



Seminar on the Latest Trends in Chemical Substances Management in EU, Tokyo, 14 September 2020

*European Union Policy on
chemicals management in EU
toward post-SAICM*

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EU Chemicals Policy: where do we stand?



Recently published policy documents and evaluations:

- Fitness check of the most relevant chemicals legislation (excluding REACH)
- The REACH Review/Refit evaluation
- Batteries directive
- A EU strategic approach to pharmaceuticals in the environment
- Towards a comprehensive European Union framework on endocrine disruptors
- Occupational Safety and Hygiene (OSH) Legislation
- Waste legislation
- EU Ecolabel
- Drinking Water
- Fertilisers
- Evaluation of the EU 7th Environment Action Program

Ongoing policy evaluations:

- **Waste shipments**
- **Urban Waste Water**
- **Safety of toys**
- **Detergents**
- **Plant protection products and Residues of pesticides**
- **Fitness check of rules on endocrine disruptors in EU legislation**
- **Evaluation of EU legislation on Food Contact Materials (FCM)**
- **Fitness Check of the EU Water Legislation**



EU CHEMICALS POLICY 2030

BUILDING ON THE PAST, MOVING TO THE FUTURE

B R U S S E L S , 2 7 - 2 8 J U N E 2 0 1 9



Ministry of Environment
and Food of Denmark



High Level Conference 27-28 June 2019

<http://www.euchemicalspolicy2030.teamwork.fr/>

Chemicals in the new European Commission

*'Europe needs to move towards a **zero-pollution** ambition. I will put forward a cross-cutting strategy to protect citizens' health from environmental degradation and pollution, addressing air and water quality, **hazardous chemicals**, industrial emissions, pesticides and **endocrine disrupters**.'*

U. Von der Leyen – President of the EU Commission
- A Union that strives for more - Political Guidelines

https://ec.europa.eu/commission/sites/beta-political/files/political-guidelines-next-commission_en.pdf

The European Green Deal



A zero pollution ambition for a toxic-free environment (1)

Drivers of Pollution

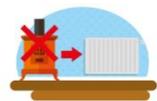
Pollution challenges

Zero pollution ambition

Energy Sector



Boosting energy efficiency by refurbishing buildings



Promoting substitution of old, dirty stoves and boilers with clean models, and banning dirty fuels for household heating/cooking

Transport Sector



Reliable, affordable and clean public transport such as electric buses and trams and new Euro VI



Cleaner transport such as electric cars or buses and retrofitted dirty vehicles and ships

Agriculture Sector



Injectors or band spreaders to apply manure and inorganic fertilisers



Housing animals in dry, clean spaces and minimising the surface area of manure pits

Industry Sector



Implementing cleaner industrial processes



Improved livestock feeding strategies so that animals produce less ammonia-rich manure

- Air pollution – 400 000 premature deaths
- Water pollution - 40% not good ecological state
- Soil pollution contamination at 250 000 sites
- Pollution of oceans seas- eutrophication, noise, litter, etc.
- Chemical pollution - hazardous chemicals in human blood and environment

“For the health of our citizens, our children and grandchildren, Europe needs to move towards a **zero-pollution ambition**. I will put forward a cross-cutting strategy to protect citizens’ health from environmental degradation and pollution, addressing **air and water quality, hazardous chemicals, industrial emissions, pesticides and endocrine disrupters.**”

Ursula von der Leyen

A zero pollution ambition for a toxic-free environment (2)

- *Creating a toxic-free environment requires more action to **prevent** pollution as well as measures to **clean and remedy** it.*
- *EU needs to **better monitor, report, prevent and remedy pollution** from air, water, soil, and consumer products*
- *COM will propose measures to address pollution from **new or particularly harmful sources** of pollution such as micro plastics and chemicals*

