



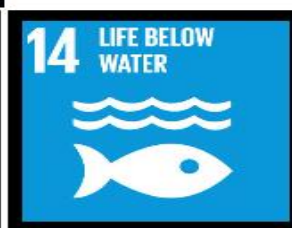
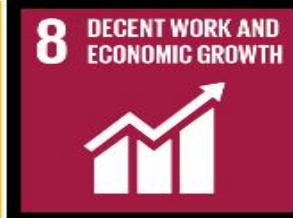
Plastics in a Circular Economy

Hugo Maria Schally
DG Environment
European Commission

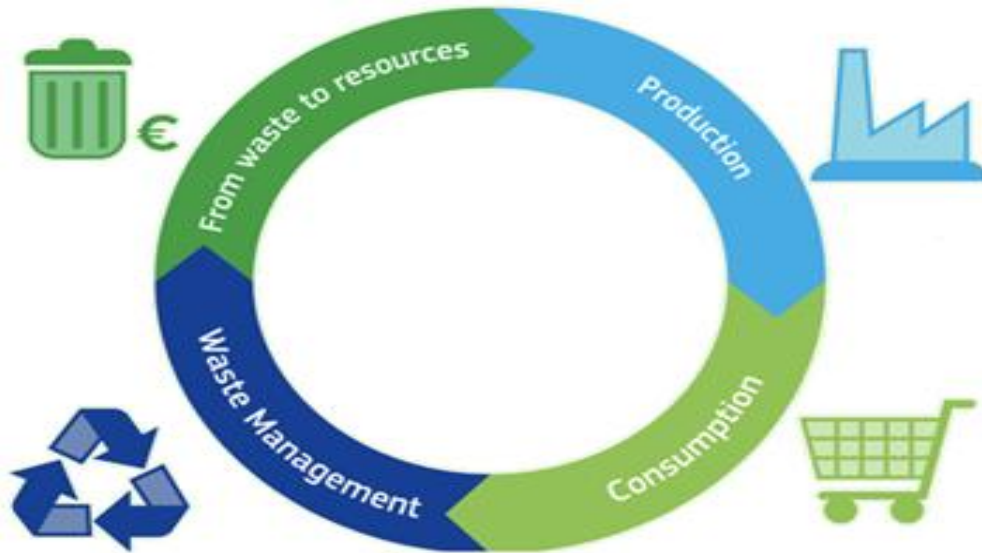
Circular Economy: an EU priority

Protecting the environment and boosting competitiveness go hand-in-hand: both are about building a sustainable future.





4 Key areas of action



5 Priority sectors



Production and Products

Embed circularity in the design of new products and the materials they are made of

Deal with current and future materials which are not circular

Product design in CEAP

- More emphasis on circular economy aspects in product requirements
- Ecodesign directive working plan
- Standards on material efficiency
- Options and actions for a more coherent framework on product policy





Consumption

Helping consumers and public authorities choose sustainable products and services

Providing reliable, standardised and comparable information to enable optimisation of policy and investment decisions

Waste Management

Guided by SDG 12, stipulating that by 2020 we should :

- achieve the environmentally sound management of chemicals and all wastes throughout their life cycle
- significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

Secondary Raw Materials

- *Better understanding of the uses of recycled materials*
- *Clearer definition of the requirements they have to meet in order to be reprocessed into secondary raw materials that are*
 - o *of comparable quality to virgin materials and*
 - o *can replace them at a reasonable cost and with the lowest possible use of resources (energy, water, etc.).*



Implementation since December 2015...

