

**HWE'S RECOMMENDATIONS  
CHEMICALS STRATEGY FOR SUSTAINABILITY  
MAY 2020**

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*“The lack of knowledge about the impact of many chemicals on human health and the environment is a cause for concern. Legislative action takes too long before yielding a result.”*

*[Strategy for a future Chemicals Policy - COM\(2001\) 88 final](#)*

# HAZARDOUS WASTE EUROPE (HWE)



- EU association registered in the EU transparency register.
- We are representing **hazardous waste<sup>1</sup> treatment operators** present on the **whole chain** of hazardous waste management, from **collection to final treatment, including recycling and recovery**, with the objective to guarantee **safety of our workers**, deliver high quality treatments of hazardous waste, and protect health and the environment.

OUR AIM IS TO LIMIT  
THE DISPERSION OF  
POLLUTANTS AND  
SUBSTANCES OF CONCERN  
INTO THE ENVIRONMENT  
AND MATERIALS CYCLES.

TO PAVE THE WAY  
TOWARDS A  
NON TOXIC  
ENVIRONMENT



## #TRACEABILITY

To keep the information on waste all along its life cycle, from the producer to the final waste destination to ensure it will receive the appropriate treatment.

## #NON DILUTION

To avoid dispersion of hazardous waste and their unwanted components in the environment and material cycles.

## #DECONTAMINATION

Separate and extract hazardous substances in waste that are regulated (SVHC, POP, endocrine disruptors, etc.) to ensure they would not be reintroduced in the material loop.

1. Hazardous waste means waste which displays one or more of the hazardous properties listed in Annex III of the Waste Framework Directive (Explosive, flammable, irritant, harmful, toxic, carcinogenic, corrosive, infectious, etc). They can be produced by household and cities, but come mainly from the industries.

# OUR AREAS OF EXPERTISE AT THE EU AND UN LEVELS

## WASTE RELATED LEGISLATION

- Waste Shipment Regulation (WSR)
- Industrial Emissions Directive (IED)
- BREFs (Sevilla Process)
- Port Reception Facilities (PRF)



## WASTE AND CHEMICAL ISSUES

- Global Environment Outlook GEO II/SCAIM
- STOCKHOLM Convention (POP)
- MONTREAL Protocol (Substances that deplete the ozone layer)
- MINAMATA Convention (Mercury)
- BASEL Convention & guides (Shipments)
- SCIP DataBase
- Interface chemicals, products, waste legislations



## CIRCULAR ECONOMY



## GREEN DEAL



# A CHEMICALS STRATEGY FOR SUSTAINABILITY

Is Man sick of his environment?

Our environment and health are interlinked, and it pushes us, in the middle of delivering the Green Deal, not to take half measures in this regards.

Chemicals are everywhere<sup>1</sup> and the chemicals industry is one of Europe's largest manufacturing sectors<sup>2</sup>. It concerns the whole supply chains, all the sectors of activities in their huge diversity, from small to big actors. Chemicals are at the interface of legislations on chemicals, products, and waste, making the topic tricky to handle and highlighting the imperative challenge to adopt an integrated approach to deliver efficiency, relevance, and more particularly coherence.

The chemicals strategy for sustainability is a decisive opportunity to mark a step forward a **TRULY GREEN RECOVERY** by improving the EU legislation with regards to the assessment of chemical substances, their safe use and their sustainable management throughout the economic chain in order to reach **NON-TOXIC MATERIAL CYCLES** and **LIMIT DISPERSION OF POLLUTANTS** in the environment for our well-being.

1. [link European Commission](#)
2. [link European Commission](#)



As EU association that has made *NON TOXIC ENVIRONMENT* and *DECONTAMINATION* the cornerstone of our development, we are convinced that the following principles, implemented jointly by all EU stakeholders, would guide towards the post 2020 EU sustainable circular economy including high quality recycling:

1. Define Substances of Concern (SoC)
2. Adopt a grouping approach
3. Integrate missing hazards in the relevant legislation (REACH, CLP, etc.)
4. Ensure traceability
5. Ban dilution
6. Guarantee clean material cycles through decontamination
7. Keep the hazard based approach for waste
8. Support ECHA work



*“Recycling and re-use can be hampered by the presence of certain chemicals. Some chemicals can simply constitute technical barriers preventing recycling. (...)*