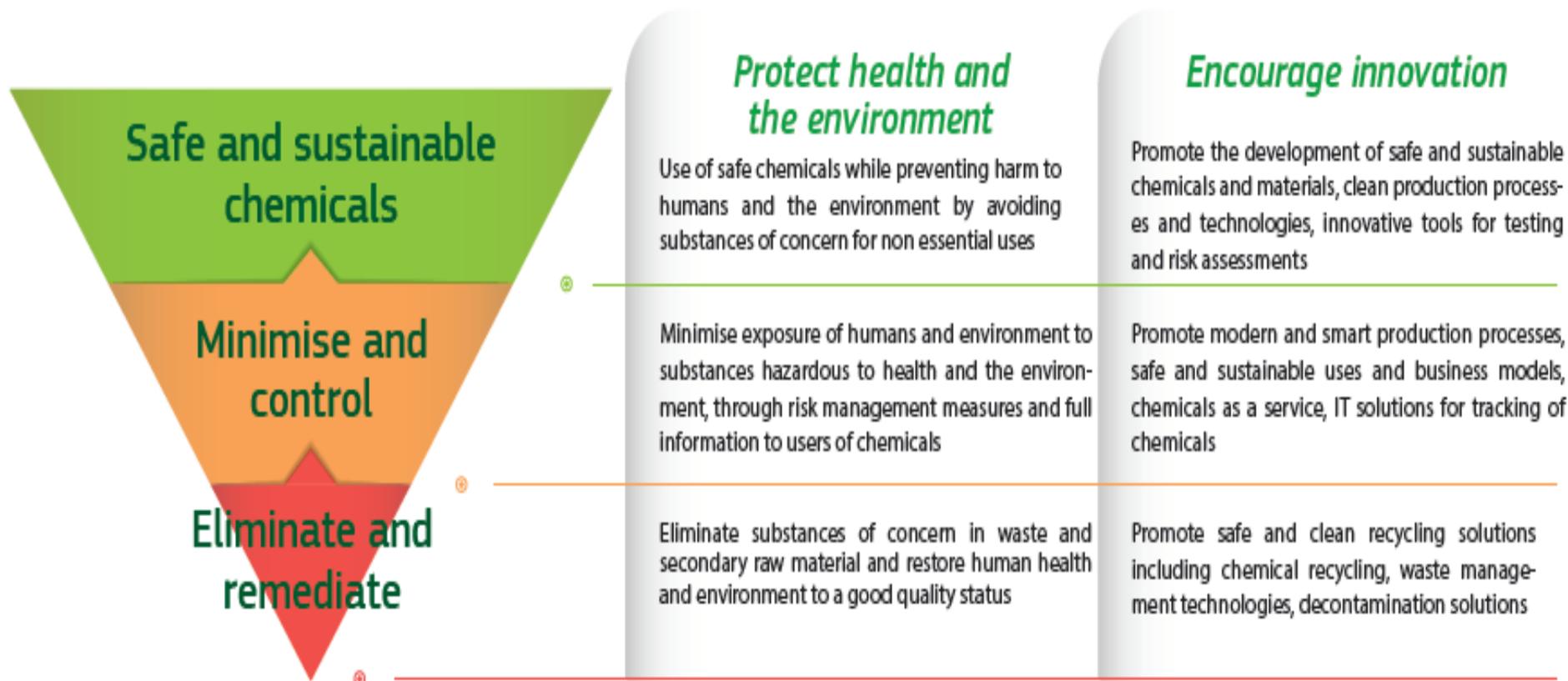
COM will present a chemicals strategy for sustainability:

- *To help protect citizens and the environment better against hazardous chemicals and encourage innovation for safe and sustainable alternatives*
- *To combine better health and environmental protection and increased global competitiveness.*
 - **by simplifying and strengthening the legal framework**
 - **moving to 'one substance – one assessment' and to provide greater transparency**
 - **to rapidly reflect scientific evidence on the risk posed by endocrine disruptors, hazardous chemicals in products including imports, combination effects of different chemicals and very persistent chemicals**

Links to other priorities/initiatives of the Political Guidelines

- *An European Green Deal: Circular Economy, Farm to Fork, Biodiversity Strategy, Sustainable Finance*
- *An Economy that works for people: Developing market for companies, Plan to fight Cancer, Monitoring United Nations Sustainable Development Goals*
- *An Europe fit for the digital age: Data and Artificial Intelligence to support societal solutions*
- *Protecting our European way of life: Protect citizens/single market, tighter enforcement*
- *A stronger Europe in the world: Highest standards of environmental protection in trade, compliance/enforcement of trade agreements*
- *A new push for European democracy: A greater say for Europeans, more transparency*

A possible toxic-free hierarchy A new hierarchy in chemicals management



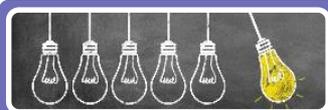
Towards a Chemicals Strategy for Sustainability



