New 3D cellulosic packaging

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Context

Cushioning cosmetic packagings are necessary for transport to prevent breakage

	Plastic	Polyurethane foam	Cardboard	Molded cellulose	Myco composite	Cork
						
Recyclability	~	~	♻	♻	✗	✗
Special issues	CO_2	CO_2	abrasive	Production rate		

The law « Anti-Gaspillage pour une Economie Circulaire » (AGEC)

→ Need to stop producing single use plastic

→ The only **biobased** and **recyclable** solution

- **Cardboard** — Abrasive
- **Molded cellulose** — Production rate

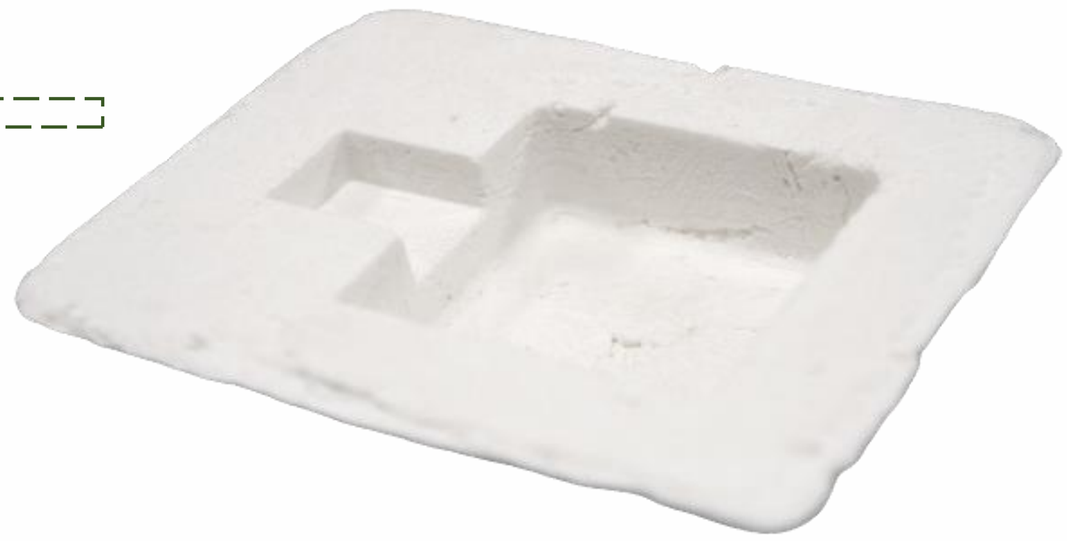
Considered solutions

Cellulose foam with additives
→ Lighter than molded cellulose

1. Forming

Modified wood
→ The use of wood instead of pulp avoids the pulping and refining steps

2. Modification



Conclusions

- ✓ **3D shapes** can be obtained from biosourced material
- ✓ Samples are really **soft** and **light**

Perspectives

- ✓ Assess the **mechanical properties** of both solutions
- ✓ Determine the **recyclability** rate
- ✓ Improve the **process**