

Survey in support of the Commission services' work on the definition of Safe and Sustainable by Design criteria for chemicals and materials

Fields marked with * are mandatory.

About this Survey

This survey is addressed to all interested parties, including European authorities, industry, academia, and civil society. Your feedback will inform the European Commission on the further development of the criteria.

The deadline for replies is 30-06-2021

If you have any questions, please contact the European Commission via RTD-SUSTAINABLE-BY-DESIGN@ec.europa.eu

Your voice matters and we are grateful to you for taking the time to complete this consultation.

☒ I acknowledge that I have read the Data Protection Notice attached (please see below).

[Data protection notice.pdf](#)

Introduction

With the European Green Deal (COM 2019/640), the European Commission outlines its vision to make the European economy and society more sustainable. Great attention is paid on how to achieve climate neutrality, circular economy, biodiversity protection, and a zero-pollution ambition for a toxic-free environment. One of the priorities is to protect citizens and the environment against the negative impact of hazardous chemicals, materials and products and to encourage safe and sustainable alternatives.

In October 2020, the Commission adopted the Chemicals Strategy for Sustainability (COM 2020/667), one of the steps towards a zero-pollution ambition for a toxic-free environment announced in the European Green Deal. The Zero Pollution action plan (COM 2021/400) was published in May 2021. The Chemicals Strategy sets out concrete actions to support the transition towards chemicals, materials and their use in products that are concurrently safe and sustainable starting with the design phase and taking into account the overall life cycle: production, use and end-of-life. As announced in the Strategy, the European

Commission will develop EU safe and sustainable by design criteria by 2022.

In the Strategy, the following working definition of 'Safe and Sustainable by design' (SSbD) was proposed: 'a pre-market approach that focuses on providing a function (or service), while avoiding volumes and chemical properties that may be harmful to human health or the environment, in particular groups of chemicals likely to be (eco-)toxic, persistent, bio-accumulative or mobile. Overall sustainability should be ensured by minimising the environmental footprint of chemicals in particular on climate change, resource use, ecosystems and biodiversity, from a lifecycle perspective.'

As a first step in the development process of Safe and Sustainable by Design criteria for chemicals and materials, DG Research and Innovation and DG Environment organised the 1st stakeholder workshop on 19 March 2021, in order to start discussing the scope and relevant initiatives on this topic. Please find [here](#) the recording.

Following the 1st workshop, a mapping study carried out by the Commission was published in April 2021 identifying existing policies and initiatives that implement safety and sustainability criteria. The study analyses a sample of criteria under these policies and initiatives with a focus on chemicals and materials, and it includes a section on the research and innovation progress done on Safe-by-Design under Horizon 2020.

The purpose of this survey is to complement the findings of the mapping study by obtaining views of stakeholders on the general understanding of the principles of Safe and Sustainable by Design when applied to chemicals and materials, and to set the basis for identifying criteria for a safe and sustainable-by-design approach. The overall goal of the Safe and Sustainable by Design criteria is to incentivise the production and use of safe and sustainable chemicals and materials and support the different actors in this transition. Furthermore, we are looking to shed light on its possible implementation and define the priority sectors/applications to start defining criteria. The results of the survey will be taken up by the Commission services in the work of defining the Safe and Sustainable by Design criteria and the outcome will be communicated in the context of this work. Your input will be treated anonymously.

[Link to the mapping study](#)

[Link to the Safe and Sustainable by Design website](#)

[Link to register as a stakeholder](#)

For further questions please write to RTD-SUSTAINABLE-BY-DESIGN@ec.europa.eu

Information about the respondent

Contact information

Name:

Lina Dunauskiene

E-mail address:

lina.dunauskiene@aise.eu

Are you responding to this survey on behalf of/as:

- ☐ Academic institution / University
- ☐ Public research institution
- ☒ Business or Industry association
- ☐ Company
- ☐ Non-governmental consumer organisation
- ☐ Non-governmental environmental protection organization
- ☐ Trade Union
- ☐ Other non-governmental organization (NGO)
- ☐ Public authority
- ☐ Individual citizen
- ☐ Other (to be filled)

Other

Name of the company/organisation:

The Downstream Users of Chemicals Co-ordination Group (DUCC)

Where are you based?

BE - Belgium

Please indicate if you are active on the... (you can choose several options)

- ☐ local market
- ☐ regional market
- ☒ EU market
- ☐ non-EU market
- ☐ worldwide market
- ☐ not applicable

Existing initiatives, labels, schemes

This section builds on the findings of the mapping study and it aims at assuring the relevance of the identified initiatives and complement the study with your input.