Simplification



Stronger protection



Innovation



Knowledge and science



Global

- To be published in autumn 2020
- On going development

Examples of potential actions for simplification & coherence of the chemical legislation:

- *In depth assessment of the REACH authorisation system: keep it, change it, remove it?*
- *One substance/one assessment: how to use better the EU's agencies and scientific bodies*
- *Extend the use of generic risk management: fast-track restriction based on a high concern (e.g., carcinogenicity) and obvious exposure (cosmetics)*
- *Ensure transparency, predictability and consistency of risk management decision (e.g., see Public activities coordination tool: <https://echa.europa.eu/pact>)*

Examples of potential actions for a stronger protection

- Address the '**cocktail effect**' from chemicals consistently across legislation (e.g., use Mixture assessment factor).
- Strengthen protection of vulnerable groups.
- Registration of polymers of concern under REACH => criteria under development > final study published.
- Strengthen data requirements under REACH.
- Strategy action on PFAS: European Member States CALLS on the Commission to develop an action plan to eliminate all **non-essential** uses of PFAS. => restriction mainly based on the persistency and mobility of PFAS => contamination of natural resources, remediation costs.

Examples of potential actions for a safe and sustainable innovation

- *Promote Sustainable Chemistry with safety-by-design at its core to drive innovation and provide financial incentives to safe and sustainable alternatives under the EU Research & Innovation programmes.*
- *Developed EU Sustainable Chemistry criteria in line and complementing the Taxonomy on sustainable finance.*
- *Strengthening the chemicals, products, waste interface and the synergies with the Circular Economy by ensuring non-toxic material cycles via chemicals legislation.*
- *Promoting toxicology and sustainable chemistry in university programmes.*

Examples of potential actions for comprehensive and transparent knowledge base

- *EU-wide **human and environmental bio-monitoring** research programme.*
- *Develop and implement an **EU Early Warning System for emerging chemical risks** => on-going study.*
- *Develop a risk communication strategy and promote smart communication of chemicals safety information (e.g. through smart labels, Internet of Things, blockchain to track hazardous substance).*

Examples of potential actions to increase chemicals management at Global level

- *Explore the possibilities to propose new hazard class/criteria in the UNGHS level for :*
 - Endocrine Disruptors
 - Mobile and persistent substances
 - Terrestrial toxicity
- *Nominate more substances to the Stockholm (POP) and Rotterdam (PIC) Conventions*
- *Provide technical, financial and institutional support to third countries on the sound management of chemicals, including to combat the illegal trade of chemical substances.*

A EUROPEAN STRATEGY FOR PLASTICS IN THE CIRCULAR ECONOMY



**Improve
the economics
and quality
of plastics
recycling**



**Drive
investments
and innovation
towards circular
solutions**



**Harness
global
action**



**Curb plastic
waste and
littering**



All plastic packaging reusable or recyclable by 2030

Design for circularity → Essential requirements PPWD, **compostability criteria ??**

Recycled content: 10 million tons/2025 → Circular Plastics Alliance

Microplastics

- Intentionally added to products → ECHA → restriction by 2021 ??
 - Unintentional release, e.g. tyres, textiles, pellets, coating
-

