

Towards a renewable,

- partly reusable,
- disposable diaper system.



A baby uses roughly 4000 DISPOSABLE DIAPERS

before they are potty trained. All these diapers together cost 160 KG OF SINGLE-USE MATERIALS,

of which currently only 12% is renewable. Most parents are

NOT WILLING TO SACRIFICE THE CONVENIENCE

of the disposable diaper, to reduce their footprint. Currently 95% of parents use disposable diapers. The diaper of the future

COMBINES CONVENIENCE WITH SUSTAINABILITY.

The Daily Diaper achieves a potential **63% reduction** of CO₂ emission by combining 3 strategies:

PARTLY REUSING THE DIAPER

With a reusable disposable outer pant, in which an absorbent inlay can be placed.

REMOVING OVER-CAPACITY

A day-night system is implemented to remove over-capacity during the day. **REPLACING FOSSIL-BASED WITH BIOBASED**

Most materials can already be replaced by biobased alternatives to make the diaper renewable.

The daily diaper combines disposing and reusing, to conserve parent convenience while reducing diaper impact.





A diaper outer pant, (in essence a diaper without absorbent core) used with inlays. A new closing mechanism allows for easier changing of inlays. A belt closes over the belly, and stays closed until the outer needs a change. When only the inlay needs changing, the front flap is opened and the inlay can be replaced with a new one, without having to take the whole outer off. The Daily Diaper is a future vision for the disposable diaper. During the project multiple ways of reducing diaper environmental footprint reduction were explored. It was found that the Daily Diaper could (at least partly due to quality of biobased materials) already be introduced on the market, to start reducing our diaper footprint. Are you ready to change the diaper?



Evelien K. Deuring To design a more sustainable disposable diaper without compromising on user experience 17-02-2022 Integrated Product Design Committee Conny Bakker Ruud Balkenende Company Guus Meijer



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