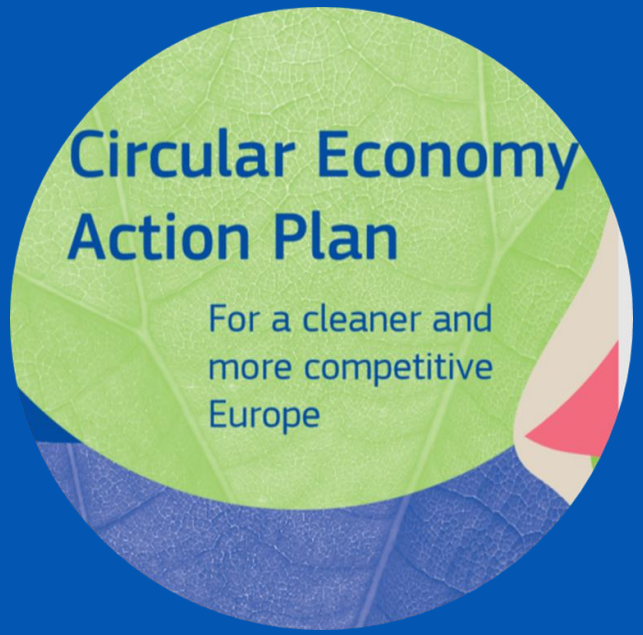
European policy on biobased, biodegradable and compostable plastics



Silvia Forni

European Commission, DG Environment

The EU Strategy for Plastics in a CE

All plastic packaging placed on the market is **reusable** or **recyclable** by 2030

Recycling target: 55% of plastic waste is **recycled** by 2030 (PPWD)

10 million tonnes of **recycled plastics** into new products by 2025

Macroplastics: **Single Use Plastics Directive** (following approach used for light-weigth plastic bags)

Biodegradable, compostable plastics

Microplastics

Strategic **Research** Innovation Agenda for Plastics

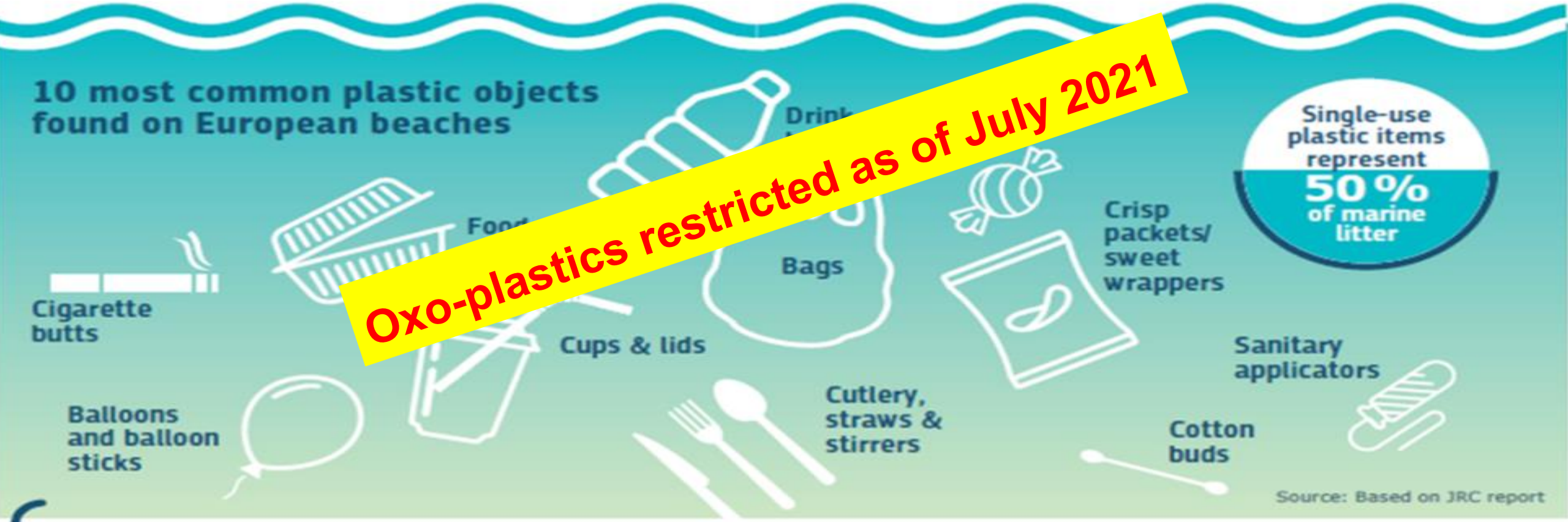
Support the development of alternative **feedstocks**: LCAs by 2020

