

2nd meeting High Level Roundtable

on the Chemicals Strategy for Sustainability

Ambassadors' reporting

On of the tasks of the High level Roundtable is to contribute to identifying and addressing social, economic and cultural barriers to the transition towards safe and sustainable chemicals, and act as a core group of ambassadors to facilitate discussions and promote this transition in the economy and society. This document includes the reports of all members of the Roundtable on how they have fullfilled their role of the ambassadors since the 1st meeting of the Roundtable (May 2021).

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A.I.S.E. – International Association for Soaps, Detergents and Maintenance Products

Activity 1

Short description

Creation of an A.I.S.E. steering group on the Chemicals Strategy for Sustainability (+ Zero Pollution Action Plan)

Time

From November 2020 onwards, until conclusion of CSS implementation (foreseen for 2024)

Geographical spread

Europe-wide

Main results/highlights

- Brings together experience and expertise on the different relevant areas of chemicals legislation and across disciplines/working groups, covering product knowledge (company representation), Member States landscape (national associations) and SMEs whilst addressing professional cleaning & hygiene as well as consumer products.
- Regular meetings held (average 1/month since inception).
- Assessment and prioritisation of CSS actions relevant to the sector.
- Identification of existing initiatives by A.I.S.E. (or its members) and better aligning them to the CSS actions and identification of gaps where new workstreams are needed.
- Allocation and coordination of activities and resources in A.I.S.E. working groups/task forces to address the needs of the sector in respect of the Chemicals Strategy.

Reach out (to citizens, other stakeholders' groups, etc.)

- Connection with other industry stakeholders through cross-sector platforms (including the <u>Downstream Users of Chemicals Co-ordination Group (DUCC)</u>, which also formed an analogous task force on the CSS).
- Providing relevant input to other A.I.S.E. outreach and communication activities (towards EU and national institutions, consumers and civil society organisations).

Links to websites or social media (if available)

A.I.S.E. website: www.aise.eu, plus extranet available to A.I.S.E. members.

DUCC website: www.ducc.eu

Objectives of the Chemicals Strategy the activity has contributed to

Contributes to <u>all</u> of the listed objectives (plus 'Strengthening the EU's open strategic autonomy', which was not listed) to some degree by identifying areas for action by the sector and committing appropriate resources.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

The steering group allows A.I.S.E. to maintain a holistic overview of all of the association's activities, priorities and resource allocation related to the Chemicals Strategy, enabling clear recommendations to the Board of Directors.

Activity 2

Short description

A.I.S.E. communication (external & internal) on the Chemicals Strategy for Sustainability

Objectives and actions

Awareness-raising for members and wider audiences through a wide range of events, publications and electronic media

Time

From October 2020 onwards

• Geographical spread

Europe-wide and global

Main results/highlights

- Internal or external events dedicated to/including a strong focus on the CSS include A.I.S.E.'s Annual Cleaning & Hygiene Forum; webinars for members during A.I.S.E. General Assembly and events of national associations and the international network INCPA; presentations at conferences and congresses, as well as many other internal meetings of A.I.S.E. committees, Board etc
- Frequent articles and editorials in magazines/journals and social media posts
- Updates in every members' newsletter (quarterly)
- Reach out (to citizens, other stakeholders' groups, etc.)

A.I.S.E. members and external audiences (institutions/authorities, value chain partners such as suppliers and professional cleaning organisations, research partners etc.) according to event/medium

Relevant links to websites or social media (if available) - examples

A.I.S.E. Cleaning and Hygiene Forum 2020

INCPA

ECHA Safer Chemicals Conference 2021 (participating on behalf of DUCC)

SEPAWA Congress

HPC Today Vol.15(5) 2020 (pp.44-45)

<u>Twitter</u>, LinkedIn

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

A.I.S.E. will continue to engage in communication and awareness-raising activities on an ongoing basis, including on more specific/targeted topics as implementation of the CSS progresses.

Activity 3

Short description

Investing in the transition to Safe & Sustainable by Design

Objectives and actions

Contribute A.I.S.E.'s existing experience and expertise in safety and sustainability to the development of relevant criteria

Establish new workstreams and ways of working to support the transition to 'safe and sustainable by design' (SSbD)

Time

From April 2021 onwards

Geographical spread

Europe-wide

Main results/highlights

To date A.I.S.E. has:

- contributed to the development of Key Performance Indicators to track the industrial transition by DG GROW, using expertise from its Charter for Sustainable Cleaning in particular
- provided input to the survey by DG RTD on criteria for safe and sustainable by design, based on experience from the Charter and other A.I.S.E. voluntary safety and sustainability initiatives stretching back over more than 20 years
- signed up as a supporting value chain partner for a Horizon Europe project application on an international network on safe and sustainable by design chemicals and materials
- collaborated in cross-sector networks and platforms, both existing (e.g. DUCC) and new (e.g. specific cross-industry activities coordinated by Cefic)
- created a new position for a Scientific & Regulatory Affairs Manager on 'safe and sustainable by design' (recruited to commence in January 2022), to manage activities and coordinate input from members on SSbD criteria and their implementation within the sector
- conducted interviews with member companies to understand their needs, challenges and opportunities in order to adapt A.I.S.E.'s strategy to be 'fit for the future'.

Reach out (to citizens, other stakeholders' groups, etc.)

Members and other value chain partners (plus other stakeholders in future)

Relevant links to websites or social media (if available)

<u>Charter for Sustainable Cleaning</u> <u>LinkedIn job vacancy advertisement</u>

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance

Availability, interoperability and accessibility of chemical data, harmonisation of methodologies

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Targeted workstreams to commence in 2022 to support development and implementation of SSbD criteria relevant to the sector, including potential new working groups/task forces and

collaborations with other partners. Activities may include, *inter alia*, work on methodologies for assessment of environmental hazards and impacts of raw materials; viability of bio-based materials for products and packaging; etc.

Do you plan any future activity you want to inform the Roundtable about?

A.I.S.E. 2021 Forum and Charter Symposium - Cleaning and Circularity: working together to meet the Green Deal's objectives

(8 December 2021, 14:00 – 16:10)

- This year, A.I.S.E. is combining its annual event, the Cleaning & Hygiene Forum, with its Symposium on the A.I.S.E. Charter for Sustainable Cleaning, our flagship initiative in place for more than 15 years.
- Focus will be on our contribution to the EU Green Deal's objectives, addressing notably our
 perspectives on the topics of green claims substantiation, empowerment of consumers,
 digitalisation, and general related matters. With its long history of proactive engagement to
 steer better sourcing, production, product design and sustainable use of products for the whole
 sector, the detergent industry is keen to make a tangible delivery to the Green Deal, in close
 dialogue with all stakeholders.

Event website and registration: https://aise.events.idloom.com/a-i-s-e-2021-forum-and-charter-symposium-cleaning-and-circularity-working-together

ANEC - the European consumer voice in standardisation

Activity 1

Short description

ANEC prepared and published its position papers as a contribution to developments in European policy related to the chemical safety of consumer-relevant products. Since the publication of the Chemicals Strategy for Sustainability, we have addressed in particular **Food Contact Materials, Toy Safety**, and the role of the **Revision of REACH** Regulation to help achieve a toxic-free environment.

We also contributed our perspective to the standardisation work on the **Cabin air quality** (of aircraft) and **electronic cigarettes** which we found insufficient in addressing limits for hazardous chemicals. We also successfully supported the adoption of a new work item concerning chemicals in **childcare articles** in CEN.

Time

Geographical spread

The papers were developed in consultation with the ANEC membership, made public on our website and circulated to our network. ANEC membership is open to 34 European countries.

Main results/highlights

Our papers made reference to the need of coherence with the measures taken under the Chemicals Strategy for Sustainability and following the generic risk management approach.

