ANFA Conference

European regulations impacting biodegradability of nonwoven products

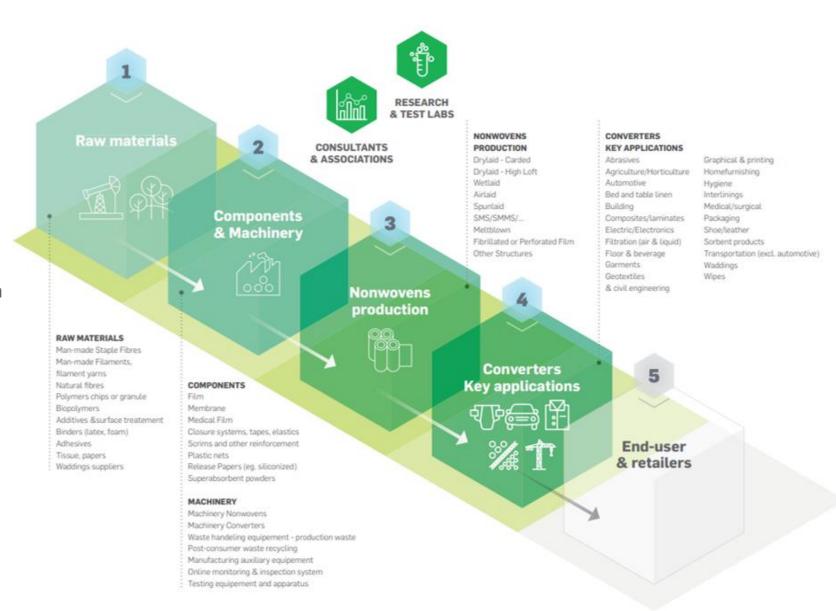
Murat Dogru





THE ENTIRE NONWOVENS VALUE CHAIN

EDANA +310 member companies supply products and services ranging from raw materials to finished products and everything in between, including machinery, special ingredients, development and testing facilities. Materials often used with nonwovens, such as films and superabsorbent polymers are also represented.



TOP 10 ITEMS FOUND ON BEACHES

SINGLE USE PLASTICS DIRECTIVE (SUPD)





EPR (not femcare)

- Costs of the awareness raising measures
- Costs to clean up litter

Awareness raising measures by EU Member States

WHAT IS A PLASTIC?



means a material consisting of a polymer as defined in [REACH] to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified

The SUPD includes all biobased and biodegradable plastics

The SUPD bans oxo-degradable plastics





WHAT ARE BIOPLASTICS?

non-biodegradable

Conventional plastics: Fossilbased and non-biodegradable

Biobased and non-biodegradable

biobased

Fossil-based

Biodegradable and fossil-based

Biodegradable and biobased

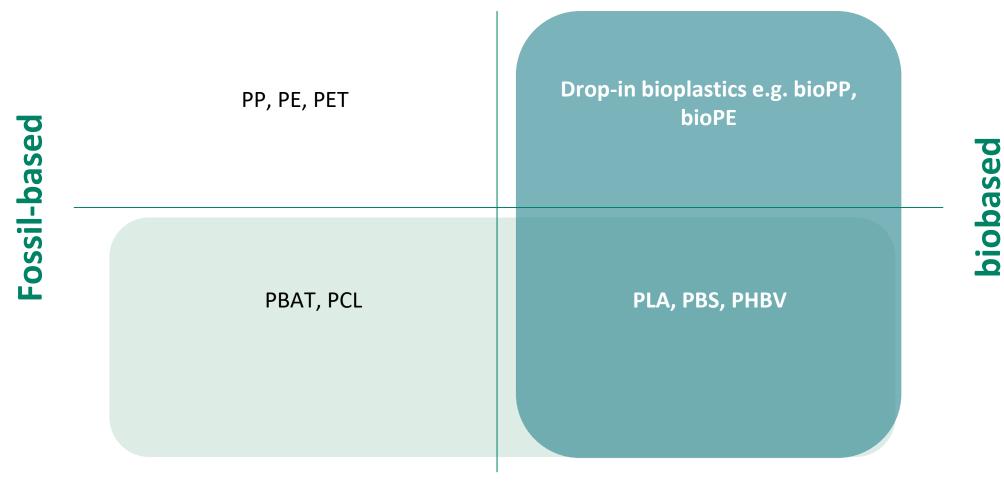
biodegradable



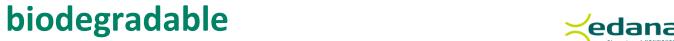


WHAT ARE BIOPLASTICS?