Support to bilateral and multilateral **initiatives** on plastics

Basel Convention: restrictions on trade

European Commission

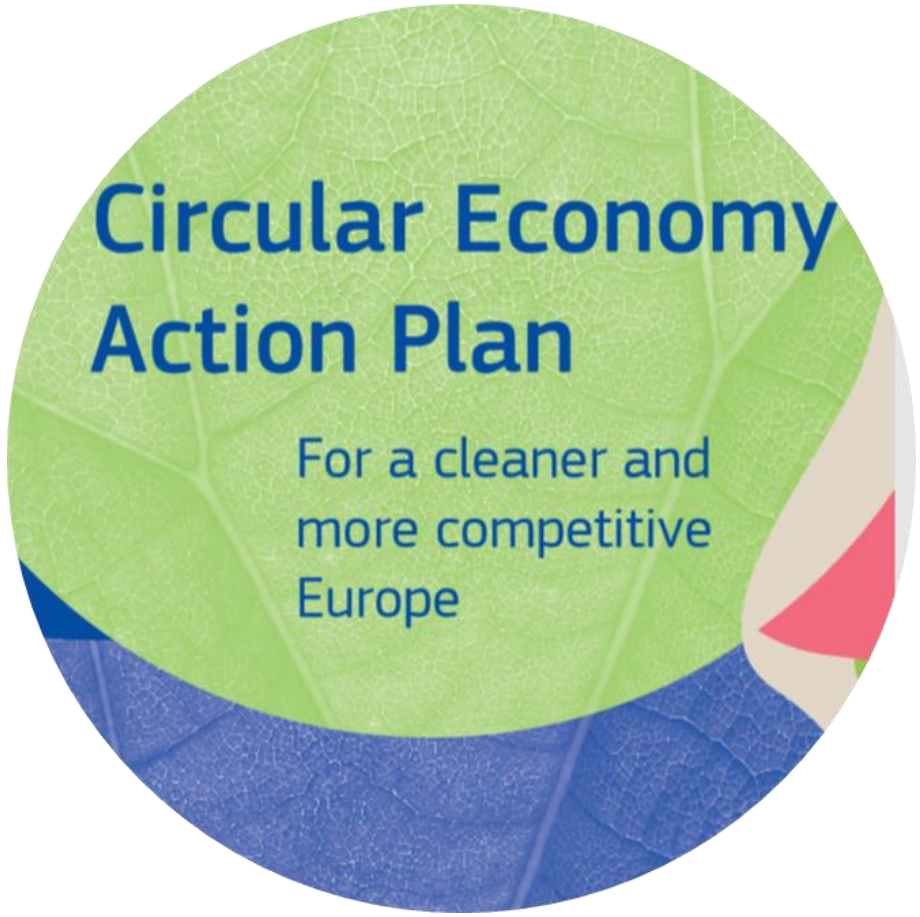
Directive on single use plastics and fishing gear
Reducing marine litter



Many of these items are packaging for food and drink and most were designed to be used only once ("single-use plastics"). That's a waste of valuable resources.

A new vision for Europe

The European Green Deal



35 actions along the entire life cycle of products, to:

- Make **sustainable products** the norm in the EU
- **Empower** consumers and public buyers
- Focus on **key product value chains**
- Ensure **less waste, more value**
- Make circularity work for **people**, **regions** and **cities**
- **Lead global efforts** on circular economy