Reach out (to citizens, other stakeholders' groups, etc.)

Our papers are shared with our networks and made available to the European Commission and relevant stakeholders. Again, they are made available on our website, with most also shared on social media.

Links to websites or social media (if available)

- ANEC reflections on the basic directions for the future development of the EU legislative framework on Food Contact Material (FCM), December 2020 https://www.anec.eu/images/Publications/position-papers/Chemicals/ANEC-PT-2020-CEG-002.pdf
- ANEC contribution to 1st meeting of the HLR on the Chemicals Strategy for Sustainability, May 2021
 https://www.anec.eu/images/Publications/position-papers/Chemicals/ANEC-PT-2021-CEG-010.pdf
- ANEC Position paper: "Toy Safety Directive evaluation and Chemicals Strategy for Sustainability (CSS): Which way forward?", April 2021 https://www.anec.eu/images/Publications/position-papers/Child/ANEC-CHILD-2021-G-055.pdf
- ANEC-BEUC Position Paper: MAKING MORE SUSTAINABLE PRODUCTS THE NEW NORMAL, Consumer recommendations for a meaningful EU Sustainable Product Initiative, September 2021

https://www.anec.eu/images/Publications/position-papers/Sustainability/ANEC-SUST-2021-G-054-.pdf

- ANEC reply to the European Commission Inception Impact Assessment on Protecting children from unsafe toys and strengthening the Single Market revision of the Toy Safety Directive 200 9 48 /EC, October 2021 https://www.anec.eu/images/Publications/position-papers/Child/ANEC-CHILD-2021-G-130.pdf
- ANEC contribution to EC IIA Roadmap for the Revision of REACH Regulation to help achieve a toxic-free environment, October 2021 https://www.anec.eu/images/Publications/position-papers/Chemicals/ANEC-PT-2021-CEG-013.pdf

Objectives of the Chemicals Strategy the activity has contributed to

- Achieving safe products and non-toxic material cycles
- <u>Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals</u>
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies

In developing our papers we contributed to the objectives selected above. Especially the achievement of safe products and the protection of consumers and vulnerable groups represent ANEC's main goal in the area of chemicals and drive our work.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We will continue working towards the goal of achieving safer consumer products and protecting consumers and represent consumer needs in the High level roundtable.

Activity 2

Description

Meetings of the ANEC Project Team on Chemicals in June 2021 and in September 2021 discussed updates on the chemicals strategy, as well as developments in the High level Roundtable on the implementation of the chemical strategy. We reached out to ANEC members and gave them the opportunity to present and discuss the activities they carry out at the national level on chemical safety of products (e.g. testing and information to consumers).

ANEC Sherpa also reported their organisation, Danish consumer council THINK Chemicals, met with the Danish Environment Ministry to speak about consumer organisations work on the Chemicals Strategy.

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

• <u>Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals</u>

Availability, interoperability and accessibility of chemical data, harmonisation of methodologies

Our discussions revolved around the points selected above.

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

ANEC will continue discussions with its members and experts on our future activities in the area of chemical safety of consumer articles and an efficient use of our resources. We will take on board best practices used by other organisations in reaching out on the chemicals strategy.

Do you plan any future activity you want to inform the Roundtable about?

We will continue to actively follow the policy activities to which we have contributed in the past months, and related standardisation activities.

BEUC - The European Consumer Organisation

Activity 1

Short description

On 27 May, BEUC released a report documenting the presence of substances of concern in single use tableware made of popular alternatives to plastic such as moulded plant fibres, paper, or palm leaves. The report is based on a joint test by consumer groups in four EU countries who carried out laboratory testing of 57 different single-use food contact items. The report identifies various recommendations for how the EU can better protect consumers, including vulnerable groups, from the most harmful chemicals, while also promoting the use of safe and sustainable food packaging materials in line with the Chemicals Strategy for Sustainability (CSS).

Time

27 May 2021

Geographical spread

FU

Main results/highlights

Of the 57 sampled products, substances of concern were detected above recommended limits in 53% (30 samples); several samples contained more than one of the analysed chemicals. In a further 12 samples (21%), the analyses detected either pesticide residues or fluorinated compounds (PFAS) and chloropropanols close to the recommended limits.

- The results indicate that **fluorinated compounds** were used in 27 out of 41 products (66%), for example to make the products water- and/or fat repellent. This includes all the moulded fibre products as well as some paper straws.
- 12 out of 41 products (29%) exceeded the recommended value for **chloropropanols**, a group of chemical contaminants with carcinogenic properties.
- **Pesticide residues** were detected in 11 out of 39 products (28%). Among the pesticides found, several are either classified as Carcinogenic, Mutagenic or Reprotoxic (CMR), are suspected endocrine disruptors, are not approved for use in the EU or both. Some are candidates for substitution under EU pesticide legislation.

Reach out (to citizens, other stakeholders' groups, etc.)

The report was disseminated widely across the EU, with the findings drawing significant attention among citizens, policymakers, and the media alike, also in view of the EU-wide ban on certain single-use plastic items that took effect on 3 June.

Links to websites or social media (if available)

- The report is available here: www.beuc.eu/publications/beuc-x-2021-050 towards safe and sustainable fcm. report.pdf

- BEUC's press release announcing the test results are available here: www.beuc.eu/publications/toxic-chemicals-non-plastic-disposable-tableware-consumer-test-reveals/html
- An unfolding twitter thread outlining the results for lay audiences is available here: https://twitter.com/beuc/status/1397825463985266690

Objectives of the Chemicals Strategy the activity has contributed to

The report contributes towards several CSS objectives, notably:

- Delivering new evidence on the presence of substances of concern in single use tableware made of popular alternatives to plastic (improving the availability of chemical data)
- Highlighting the need to promote safe and sustainable-by-design chemicals and packaging materials, while strengthening protection of the environment from chemical pollution, including from persistent pollutants (PFAS).
- Outlining policy recommendations for how the EU can better protect consumers, including vulnerable groups, from the most harmful chemicals and ensure safe food packaging products, while promoting non-toxic material cycles.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

The report outlines several concrete recommendations for a reformed EU food packaging legislation that fully protects consumers against harmful chemicals and promotes sustainability. BEUC will continue to contribute constructively to the planned revision of EU food packaging legislation.

Activity 2

Short Description

In June, BEUC hosted an online event to give visibility to the issue of toxic chemicals in food packaging – and to identify recommendations for how the planned revision of EU food packaging legislation can contribute to realize the objectives of the Chemicals Strategy.

Time

15 June 2021

Geographical spread

EU

Main results/highlights

The event opened with a conversation between MEP Christel Schaldemose, rapporteur on the 2016 EP report on EU food packaging legislation and BEUC's Director General, Monique Goyens, on "why paper straws, plastic wraps, and coffee cups matter to consumers." Experts from BEUC members, Forbrugerrådet TÆNK (Denmark) and UFCQue Choisir (France), next presented findings from the report on single use plastic alternatives (see above); before the concluding panel debate explored how the EU can ensure that the planned reform of EU food packaging legislation results in improved consumer protection, while promoting the use of safe and sustainable packaging materials.

Takeaways from the debate included a clear consensus among speakers on the need to act now, including by BEUC President, Klaus Müller, who among others emphasised that the current patchwork of national rules and lack of effective enforcement mean that consumers are not guaranteed the same level of protection depending on where they live.

Reach out (to citizens, other stakeholders' groups, etc.)

In total, some 75 participants – representing various stakeholder groups – attended the event, which also saw strong interest on social media.

