



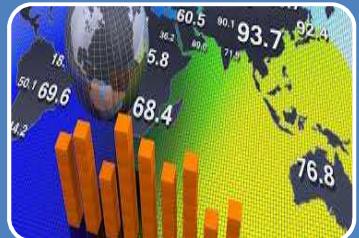
OECD WORK ON POLICIES FOR BETTER PLASTICS MANAGEMENT

Bob Diderich, Environment Directorate

Vienna, 14-15 November 2018

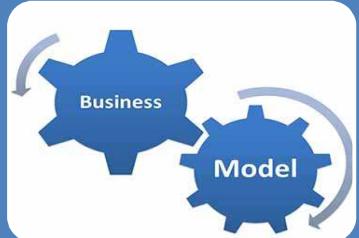


Work on resource efficiency and the transition towards a circular economy



Macro-economic consequences of circular economy transition

- GDP and structure of the economy
- Jobs, trade and climate change



New business models for the circular economy

- Scalability
- Environmental outcomes

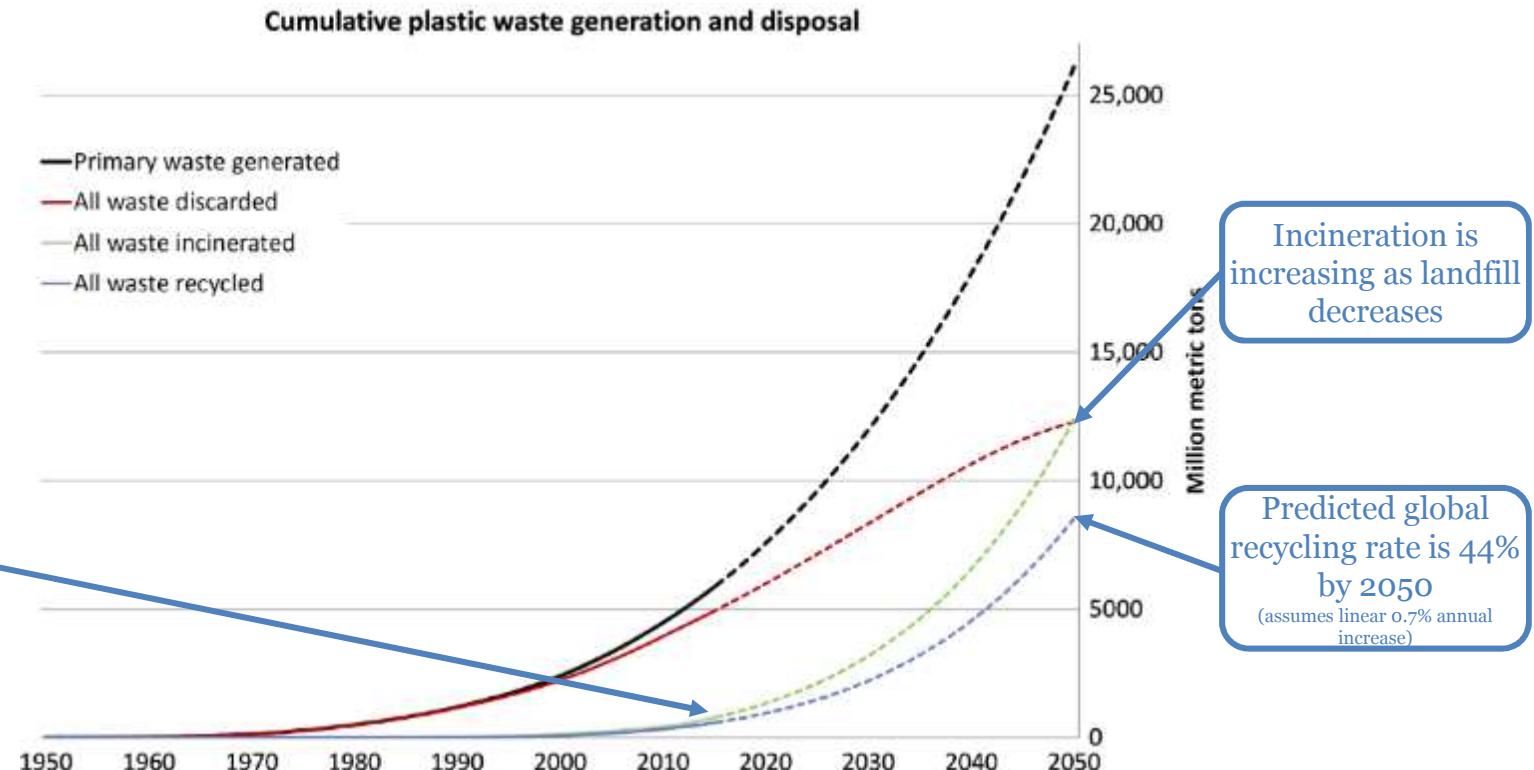


Plastics

- Improving markets for recovered plastics
- Issues at interface of waste and chemicals management policies