Q1. There are many initiatives (in place or under development) which define safety, environmental performance and /or sustainability criteria, which cover different types of products and have been identified in the Commission mapping study. The initiatives addressed here are linked to regulation or a certification scheme. How familiar are you with the initiatives listed below? Have you been involved in the criteria definition process or are you using any of them?

	I am very familiar and, if applicable, my organisation has (a) product(s) complying with it / which will need to comply	I am very familiar and I have been involved in the process of criteria definition	I am familiar with it	I am not at all familiar
Ecodesign [1]	☐	☐	☒	☐
Energy label [1]	☐	☐	☒	☐
Sustainable product policy framework [2]	☐	☐	☒	☐
Substantiating Green Claims [3]	☐	☐	☒	☐
Sustainable batteries [4]	☐	☐	☐	☒
EU Ecolabel [5]	☐	☐	☒	☐
EU Green Public Procurement [6]	☐	☐	☒	☐
Sustainable Finance [7]	☐	☐	☐	☒
TCO Certified [8]	☐	☐	☐	☒
Nordic Swan [9]	☐	☐	☒	☐
Blue Angel [10]	☐	☐	☒	☐
Natureplus [11]	☐	☐	☐	☒
OEKO-TEX [12]	☐	☐	☐	☒
Green Seal [13]	☐	☐	☒	☐
Green Screen for Safer Chemicals [14]	☐	☐	☒	☐

References:

[1]https://ec.europa.eu/growth/industry/sustainability/product-policy-and-ecodesign_en

- [2]https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12567-Sustainable-products-initiative_en
- [3]https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12511-Environmental-performance-of-products-&-businesses-substantiating-claims_en
- [4]https://ec.europa.eu/environment/topics/waste-and-recycling/batteries-and-accumulators_en
- [5]<https://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html>
- [6]https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm
- [7]https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/overview-sustainable-finance_en
- [8]<https://tcocertified.com/>
- [9]www.nordic-ecolabel.org
- [10]www.blauer-engel.de/en
- [11]www.natureplus.org/
- [12]www.oeko-tex.com/en/
- [13] <https://greenseal.org/>
- [14]<https://www.greenscreenchemicals.org/>

Q2. Do you think that the Safe and Sustainable by Design concept and criteria for chemicals and materials can be useful to any of the following initiative(s)?

	Not at all relevant	Somewhat relevant	Very relevant	I don't know
Ecodesign	☐	☒	☐	☐
Energy label	☐	☐	☐	☒
Sustainable product policy framework	☐	☒	☐	☐
Substantiating Green Claims [15]	☐	☒	☐	☐
Sustainable batteries [16]	☐	☐	☐	☒
EU Ecolabel	☐	☒	☐	☐
EU Green Public Procurement	☐	☒	☐	☐
Sustainable Finance	☐	☐	☐	☒
TCO Certified	☐	☐	☐	☒
Nordic Swan	☐	☒	☐	☐
Blue Angel	☐	☒	☐	☐
Natureplus	☐	☐	☐	☒
OEKO-TEX	☐	☐	☐	☒
Green Seal	☐	☒	☐	☐
Green Screen for Safer Chemicals	☐	☒	☐	☐

References:

[15]https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12511-Environmental-performance-of-products-&-businesses-substantiating-claims_en

[16]https://ec.europa.eu/environment/topics/waste-and-recycling/batteries-and-accumulators_en

Q3. If you are aware of another regulation, label or certification not listed above, please mention it and explain why you think this might be relevant for the development of Safe and Sustainable by Design criteria for chemicals and materials.

- REACH Regulation 1907/2006: SSbD could be used in regulatory processes under the REACH (for example, provide a basis for exemptions from (generic) restrictions; could facilitate opinion development (on authorisations/restrictions) in the Committees on Risk Assessment and Socio-Economic Analysis).
 - CLP: SSbD criteria could enable exemptions/special provisions on environmental for products with reduced environmental impact according to Article 29(4) of the CLP Regulation 1272/2008. This would help in meeting other objectives, namely addressing poor consumer understanding of labels as identified in the Fitness Check on chemicals legislation excluding REACH, as well as other surveys (e.g., Eurobarometer 2012).
 - Detergents Regulation 648/2004: successfully implements criteria and methods for biodegradability of surfactants. Result of longstanding collaboration between the detergent and surfactant industries (see www.erasm.org)
- Voluntary initiatives by industry such as:
- A.I.S.E.'s Charter for Sustainable Cleaning is a voluntary sector initiative with label and certification elements. This supplements an important regulatory framework for the detergent industry.