Links to websites or social media (if available)

- The event description is available here: www.beuc.eu/towards-toxic-free-food-packaging
- A recording of the event is available here: https://vimeo.com/563709825
- Takeaways from the concluding panel debate are available here:

https://twitter.com/beuc/status/1404786647414214674

Objectives of the Chemicals Strategy the activity has contributed to

The event provided public visibility to, and hence support for, the need for EU action to achieve the objectives of the Chemicals Strategy, notably to

- Promote safe and sustainable-by-design chemicals and packaging materials
- Achieve safe food packaging products and non-toxic material cycles
- Protect consumers, including vulnerable groups, from the most harmful chemicals, in particular endocrine disruptors and persistent substances
- Protect the environment from chemical pollution, including to prevent one ubiquitous, persistent pollutant (plastic) from being replaced with another (PFAS).

CEFIC - European Chemical Industry Council

Activity 1

Contribution to defining safe and sustainable by design based on pioneering company experience and methodology developed by the World Business Council for Sustainable Development.

Short description

The Chemicals Strategy for Sustainability envisages the EU industry as a globally competitive player in the production and use of safe and sustainable chemicals. Europe has frontrunner companies and the scientific and technical capacity to lead the transition to a safe and sustainable-by-design approach to chemicals. Therefore, the concept of "Safe and sustainable-by-design" will determine the future of not only chemical innovation but also chemical markets.

The European chemical industry regards the Safe and Sustainable-by-Design (SSbD) approach in the CSS as a lever to create business opportunities and growth. Grounded in the latest cutting-edge science, it should further boost the development of chemicals that are safe for humans and environment, offer an improved environmental footprint, and deliver the expected performance and value to stakeholders throughout the value chain.

The concept of sustainable chemistry and sustainable products is not fully new. OECD, ISC3, UN Environment described the sustainable chemistry concept and references to sustainable products have been made in many policy initiatives such as Ecodesign, Green Public Procurement, Ecolabels, etc. Yet, a holistic approach is needed that captures all ongoing initiatives and policy objectives into a single assessment framework and corresponding criteria, commonly agreed by all stakeholders as much as possible.

The chemical industry has already been making strides to identify safe and sustainable-by-design criteria for chemicals. In 2018, the World Business Council on Sustainable Development (https://www.wbcsd.org/) launched a roadmap for the Chemical Industry Methodology for Portfolio Sustainability Assessments. This roadmap identifies different approaches used by pioneering chemical companies to assess their sustainable performance, to proactively steer their overall product portfolios towards improved sustainability outcomes. Based on these practices, we defined the concept, developed a set of key principles, mapped criteria and corresponding assessment tools and data needed.

Our initial views are captured in a publicly-available report. We are currently discussing this report with a number of stakeholders. This paper is not exhaustive on the topic and does not represent our final views on Safe and Sustainable-by-Design. Instead, it is a work in development and an invitation to all stakeholders to discuss the concept, criteria, and the way forward on SSbD.

Time: October 2020 – on-going

Geographical spread: EU and global

Main results/highlights: under discussion

Reach out (to citizens, other stakeholders' groups, etc.): Cefic members first; European

Commission; now consulting with other stakeholders

Links to websites or social media (if available): https://cefic.org/a-solution-provider-for-sustainability/safe-and-sustainable-by-design/

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We look forward to engaging with the European Commission and other stakeholders to arrive at a common assessment framework. This framework is essential to the success of the Chemicals Strategy for Sustainability and can accelerate innovation in the chemical sector and the value chains we serve, to the benefit of realising the SDGs in general and the circularity and climateneutrality objectives in particular. Cefic has outlined its views on the future framework in a recent survey in support of the Commission services' work on the definition of Safe and Sustainable-by-Design criteria for chemicals and materials.

Activity 2:

Unprecedented, multi-level membership engagement on understanding the Chemicals Strategy for Sustainability

Description

- **Objectives and actions**: The CSS was presented to all members at multiple levels and new structures were put in place to optimise outreach and provide support:
 - Cefic Board, Executive Committee and National Associations committee fully briefed
 - 11 CSS roadshow events organised in EU and non-EU countries via national associations in 2021
 - Since October 2020, Cefic has organised four digital events to inform members and the broader community about the CSS. This includes two member-only dialogues including an introduction to the CSS and an update and exchange between industry and the European Commission. We also organised two public dialogues: one to examine the definition of Europe's essential use concept and another to discuss the Safe and Sustainable-by-Design concept. Both dialogues brought together the European Commission, MEPs, academic, industry and civil society. In total, Cefic's digital events on the CSS attracted more than 3,250 registrations.
 - Within the context of Cefic's partnership with Cruelty Free Europe, a digital Roundtable was organised gathering MEPs to discuss how to accelerate non animal testing methods in the context of the REACH revision update.

- Cefic sector groups were briefed. Several sector group boards requested a better understanding of CSS in their area.
- A cross-industry platform is in place to raise awareness of downstream user sectors
- We participated to conferences and industry events (e.g. several Chemical Watch conferences, different downstream users events, European Commission, European Parliament and ECHA events EFEO, IFEAT, Fresenius Akademie)
- We organised outreach to sister associations in other regions (US, Japan, India etc)
- Time: from October 2020 until now
- Geographical spread: EU and global
- Main results/highlights: awareness is high, up to CEO level and across organisations. As a result, more than 100 companies are engaged into assessing the economic impact of the CSS on their current product portfolio, identifying where substitution may be needed and where to prioritise their companies' R&D or innovation efforts.
- Reach out (to citizens, other stakeholders' groups, etc.): members, other institutional stakeholders and civil society.
- Relevant links to websites or social media (if available): https://cefic.org/policy-matters/chemical-safety/chemical-strategy-for-sustainability/

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Pursue awareness and digital events,

Update members and other industry associations at regular intervals,

Ensure understanding of policy changes within the industry,

Contribute to Commission studies, public consultations and impact assessments.

ChemSec

Activity 1

Suggestion on how to include the concept of "Essential use" to make the regulation more efficient as stated in the Chemical Strategy

Short description

ChemSec has developed a concept of how "Essential use" can be incorporated in regulation to facilitate a better protection from the most harmful substances. This has been followed by a number of discussions with Member states, Assistants to MEPs, people within the Commission as well as other stakeholders (scientists, industry etc). We also published a follow up paper in form of a Q&A where we give our view of many of the arguments being heard in the debate. One of our main messages has been that it's better to ask "When is it justified to use hazardous chemicals" instead of "What use is essential" since the latter spurs often a very philosophical debate.

Time

Started in Q1 2021 and ongoing

Geographical spread

ChemSec newsletter is sent to over 10000 persons all over the world.

Main results/highlights

The fact that it's better to ask "When is it justified to use hazardous chemicals" is shared by more now and makes the discussion about this issue easier.

Reach out (to citizens, other stakeholders' groups, etc.)

See above about newsletter. We also held a Webinar for a large audience (around persons 500 signed-up)

https://chemsec.org/webinar-when-is-it-justified-to-use-hazardous-chemicals/

Links to websites or social media (if available)

https://chemsec.org/publication/chemical-strategy/when-is-it-justified-to-use-very-hazardous-chemicals/

https://chemsec.org/we-need-toxic-chemicals-for-clothes-and-warm-food/

Objectives of the Chemicals Strategy the activity has contributed to :

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Essential use concept

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Description: Suggestion on how the Safe and Sustainable by design chemicals criteria should be developed and implemented.

Short description

ChemSec has developed concept- criteria of how "Safe and Sustainable by design chemicals" can be developed. This has been followed by a number of discussions with Member states, Assistants to MEPs, people within the Commission as well as other stakeholders (scientists, industry etc). We also published a follow up paper where we give our view of chemical industry suggestion of what SSbD should entail.

Time

Started in Q1 2021 and ongoing

Geographical spread

ChemSec newsletter is sent to over 10.000 persons all over the world.

