



Hackathon: the circular diaper

Team 1 - IDExperts

HACKATHON: *THE CIRCULAR DIAPERS*



IDExperts

When circularity becomes your strength

TARGETS: Families, Elderly homes & Nurseries

1: PURCHASE & DOWNLOAD



"You want a **discount** on your next purchase? **Download** the app **DIAPPY RECYCLING**"



2: REGISTER AND FIND



Registration screen with fields: REGISTER, NUMBER OF CHILDREN, CONTINUE.

Map screen with 'MY MAP' and location: Jagelstraße 35, 10565 Berlin, Germany. Includes a 'BACK' button.



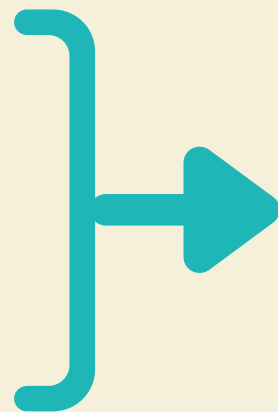
3: PLAY & WIN



Menu screen with options: MY MENU, MY MAP, GAME, SETTINGS.

Game screen with 'GAME' title and instructions: "Scratch 3 boxes if you have the same symbol 2 times you win the related discount!". Includes a 'BACK' button.

1: PROVIDE & DOWNLOAD



2: REGISTER AND SCHEDULE



Registration screen with fields: REGISTER, MEMBER, ORGANIZATION, ABOUT US, CONTINUE.

Registration form with fields: NAME, COMPLETE ADDRESS, CONSUMPTION/MONTH, BINS NEEDED.

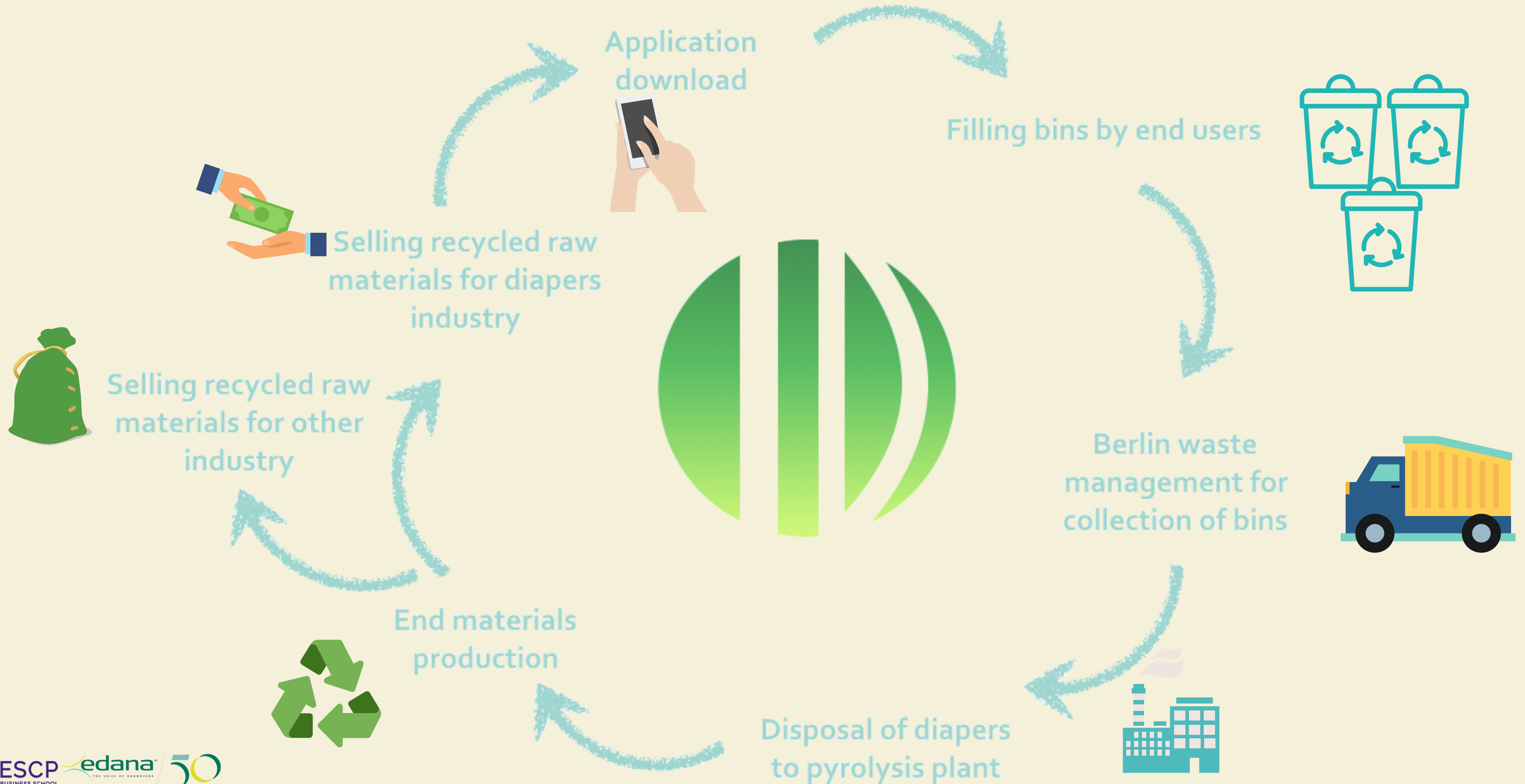
Menu screen with options: MY MENU, MY SCHEDULE, GAME, SETTINGS.