Plastic waste is growing



Geyer et al (2017), Production, use, and fate of all plastics ever made, Science Advances, <http://bit.ly/2uBs8AT>

Waste plastic generates environmental impacts



Source: epSos.de; <http://www.flickr.com/photos/36495803@N05/5444678656/>



Multiple pathways for addressing the environmental impacts of plastics

**Substitute
alternative materials**

**Waste prevention
(e.g. phase out single
use plastics)**

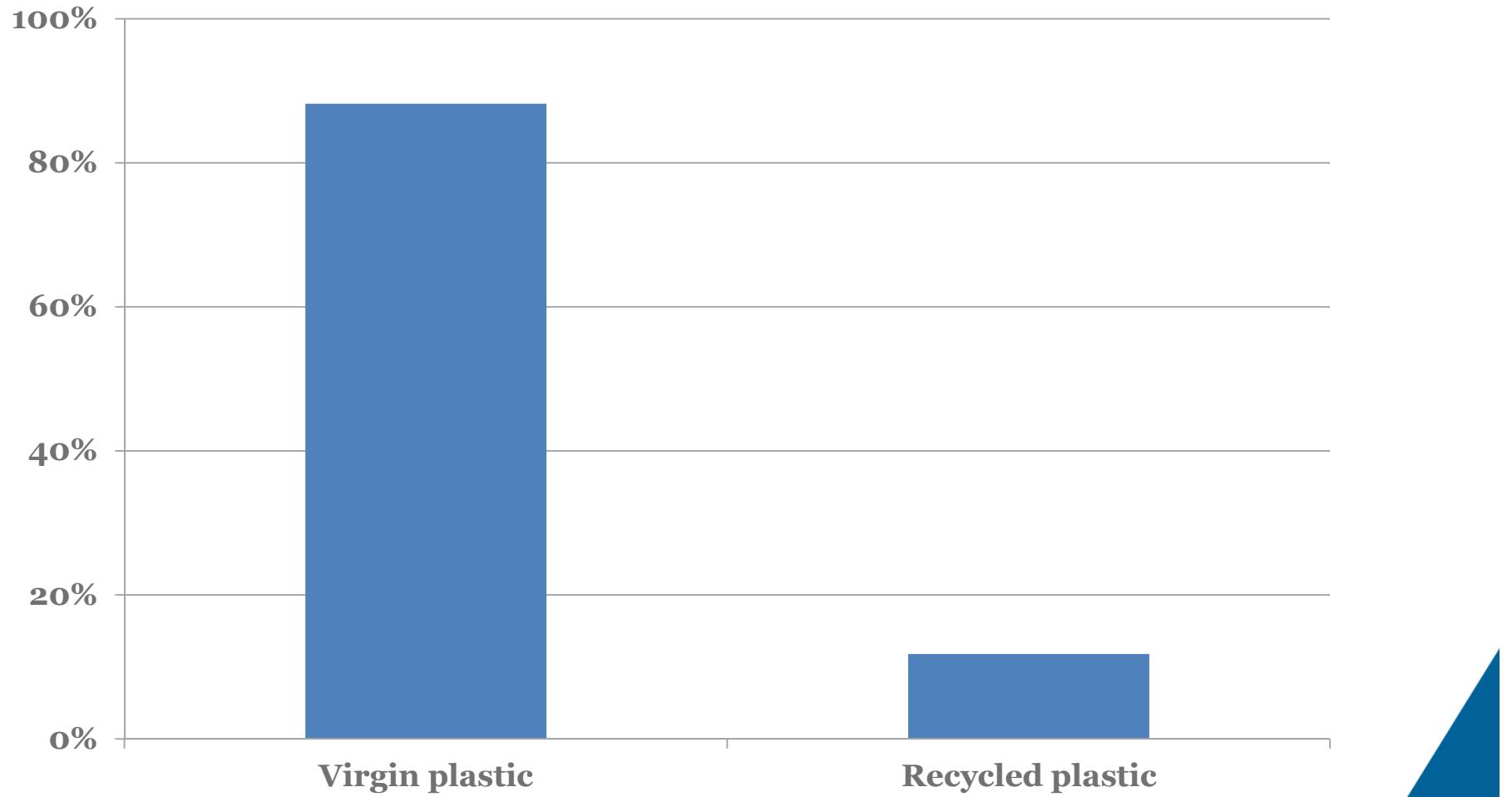
**Environmental
Impacts of
Plastics Use**