Strategic Research Innovation Agenda for Plastics

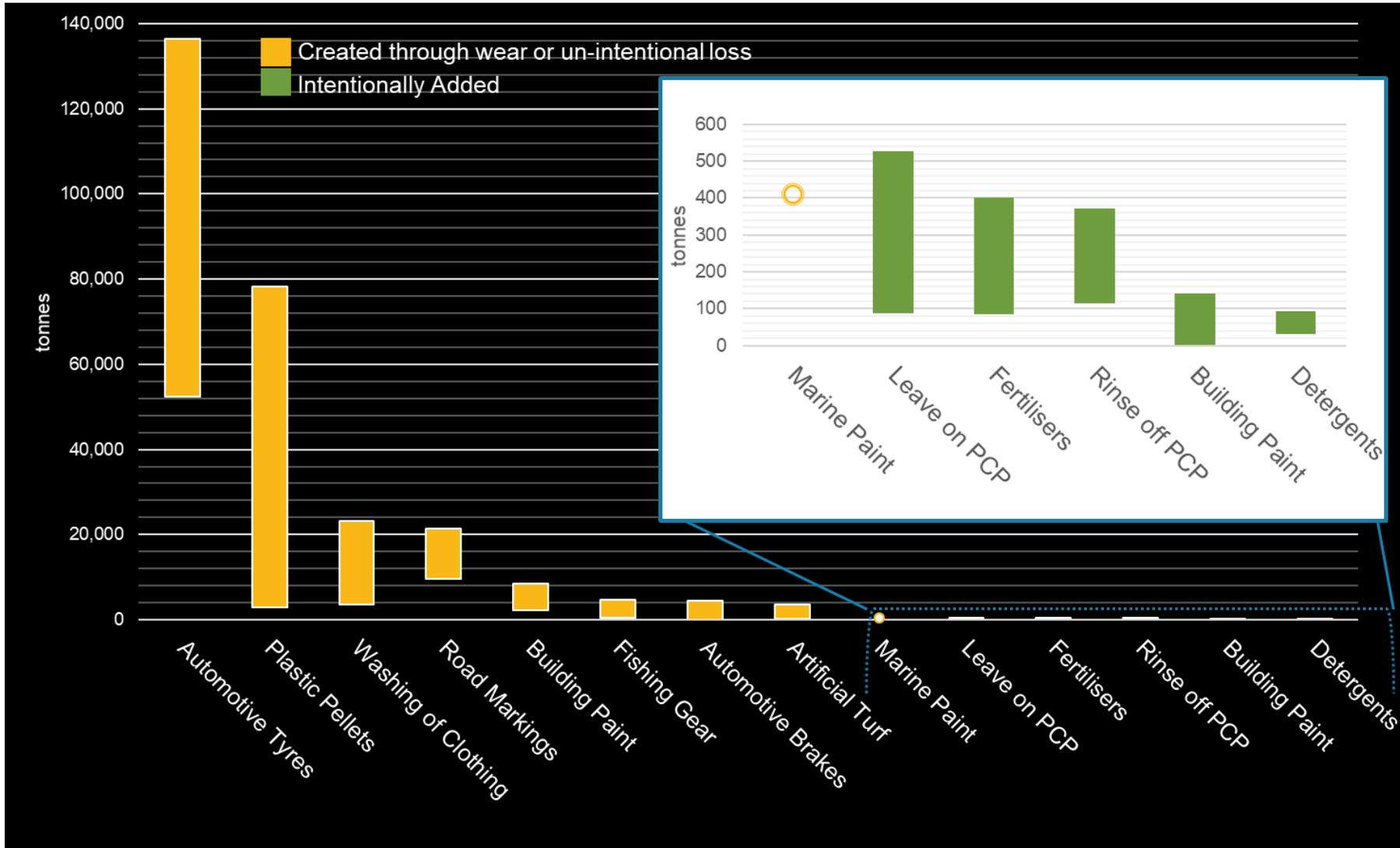
Support the development of alternative feedstocks:
lifecycle assessments including **biomass** → By 2020