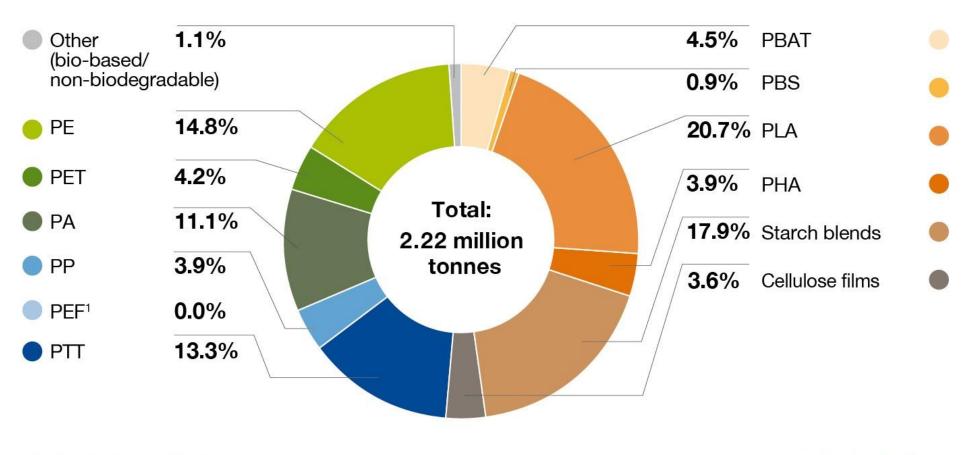
non-biodegradable



Bioplastics



Global production capacities of bioplastics 2022 (by material type)

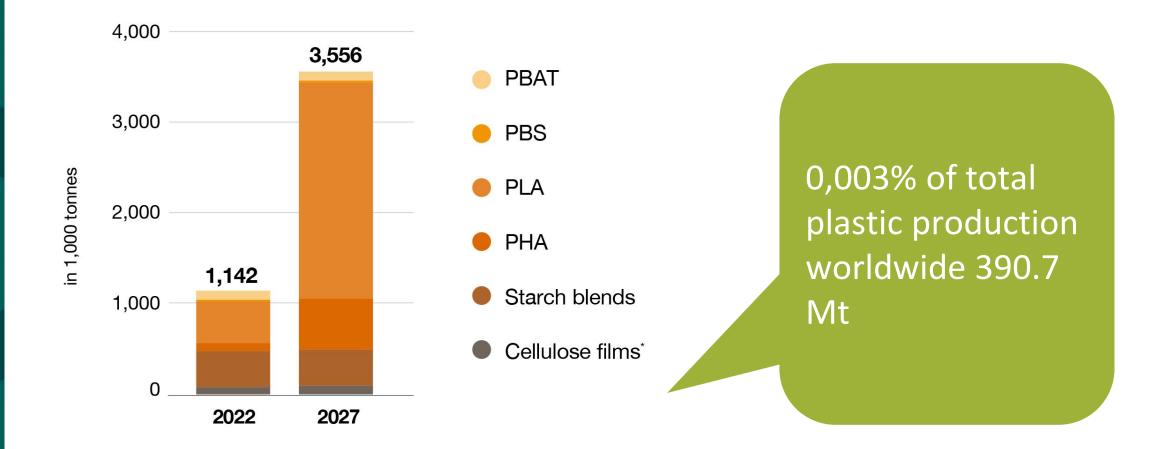




Bio-based/non-biodegradable 48.5%

Biodegradable

Biodegradable bioplastics 2022 vs. 2027



*Regenerated cellulose films



BIOPLASTIC FRAMEWORK

EU policy framework on biobased, biodegradable and compostable plastics



Limit the use of biodegradable plastics in the open environment only to specific applications for which reduction, reuse or recycling are not feasible.