**Improved
biodegradability**

**Better functioning
secondary plastics
markets**



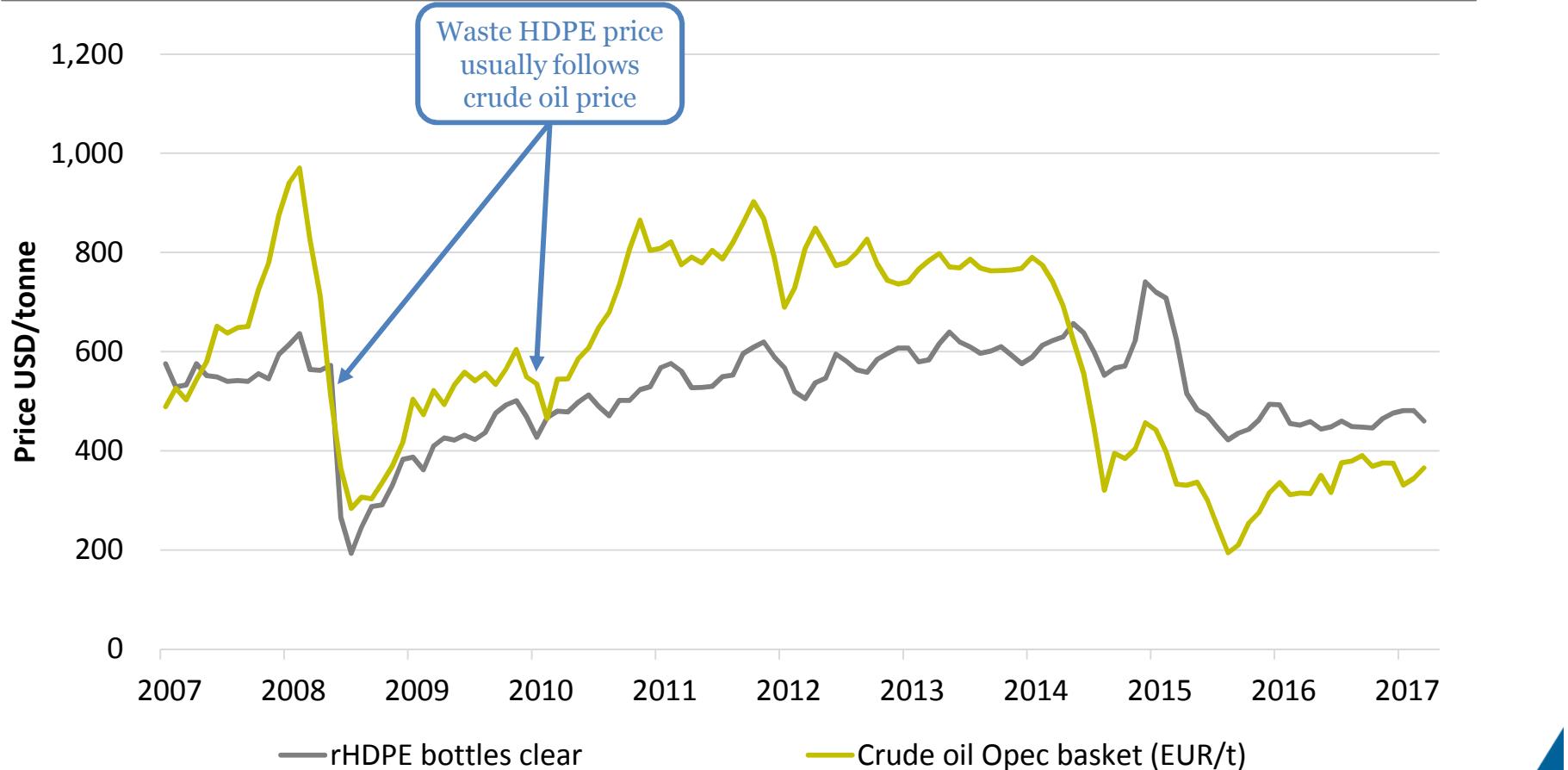
Recycled plastics market share is small



Source: Geyer et al. 2017 (data is for resins only)



Demand side issues: Secondary plastics compete with virgin material





Policy interventions on the demand side

- recycled content product labels
- public procurement
- recycled content rules
- tax on virgin plastics





Supply-side issues have to do with quality, quantity and resilience

- Quality issues increase costs
 - Problematic additives
 - Polymer combinations
 - Contamination of post consumer plastics
- Quantity is insufficient
 - Leading to loss of scale economies
 - 2 billion people with no access to formal waste collection
- Resilience of the sector to market shocks is weak
 - Sector characterised by SMEs





Policy interventions on the supply side

- introduction of dual or multiple stream collection systems
- extended producer responsibility
- restrictions on the use of hazardous additives
- incentives for better plastics design
- ODA for waste collection and treatment in developing countries
- efforts to work with the informal sector





OECD Global Forum on Environment: Plastics in a Circular Economy

Designing sustainable plastics from a chemicals perspective

29-31 May, Copenhagen



oe.cd/plastics-forum



@OECD_ENV





Key insights

- Life-cycle thinking needs to take place at the design stage
- The chemicals-waste interface is an important dimension
- Criteria for sustainable plastics design need to be defined
- Tools to support sustainable plastics design exist but more work is needed
- Policy needs to create incentives for sustainable plastics design, using full suite of instruments:
 - **Voluntary approaches** allow to act fast and across value chain
 - **Extended Producer Responsibility** is a key policy but challenging to incentivise good design
 - **Green deals** to facilitate experimentation and innovation
 - **Recycling targets** are key drivers
 - Measures to **create markets** for recycled plastics, but **no differentiation in chemicals/material standards**





Output



- Finalised background documents to be published
 - Considerations/criteria for defining 'sustainability' from a chemicals perspective
 - Technical tools and approaches for chemical selection at the design stage
 - Policy approaches to incentivise sustainable plastic design
- Workshop report
- Discussion of potential activities at OECD





Thank you!