Support to bilateral and multilateral initiatives on plastics

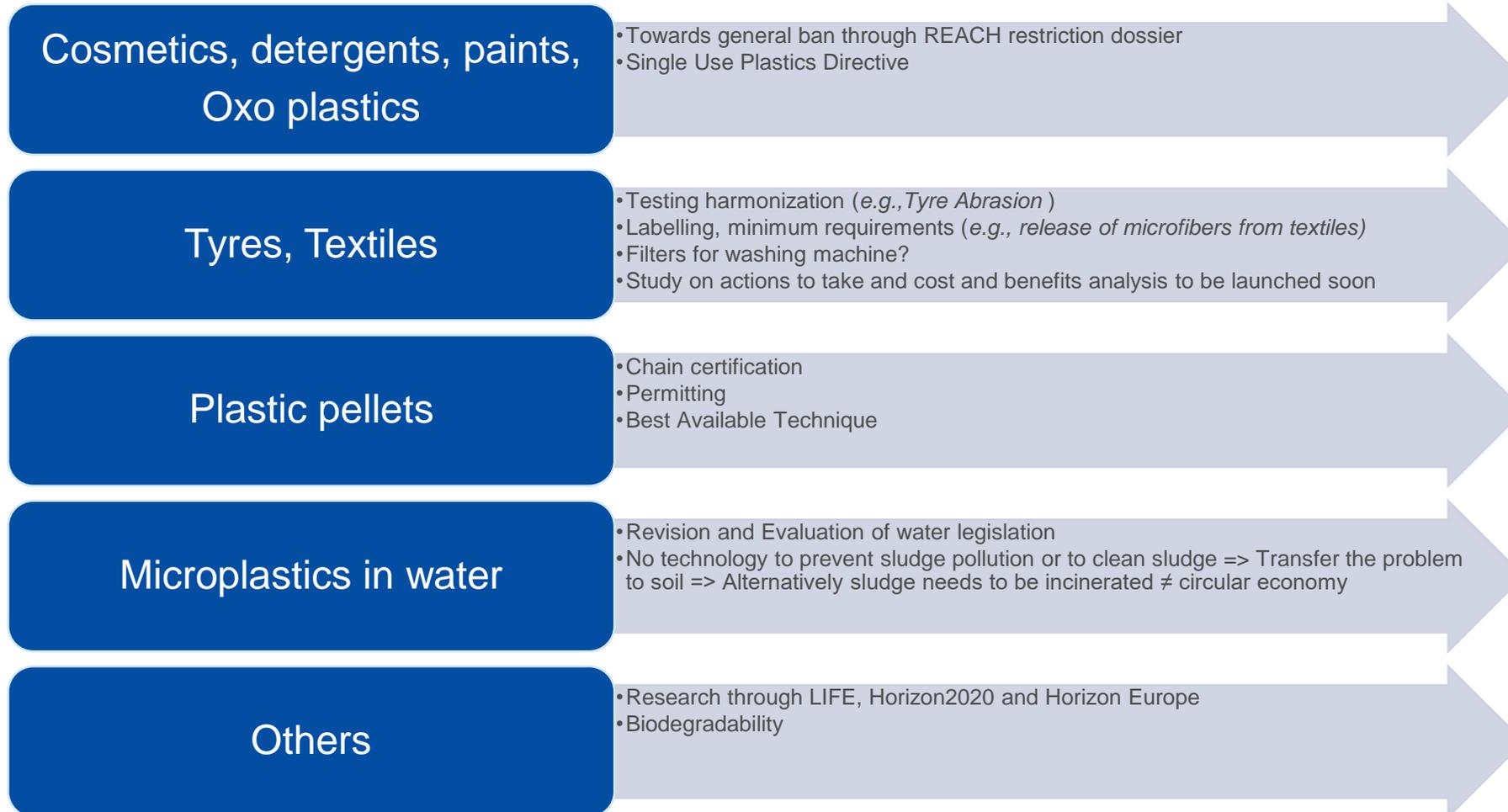
What's happening?



- New waste legislation (2018)
- Plastic Strategy (2018)
- Single Use Plastics Directive (2019)
- Port Reception Facilities Directive (2019)
- Marine Strategy Framework Directive
- Basel Convention



Microplastics: legislative and non-legislative work



The wastewater / sludge problem

- Both intentionally added and unintentionally released microplastics can enter wastewater
- Removing microplastics transfers them to sludge
- There seems to be no technology that prevents the pollution of sludge or that enables the cleaning of sludge
- Consequently problem could be transferred to the soil
- Alternatively sludge needs to be incinerated ≠ circular economy

Treatment type	Microplastic retention (%)	Reference and notes (size of particles)
Primary	83	Dris et al. (2015)
	78	Murphy et al. (2016)
	Mean 80.5	
Secondary	95	Dris et al. (2015)
	98.4	Murphy et al. (2016)
	98.3	Lares et al. (2018)
	99.6	Talvitie et al. (2017b)
	96	Michielssen et al. (2016)
	99	Magnusson and Noren (2014) cited by Talvitie et al. (2015)
	Mean 97.5	
Tertiary	99.9	Magnusson and Noren (2014) cited by Talvitie et al. (2015)
	99.9	Carr et al. (2016)
	97	Mintenig et al. (2017)
	99.4	Lares et al. (2018)
	99.7	Michielssen et al. (2016)
	Mean 99.2	

Reduction of microplastics in different treatment stages;
 Source: ECHA (2019) Proposal on the restriction of intentionally added microplastics

Biodegradable plastics: some issues

- Home-composting ↔ industrial composting ↔ biodegradation
=> Lack of clear criteria and correct information to consumers
=> Real-life conditions?
- Which standard for the marine environment (temp, oxygen)?
- Waste hierarchy and circular economy:
Reuse > recycle > biodegradation
Keeping the value of (plastic) material in the circular economy