3: ANSWER & COLLECT



OUR PROCESS: *Bringing circularity*



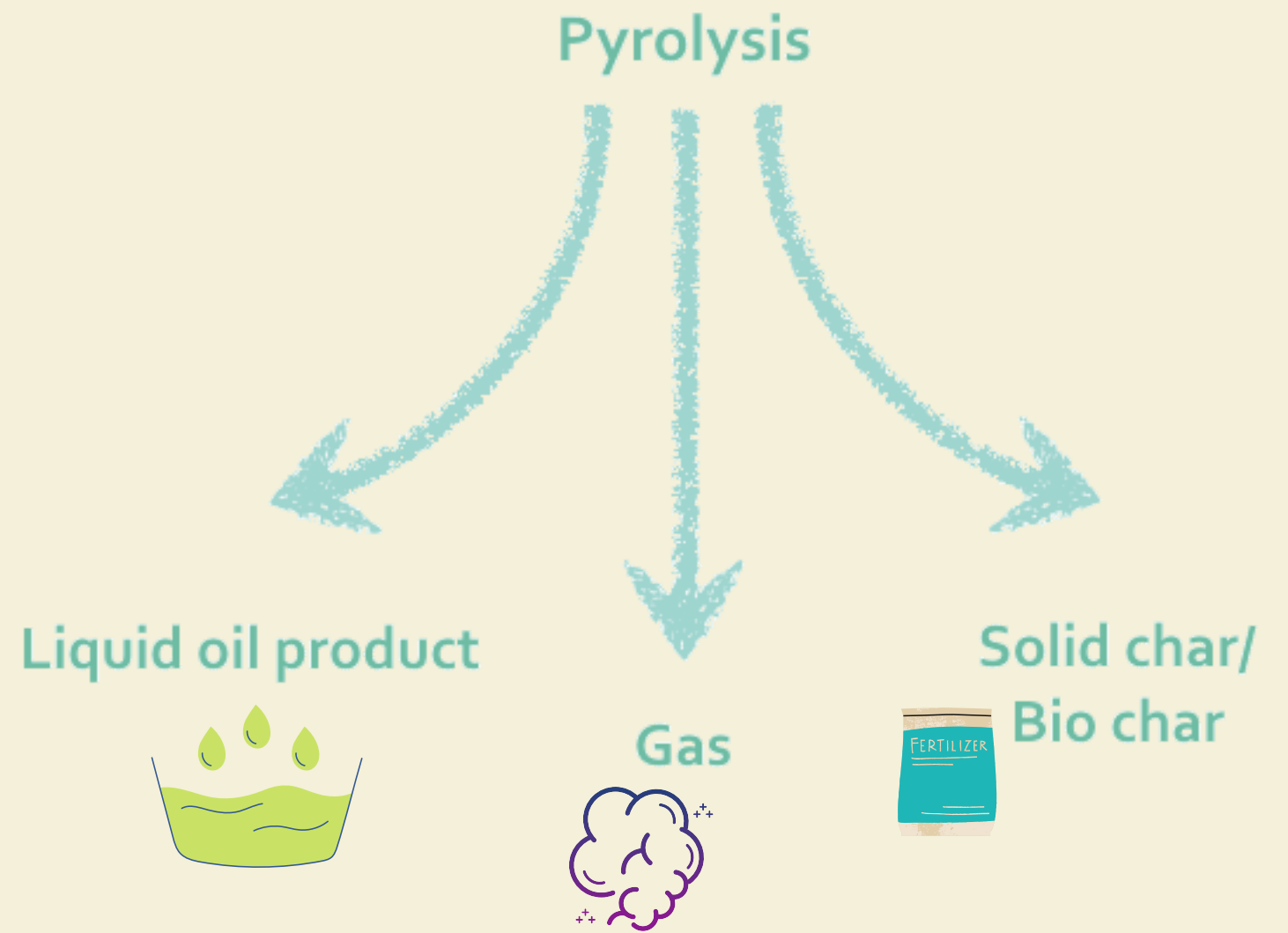
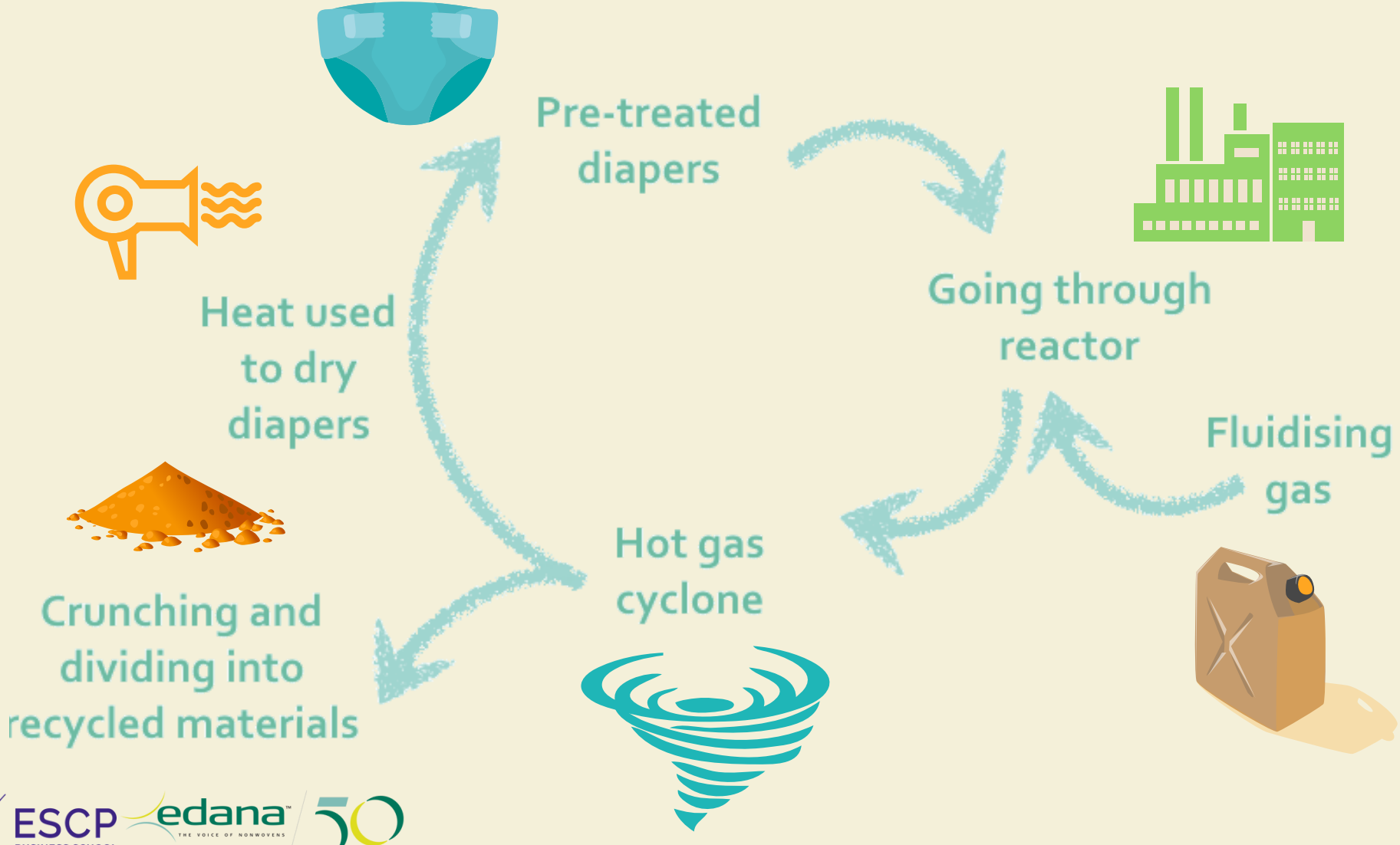
OUR PROCESS: *Microwave pyrolysis and materials*