Plastics: Ongoing streams of work

Improving markets for recovered plastics

- What is the **current state** of secondary plastics markets ?
- What are the **key barriers** to plastic recycling?
- What are **policy measures to strengthen these markets** ?

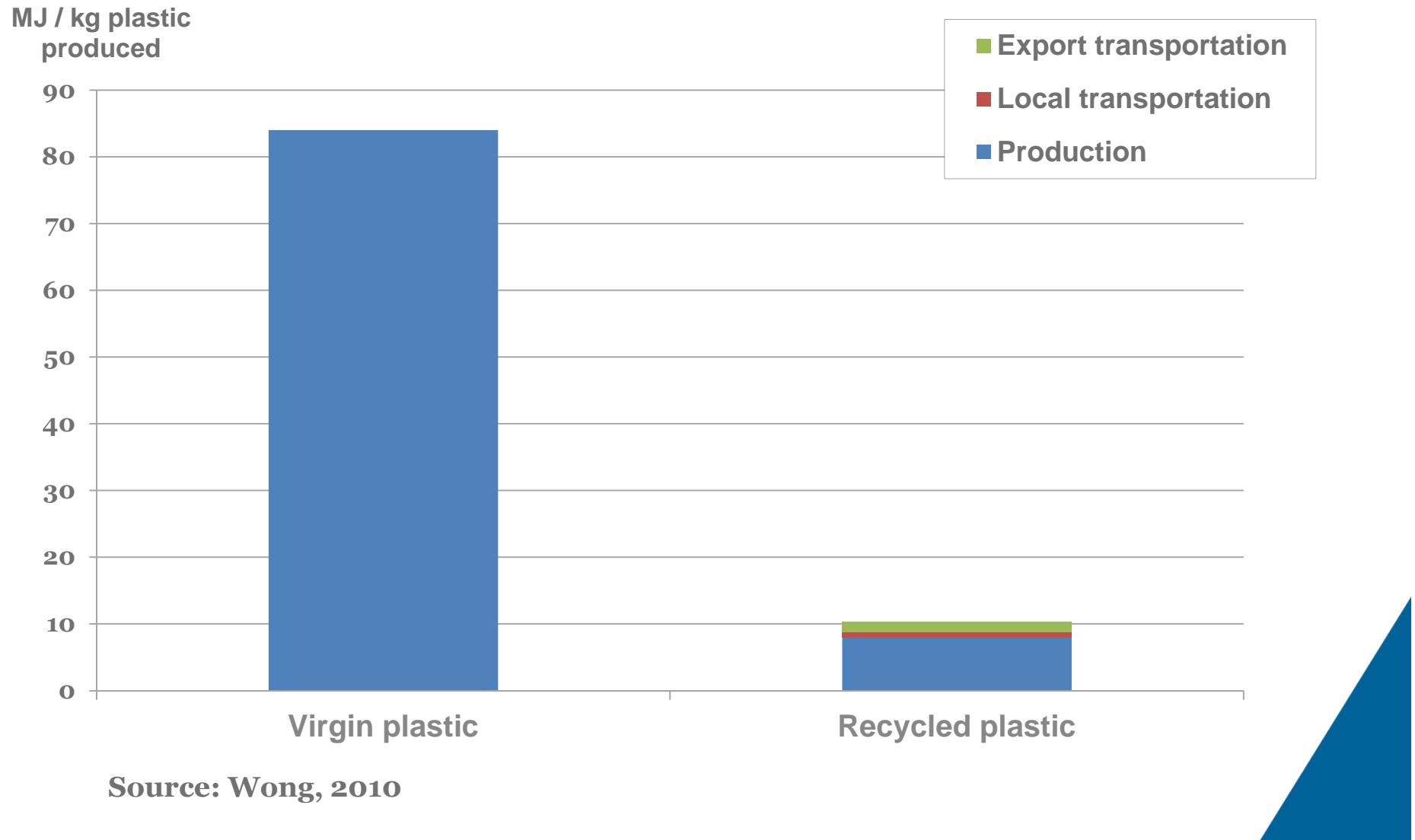
Better alignment of chemicals and waste management policies

- How to ensure **traceability** of hazardous substances through the product lifecycle?
- How to improve the **quality** of recovered plastics (*ex ante* and *ex post*)?
- How to address potential **regulatory bottlenecks** ?