Main results/highlights

One of our key messages is that the SSbD concept should drive substitution in line with the aims of the Chemical strategy.

Reach out (to citizens, other stakeholders' groups, etc.)

See above

Links to websites or social media (if available)

https://chemsec.org/publication/chemical-strategy/our-view-on-safe-and-sustainable-by-design-criteria/

https://chemsec.org/the-chemical-industrys-new-definition-of-safe-and-sustainable-is-smoke-and-mirrors/

Objectives of the Chemicals Strategy the activity has contributed to:

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Do you plan any future activity you want to inform the Roundtable about?

We have just started a project on how to reward frontrunners as stated in the Chemical strategy.

CHEM Trust

Activity 1

Promotion of the Chemicals Strategy for Sustainability, and CHEM Trust's priorities for its implementation

Short description

We have been promoting the importance of the Chemicals Strategy for Sustainability through a range of routes, including blogs, newsletters and presentations at conferences. We have then promoted these through a range of methods, including Linked In and twitter.

We have also identified our priorities for the implementation of CSS, in collaboration with Civil Society groups and others, and have been communicating these priorities.

Time

Since the launch of CSS

Geographical spread

- Mainly EU, but also beyond including US and UK

Main results/highlights

- Communicated to a range of audiences about the CSS

Reach out (to citizens, other stakeholders' groups, etc.)

 Other NGOs around Europe and beyond who are involved in work in this area were informed about the CSS and our priorities

Links to websites or social media (if available)

Selected blogs:

"CHEM Trust welcomes the European Commission's new Chemicals Strategy for Sustainability", 14th October 2020, https://chemtrust.org/new-european-chemicals-strategy/

"New EU chemicals strategy promises a more protective approach to regulating chemicals in food contact materials", 3rd November 2020, https://chemtrust.org/revision-fcm-css/

"2021, a decisive year for action against endocrine disrupting chemicals in the EU?", 3rd Feb 2021, https://chemtrust.org/2021-eu-edc-policy/

"The EU Chemicals Strategy for Sustainability – one year on", 7th October 2021, https://chemtrust.org/css-one-year-on/

Newsletters:

Our main newsletter, including a story about the CSS:

https://us18.campaign-archive.com/?u=427121cff9f1b71a8caa3e46c&id=2f472ca423

Our joint newsletter "Food for Thought", focussing on chemicals in food contact materials, with a story on the CSS:

https://us18.campaign-archive.com/?u=427121cff9f1b71a8caa3e46c&id=853077ac20

Selected presentations:

10th November 2021, Stefan Scheuer gave a presentation <u>"FCM policy in the EU</u> <u>Time to close the safety gap"</u> at 'Consumers Come First' Conference 2021 organised by Safe Food Advocacy Europe

On 9th November 2021, Dr Michael Warhurst gave a presentation on "The EU Chemicals Strategy for Sustainability: An evaluation from an NGO point of view" to the Fresenius Conference on "Sustainability and Chemicals Production".

On 28th September 2021, Dr Michael Warhurst gave a presentation on "Potential of a grouping approach to improve effectiveness of the enforcement of chemicals legislation" at the Chemical Watch "Global Enforcement Summit 2021".

Presentation by Dr Michael Warhurst on "<u>CHEM Trust's priorities for one substance one assessment</u>" at a Chemical Watch conference on "<u>The EU's Chemicals Strategy for Sustainability: Key Issues for Industry</u>" on 13th January 2021

Objectives of the Chemicals Strategy the activity has contributed to

By calling for a ban of the most hazardous substances from consumer products, including FCM, by 2030 by inter alia using GRA and grouping we promote:

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We will be continuing to highlight the importance of the CSS and our priorities for its implementation, including beyond the EU.

Activity 2

Description: In-depth engagement in the science and policy around development of key areas of the CSS, including on Mixtures, Endocrine Disrupters and Persistent and Mobile chemicals, including PFAS

Objectives and actions

Contributing our scientific and policy expertise to the detailed implementation of the CSS, including:

- Participation in CARACAL-related processes (including meetings) on EDCs, PMTs and Mixtures
- Providing evidence and support for group restrictions
- Submitting comments to consultations in these areas

Time

- throughout

Geographical spread

- EU

Relevant links to websites or social media (if available)

Selected talks:

On 9th December 2020, Pia Juul Nielsen and Dr Julie Schneider gave a presentation at the Japan Symposium on EDCs organised by the Japan Endocrine Disruption Preventive Action (<u>JEPA</u>)

- The EU regulatory saga on Endocrine Disruptors and latest developments by Pia Juul Nielsen. Presentation available in <u>Japanese</u>.
- *PFAS The Forever Chemicals: Contaminants of global concern* by Dr Julie Schneider. Presentation available in Japanese.

On 11th December 2020 Pia Juul Nielsen gave a presentation, "<u>Perspectives on and expectations to test method development by the EURION Cluster projects</u>", at a stakeholder workshop organised by the <u>EURION Cluster</u>.

On March 26th 2021 Ninja Reineke gave a presentation on "<u>How to achieve better protection of the environment and human health from PMT/vPvM substances</u>" at the 3rd PMT Workshop: "<u>Getting Control of PMT and vPvM substances under REACH</u>" organised by the German Environment Agency.

On 22^{nd} June 2021, Pia Juul Nielsen gave a presentation on introduction of "New hazard classes on endocrine disruptors in CLP" and contributed to the discussion at a webinar in the European Parliament, arranged by Maria Arena from the ENVI committee.

On 15th July 2021, Dr Julie Schneider gave a joint presentation with Jitka Straková from IPEN/Arnika on "Throwaway Packaging, Forever Chemicals: European wide survey of PFAS in disposable food packaging and tableware" at a webinar organised by CHE EDC Strategies Partnership in the context of their webinar series on <u>PFAS, Science and Policy</u>. A recording of the webinar is available <u>here</u>.

Selected policy submissions:

CHEM Trust comments on PMT/vPvM and PBT/vPvB criteria proposal for CLP in follow-up to the Ad-Hoc CARACAL meeting which took place on 30 September 2021.

<u>CHEM Trust and HEAL comments</u> in follow-up to the 5th CASG-ED meeting discussing classification of Endocrine Disrupting Chemicals, which took place on 13th September 2021.

<u>CHEM Trust's comments</u> on the European Commission's draft Restrictions Roadmap, September 2021

CHEM Trust submitted a <u>response</u> to the Commission's Inception Impact Assessment on the <u>revision of the CLP legislation</u>, May 2021

CHEM Trust submitted a <u>response</u> to the Commission's Inception Impact Assessment on the revision of the REACH Regulation, May 2021

CHEM Trust <u>submitted policy input</u> together with HEAL and ClientEarth to the 4th meeting of the Competent Authorities Sub-Group on Endocrine Disruptors for the discussion of a draft proposal on hazard classes for endocrine disruptors in CLP, March 2021.

CHEM Trust <u>responded</u> to the Commission's <u>consultation</u> on a roadmap for Revision of EU rules on food contact materials, January 2021.

CHEM Trust <u>submitted comments</u> on CARACAL paper 'Second workshop on a pragmatic approach to address the risk from combined exposure to non-intentional mixtures of chemicals – REACH as an example', January 2021

Objectives of the Chemicals Strategy the activity has contributed to

By supporting EDC and PMT identification and regulation, introduction of a MAF and providing evidence for regulating specific groups of substances regulating groups we are:

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

We will be continuing with this in-depth engagement.

Do you plan any future activity you want to inform the Roundtable about? As above

CIEL - Center for International Environmental Law

Activity 1 - Short description

Following the publication of the "Chemicals Strategy for Sustainability," CIEL analyzed the global policy aspects of the Strategy in its report "The Chemicals Strategy for Sustainability: How can the European Union set an example to the world?"