Actions	Timetable
Production	
Emphasis on circular economy aspects in future product requirements under the Ecodesign directive	2016 onwards
Ecodesign work plan 2015-2017 and request to European standardisation organisations to develop standards on material efficiency for setting future Ecodesign requirements on durability, reparability and recyclability of products	December 2015
Proposal for an implementing regulation on televisions and displays	End 2015 or beginning 2016
Examine options and actions for a more coherent policy framework of the different strands of work of EU product policy in their contribution to the circular economy	2018
Include guidance on circular economy into Best Available Techniques reference documents (BREFs) for several industrial sectors	2016 onwards
Guidance and promotion of best practices in the mining waste management plans	2018
Establishing an open, pan-European network of technological infrastructure for SMEs to integrate advanced manufacturing technologies into their production processes	2016
Examine how to improve the efficiency and uptake of the EU Eco-Management and Audit Scheme (EMAS) and the pilot programme on environmental technology verification (ETV)	2017
Develop an improved knowledge base and support to SMEs for the substitution of hazardous substances of very high concern	2018
Consumption	
Better enforcement of existing guarantees on tangible products, accompanied by a reflection on improvements (upcoming Commission proposal for online sales of goods, and Fitness Check of consumer legislation)	2015-2017
Action on false green claims, including updated guidance on unfair commercial practices	2016
Analysis of the possibility to propose horizontal requirements on repair information provision in the context of Ecodesign	2018
REPR of Ecolabel, to be followed by actions to enhance its effectiveness	2016
Assessment of the possibility of an independent testing programme on planned obsolescence	2018
Subject to evaluation of the current ongoing pilots, explore the possible uses of the Product Environmental Footprint to measure and communicate environmental information	2016 onwards
Action on Green Public Procurement: enhanced integration of circular economy requirements, support to higher uptake including through training schemes, rethinking its use in Commission procurement and EU funds	2016 onwards
Waste management	
Revised legislative proposal on waste	Dec 2015
Improved cooperation with Member States to better implementation of EU waste legislation, and combat illicit shipment of end of life vehicles	2015 onwards
Stepping up enforcement of revised Waste Shipment regulation	2016 onwards
Promotion of industry-led voluntary certification of treatment facilities for key waste (syclylate streams)	2018 onwards
Initiative on waste to energy in the framework of the Energy Union	2016
Identification and dissemination of good practices in waste collection systems	2016 onwards
Market for secondary raw materials	
Development of quality standards for secondary raw materials (in particular for plastics)	2016 onwards
Proposal for a revised fertilisers regulation	Early 2016
Proposed legislation setting minimum requirements for reused water for irrigation and groundwater recharge	2017
Promotion of safe and cost-effective water reuse, including guidance on the integration of water reuse in water planning and management, inclusion of best practices in relevant BREFs, and support to innovation (through the European Innovation Partnership and Horizon 2020) and investments	2016-2017

Analysis and policy options to address the interface between chemicals, products and waste legislation, including how to reduce the presence and improve the tracking of chemicals of concern in products	2017
Measures to facilitate waste shipment across the EU, including electronic data exchange (and possibly other measures)	2016 onwards
Further development of the EU raw materials information system	2016 onwards

Sectorial action	
Plastics	
Strategy on plastics in the circular economy	2017
Specific action to reduce marine litter implementing the 2030 Sustainable Development Goals	2015 onwards

Food waste	
Development of a common methodology and indicators to measure food waste	2016
Stakeholders platform to examine how to achieve SDGs goals on food waste, share best practice and evaluate progress	2016
Clarify relevant EU legislation related to waste, food and feed in order to facilitate food donation and utilisation of former foodstuffs for animal feed	2016
Explore options for more effective use and understanding of date marking on food	2017

Critical raw materials	
Report on critical raw materials and the circular economy	2017
Improve exchange of information between manufacturers and recyclers on electronic products	2016 onwards
European standards for material-efficient recycling of electronic waste, waste batteries and other relevant complex end-of-life products	2016 onwards
Sharing of best practice for the recovery of critical raw materials from mining waste and landfills	2017

Construction and demolition	
Pre-demolition assessment guidelines for the construction sector	2016
Voluntary industry-wide recycling protocol for construction and demolition waste	2017
Core indicators for the assessment of the lifecycle environmental performance of a building, and incentives for their use	2017 onwards

Biomass and bio-based materials	
Guidance and dissemination of best practices on the cascading use of biomass and support to innovation in this domain through Horizon 2020	2018-2019
Ensuring coherence and synergies with the circular economy when examining the sustainability of bioenergy under the Energy Union	2016
Assessment of the contribution of the 2012 Bioeconomy Strategy to the circular economy and possible review	2016

Innovation and investments	
Initiative 'Industry 2020 and the circular economy' under Horizon 2020	October 2015
Pilot project for 'innovation deals' to address possible regulatory obstacles for innovators	2016
Targeted outreach to encourage applications for funding under EFSI, and support the development of projects and investment platforms relevant to the circular economy	2016 onwards
Targeted outreach and communication activities to assist Member States and regions for the uptake of Cohesion Policy funds for the circular economy	2016 onwards
Support to Member States and regions to strengthen innovation for the circular economy through smart specialisation	2016 onwards
Assessment of the possibility of launching a platform together with the EIB and national banks to support the financing of the circular economy	2016
Engagement with stakeholders in the implementation of this action plan through existing fora in key sectors	2016 onwards
Support to a range of stakeholders through actions on public-private partnerships, cooperation platforms, support to voluntary business approaches, and exchange of best practices	2015 onwards
Monitoring	
Development of a monitoring framework for the circular economy	2017