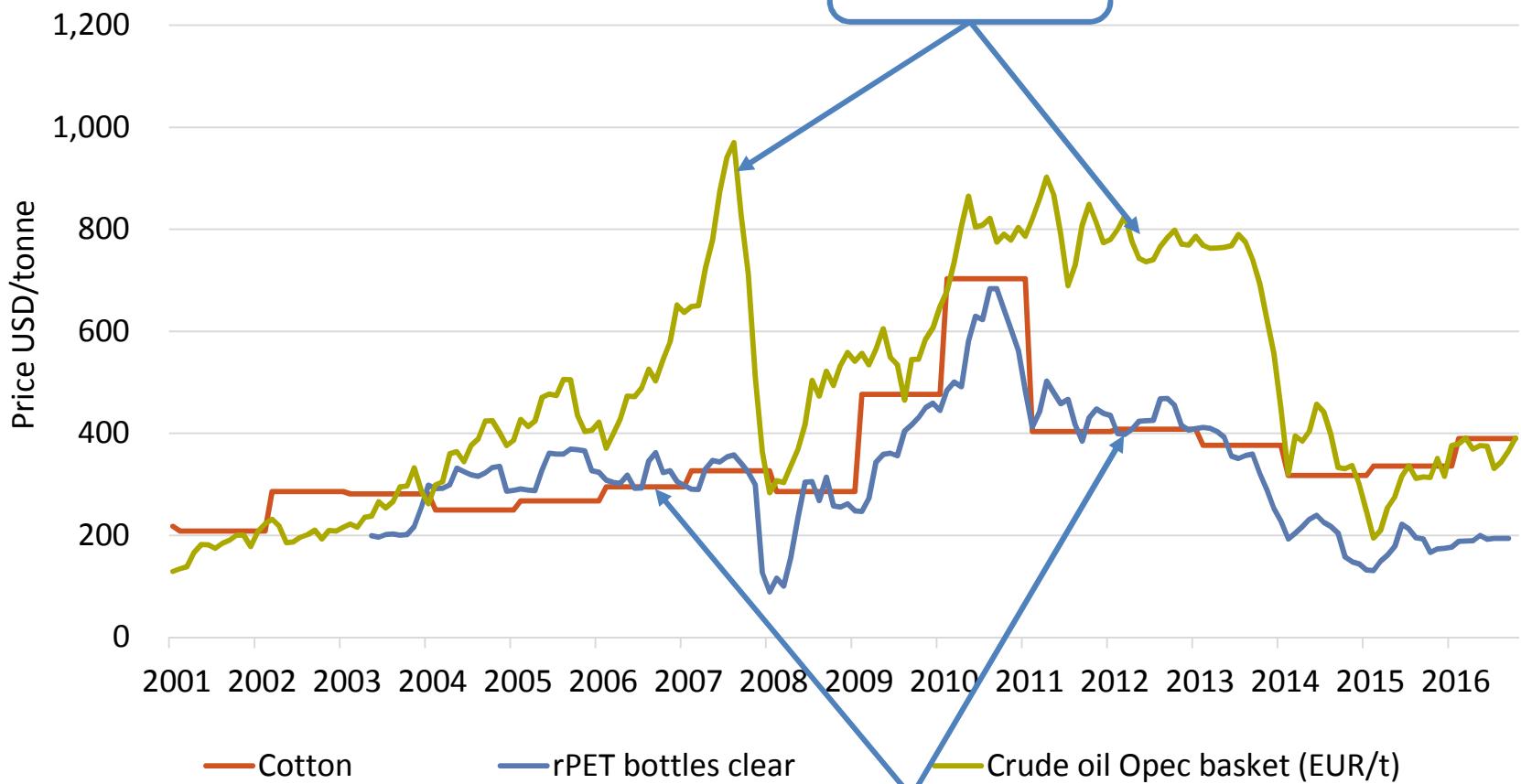


Energy required for recycled plastics are significantly lower than for virgin



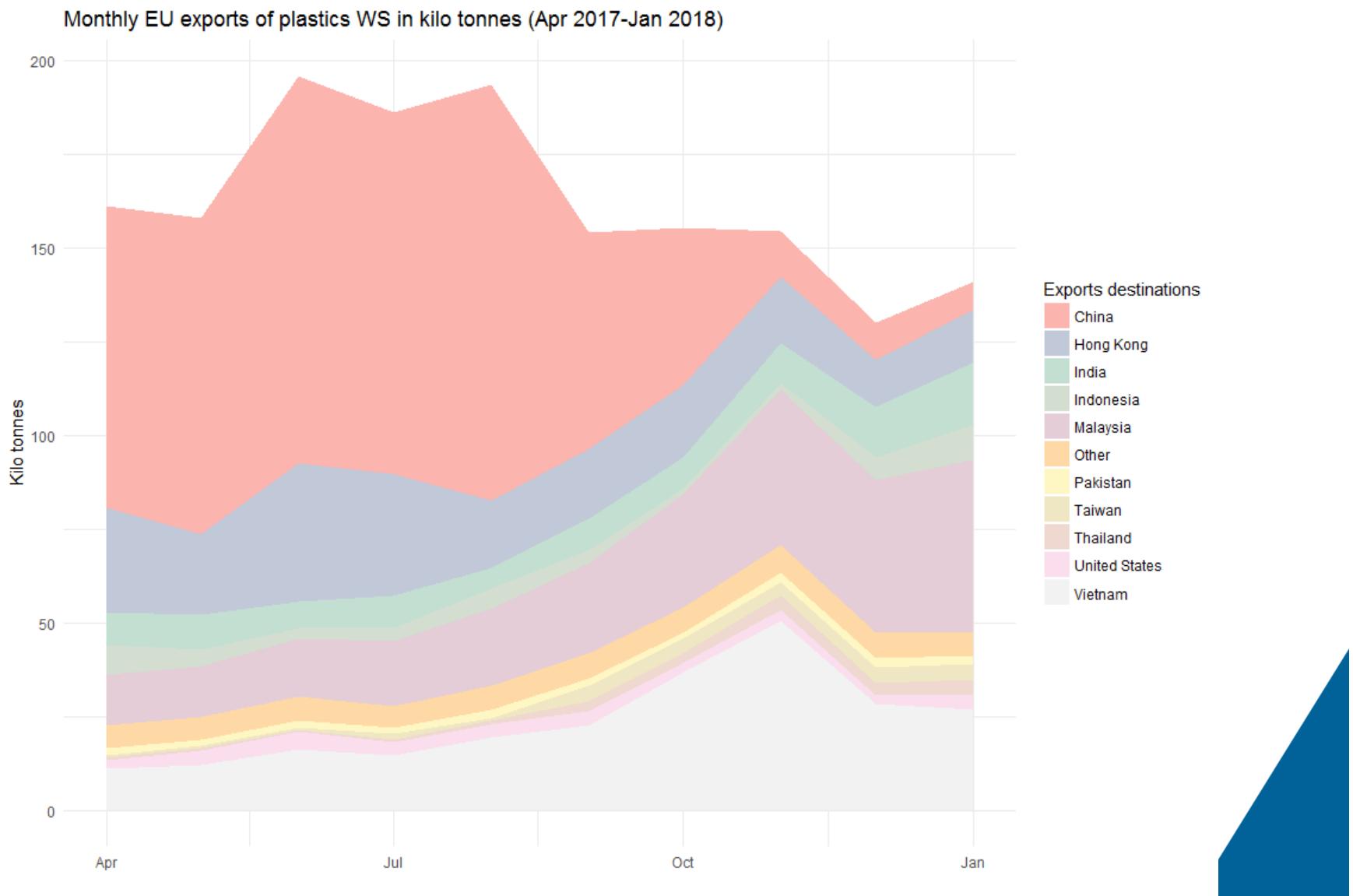


Lack of differentiated demand





Restrictions to trade in waste have recently intensified - Plastics





Supply-side quality issues increase costs

- Combination of polymers makes recycling difficult
- Regulatory burden of secondary materials classified as ‘wastes’.