After laying out the EU's commitments toward global chemicals management, we analyzed potential gaps and synergies and detailed practical steps to achieve these commitments over the next few years. They include:

- Ensuring that hazardous chemicals banned in the EU are not produced for export. In particular,
 the analysis identified that strong action is needed to protect against highly hazardous
 pesticides. The EU should be championing a global ban on the production and use of highly
 hazardous pesticides and advance its position as a model regulator through the prohibition of
 the importation of food treated with pesticides banned or severely restricted in the EU.
- Having a leading role and promoting the implementation of existing international instruments
 (such as the Basel, Rotterdam, Stockholm, and Minamata Conventions). This entails, for
 instance, supporting the listing of new Persistent Organic Pollutants (POPs) in the Stockholm
 Convention without adding exemptions that allow continued use of POPs; lowering the
 current low POPs content levels (LPCL) in order to uphold the objectives of the Basel and
 Stockholm Conventions; and promoting alternative technologies for POP-containing waste,
 rather than waste incineration or co-incineration in cement kilns.

The report included suggestions to implement other global commitments of the Strategy, such as:

- Building capacity to assess and manage chemicals safely in third countries, including through cooperation with Africa;
- Promoting the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and introducing new criteria/hazard classes;
- Meeting the 2030 Agenda's goals for the sound management of chemicals, and adopting strategic objectives and targets for the sound management of chemicals and waste beyond 2020 (such as in the context of SAICM beyond 2020).

The analysis was translated into French and Spanish to easily reach other regions where the EU Strategy is set to have an impact, such as in African, Latin American, and Caribbean countries.

Links to websites: https://www.ciel.org/reports/chemicals-strategy-for-sustainability-analysis/

Analysis In English / En Español / En Français

Objectives of the Chemicals Strategy the activity has contributed to

• Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

With complete and proper implementation of the Strategy, the EU is poised to set a high bar for the international community to meet regarding chemicals management. This requires avoiding loopholes and adhering to the commitments made in the Strategy.

CIEL's analysis can be used in the next few years by partners in the EU and non-EU countries to assess, monitor, and learn from the implementation of the Strategy, creating a ripple effect in the rest of the world.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We recommend continuing using the analysis as a paper trail, being steadfast in holding the EU to these commitments, and reminding other Roundtable members to act towards the same full, proper, and steady implementation goal. Gaps and loopholes in the implementation of the Strategy, including of its international commitments, will set a dangerous precedent of allowing corporate interests to trump human and environmental health commitments and will in turn exacerbate citizens' mistrust of the EU chemicals regulations.

Activity 2 - Description

CIEL made a submission to the call for inputs for a future report on "Toxic-free places to live, work, study and play" by two UN independent experts (the "UN Special Rapporteur on human rights and the environment" and the "UN Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes"). Our submission contains several EU-related sections, including:

- Data on the impact of the REACH regulation showcasing EU laws as good practices for addressing toxic environments and increasing information on substances;
- Examples of good practices taken from the Chemicals Strategy (e.g., commitments to
 move away from ad hoc regulation of chemicals on a substance-by-substance basis to
 regulating them via a grouping approach, commitments to apply a preventive
 approach to risk management, and commitments to add mixture assessment factors
 in the chemical safety assessment of substances, etc.);
- The role of the EU and its member states in global toxics prevention and rehabilitation.

Link: all submissions to the call for inputs, including CIEL's, should be published at: https://www.ohchr.org/EN/Issues/Environment/SREnvironment/Pages/ToxicFree.aspx

Objectives of the Chemicals Strategy the activity has contributed to

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

The Chemicals Strategy includes a few references to human rights; for instance, it mentions that "chemical pollution is recognised to be a threat to the right to a life with dignity, notably for children and in particular in low and middle-income countries," and it commits to ensuring the safety of children from hazardous chemicals in childcare articles and other products.

CIEL's contribution to the upcoming report on "toxic-free places to live, work, study and play" is providing the UN Special Rapporteur on human rights and the environment and the UN Special Rapporteur on toxic and human rights with examples from the EU regulations and the Chemicals Strategy, as well as examples of how populations can be empowered to protect their rights. These will reach international audiences, including other UN members, businesses, human rights experts, and civil society organizations.

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

The recognition of the link between hazardous chemicals and their human rights impacts is often limited and incomplete.

We recommend members consult the upcoming UN Special Rapporteurs' report on "toxic-free places to live, work, study and play," which will be presented to the UN Human Rights Council in March 2022. Several previous <u>thematic reports</u> of the UN Special Rapporteurs also contain valid suggestions to ensure the respect and promotion of human rights in the context of toxic substances.

COOP Danmark A/S

Activity 1

Short description: We have been working with phasing out harmful chemicals and guiding suppliers for more than 20 years. On our everyday operations we are enforcing a PFAS- and all Bisphenols ban implemented in 2014 and 2015. We are conducting tests on a monthly and guiding our suppliers to avoid the use of and identifying possible areas wherein PFAS might be present. We do not have a date for adopting the Chemicals Strategy as such. We are a part of Chemsec business group and are working with some of the leading researchers in the world on the cocktail effect and endocrine disruptors e.g. Phillippe Grandjean, Anna-Maria Andersson. We have been been investigating endocrine disruptors since 2002 which led to our first ban of parabens and phthalates for private label products and UV-filters which was banned in all products sold in our supermarkets. Latest addition to our chemicals program is a strategy for textile, wherein we are discussing how mitigation of harmful chemicals can go hand-in-hand with recycling/upcycling. This agenda also applies to other sections of our commercial division. Within Food Contacting Materials the use of recycled and natural materials is trending. We have a strong focus on user safety and are collaborating with a commercial laboratory on deciphering these new materials and the risk and exposure scenarios. In general chemicals management is a stringent part of our governance and the requirements are stated as a basic condition in our trade agreements.

Time: Everyday basis

Geographical spread: Global

Main results/highlights: We have been PFAS- and Bisphenols free in all private label products since 2015. In 2019 we implemented a PFAS-ban on all products regardless of these being private label or sellers brand. Meaning that all cosmetics products sold in a Coop shop is free from PFAS. Restriction on PVC to avoid phthalates. We are running expanded testing including all 19 phthalates registered on Annex XVII, Annex XIV and the Candidate list.

Reach out (to citizens, other stakeholders' groups, etc.): We have been supporting other global retailers on the PFAS-programs for the last 5 years. We do not see the protection of consumers as a competition but a duty for all retailers. In 2017 we launched the campaign "Nykemilov" which aimed for better regulation on endocrine disruptors. The campaign aimed to have consumers sign a petition requiring the danish parliament to improve actions on endocrine disruptors. See aftermovie:

Links to websites or social media (if available): Link til film https://vimeo.com/257661067

Objectives of the Chemicals Strategy the activity has contributed to

Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment):

During the creation of the danish PFAS-ban, we were summoned by the danish authorities
to give advice on the commercial pros and cons. We gave input on our enforcement
procedures, costs and availability of commercial alternatives. We see this way of working
as the way forward. Collaboration between authorities, scientists, researchers, NGO's and

commercial partners is key. This broad collaboration is the very reason why Coop Danmark has been able to act as a global leader in restricting harmful substances.

- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Description

We have implemented Total Organic Fluor testing as our default testing method on textiles for indicating the use of PFAS. We already implemented this unofficially in 2017 due to the huge amount of different PFAS available. Due to the high number of PFAS and the very limited options for identifications test, TOF-testing is our last resort.