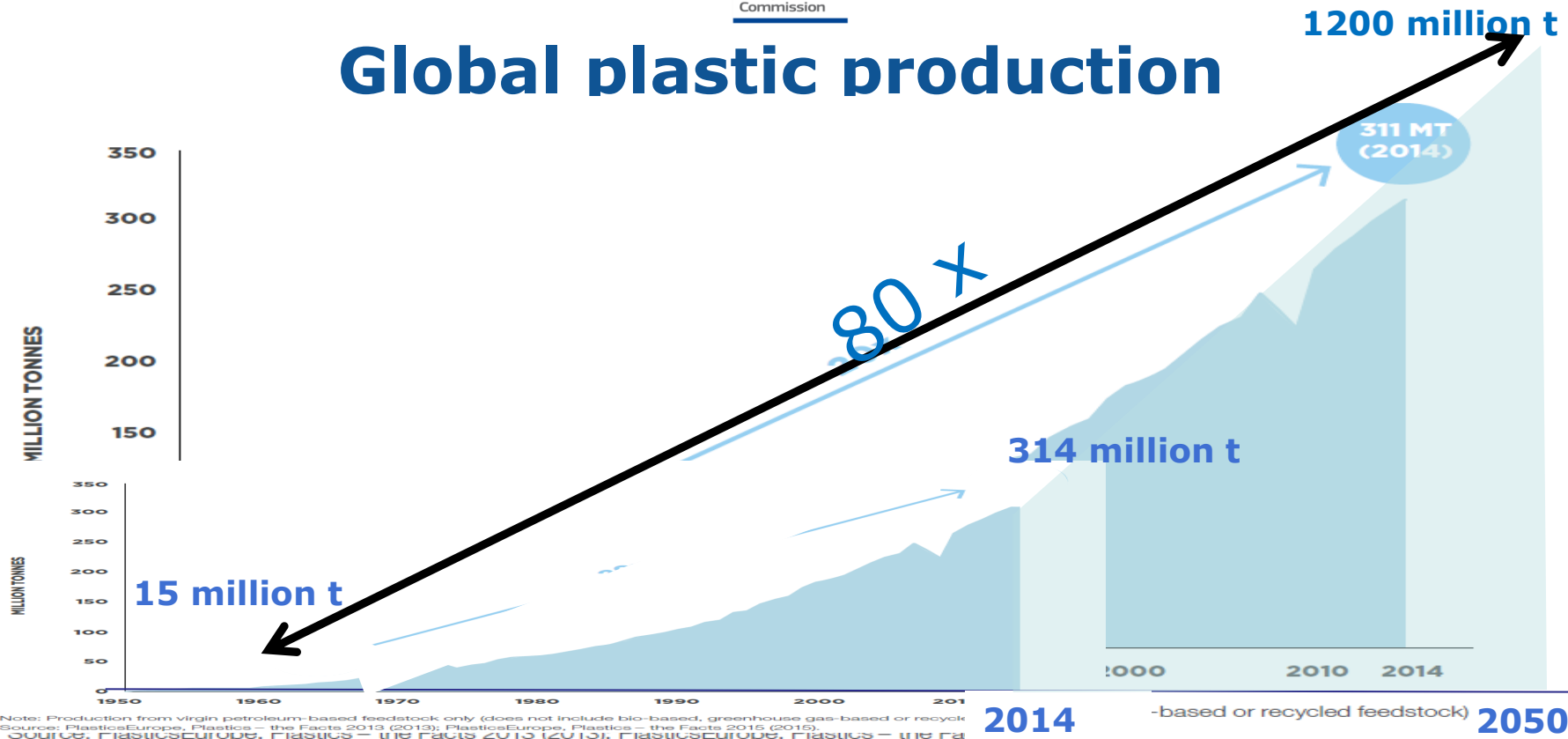


**A EU plastics
strategy for a new
plastic industry**

More plastic than fish in our oceans by 2050 ?