- Post consumer plastics contaminated with non-recyclables.
- Concerns over hazardous or otherwise problematic additives
- A lack of transparency





Uncollected plastics limits scale of secondary plastics markets

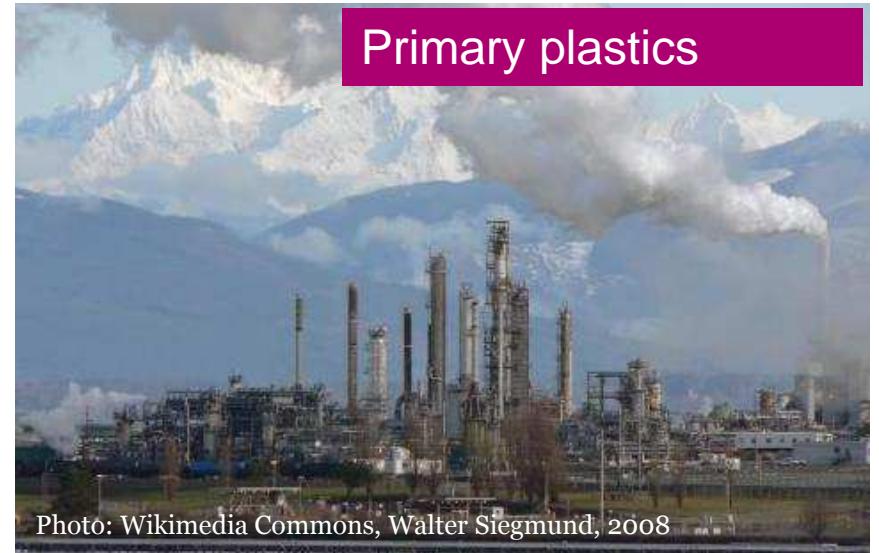
- 2 billion people do currently not have access to basic waste collection.
- Uncontrolled dumping and burning of municipal wastes.
- This involves a loss of material and a loss of potential scale efficiencies



