



Biocomposite to make plastic great again

Made from reed
of Baltic Sea





The Plastic Pollution problem

CO2 emissions, natural resource use and pollution are exceeding the limits that are sustainable or safe for the planet and humanity.

380M

**tons of plastic
produced every year**

>15%

**of plastic waste is
collected for recycling**

150M

**tons of plastic is in
the ocean already**

While the lifespan of plastic products averages around 10 years, plastics can take up to 500 years to decompose, depending on their composition and disposal

Solution

SUTU – patent-pending biodegradable plastic-like material from reed plant

REED



100% PLANT-BASED

- Fast-regenerating
- Never used as food
- Scalable all over the world

SUSTAINABILITY COMBINED WITH DURABILITY

- Unique combo of flexibility and strength
- Low-impact throughout the lifecycle
- Technology is already available (existing machines)

1st proven application: Bio composite for plastic cards production

Technology:

thin film

Product verticals:

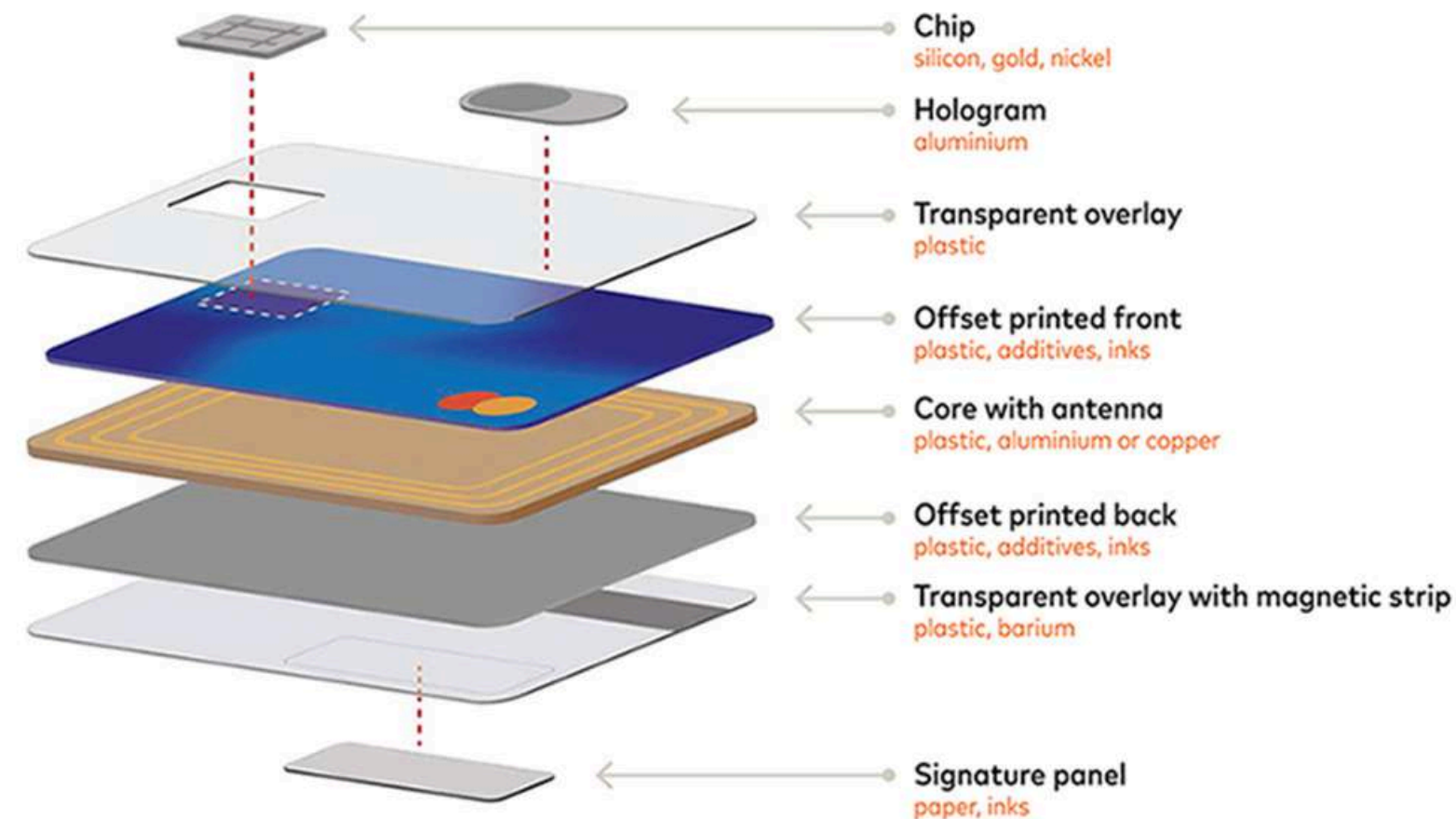
- card blank (bank, gift, VIP, etc.)
- packaging films (food, gift, etc.)
- adhesive tape
- wax cloth