*Other chemicals are hazardous to humans or the environment. A growing number of these are being identified and becoming subject to restrictions or prohibitions. These chemicals may be present in products sold before the restrictions applied, some of which have a long lifetime, and therefore prohibited chemicals can sometimes be found in recycling streams. Such substances can be costly to detect or remove, creating obstacles in particular for small recyclers.*

*All these different types of chemicals we call 'substances of concern' in this Communication.”*

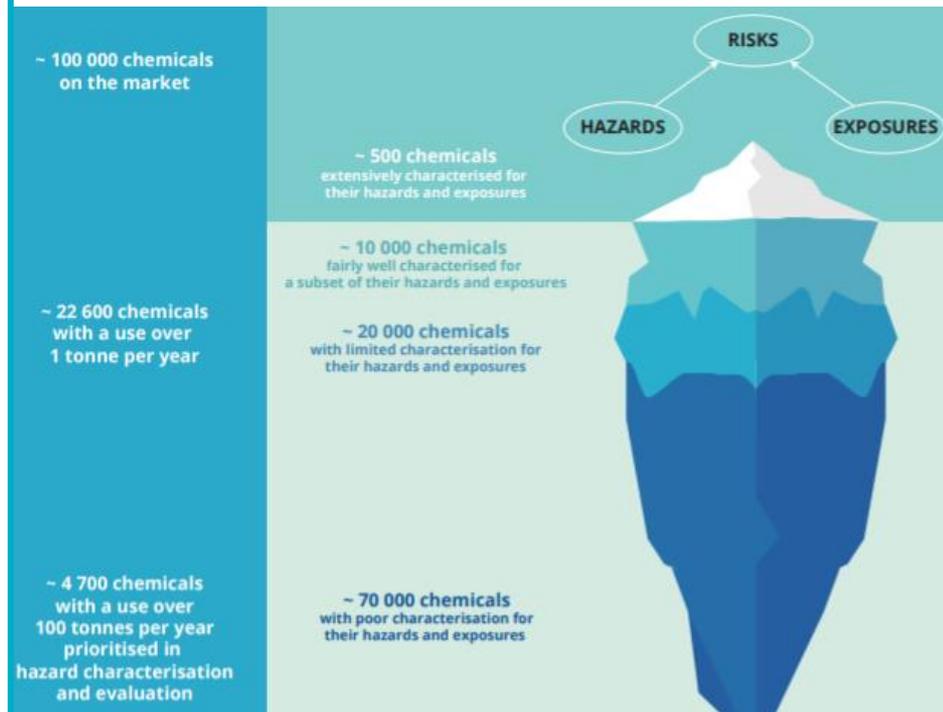
*Communication of the  
Commission on the  
implementation of the circular  
economy package: options to  
address the interface between  
chemical, product and waste  
legislation, COM(2018) 32  
final*

- > 100 000 industrial chemicals globally traded
- 62% of the total volume of chemicals consumed in Europe in 2016 were hazardous to health ([EEA](#))

***“Important knowledge gaps still remain, in particular regarding exposure to hazardous chemicals, their use and their impacts on humans and the environment, including on biodiversity and ecosystems’ resilience. Similar concerns exist regarding new and emerging chemical risks”***

*(Fitness Check of the most relevant chemicals legislation (excluding REACH) - [COM\(2019\) 264 final](#))*

The current 205 substances of very high concern (SVHC) regulated under the Reach regulation are only the top of the iceberg. The lack of knowledge about existing commonly used chemicals, emerging hazards - that are still not fully taken into consideration in the EU legislation, and reliable scientific evidence available stress that the number of substances that could be detrimental to our health and the environment is underestimated.



# 1

## DEFINE SUBSTANCES OF CONCERN (SOC)

There is reliable evidence and also strong suspicion that many substances in circulation pose a threat to human health and the environment, far beyond the **205 SVHC** (substances of very high concern). The term SoC, already commonly used in the EU official documents, should fix this gap by covering substances already regulated in different pieces of legislation, and adding new and emerging hazards as **endocrine disruptors, nanomaterials, microplastics** that may harm health and the environment but are still not regulated per se. It could start from the **SIN LIST** “Substitute it now” built by the NGO [Chemsec](#) together with scientists and experts that contains about **1 000 hazardous chemicals** used in articles, products and manufacturing processes that are a threat.