As a general remark, DUCC would like to note that currently there are no certification schemes or labels that fully cover the lifecycles of products from both a chemical exposure and wider sustainability metrics perspective. EPDs/LCA/etc. are good measures for the overall environmental footprint, however, most LCA methodologies do not cover direct chemical exposure at all. Lifecycle accreditations such as Cradle-to-Cradle get closer to the objective, but the chemicals element is still fairly basic and would need further development to fulfil the brief of Safe & Sustainable by Design criteria.

Please upload any supporting document for your answer in Q3

Q4. The mapping study identifies several international initiatives that provide policy principles, practical guidance, methods and tools to assess sustainability, without being linked to legislation, labelling or certification scheme. Are you familiar with any of these initiatives?

	Yes	No
United Nations Environment Assembly (UNEA) Framework Manual on Green and Sustainable Chemistry [17]	☒	☐
OECD work on environmentally benign chemicals or "Sustainable Chemistry" [18]	☒	☐
OECD Guide on safer chemicals alternatives [19]	☒	☐
The International Sustainable Chemistry Collaborative Centre (ISC3) [20]	☒	☐
Guide on Sustainable Chemicals published by the German Environmental Agency [21]	☒	☐
The Chemical Footprint Project [22]	☒	☐

The Sustainable Chemistry Research and Development Act of 2019 (US) [23]	☐	☒
The Green Chemistry Initiative (by the California Environmental Protection Agency) [24]	☒	☐

References:

[17]<https://wedocs.unep.org/handle/20.500.11822/34338>

[18]<http://www.oecd.org/env/ehs/risk-management/sustainablechemistry.htm>

[19]www.oecd.org/chemicalsafety/risk-management/guidance-on-key-considerations-for-the-identification-andselection-of-safer-chemicals-alternatives.pdf

[20]https://www.isc3.org/fileadmin/user_upload/Documentations_Report_PDFs/ISC3_Sustainable_Chemistry_key_characteristics_20210113.pdf

[21]<https://www.umweltbundesamt.de/en/publikationen/guide-on-sustainable-chemicals>.

[22]<https://www.chemicalfootprint.org/>

[23]<https://www.congress.gov/bill/116th-congress/house-bill/2051/text>.

[24] <https://calepa.ca.gov/about/>

Q5. Which of those initiatives can provide the most relevant input for the Safe and Sustainable by Design concept and criteria for chemicals and materials?

	Not at all relevant	Somewhat relevant	Very relevant	I don't know
United Nations Environment Assembly (UNEA) Framework Manual on Green and Sustainable Chemistry	☐	☐	☒	☐
OECD work on environmentally benign chemicals or "Sustainable Chemistry"	☐	☐	☒	☐
OECD Guide on safer chemicals alternatives	☐	☒	☐	☐
The International Sustainable Chemistry Collaborative Centre (ISC3)	☐	☒	☐	☐
German Environmental Agency published Guide on Sustainable Chemicals	☐	☒	☐	☐
The Chemical Footprint Project	☐	☒	☐	☐
The Sustainable Chemistry Research and Development Act of 2019 (US)	☐	☐	☐	☒
The Green Chemistry Initiative (by the California Environmental Protection Agency)	☐	☐	☐	☒

Q6. If you are aware of another initiative, not included here, please mention it and explain why you think this might be relevant for the Safe and Sustainable by Design concept and criteria for chemicals and materials.

Please provide a reference to the initiative and information as for example on:

- Scope of application and main aim of the initiative
- Life-cycle stage covered

- Criteria areas covered related to safety and sustainability (environmental, safety, circular, governance, economic and social)
- Validation scheme (if any)

2000 character(s) maximum

World Business Council for Sustainable Development's Framework for Portfolio Sustainability Assessments (<https://www.wbcsd.org/Projects/Chemicals/Resources/Framework-for-portfolio-sustainability-assessments>).

- Main aim is to proactively steer companies' overall product portfolios towards improved sustainability performance.

- Scope of application is entire chemicals and related sectors

- Holistic approach to criteria

- Entire life-cycle

- Third party assurance is under investigation

As noted in Q3: A.I.S.E.'s Charter for Sustainable Cleaning - The Charter is a lifecycle analysis (LCA) based framework using a science-based approach with a transparent and independent third-party verification. It promotes and facilitates a common industry approach to sustainability practice and reporting.

Please upload any supporting document for your answer in Q7

Policy Goals

The objective of this section is to collect your views to better frame the purpose of the Safe and Sustainable by Design

Q7. In your opinion, what should be the focus of the Safe and Sustainable by Design criteria? Please rank your answers by giving 5 stars the most relevant options and 1 star to the least relevant.