- Time: August 2021
- Geographical spread: Global
- Main results/highlights: Ensuring that no PFAS are present in our products.
- Reach out (to citizens, other stakeholders' groups, etc.): Using the TOF-testing is a part of our main recommendations to other colleagues in retail trying to remove PFAS from products.
- Relevant links to websites or social media (if available)

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance

- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

CORBION

Activity 1

Short description

Input to the Revision of the Cosmetic Products Regulation roadmap consultation

Time

November 2021

Geographical spread

Europe

Main results/highlights

N.A

Reach out (to citizens, other stakeholders' groups, etc.)

N.A

Links to websites or social media (if available)

Feedback from: Corbion (europa.eu)

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Description

- Input for zero pollution ambition Europe
- Time: February 2021
- Geographical spread: Europe
- Main results/highlights: NA
- Reach out (to citizens, other stakeholders' groups, etc.)NA
- Relevant links to websites or social media (if available)
 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12588-EU-Action-Plan-Towards-a-Zero-Pollution-Ambition-for-air-water-and-soil/public-consultation_en

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Protecting the environment from chemical pollution

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

COSMETICS EUROPE

Activity 1

Information within the cosmetics sector

Outreach to Cosmetics Europe membership (companies and national associations) on CSS: information on the content and impact of the CSS on cosmetics industry, preparing ahead of relevant implementing regulations. Outreach through internal information sessions and working group discussions. Outreach to Cosmetics Europe sister associations ex-EU to inform on CSS strategy and industry impact.

Time – Since publication of CSS Strategy

Geographical spread - Europe - US/Canada - Asia - South America

Main results/highlights – Awareness raising within global cosmetics industry

Reach out (to citizens, other stakeholders' groups, etc.) – as per above

Links to websites or social media (if available) – none, internal

Objectives of the Chemicals Strategy the activity has contributed to

Focus has been on promoting the overall objectives of the CSS rather than focusing on specific points.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Participation in stakeholders' debate since launch of CSS, Submitting responses to public consultations, participation in Commission stakeholder meetings (Participation in CARACAL meetings, individually or as representative of the DUCC (Downstream Users of Chemicals Coordination Group, regular participation in Commission Working Group on Cosmetics Products..)

Ex. 1-Response to Inception Impact Assessment on revision of the Cosmetics Product Regulation (consequence of CSS) (October/November 2021)

Feedback from: Cosmetics Europe (europa.eu)

The announced revision of the Cosmetics Regulation is focusing on aligning several of the approaches announced under the CSS to the cosmetics framework, including the generic approach to risk management, the essential uses concept, the simplification of processes and the definition of nanomaterials. Cosmetics Europe provided comments to the proposals of the IIA, stressing its support for the CSS objective of a robust chemicals policy framework that protects consumers and the environment, and stressing that any revision of the CPR should acknowledge the long history of high level of safety of European cosmetic products and keep at its core the principle of "demonstrated safe use" through a strong sectorial regulatory framework, that is science-based, proportionate, effective and efficient for consumers, industry and authorities.

Ex. 2- Response to public consultation of the revision of the CLP Regulation (November 2021)

Ex. 3-EDC Targeted Consultation – Introduction of standard information requirements for EDCs (October 2021)

Ex. 4 - CSS Action on extended information requirements under REACH - Survey on New Approach Methodologies (NAMs) (July 2021)

Activity 3

Organisation of public event

Cosmetics Europe Annual Conference June 2021 – "People, Planet, Products"

Time – June 2021

Geographical spread – Europe – US/Canada – Asia – South America

Main results/highlights – A major event within the cosmetics industry, the Cosmetics Europe Annual conference is an event organised yearly to bring together international cosmetics and personal care leaders to discuss global trends and latest industry developments.

The conference was focusing on the European Green Deal and its implications for cosmetics and personal care industry. One panel debate focused on the CSS and the major implications of the CSS for the EU Cosmetics Products Regulation. Panel speakers were Kestutis Sadauskas, DG ENV, European Commission, Maria Spyraki, Member of the European Parliament, Marco Mensink, Director General, Cefic, Peter Boris Schmitt, Corporate Director & Head of EU Office, Henkel.

Reach out (to citizens, other stakeholders' groups, etc.) – Open to all – this year's on-line event was free of charge and assembled representatives from the cosmetics and supplier industries, NGOs and regulators.

Links to websites or social media (if available) – <u>Cosmetics Europe - The Personal Care Association:</u>
<u>Cosmetics Europe Annual Conference 2021</u>

COVESTRO

Activity 1

Short description

Greener Manufacturing Show 2021 at Cologne

Time

10/11 November 2021

Geographical spread

Trade Fair in Cologne/Germany, international audience

Main results/highlights

Presenting our Covestro commitments and concrete results/products of reducing our CO2 footprint during production processes, use of renewable resources and design for recyclability including digital product passports.

Reach out (to citizens, other stakeholders' groups, etc.)

Value chain partners, customers, academia, interested stakeholders

Links to websites or social media (if available)

www.covestro.com

The Greener Manufacturing Show 2021 | Cologne, Germany (greener-manufacturing.com)

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles (see above)
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models); developing blockchain solutions and other kind of digital product passports with partners along the value-cycle in order to increase transparency and trace sustainable manufacturing.
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Inform all CSS HLRT members about next years' Greener Manufacturing Show. Continue to present our Covestro commitment and solutions to achieve the CSS goals.

Activity 2

Description: Research and marketing of two product lines (see more information on website

Objectives and actions: Products have been designed to increase sustainability – with success!

Time: ongoing

Geographical spread: global **Main results/highlights:** see below

Reach out (to citizens, other stakeholders' groups, etc.) Value chain partners, Businesses,

Customers

Relevant links to websites or social media (if available) https://www.niaga.world/home.html https://decovery.covestro.com/en/home.html

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment) Example: 1. Decovery product line: Research was focused on introducing plant-based raw materials in order to change commodity chemicals into renewable raw materials including value chain partners. 2. Niaga: Goal is to design everyday products to facilitate recyclability for reducing waste.
- Achieving safe products and non-toxic material cycles (see above)
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models): We work on a digital product passport to foster transparency on the ingredients; see information niaga link (above)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Do you plan any future activity you want to inform the Roundtable about? Sure, but no activities/timeline to be shared yet.

EEB - European Environmental Bureau

Activity 1

<u>High level event</u> "The Chemicals Strategy for Sustainability: reflections for a non-toxic environment, including a pre-screening of the film "Minamata" starring Johnny Depp and an intimate conversation with Frans Timmermans (First Executive Vice President, European Commission)"

Short description:

The event was co-organised by the EEB, the Dutch permanent representation and FIPRA.

The objective of the event was to facilitate a dialogue that presents different perspectives on the published Chemicals Strategy for Sustainability and contribute to the further implementation and development of chemicals policy in the EU, to transition to a toxic-free, climate neutral and fully circular economy.

Chemicals are part of everyone's life, the event therefore aimed to make the dialogue accessible and easy to grasp for the general public.

The event consisted of three main components:

- (1) A panel discussion on lessons learned from the past, involving the thought provoking film *Minamata*. This panel focused on key takeaways of the movie Minamata and how these are relevant for the challenges we are facing today.
- (2) An **interactive conversation with Frans Timmermans**, the First Executive Vice President of the European Commission on the importance of the strategy for the EU's ambitions and how it will impact the lives of EU citizens.
- (3) a **multi-stakeholder panel** focusing on key messages and takeaways when looking forward to how the EU the Chemicals Strategy for Sustainability addresses the needs of various EU stakeholders (society, industry, consumers, national governments) and what will be key in its further implementation.

Time: 19 October 2020

Geographical spread: International

Main results/highlights: Over 400 people joined our event live and 897 people watched it afterwards.