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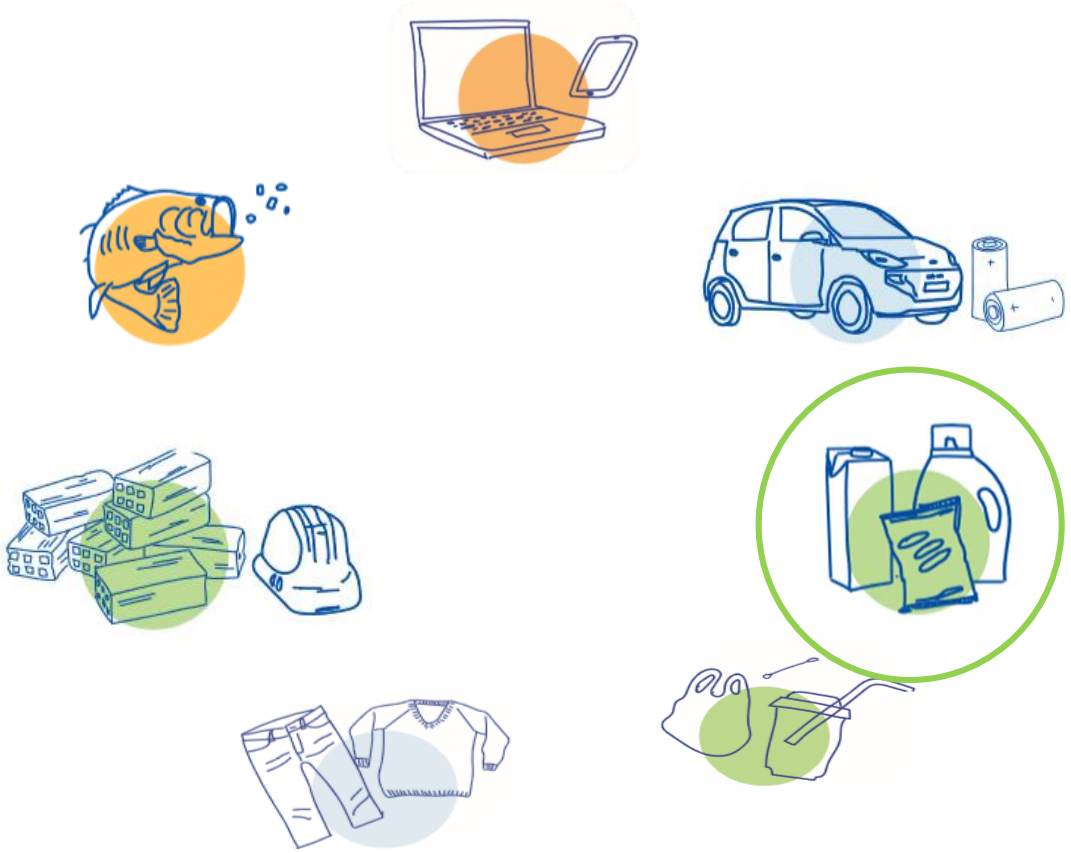
Key product value chains : packaging



