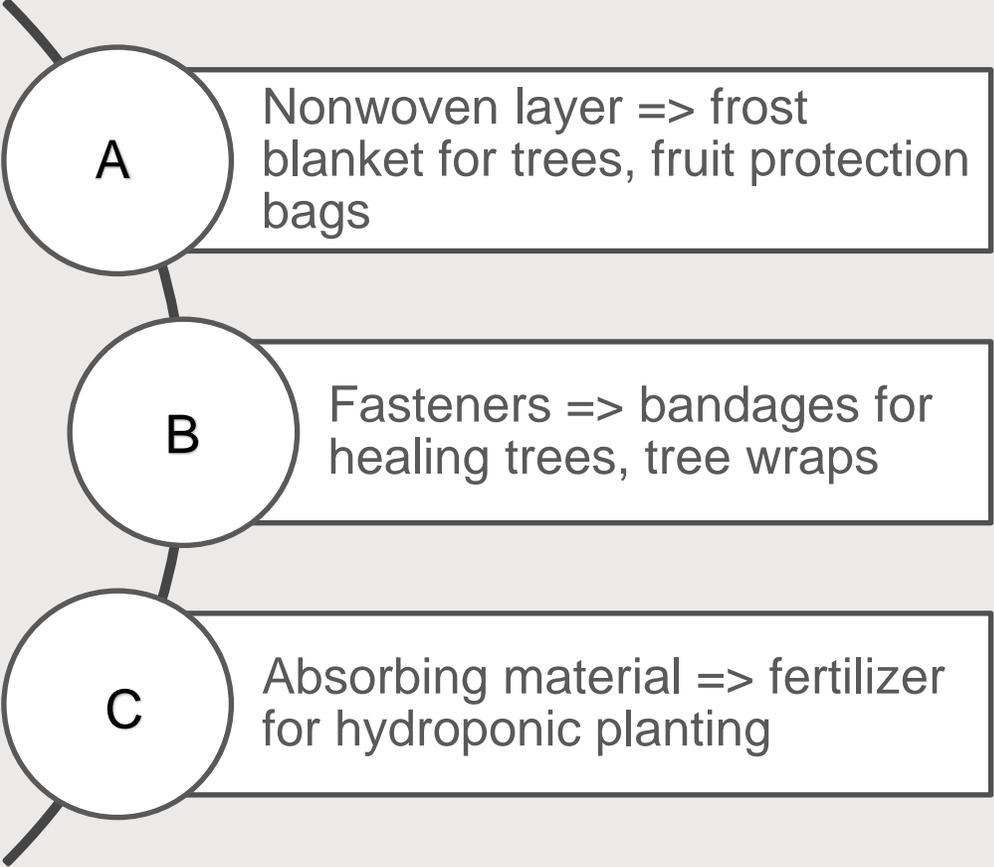
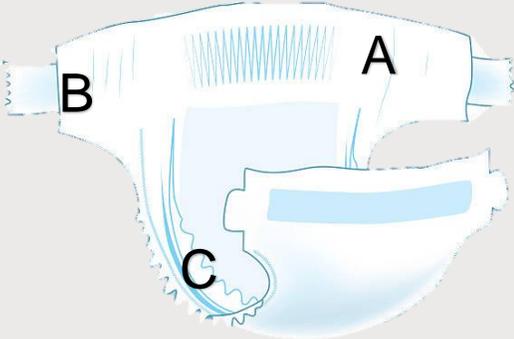
Delivery and collection service

- Monthly or annually subscription service offered by diaper companies. Service including delivering diapers to households and collecting used diapers at a weekly basis.
 - Reduce excess production of hygiene products by collecting the data from customers monthly usage.
- => Shift diaper product to a hygiene service and reduce excess waste from managing the production amount.

Processing and recycle

- Hydroponic planting: cultivating plants with the nutrition extracted from human waste of the diapers.
 - Use the plastic, cellulose and super absorbent materials from diapers to make products for trees, such as tree wraps, fruit protection bags, and tree bandages.
- => Create value for used hygiene products and generate product that improve our environment.

Diaper Circular Solution



Our wish...

Short term :

- Offer a **customer-centric service** where parents no longer need to worry about buying, throwing and recycling diapers.
- Cooperate with local instant delivery companies to build the **give-and-take** recycle service, to make the best use out of the transportation.

Long term:

- Recycle diapers for hydroponic planting and reproduce products used for plants.
- Contribute to our planet by planting 1 tree from every 100 recycled diapers.



Tree Planting Goal

	Children wearing diapers % ¹	Children wearing diapers in EU-27 in 2020 ²	Children using disposable diapers *	Disposable diapers per day in EU-27 in 2020 ³
Up to 6 months	100%	2,115,977	1,481,184	6,161,725
6 to 12 months	95.70%	2,024,990	1,417,493	5,896,771
12 to 18 months	82.80%	1,797,239	1,258,067	5,233,560
18 to 24 months	45.60%	989,784	692,849	2,882,250
24 to 30 months	17.60%	388,283	271,798	1,130,679
30 to 36 months	4.80%	105,895	74,127	308,367
36 to 42 months	1.80%	39,617	27,732	115,366
42 to 48 months	0.40%	8,804	6,163	25,637
			Per day →	21,754,355

If we can reach our goal of planting 1 tree every 100 diapers recycled => we could plant **over 200,000 trees every day**



*Assumption: 70% of parents use disposable diapers rather than reusable diapers

Thank you for your listening !



References

1. Source: Environment agency, 2004
2. Source: Eurostat, 2020
3. Average number of used nappies per day is 4.16 (Source: U.K. Environmental Agency LCA diaper study, 2008)