Global plastic production



Note: Production from virgin petroleum-based feedstock only (does not include bio-based, greenhouse gas-based or recycled feedstock)
Source: PlasticsEurope, Plastics – the Facts 2013 (2013); PlasticsEurope, Plastics – the Facts 2015 (2015); PlasticsEurope, Plastics – the Facts 2015 (2015); PlasticsEurope, Plastics – the Facts 2015 (2015)

Main Objectives

- **Exploit the full potential** of plastics **reuse, recycling, and uptake of recyclates**
- **Reduce the plastic leakage** in the environment

Studies:

- **"Microbeads intentionally added to products"** (DG ENV) due July 2017
- **"Reduction options of microplastics resulting from but not intentionally added in products"** (DG ENV) due November 2017 (open public consultation running from June to August)
- **"Plastics: reuse, recycling and marine litter"** (DG ENV) due November 2017
- **Life cycle assessment (LCA) of alternative feedstock (DG GROW), with JRC.**



Consultation of Stakeholders

- **8th June: Conference organised by Env. Protection Agencies**
- **26th September: Stakeholder conference**
- **Between June and September 2017 13 targeted consultations with stakeholders on subjects ranging from Single Use Plastics to traceability and from sustainable feedstock to biodegradability**

Areas of intervention

- **DESIGN** for durability & recyclability
 - ⇒ **Reuse, recycling**
 - ⇒ **Product policiy****REUSE** => **fostering other business models**
- Substances of concern?
 - ⇒ **Traceability**
- Funding
 - ⇒ **Research & innovation for reuse, sorting & recycling**

Areas of intervention

- Better implementation of existing waste legislation
 - ⇒ No landfilling
 - ⇒ Less incineration
 - ⇒ Separate collection of plastics,
 - ⇒ Targets for recycling of packaging
 - ⇒ EPR – fee modulation

Areas of intervention

- Promote market for recycled plastics
 - ⇒ **Standards: recycled plastics (quality) & recycled content**
 - ⇒ **Support industrial fora & platforms**
 - ⇒ **Product policy**

Areas of intervention

- Marine litter
 - ⇒ **Monitoring and action**
 - ⇒ **Action on single use plastics**
- Reduce microplastics
 - 1. Intentionally added to products**
 - 2. Generated during the life cycle of products**
 - 3. Oxo-degradable plastics**

Areas of intervention

- Sustainability criteria for biodegradable plastics

⇒ EU-harmonised criteria / standards for biodegradability (composting) where **appropriate**



- Consumers' awareness

⇒ Raise the awareness through better information – changing behaviour

Interface between chemicals, waste and product policy

Materials should be safe and designed for long life and recyclability.

Materials, and the products made thereof, should be designed and manufactured so that they can be reused, recycled and eventually disposed of in a manner which

- maximises the materials' utility to society and
- maintains a high level of human health and environmental protection.

Issues to tackle

Insufficient information about substances of concern in products and waste

Uncertainties about how materials can cease to be waste

Difficulties in the application of EU waste classification methodologies and impacts on the recyclability of materials (secondary raw materials)

Options ?

Identifying/tracing substances of concern

Design for circularity

Ensure a level playing field between primary and secondary raw materials

A more harmonised approach across the EU as to how and when a material ceases to be waste

Consistent approach between hazardous substances, mixtures and waste,

Material efficiency of products

- Durability, reparability, modularity, easy recycling, etc.
- Several projects/initiatives to develop verifiable criteria:
 - **Socio-economic impacts of increased reparability**
 - **Product durability:** methodology for fridges and domestic electric ovens
 - **Material efficiency in product policies, Ecodesign4Circularity** (JRC)
- Request to CEN/CENELEC to develop standards on material efficiency – M/543 *adopted in Dec. 2015, standards to be delivered by 2019*
- Analysis of possible horizontal requirements on repair information provision – *by 2018*



Ecodesign Working Plan

- Adopted in Autumn 2016
- **Circular economy related** criteria in a **more systematic** way
- **Ongoing work** (e.g. compressors, electronic displays)
- **Revision** of existing measures (e.g. lighting, wet appliances)
- **New product groups:** energy and resource saving potential
- **Product specific and/or horizontal measures**



More to come in 2018 ?

Options for a more sustainable Product Policy Framework

Follow up to the Product/Organisational Environmental Footprint

Linear is out - Circular is IN

- ✓ **Design of products and materials is key for**
 - ✓ **Improving durability and recyclability;**
 - ✓ **Addressing toxicity and microplastics**
- ✓ **Design will provide key enablers for collection, sorting & recycling of *all* product related wastes**
- ✓ **Design will help developing markets for secondary raw materials**

European Circular Economy Stakeholder Platform

- I. Policy dialogue with stakeholders' input:
 - best practices
 - national, regional, local strategies
 - policy statements and commitments

- I. Coordination Group for circular economy-related networks-24 Members

- II. Website **<http://circulareconomy.europa.eu/platform/>**



Learn more about the Circular Economy

hugo-maria.schally@ec.europa.eu

http://ec.europa.eu/environment/circular-economy/index_en.htm