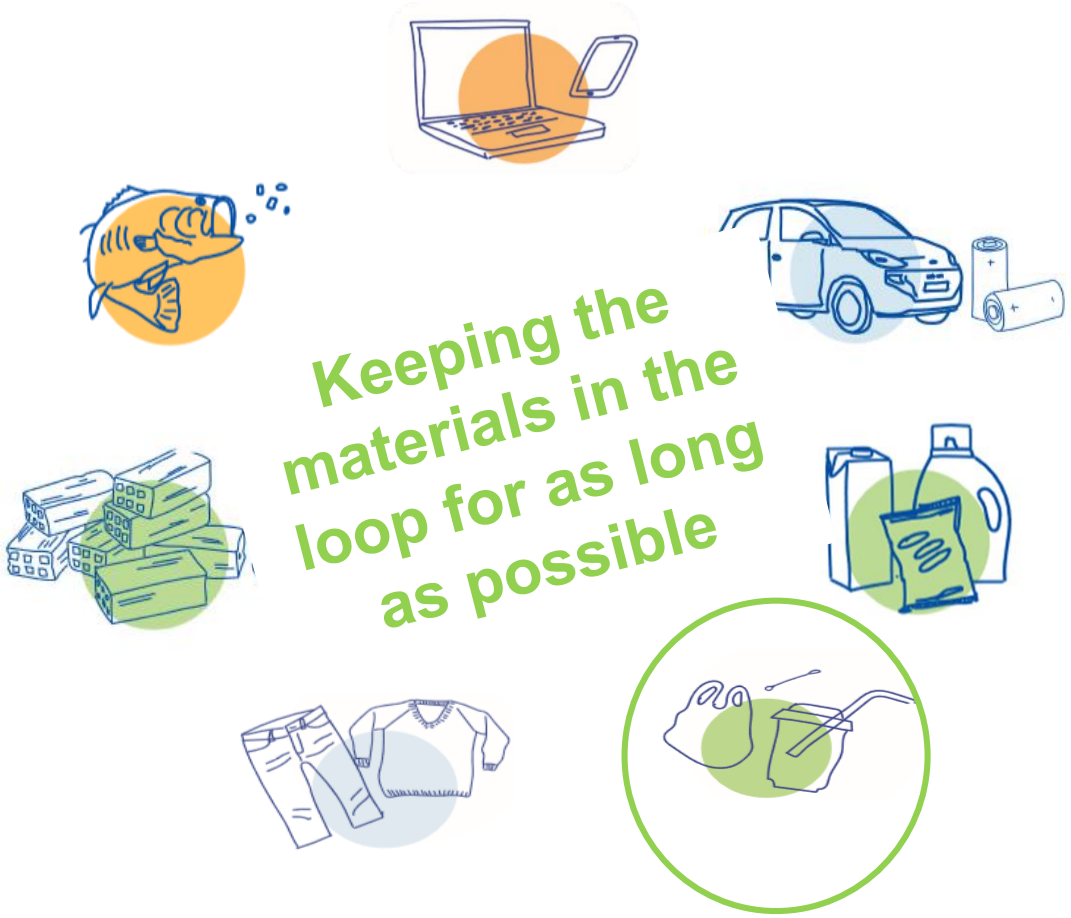
All packaging on the EU market to be reusable or recyclable by 2030

1) Reinforce the mandatory essential requirements for packaging: design for reuse & recycling

2) EU-wide labelling that facilitates the correct separation of packaging waste

3) Rules for the safe recycling into food contact materials of plastic materials other than PET

Key product value chains : the plastic chain



The EU Strategy for Plastics in a Circular Economy: follow-up measures

1) Mandatory requirements for **recycled content** and waste reduction measures

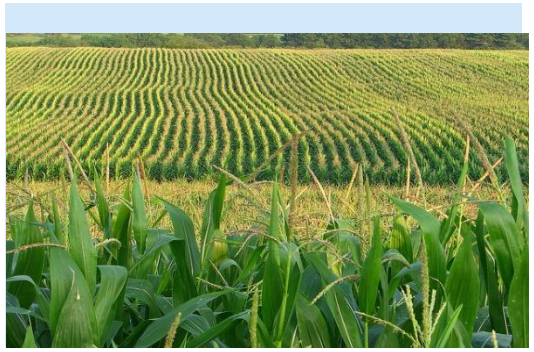
2) Address the presence of **microplastics** in the environment (intentionnally added to products and unintential releases)

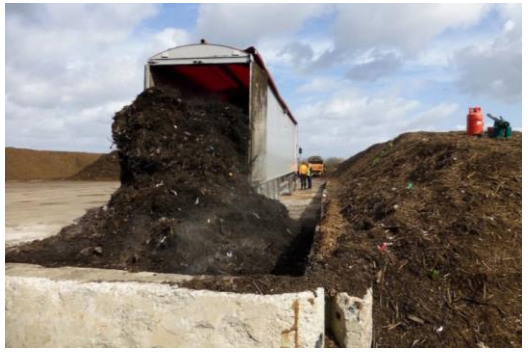
3) Clear policy framework on **bio-based, biodegradable and compostable plastics**

4) Implementation of the Directive on **Single Use Plastics** (transposition by July 2021)