Very important conclusions and reflections were shared by the speakers, for example:

Andrew Levitas, *Movie Writer-Director-Producer of 'Minamata'*, The aim of the movie is to open a wider reflection on industrial pollution and the reminder that we are part of the same community. Andrew stated that a right to an "unpolluted life" is the first right as a human being.

Frans Timmermans, First Executive Vice President for the European Green Deal (European Commission), stressed the need to keep the strategy ambitious to make sure we really increase safety of people and environment. He ensured that health will not be sacrificed to economic growth. He cautioned that we should not be afraid for chemicals per se, either and encouraged the industry to innovate.

Diana Visser, *Sustainability Director at Corbion*, welcomed this 'progressive' strategy which supports frontrunners. She cautioned that financial support should benefit innovation (*e.g.* academia and frontrunners), not only big companies struggling with changes. Diana advised the European Commission that the development of regulation should ensure real prices, so in other words pricing of externalities. Current market prices do not capture the costs to society as a whole. She also stated that safer chemicals are good for businesses.

Marius Vaščega, Head of Cabinet Environment, Oceans and Fisheries (European Commission), stated that the precautionary principle as such will not hinder achieving innovation and safety at the same time.

Reach out: Politicians, (high-level) policy-makers, representatives from industry, NGO's, consumer organizations and sector associations.

Links to websites or social media (if available):

Youtube link: https://www.youtube.com/watch?v=6LeahclaN4s&list=PL99ffbmNw-DprOdfor9PV2go41kcDi4J-&index=16&t=35s

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Recommendation: to have more cooperation among different stakeholder interest group, as an NGO, to work hand in hand with competent authorities and industry was very fruitful and the discussions turned out to be very fruitful and balanced.

Activity 2

Short description: International-High level presentations on the CSS

Time: from October 2020 to November 2021

Geographical spread: International

Main results/highlights: The CSS was defended and publicised in high level discussions at UN and OECD level among others.

Reach out (to citizens, other stakeholders' groups, etc.): all

Links to websites or social media (if available)

UN webinar "Green and Sustainable Chemistry: From Objectives to Action"

OECD <u>Global Forum on Environment</u>: Towards cost-effective management systems for industrial and consumer chemicals

Helsinki Chemicals Forum

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

ENDOCRINE SOCIETY

Activity 1

Short description Online and print articles in Endocrine News, Endocrine eNews, and Advocacy in Action

Time September through November 2021

Geographical spread Global

Main results/highlights Information sharing with our network of over 18,000 endocrine professionals.

Reach out (to citizens, other stakeholders' groups, etc.)

Distribution of information about the Chemicals Strategy and role of the Endocrine Society to our worldwide audience of endocrine professionals, including scientists, clinicians and trainees.

Links to websites or social media (if available)

- (2) https://www.endocrine.org/news-and-advocacy/news-room/2020/endocrine-society-welcomes-european-commission-chemical-strategy
- (3) https://www.endocrine.org/advocacy/society-letters/2021/css-roundtable-es-written-contribution

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Strengthening chemical science-policy interface

Our magazine and newsletters alert scientists, clinicians, and other healthcare professionals to pressing issues facing the field. Sharing information about the chemicals strategy and the Endocrine Society's positions ensures that our member communities are aware of the proposed actions undertaking by policymakers in support of the goals of the chemicals strategy, and allow us to also gather input from the broader membership to inform our contributions. Additionally, presentations and updates about the discussions and outcomes of the roundtable are shared during meetings of relevant member groups, including our Advocacy and Public Outreach Core Committee and EDC Advisory Group, ensuring alignment on our policy work in the US, EU, and around the world

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We will continue to report out on discussions and outcomes of the Roundtable, in particular for discussions related to endocrine-disrupting chemicals (EDCs). We are happy to share examples of our communication vehicles and letters with members of the Roundtable.

Activity 2

Description

The Endocrine Society and the International Pollutants Elimination Network (IPEN) hosted a webinar sponsored by IPEN, the Endocrine Society, and the Alaska Community Action on Toxics on "Human Health Threats from Chemicals in Plastics". The webinar featured presentations by Society members Laura Vandenberg and Jodi Flaws. Drs. Vandenberg and Flaws, who are authors of a report on Plastics, EDCs and Health jointly produced by the Endocrine Society and IPEN. During the webinar, they drew on the evidence summarized in the report to explain how endocrine-disrupting chemicals (EDCs) in plastics contribute to human health harms through effects on endocrine systems.

https://www.facebook.com/180181073630065/posts/379646507016853/

Objectives of the Chemicals Strategy the activity has contributed to

• Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals

The webinar featured simultaneous translation into several language, and participation was opened to the public, health professionals, and media representatives.

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

The Endocrine Society and IPEN will continue to collaborate on educational activities for the public on the health effects of endocrine-disrupting chemicals.

Do you plan any future activity you want to inform the Roundtable about? Not at this time

EUCHEMS

Activity 1

"The value is on circularity – Recycling-reusing-reinvesting on critical raw materials" webinar

Short description

The webinar was jointly organised by the European Chemical Society (EuChemS) and Maria Spyraki, Member of the European Parliament.

The objectives of the webinar were:

- Open discussion on critical raw materials for the EU economy involving all stakeholders;
- Presentation of the scientific basis to foster stronger policies for the protection of endangered elements in the EU;
- European Commission's Action Plan on Critical Raw Materials and a foresight study;
- Critical Raw Materials and Horizon Europe;
- The need to widen educational efforts at all levels of society to raise awareness on the limits of material resources and the need to implement a circular economy.

Time

05 November 2020

Geographical spread

Europe (with invitation open beyond it)

Main results/highlights

Raising awareness about the importance of implementing a circular economy.

Reach out (to citizens, other stakeholders' groups, etc.)

The event was an invitation for open discussion on critical raw materials for the EU economy involving all stakeholders (please see the programme and video links).

Links to websites or social media (if available)

https://www.euchems.eu/the-value-is-on-circularity-recycling-reusing-reinvesting-on-critical-raw-materials/

https://www.euchems.eu/the-value-is-on-circularity-recycling-reusing-reinvesting-on-critical-raw-materials/

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Strengthening chemical science-policy interface

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

EuChemS has such science-policy debates as an important part of its activity, as a contribution to shaping policy at the European level with scientific knowledge.

Activity 2

Online webinar series based on the EuChemS Periodic Table of Elements

Short description

EuChemS has published in 2019 the EuChemS Periodic Table of Elements showing the scarcity of the elements. To keep drawing attention to these issues, a series of workshops have been and will be organised highlighting the challenges focused on one of the elements. The first workshop was "The Carbon Element – Key towards a sustainable society", held on 22 April 2021. The discussions resulted in an updated version of the EuChemS Periodic Table in which the coulour of carbon was changed graphically underlining the problems with carbon in our society. If we behave responsibly by cutting our dependence on fossil fuels and never using it from conflict resources, we can save our beautiful and diverse planet and restore carbon to its rightful green colour. The next webinar will be "The Element Lithium – Enabler of the Energy Transition" and will be held on 01 December 2021. In 2022, workshops on nitrogen and phosphorus are planned.

Time

Next one on 01 December 2021, please see the link below.

Geographical spread

World-wide

Main results/highlights

Awareness amongst citizens on the importance on limited natural resources and clean and healthy environment

Reach out (to citizens, other stakeholders' groups, etc.)

Primarily citizens, schools, policy makers. The EuChemS periodic table was also included in a publication of the European Environment Agency https://www.eea.europa.eu/publications/circular-economy-in-europe-insights

Relevant links to websites or social media (if available)

https://www.euchems.eu/lithium-element-webinar/

https://www.euchems.eu/euchems-periodic-table/

https://www.euchems.eu/wp-content/uploads/2021/11/211103Press-Release_Periodic-Table.pdf https://www.euchems.eu/carbon-element-webinar/

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Promotional activities across Europe continue.

