Circular Economy: Plastics

Werner Bosmans

DG Environment
10 February 2017
More plastic than fish in our oceans by 2050?
Endocrine disruptors, POPs, plastic fibres: "bon appetit!"
What to do?
A new plastic industry 
Roadmap
Issues

1. Plastic production relies on fossil fuel with high life-cycle GHG impacts

2. The full potential of plastic reuse and recycling is yet to be used

3. Plastic leaks into the environment
1. High dependence on fossil feedstock

- Raw material is cheap (> 90% from virgin material)
- 400 mln T of GHG (2012)
- By 2050, it could rise to:
  - 20% of global oil consumption
  - 15% of global GHG
Options

- Alternative feedstock
  - Biomass? CO$_2$?
2. Low reuse and recycling of plastics

- 25 mln T of plastic waste (2014, EU)
  - 30% recycled
  - 39% incinerated
  - 31% landfilled

- Plastic packaging: 40%

- EU exports 50% of what is collected for recycling

- Virgin ↔ secondary

=> too valuable to be burnt or landfilled
Options

- REUSE => other business models
- Better recyclability of plastics
  - Design => durability, reusability, reparability, recyclability
  - Do we need toxic plastic?
    => waste, chemicals & product policy
    => traceability
- Innovative technologies
  - Research & innovation for reuse, sorting & recycling
Options (2)

• Legislation and incentives to support
  o Waste legislation: Separate collection of plastics, targets for recycling (50% in 2020, 55% of packaging in 2025)
  o Favour resource-efficient solutions
    re-use => recycling => energy recovery

• Secondary plastic materials
  o Promote market for recycled plastics
  o Standards on recycled plastics to promote quality
  o Support industrial fora & platforms
rPET
ONE BOTTLE = ONE CASE

CASE•MATE

We're taking the plastic from one PET water bottle and turning it into a rPET Barely There. This sustainable case extends the life of plastic beyond the landfill.

Jeep® Wrangler Unlimited
(45 bottles)

Jeep® All-Weather Baby Carrier
(16 bottles)
3. Leakage into the environment

- 5-13 mln T of plastic waste end up in the oceans
- Problem is global
- Single-use plastic products?
- Cheap and disposable material that is a driver for early obsolescence
- Microplastics (<5 mm) = threat to animal & human health
Options

- **Marine litter**
  - Reduce microplastics
  - Aspirational 30% reduction target in CEAP / SDGs

- **Sustainability criteria for biodegradable plastics**
  - Develop EU-harmonised criteria for biodegradability (composting) *where appropriate*
  - Assessing the use of oxo-plastics

- **Consumers' awareness**
  - Raise the awareness through better information
Policy tools to address system failures

- **Studies**: problem setting, options identification
- **Research** for innovative technologies
- **Standardisation**: assessment & mandate
- **Platform**: exchanges on new business models – industrial symbiosis
- **Voluntary agreements**
- **Innovation deals**
- **Funds to support** *investments*
- **Legislation**
- **Monitor** progress: performance & resource efficiency
Linear plastic is out - **Circular is IN**

- **Design!** Durability, recycling, toxicity, microplastics
- Incentives for *collection, sorting & recycling* of all plastic
- Develop *markets* for secondary plastic

**Further steps:**
- Communication - by the end of 2017
- Possible consultation
- Stakeholder reactions on the Roadmap
For your comments: the Roadmap for a Strategy on Plastics

Thank you

Werner.Bosmans@ec.europa.eu