The pyrolysis process: thermal decomposition of materials at elevated temperatures in an inert atmosphere.

Microwave pyrolysis: fast heating process compared to conventional pyrolysis, thus reducing the energy consumption in producing potentially green energy sources.

Pyrolysis can produce **three types of products:**

- **syngas:** 29% (fuel source for buses or plant)
- **liquid oil:** 43% (PP, PE for diapers producers; chemical additives in personal care)
- **solid char/bio char:** 28% (pesticides/antibiotics)



FINANCE: Costs structure & Revenue streams

COSTS STRUCTURE

	Costs
Application	20 000,00 € / 25 000,00 €
QR code	Free
Regular containers (including branding)	200 000,00 €
Smart containers (including branding)	170 000,00 €
Pyrolysis plant (German market)	20 000 000,00 € /plant
Marketing actions/year (medias and billboards)	100 000,00 € for the first year
Variable expenses (electricity, extra)	300 000,00 €
TOTAL COSTS	20 795 000,00 €

Number of regular and smart containers will depend on the Phase of the project

REVENUE STREAMS

	Revenue streams based on the German market of diapers
Revenue generated by Biochar	2,6 M €
Revenue generated by gaz	1,0 M €
Revenue generated by liquid oil	2,0 M €
TOTAL REVENUE	5,6 M €

Figures based on 20% of the annual German market of diapers:
16 tons

**THANK YOU FOR
YOUR ATTENTION!**

Any questions?