**Define Substance of concern** as “those identified under REACH as SVHC, substances prohibited under the Stockholm Convention (POP), specific substances restricted in articles listed in Annex XVII to Reach as well as specific substances regulated under specific and sector legislation (RoHS, etc.)”. The list should be regularly updated by ECHA on the basis of new available results and take into account new and emerging chemical hazards as EDC, nanomaterials, microplastics, etc”.

*“EU chemicals policy must ensure a high level of protection of human health and the environment (...)while also ensuring the efficient functioning of the internal market and the competitiveness of the chemical industry.*

*Fundamental to achieving these objectives is the **Precautionary Principle**. Whenever reliable scientific evidence is available that a substance may have an adverse impact on human health and the environment but there is still scientific uncertainty about the precise nature or the magnitude of the potential damage, decision-making must be based on precaution in order to prevent damage to human health and the environment.*

*Another important objective is to encourage the substitution of dangerous by less dangerous substances where suitable alternatives are available.”*

*[Strategy for a future Chemicals Policy, COM\(2001\) 88 final](#)*

## 2

### ADOPT A GROUPING APPROACH

As similar substances are likely to present similar threats, we should favor an approach by **family of substances** (called the **grouping** approach) instead of an approach substance by substance. Numbers of scientifics and universities develop this approach today.

A grouping approach will be more effective and efficient with regards to spent costs and time, whereas an assessment substance by substance would lengthen the processes and would risk to perpetuate a vicious circle (ex. Bisphenol A that has been regrettably replaced by bisphenol F and S which finally present almost as detrimental effects on health; or the different brominated flame retardants (RFB) from same family (octaBDE, decaBDE, etc.)

**Adopt a grouping approach instead of a “substance by substance” approach**

*“Given the high number of substances that need to be assessed and the resources and the time that such an assessment requires, the substance by substance approach has its limits in terms of the overall efficiency. (...). There is a need for more integrated and holistic view in assessing chemicals with similar hazard, risk or function as a group. This could result in considerable efficiency gains in terms of protecting human health and the environment, accelerating the pace of the hazard and risk assessment processes and cost savings for industry, because it would avoid replacement of hazardous substances by alternatives that are likely to be banned subsequently”.*

*[Fitness Check of the most relevant chemicals legislation \(excluding REACH\) COM\(2019\) 264, final](#)*

### 3 INTEGRATE MISSING HAZARDS IN THE RELEVANT LEGISLATION (REACH, CLP, ETC.)

Legislative action can take some time although evidence exist that chemicals risks (new or emerging, but also suspected) pose a threat to health and the environment. This problem should be addressed by introducing specific hazard to address this risk, and thus considering chemicals substance that are concerned by this hazard - but are not part yet of a comprehensive framework or not yet regulated (for instance, endocrine disruptor hazard).

Chemicals are intended to cover a huge diversity of applications, putting them at the interface between chemicals, products and waste legislation. That explains the necessity to adopt a comprehensive and integrated horizontal legislation, and to **address chemicals throughout their whole life cycle.**

Integrate specific categories of hazards as nanomaterials, microplastics, endocrine disruptors, etc. to fill the gaps of risks that are so far not properly assessed in the relevant legislation. It could be based on the same methodology of the candidate list of the REACH regulation by associating specific substances to the created hazards. Grant a special focus to endocrine disruptors qualified by WHO in 2012 as “a global threat that needs to be resolved”. There is a need for a definition with harmonised criteria across the different sectors of activities. Harmonise new hazards with the international system at the GHS level.

*“The information on the types, potency and mixture toxicity of the hazards is currently incomplete. For example, developmental toxicities (endocrine disruption, neurotoxicity and immunotoxicity) and nanomaterials are not specifically addressed by the CLP criteria.”*

*European Environment Agency*

*“We must ensure that appropriate information on substances of concern in products is available to all actors in the supply chain and ultimately also becomes available to waste operators. This will contribute to the promotion of non-toxic materials cycles and improve the risk management of chemicals during repair and other forms of reuse and in waste recovery processes.”*

[Options to address the interface between chemical, product and waste legislation, COM\(2018\) 32 final](#)



# 4

## ENSURE TRACEABILITY (AND TRANSPARENCY) THROUGHOUT THE WHOLE LIFE CYCLE

Chemicals are everywhere in our daily life and it is not possible to get rid of all because they participate to our well-being. Nevertheless, chemicals have to be managed responsibly. The list of substances of concern and thus legacy substances will steadily grow up. Consequently, it is important to **keep their trace throughout their life cycle, from product to waste**, to ensure they receive the most appropriate treatment - reuse, recycling, recovery or disposal - at the end of life of products.