Feedstock & End-of-life

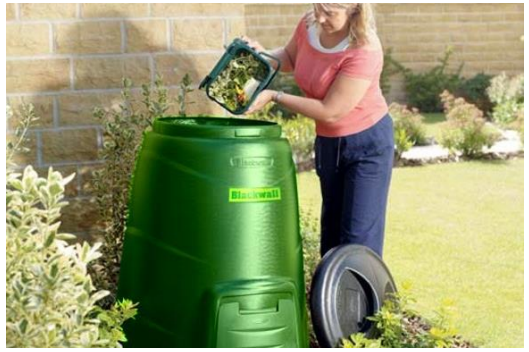
Feedstock = biobased

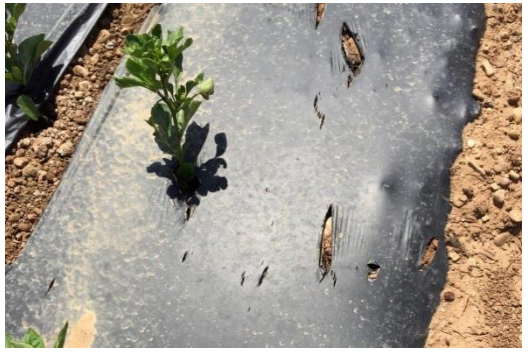




EOL = Composting in an industrial facility

EOL = in home composting





EOL = Biodegradation in the open environment

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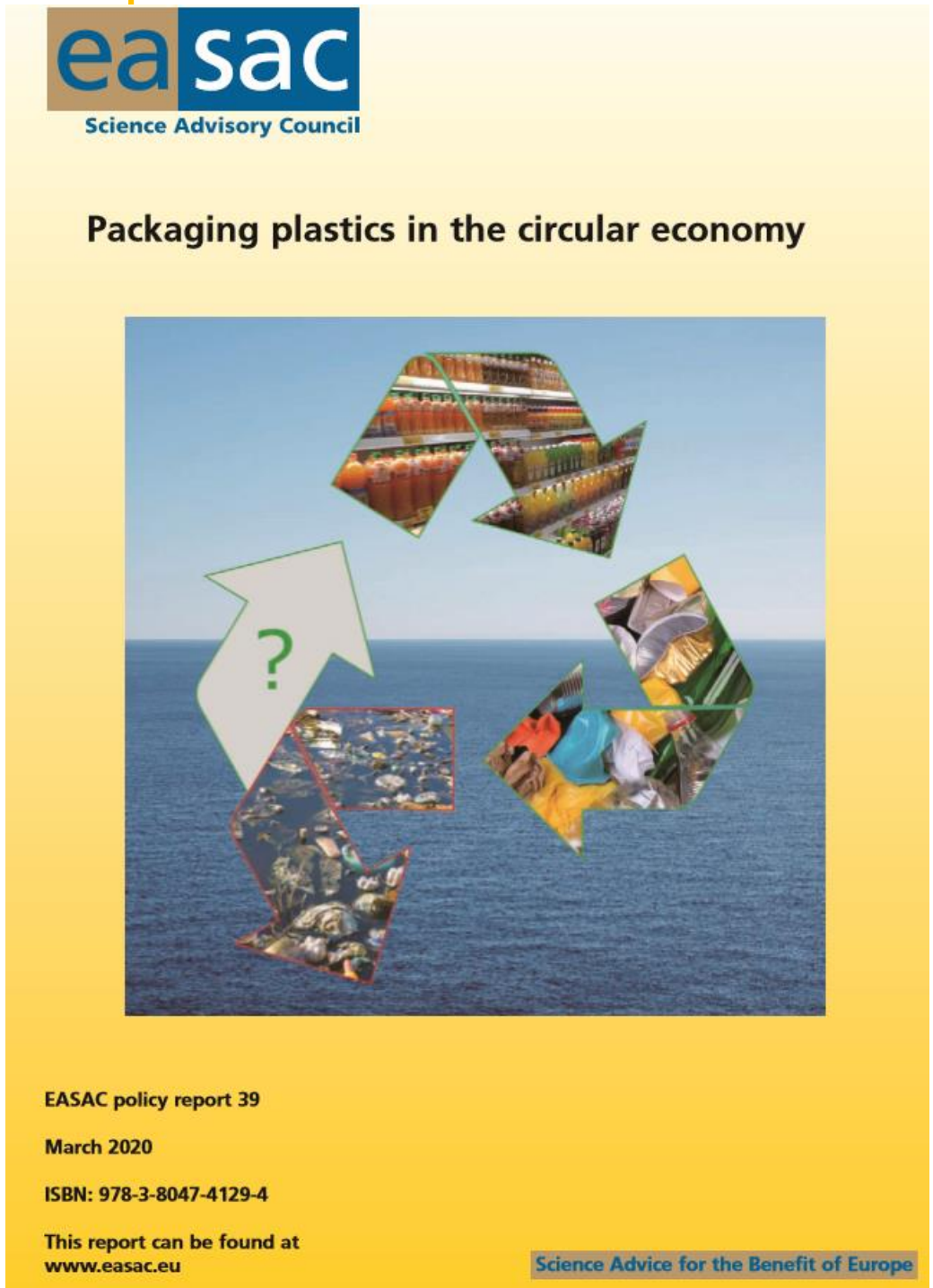