26 billion cards are in use

The lifespan of plastic credit and gift cards are one of the shortest causing 5,7M tons of the wastes every year

Cards are made of up to 6 layers of plastic



BUT card manufacturers are forced to replace fossil plastic with eco-friendly materials by 2028*

Validated and ready to pilots on all the levels of the PCS supply chain



5 years R&D



TEST BATCH 100K PCS

- Confirmed the demand for the material, potential 240M pcs per year



CERTIFICATION

- First tests done

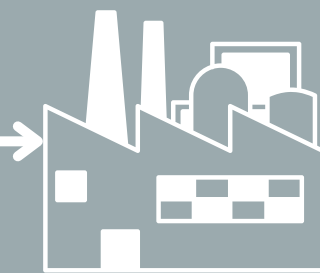


PILOT 100K pcs in Baltics

- Further at least 1M pcs



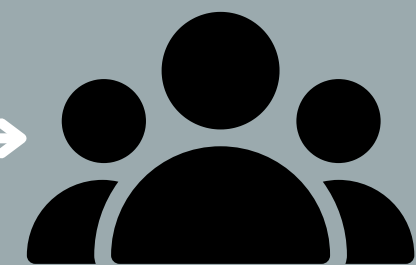
Material provider



Cards producer



Card provider



Users

Alternatives



VIRTUAL

USABILITY CONCERNS:

users want tangibility

all machines are not ready to allow this

DURABLE

MICROPLASTIC FREE

PLANT-BASED

SUSTAINABLY SOURCED

MECHANICAL PARAMETERS

PRICE

FOSSIL PLASTIC



WOOD



OCEAN PLASTIC



CORN-BASED MATERIAL



SUTU



Market



Plastic cards in circulation today worldwide

 **26 billion pc** →  **17,5 billion €**

Europe has the second largest share (23.2%)

 **6,1 billion pc** →  **4,1 billion €**

Sutu's partner Tag covers 55% of European fintech&neobanks market

 **240M new bank cards per year**

Cards usage is expected to grow 2–3% each year

 **as banks seek close customer ties**

**TEST BATCH 100K PCS
In 2025**

Sources:
The International Card Manufacturers Association (ICMA)
The Nilson Report - <https://nilsonreport.com/>

Business Potential

2025 we will produce **3,9 tons / 100,000 pcs / 40K€** of reed material  for one partner

2026 **39 tons / 1M pcs / 400K €** of reed material for three partners

2027 **1,2M tons / 22M €**, incl 3D printing and household items adaptations

Potential REVENUE by 2030:

- **CARDS** → **60 million €**
- 3D-printing → 50 million €
- Household items → 40 million €

Total REVENUE
4% of the market



150 million €
by 2030

- *B2B2B*
- *patentable*
- *licensable*

Other applications in development to create a bigger Impact

Technologies:

3D-printing

injection molding

Product verticals:

- DIY home kit
- design products (complex)
- everyday items
- parts for drones (defense industry)

- household products
- food containers
- drinking cups & lids
- cosmetic cups



Impact

SUTU's impact in 2028 :

- Removing 2,03M tons of fossil plastics
- Saving 2,5 million tons of CO2
- In addition cutting the reed eliminates from the wetland:
 - > 5,3 thousand tons of phosphorus
 - > 0,5 million tons of nitrogen
 - > more than 1 million tons of organic carbon



Deep Tech batch '24



Environmental Investment Centre



REPUBLIC OF ESTONIA
MINISTRY OF CLIMATE

Ministry of Climate



Funded by the EU (NextGen EU)



Winner, Estonia '23



Impact batch '23

Milestones

- ✓ R&D with scientists
- ✓ Card production partner
- ✓ First committed clients

2019-2023

1st proof of concept for cards

- Finalizing the R&D
- Ready for industrial production

2024

- **First batch of 100 000 pcs**
- Payment cards are certified

2025

2026

- Onboard other card producers
- €400K revenue

2027

2nd technology adaptation: 3D-printing

- Scaling up production
- €40M revenue

2028

Fossil plastic is mandatory to be replaced with eco-materials*

2029

Growth goal
€150M by 2030

*Source: Mastercard

SUTU team

OUR EXPERIENCE



SAMSUNG



Hansab

Nordea



Ailet Õis-Saar
CEO, M.Sc.



Mihkel Karu
Advisor
Product & Business Development



Anneli Laines-Ensling
Growth & visibility manager



Kaido Saar
Hands-on advisor
20+ years in banking

Fundraising

To bring the reed card to market:

150 000 € total



- production of 100 000 cards
- material certification
- reed card on producers' product list
- to unlock the 150,000€ grant




50% of the sum is committed as a grant




Thank **you!**

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