Phasing out the most harmful chemicals	    
Developing safe and sustainable alternatives to substitute/minimise the use of substances of concern and avoid regrettable substitution	    
Sustainable sourcing of resources and feedstock	    
Minimising the impact on biodiversity and ecosystems during production and use of chemicals and materials	    

Minimising the impact on climate during production and use of chemicals and materials	    
Enabling non-toxic circularity (resource efficiency, avoidance of substances of concern in waste and recycled materials)	    
Fostering innovation and allow the green industrial transition, including by rewarding frontrunners	    
Predicting and evaluating the ability of newly designed chemicals, substances and materials to perform in a safer and more sustainable way compared with chemicals and materials currently used	    
Harmonise criteria on the safety and sustainability of chemicals and materials and the products in which they are used	    
Other	    

If other, please specify

In order to reach the ambitious goals of the Green Deal and to fulfil the UN Sustainable Development Goals a more holistic and complex approach needs to be taken, which accepts scientific limitations and addresses conflicting goals. It is impossible to project all aspects of sustainability onto the chemical properties of the raw materials. It needs to be stressed that safety and sustainability are not intrinsic properties of substances. Hence, it is important to analyse the entire life cycle, including the use phase of the products for which the chemicals are used. We also consider that it is important to agree on common guiding principles for SSbD that holistically consider all variables (product-by-product approach), are science-based and enable the supply of effective products to European citizens. The introduction of such criteria should be firstly well assessed within Pilots and industry-based Impact Assessments.

Priority sectors

The aim of this section is to collect input to identify and examine which are the most relevant sectors or applications for which Safe and Sustainable by Design criteria for chemicals and materials should be developed first. Some examples listed in the Chemicals Strategy for Sustainability are products for consumers (among others, *food contact materials, toys, childcare articles, cosmetics, detergents, furniture*

and textiles), others are construction materials, innovations for low-carbon mobility, batteries, wind turbines, or renewable energy sources.

Q8. Which are the most relevant aspects to consider in order to prioritise sectors or applications? Some examples could be environmental impact due to chemicals and materials used in this sector/application, potential for improvement in terms of safety and sustainability, large production volumes, no existing regulations, etc.

2000 character(s) maximum

Priority should be given to sectors not properly covered via horizontal legislations and where action has the biggest potential for positive impact.

We also consider that in prioritizing applications it is important to include the use phase of the products for which the chemicals are used and their contribution to the UN SDGs. As well, it is important to consider:

- The exposure pathways
- The full environmental footprint of a typical product in the sector throughout its lifecycle.
- The duration of the lifecycle and its impact on resource use
- Reliance on chemical content throughout the lifecycle and ability to assure 'safe use'
- Potential to reduce the environmental footprint
- Exposures to vulnerable populations

Q9. Which application sectors should be considered as a priority for Safe and Sustainable by Design criteria for chemicals and materials? Please name up to five application sectors in the ranking order of most important to least important, and briefly motivate your choice. If possible, provide supporting information.

2000 character(s) maximum

"no suggestion"

Please upload any supporting document for your answer to Q8 or Q9

Implementation options

Q10. There are different options that could be used to implement Safe and Sustainable by Design criteria for chemicals and materials. Please rate, in your view, which would be the most effective option, or combination of them, to achieve higher impact in this transition? Being 5 stars the most relevant.

By recommending the use of Safe and Sustainable by Design criteria in best practices for industry	
By developing a certification scheme on Safe and Sustainable by Design	
By integrating Safe and Sustainable by Design criteria for chemicals and materials into existing labeling of products or other means of information communication on products'	

sustainability	
By promoting the development and use of alternative chemicals based on Safe and Sustainable by Design criteria, e.g. through ongoing initiatives	    
By using the Safe and Sustainable by Design criteria to direct funding for R&I into new chemicals, substances, materials and products and evaluate project proposals	    
By regulating the use of chemicals based on Safe and Sustainable by Design criteria	    
Other	    

If other, please specify

1000 character(s) maximum

DUCC is supportive of industry sector voluntary initiatives committing at raising the bar and fostering sustainability in their sectors. Industry has an essential role to play in bringing the solutions to develop the SSbD products and technologies of tomorrow. Sectorial voluntary initiatives may complement individual company sustainability programs, helping industries as a whole to make advances on sustainability by sharing best practice and benchmarking progress. Such voluntary commitments, if agreed to be introduced, should be well assessed, and presented/established in a harmonised way across Europe to ensure the validity and trust of such schemes. Harmonisation is important to achieve a level playing field but should be also flexible enough to allow innovation.

Contact

RTD-SUSTAINABLE-BY-DESIGN@ec.europa.eu