Such plastics should **not** be considered **as a solution** for inappropriate waste management or littering.

Coherent and science-based testing and certification standards should be developed



BIOPLASTIC FRAMEWORK

EU policy framework on biobased, biodegradable and compostable plastics



Additives used to manufacture biodegradable or compostable plastics should **biodegrade safely** and not be harmful for the environment.

Plastics labelled as 'biodegradable' must always specify the receiving open environment for which they are intended and the **required timeframe** for their biodegradation, in terms of weeks, months or years.



BIOPLASTIC FRAMEWORK

EU policy framework on biobased, biodegradable and compostable plastics

Industrially compostable plastics should only be used for specific applications when the environmental benefits are higher than their alternatives and when they do not have a negative impact on the quality of the compost;

Examples: fruit and vegetable stickers, tea bags and filter coffee pods, as well as very light plastic carrier bags although alternatives with no packaging or reusable alternatives are to be preferred

Among the range of potential non-packaging applications for compostable plastics, absorbent hygienic products merit particular attention.



PACKAGING AND PACKAGING WASTE DIRECTIVE

Compostable and prescribes that filter coffee pods, sticky labels attached to fruit and vegetables and very lightweight plastic carrier bags shall be compostable by 24 months after the entry into force of this Regulation.



MICROPLASTIC RESTRICTION

Intentionally added microplastics



Exemptions for:

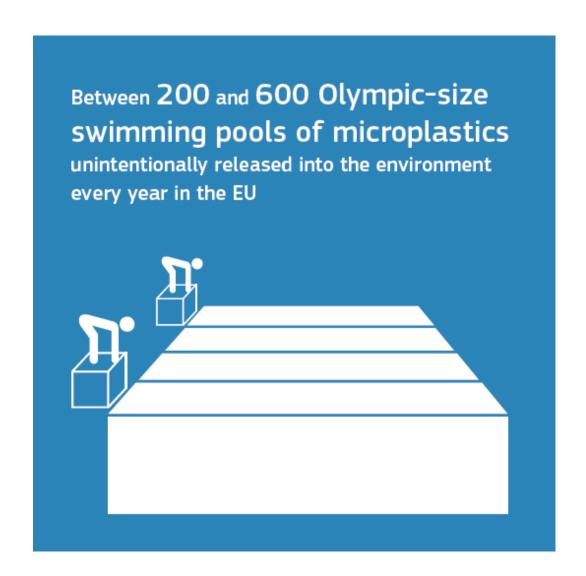
- a) Non chemically modified natural polymers
- b) Biodegradable polymers
- c) Polymers with solubility > 2 g/L
- d) Polymers that do not contain carbon atoms in their chemical structure



UNINTENTIONAL RELEASE OF MICROPLASTICS

Microplastics released into the environment







Main sources of unintentional microplastics release to the EU environment



Lower and higher estimates (2019 - tonnes/year)







61 078

1 649





P	a	i	n	t	S

231 000

Tyres 540 000

360 000

Pellets

184 290

52 140

Textiles

Geotextiles

19 750

Detergent capsules

19 750 5 980 6 000 4 140



Main sources of unintentional microplastics release to the EU environment



Lower and higher estimates (2019 - tonnes/year)



This includes biodegradable plastic pellets

184	290)
E2 .	140	

Pellets



ca 19 750

5 98 4 14

Unintentional release of microplastics

Not in scope of the current revision, but ...

Some geotextile materials are used to keep plants in place while they root.