The future **SCIP database** (*information on Substances of Concern In articles as such or in complex objects (Products)*) currently developed by the European Chemicals Agency, will be a very valuable tool to record and share information between the whole chain of actors, until the waste treatment operator. It would fill the blanks and gaps of the Safety Data Sheet of the REACH regulation. It would also be an answer to those stakeholders that struggle to get access to information and identification of substances in materials to be recycled.

Although today, the SCIP database is limited to SVHC, it should be extended to all substances of concern when their concentration in the product is > 0.1%. To do so, information about all hazardous substances in articles should be recorded in the database to have it constantly up to date when scientific data or legislation impose new specific management of a substance. The same requirement should also apply to imported products. This contributes to anticipate potential lack of knowledge of substances contained in products as it is currently the case with regards to legacy substances.

**Ensure traceability and information** all along the life cycle through actions and measures will contribute to high quality recycling. In this regard, the forthcoming SCIP database will represent a good tool.



## BAN DILUTION

The forthcoming strategy should be the opportunity to ensure that mixing or blending operations cannot be used with the aim to lowering the concentration of hazardous substances of a waste, because it will not lower the quantity of hazardous substances released in the environment and/or material loops. To give an example, a glass of vodka drunk dry or diluted with soda or ice will get you as drunk and the same moment, as the amount of alcohol remains the same.

Separating contaminated waste from clean waste may result in additional costs. But destroying the pollutants after dilution may be either impossible or very costly. If not destroyed, these pollutants are still harmful to human health and the environment.

**Separate** (simply by sorting uphold) contaminated streams thanks to information and traceability (cf. point 4) will ensure clean materials cycles and avoid that substances of concern spread in the recycling loops. Only by separating streams that contain substances of concern above the thresholds it is possible to avoid contamination of the whole stream.

*“ We must make recycling easier and improve the uptake of secondary raw materials by promoting non-toxic material cycles. In addition, when considering possible chemical restrictions and exemptions to restrictions, we must give more attention to their impact on future recycling and reuse”*



*Communication of the Commission on the implementation of the circular economy package: options to address the interface between chemical, product and waste legislation, COM(2018) 32 final*

Only strong **confidence** in materials coming from waste is able to create a **sustainable and safe secondary raw materials markets** at the core of the **circular economy** principle. With the Green Deal's ambition for high quality recycled materials, contamination by some unwanted chemicals automatically implies that 100% of waste input in a recycling process cannot provide 100% recycle outputs - if principles of non dilution and traceability are respected. Residues and impurities have to be appropriately extracted and safely treated. The overall process: sorting, extraction and treatment of the residues containing the "unwanted" chemical is the "decontamination". It concerns for instance waste containing mercury, waste containing POP like RFB in plastic., etc.

*"Recycling should not justify the perpetuation of the use of hazardous legacy substances".*

- **Same rules should apply between primary and secondary products.** Keeping the contaminants in the recycled materials is incompatible with a **non toxic environment**. **There should be no derogations for recycled materials (same restrictions, same thresholds)** otherwise it will never create trust in recycled products and we will never get rid of them.
- **Same rules should also apply to EU and imported products** to avoid annihilating the whole efforts undertaken by the EU to handle the substances of concern.

**The principle of decontamination (art.10.5 of the directive on waste 2018/851) should be enforced.** The objective is not to reach zero contaminants, but to ensure prior to recycling or recovery, that substances of concern contained in end of life materials/products/goods beyond the mandatory thresholds/bans are extracted and disposed of in an environmentally sound way. This echoes the "**hope that innovative recycling practices will help to decontaminate waste containing substances of concern**", expressed by the European Parliament in its [resolution](#) (2018) on implementation of the circular economy package: options to address the interface between chemical, product and waste legislation.