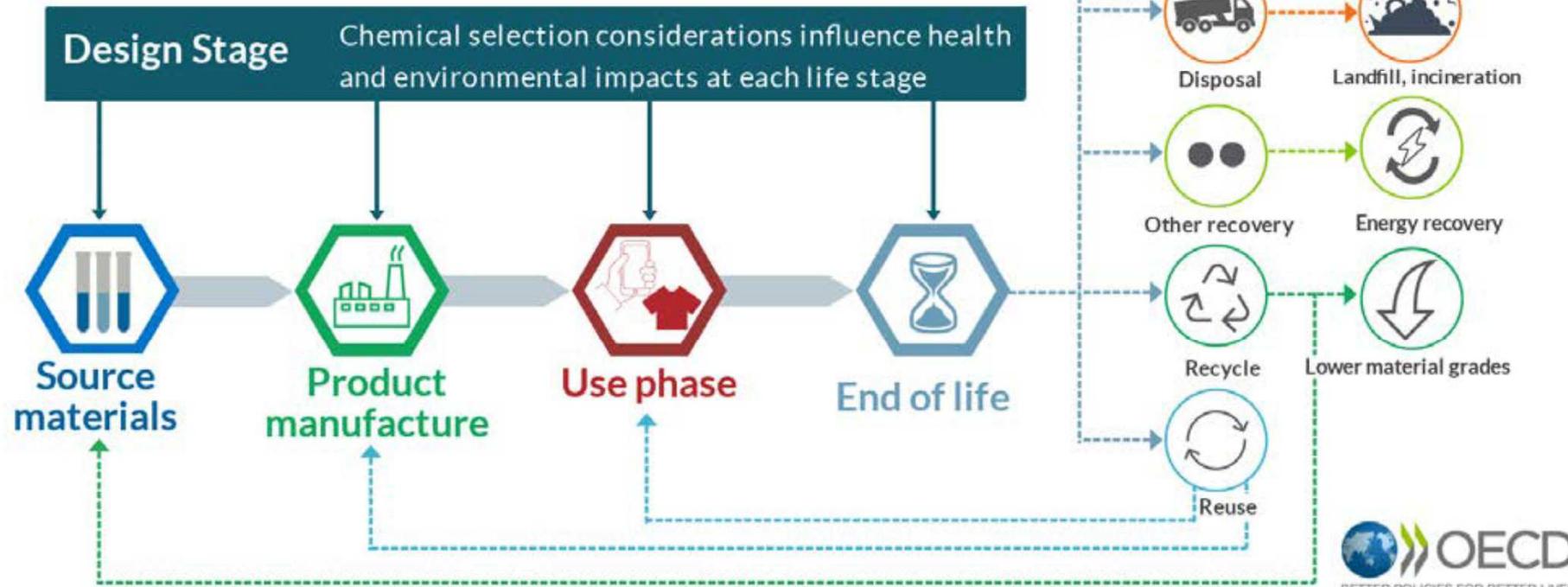


Limited market resilience increases risks

- Secondary sector characterised by many small actors who are vulnerable to market shocks.
- Primary producers are 10 times bigger.
- Global plastics markets have historically been concentrated in a small number of countries
- Effects of China import restrictions illustrate the risks of market concentration.



Plastic Product Design and Life Cycle Stage



<http://www.oecd.org/chemicalsafety/risk-management/global-forum-on-environment-plastics-in-a-circular-economy.htm>

<https://www.youtube.com/watch?v=RT8pEDdvMDM&t=1s>





Topics of focus of Global Forum

Design of 'sustainable plastics' from a chemicals perspective

- Scene setting & case examples
- Topic 1: What does it mean to be "sustainable" from chemicals perspective 
- Topic 2: Identification of available technical tools for use at the design stage of a plastic product 
- Topic 3: Approaches to incentivise, at the design stage, the use of more benign materials. 
- Opportunities for Potential Further Work at the OECD



Highlights of What We Heard

- Plastics are important materials that generate significant economic benefit but they need to be made and used in a more sustainable way
- Circular economy
 - need closed loops and clean loops



Highlights of What We Heard



- Opportunity to take advantage of issue attention cycle
- Address whole value chain and integrate environmental, economic and social goals
- Life-cycle thinking needs to take place at the design stage and include considerations along the value chain; the chemicals-waste interface is an important dimension



Highlights of What We Heard

- Gaps in information along life cycle, including traceability, are a challenge
- Need consistent terminology
- Need to future-proof approaches