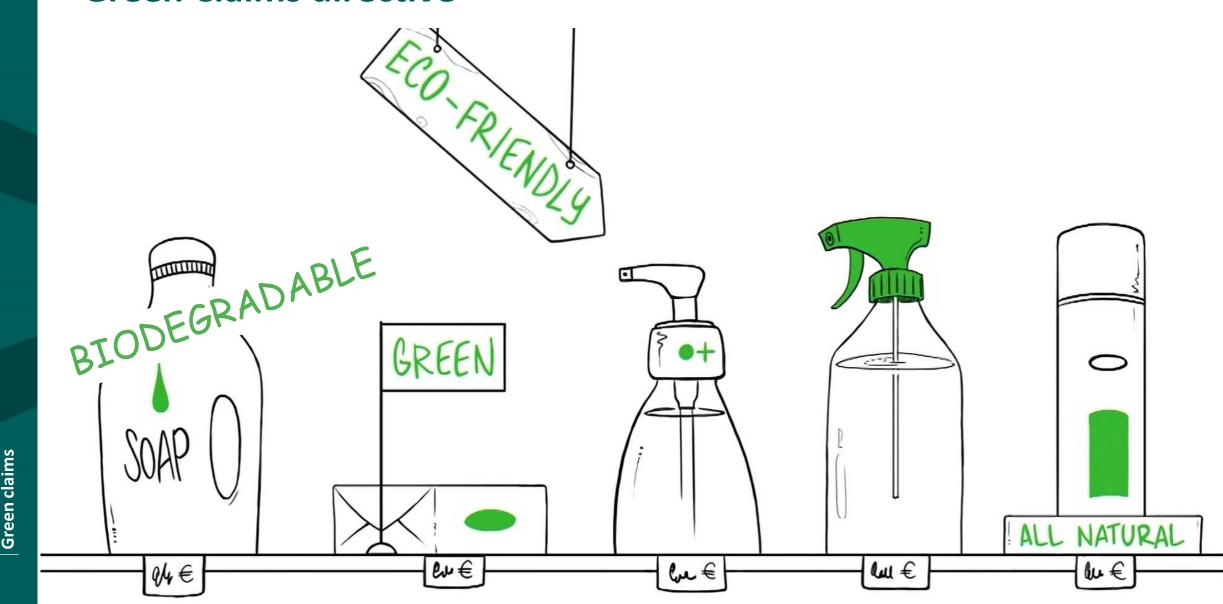
One policy measure could be: the mandatory use of biodegradable and bio-based materials



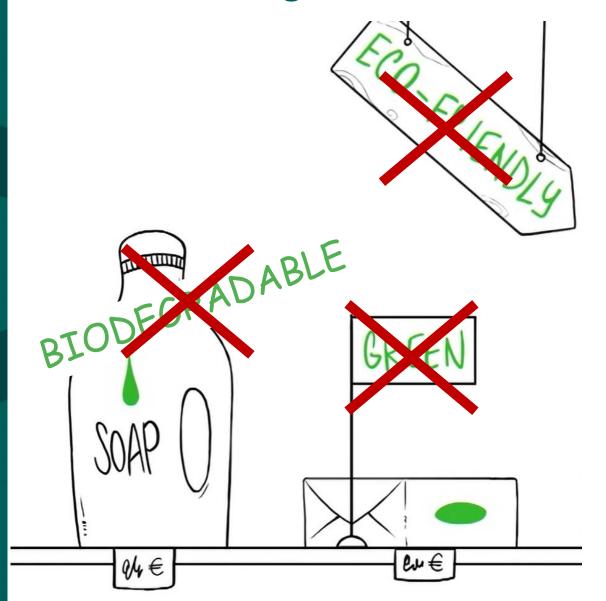


« MAKE GREEN CLAIMS RELIABLE, COMPARABLE AND VERIFIABLE ACCROSS THE EU, TO PROCTER CONSUMERS FROM GREEN WASHING »





How to make green claims



EU institutions are developing different legislations on green claims

Not: biodegradable

But e.g., "the packaging is biodegradable through home composting in one month"



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Thank You



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