*“Recycled waste is used as a major, reliable source of raw material for the Union, through the development of non-toxic material cycles.”*

*“Ensuring high quality recycling where the use of recycled material does not lead to overall adverse environmental or human health impacts, and developing markets for secondary raw materials are also necessary to achieve resource-efficiency objectives.”*

*General Union Environment Action Programme to 2020 Living well, within the limits of our planet*

# 7

## KEEP THE HAZARD BASED APPROACH FOR WASTE

There is no complete alignment on hazardous classification in the EU legislation. It is one of the main challenges to be solved with the interface between waste, products and chemicals legislation, which also questions the approaches based on hazard or based on risk.

- A **hazard-based approach** regulates substances/mixtures on the basis of their intrinsic properties, without taking account of the exposure to the substance.
- A **risk-based approach** factors in the exposure.
- For instance, a lion is intrinsically a hazard, but a lion safely constrained in a zoo is not a risk, since there is no exposure.

**Waste and chemicals legislation could not be fully aligned and** classification methodology should remain distinctive.

- In the case of a product, when the scenarii of exposure according to a use can be assessed, the risk based approach is common and sufficient. But the challenges are radically different for waste as one can never be sure of its final destination.
- We can never predict the exposure at the waste stage because a waste can be handled and treated in many different ways that cannot be assessed a priori. Because of this uncertainty, waste should be classified on hazard based approach which only takes into consideration the intrinsic properties of the waste to ensure that it will be oriented towards the most appropriate treatment. A classification of waste based on a risk approach would fail to encompass all possible downstream routes and exposure scenarii.

**Waste classification and waste management should generally be based on an hazard based approach.** Flexibility could be brought during the waste management (but excluding waste classification) by applying a risk based approach in the case of closed or controlled loops systems for allowed uses.

*“There are a number of difficulties in assessing exposure. In particular, the indicator does not include a number of exposure types and routes to humans and the environment that add to exposure. For example, the indicator does not include the chemicals used in the past which are still present in old materials including in recycled materials or which have accumulated in the environment, due to their persistency or high use volumes.”*  
*[European Environment Agency](#)*

# 8

## SUPPORT THE EUROPEAN CHEMICAL AGENCY (ECHA) WORK

ECHA's mission is to work, together with partners, work for the safe use of chemicals, notably:

- to provide decision makers with scientific advice on hazard and risk assessment along with some other EU agencies,
- to help companies comply with specific EU legislation on chemicals or biocides (REACH, CLP, BPR, etc.)
- to give information on chemicals and their safe use through a unique free database
- to encourage innovation in the chemical industry by replacing substances that give cause for concern.

**The European Chemical Agency (ECHA) should receive sustainable financial and human resources to ensure its functioning and efficiency of its missions according to its values of transparency, independence and trustworthy.**

The EU Decision makers should propose coherent and efficient chemicals strategy that is consistent with the other EU pieces of legislation. Only a comprehensive horizontal approach, across the different sectors of activities, will allow the EU to reach the “zero pollution ambition” expressed in the EU green deal.

Implementing ambitious measures will obviously demand all the EU stakeholders strong efforts, but this strategy could be the turning point to emphasize that health and environment should weight more than business considerations in our economic models.

Traceability of substances of concern on the whole life cycle, non dilution and decontamination are the HWE's pillars to reach non toxic material cycles. But, there are also part from the approach underlined in the study for a strategy for a non toxic- environment of the 7th EAP (2017).

“Three approaches are necessary with regards to achieving *NON-TOXIC ARTICLES AND MATERIAL CYCLES*.

1. First, the *TRANSPARENCY* about the occurrence of toxic substances in articles needs to be increased in the supply chains and for the authorities (market overview).
1. Secondly, strategies and implementation instruments that *PREVENT TOXIC SUBSTANCES* from entering articles and materials cycles will avoid risks to human health and to the environment throughout the substances’ lifecycles.
1. Third, strategies and implementation instruments that motivate and enable the waste treatment sector to *DECONTAMINATE* waste streams from toxic substances are needed, as long as toxic substances continue to enter the waste stage from articles.

(...) Complementary activities are needed to ensure that all of the actors understand, implement, and benefit from the use of less toxic substances in articles and materials.”

[Study for the strategy for a non-toxic environment of the 7th Environment Action Programme. Final Report\(2017\)](#)