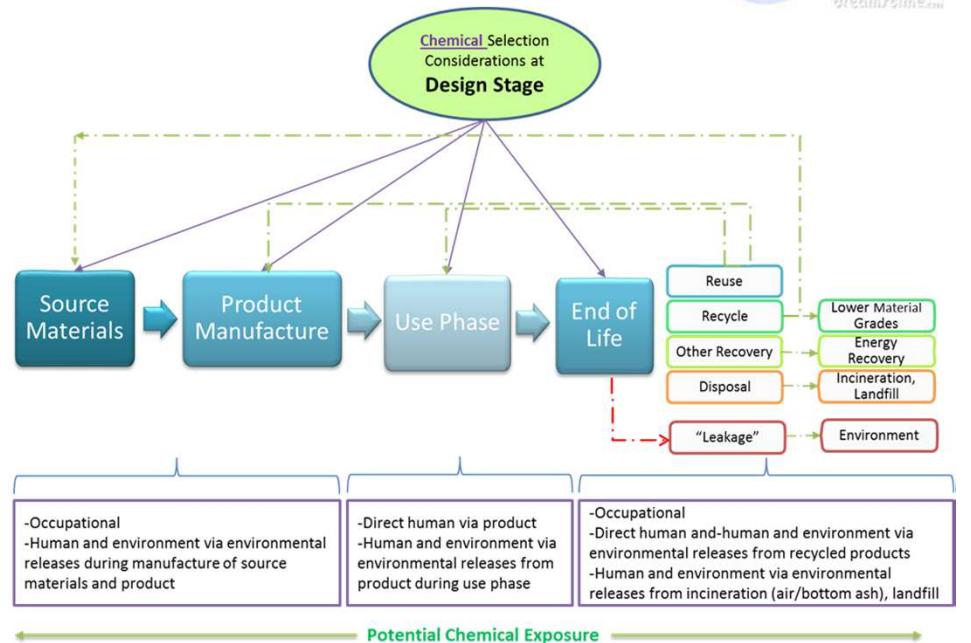
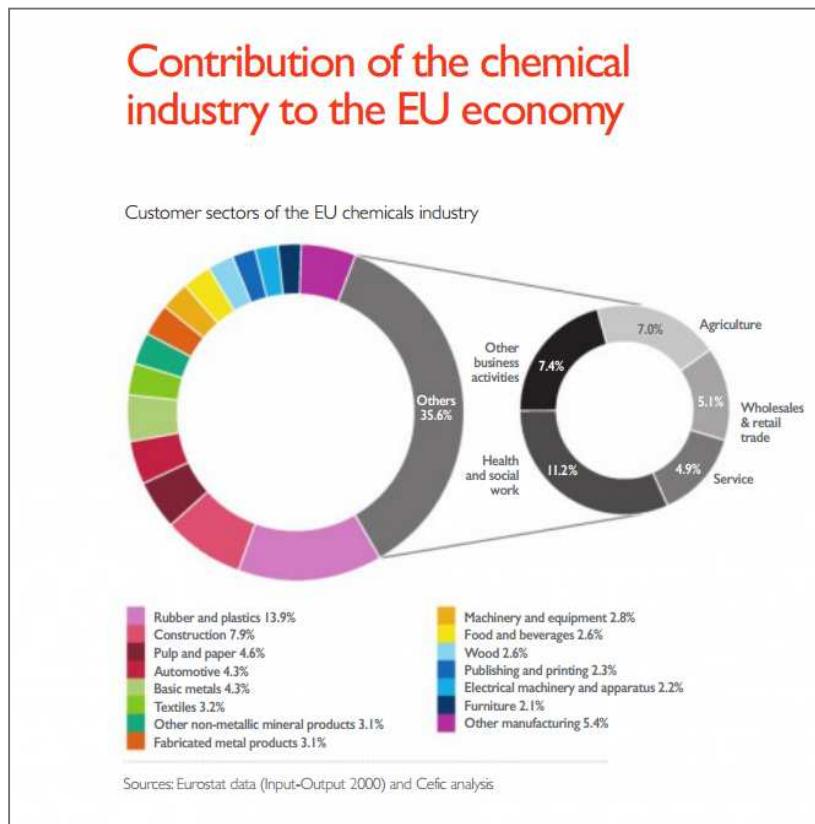
Highlights of What We Heard – Policy Approaches

- Suite of policy instruments are necessary
 - Voluntary and regulatory measures are complementary
- Voluntary approaches allow to act fast and stimulate actions across the market
- Extended Producer Responsibility is a key policy but challenging to incentivise good design
- Green deals to facilitate experimentation and innovation
- Recycling targets as key drivers
- Measures to create markets for recycled plastics, but no differentiation in chemicals/material standards





Product Innovation: Chemicals as a Solution & “Benign by Design”



From OECD working document

European Chemicals Industry Facts & Figures Report 2016 (CEFIC)