Recommendations (press release 10 March 2020)

“At present, the scientists see a very limited potential for biodegradable plastic”

“There are only a limited number of products which can meet biodegradation tests in the marine environment and even those still maintain their integrity for months, during which time the risks of entanglement and ingestion remain.”

“‘Bio’ does not equate to reduced environmental impact”

“Today consumers are often misled, including by the current diversity of labelling schemes.”

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file:///U:/(A)%20Policies/101.4%20Plastics/Knowledge/EASAC/EASAC_Plastics_Web_complete_6May2020_FINAL.pdf

Framework for bio-based, biodegradable and compostable plastics

Sourcing, labelling and use of **bio-based plastics**

⇒ Ongoing JRC Study on feedstock (LCA)

⇒ Ongoing study on sustainable sourcing (sustainability criteria) and content

Use of **compostable plastics**

⇒ Study on compostable plastic products and packaging (criteria)

Use of **biodegradable plastics :** "no license to litter"

⇒ Opinion by Chief Scientific Advisers

⇒ Ongoing study on agricultural plastics

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1. Study: LCA on sustainability of alternative feedstock of plastics

- Alternative feedstock: biomass, recycled plastics, CO_2 ⇔ oil & gas
- Screening LCAs, with different polymers in specific applications
- Different end-of-life scenarios, incl. biodegradability & (industrial) compostability

Results end 2020

2. Study: Bio-based plastics: sustainable sourcing and content

- Which part of a product is bio-based?

  Proper labelling on the bio-based content of plastics?

- Sustainability criteria needed? Focus on sourcing?

- Policy options to promote bio-based plastics that result in genuine environmental benefits

Results end 2021

3. Study on compostable plastic products and packaging in a circular economy (finalised)

- Environmental benefits over alternatives where:
  - Product not recyclable or reusable
  - Capture of bio-waste
  - Demonstrated through LCA or similar
- Quality of compost (contamination)
- The **whole** product meets EN Standard for composting
- Sufficient time for full composting
- Term *'biodegradable'* not used on product or marketing

Products tested

- **Bags**
- **Fast food trays & tubs**
- Paper **cups** with plastic liner
- **Coffee capsules**/pods
- Single Use **Bottle**
- **Fruit Labels**
- **Tea Bags**

Study published: *https://op.europa.eu/s/n3Rv*

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4. Study: Biodegradability in the open environment

- Study with the Chief Scientific Advisors and European academy networks to look at technical and behavioural aspects:
  - How can ‘biodegradation’ of plastics and ‘open environment’ be defined?
  - What applications can be recommended?
  - What should be communicated in order to avoid consumer confusion?

Results end 2020

Disposal scenarios: potential for biodegradable materials – DRAFT

Disposal scenarios	Positive potential outcome	Neutral potential outcome	Negative potential outcome
Release into a natural environment – appropriately designed	X		
Release into a natural environment – inappropriately designed, e.g. litter		X	X
Transfer to an appropriate managed system, e.g. industrial composter	X		
Transfer to an inappropriate managed system, e.g. recycling for conventional polymers			X
Transfer to a managed system for residual waste		X	

5. Study: Conventional and biodegradable plastics in agriculture

- Large volumes put in the open environment
- Conventional: not all collected/recycled, how much remains in the environment?
- Biodegradable: what if no proper tilling in to soil? What if run off into surface waters as microplastics? What are the impacts?
- Potential policy measures

Results end 2020/early 2021

Thank you

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