Activity 3

Articles in the EuChemS Newsletters: Brussels News Updates (BNU) and Chemistry in Europe (CiE)

Short description

Through its newsletters EuChemS informs chemists, policy makers and citizens about scientific updates relevant for the society.

Time

Brussels News Updates newsletter is released on a monthly base.

Chemistry in Europe Newsletter is released quarterly.

Geographical spread

Europe (and beyond)

Main results/highlights

Please see some of the articles on below links.

Reach out (to citizens, other stakeholders' groups, etc.)

To chemists, policy makers and other interested citizens

Relevant links to websites or social media (if available)

https://www.euchems.eu/newsletters/

https://www.euchems.eu/newsletters/chemistry-in-europe-2020-3/

https://www.euchems.eu/newsletters/chemistry-in-europe-2021-2/

https://www.euchems.eu/newsletters/chemistry-in-europe-2021-1/policy/

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

EuChemS invites for contributions to the Chemistry in Europe newsletter.

Do you plan any future activity you want to inform the Roundtable about?

The next chemical element that EuChemS will be discussing is lithium. Further information and registration link to the event is available here https://www.euchems.eu/lithium-element-webinar/

EUROMETAUX

Activity 1

Short description

Proactive outreach to industry (within sector, and cross-sector) – raising awareness and discussing aspects of CSS – understanding impacts, coherence with other EU objectives, new concepts, etc.

Time

2021 year to date

Geographical spread

EU. Global perspective for activities around strengthening EU's open strategic autonomy

Main results/highlights

Development of "3Cs" concept to help balance objectives on Chemicals management of hazardous substances, Climate, and Circularity

Reach out (to citizens, other stakeholders' groups, etc.)

Eurometaux membership, other industry sectors, academia, general chemicals community (including presentation at three Chemical Watch events in 2021)

Links to websites or social media (if available)

<u>Event Listing | The EU Chemicals Strategy for Sustainability: One Year On | Events & Training</u> (chemicalwatch.com)

Objectives of the Chemicals Strategy the activity has contributed to

• Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)

Active participation in cross industry group led by Cefic

• Achieving safe products and non-toxic material cycles

Outreach to metals sector to raise awareness of concept of "Substance of Concern" (SoCs) and to gather feedback useful in assessing possible impact given that SoCs definition covers 80% of metals needed for the green transition. Exercise also covered other aspects of CSS – Most Harmful Chemicals (MHCs), essential use concept, Mixture Assessment Factor (MAF).

Active participation in cross industry group led by Cefic

• Strengthening the EU's open strategic autonomy

Metals demand is projected to increase significantly in line with society's transition away from fossil fuels towards climate-neutrality, with recycling as a key route to improving Europe's resilience. The CSS aims to reconcile the EU chemicals framework with sustainability aspects, namely climate and circularity. To help understand this complex picture, Eurometaux has developed the "3Cs" approach – Chemicals, Climate, Circularity – and applied it to metals and inorganics to highlight key value chains and contributions to the Green Deal key challenges, namely the zero pollution ambition, decarbonisation, and circular economy

• Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals

Impact assessment on combined toxicity – Mixture Assessment Factor (human health and environment). Carried out for metals and shared with ECHA and Commission in Q1 2021.

 Availability, interoperability and accessibility of chemical data, harmonisation of methodologies

Eurometaux is putting together MEED – the Metals Environmental Exposure Data program – in the context of the Zero Pollution Ambition and the REACH Metals and Inorganics Sectoral Approach (MISA) framework. MEED is a long-term initiative to collect regional environmental exposure data for a number of different metals, and consists of six different projects funded by the membership, aiming at a) improving knowledge and data quality on environmental exposure, b) address combined effects

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

With all stakeholders, development of the Sustainable Metals and inorganics Concept, that takes the 3Cs and brings in social, industrial and economic considerations – including EU competitiveness and strategic autonomy

Implementation of Metals Environmental Exposure Data program (MEED)

Activity 2

Short description

Providing metals sector input gathered from the membership to the Commission, on different aspects of the CSS – through public consultation, working/expert groups and similar.

Time

2021 year to date

Geographical spread

EU

Main results/highlights

Eight responses provided, and participation in six groups

Reach out (to citizens, other stakeholders' groups, etc.)

Eurometaux membership, for all responses developed for input to Commission

Links to websites or social media (if available)

Objectives of the Chemicals Strategy the activity has contributed to

 Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)

Participation in informal discussion group, and written response to DG GROW on thought starter on Chemicals Strategy Key Performance Indicators for Safe and Sustainable by Design –30 Apr 2021

Response to: Survey in support of the Commission services' work on the definition of Safe and Sustainable by Design criteria for chemicals and materials – 30 Jun 2021

Achieving safe products and non-toxic material cycles

Response to: Public Consultation on the Sustainable Products Initiative (SPI) - 8 Jun 2021

Response to: SPI Impact Assessment – Targeted Survey for all types of stakeholders – 9 Jun 2021

• Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals

Participation in Competent Authorities for REACH and CLP (CARACAL) subgroup working on endocrine disruptors

Targeted Consultation – Introducing Standard Information Requirements for Endocrine Disruption

Participation in Kemi/RIVM (chemicals agencies in Sweden, Netherlands) workshops on the MAF - sharing of outcomes of impact analysis of MAF for metals with ECHA/Commission

Participation in 24 November workshop on MAF

Hazard and risk assessments of chemical substances or groups of substance

Response to public consultations on Inception Impact Assessments (IIA) for Revisions of REACH and CLP - 1 Jun 2021 (both)

Comments and suggestions on the CARACAL paper CA/34/2021 as presented at the 40th CARACAL meeting - 10 Sept 2021

Participation in 12 Nov workshop on the reform of REACH Authorisation and Restriction

• Strengthening chemical science-policy interface

Will participate in Commission workshop on Research & Innovation plan for chemicals in the Green Deal era scheduled on 17 Nov

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Eurometaux will continue to gather input from the membership and feed it into the Commission e.g., via public consultations – with the objective of smoothing the implementation of the CSS

Do you plan any future activity you want to inform the Roundtable about?

-Eurometaux virtual event on 7 Dec — "Green Deal Metals in Europe: Tackling the Zero-Pollution Challenge". Speakers from European Environment Agency, Umicore, United Nations Environmental Program (UNEP) International Resource Panel

-Updated Risk Management Options Selection Approach considering coherence between climate, circularity and chemicals management, and essential uses

HEAL - Health and Environment Alliance

HEAL has a dedicated area of work for addressing toxic chemicals. A comprehensive information on HEAL's activities in this area can be found here: https://www.env-health.org/issues/toxic-chemicals/.

In particular, one major focus of HEAL's work since the adoption of the CSS has been ensuring progress in the identification and restriction of endocrine disruptors (EDCs), particularly to establish legally binding hazard classes for EDCs under the EU Chemicals Strategy. Hazard classes will be developed within the CLP legislation and should include a category for suspected EDCs in order to reflect the different levels of the available scientific evidence for identification – this is a huge win for public health and consumers.

- 30 March 2021: Position paper: Identification of endocrine disruptors under CLP https://www.env-health.org/wp-content/uploads/2021/03/Joint-CT_HEAL_CE-proposal-on-CLP-ED-criteria-March-2021-final-with-date.pdf
- 28 April 2021: HEAL and CHEM Trust comment on EU Commission proposal for CLP hazard class for endocrine disrupting chemicals https://www.env-health.org/wp-content/uploads/2021/04/2021.04.26.HEAL CT comments CLP proposal EDCs draft-final 1.pdf
- 28 April 2021: HEAL and CHEM Trust comment on EU Commission proposal for update of the REACH annexes in relation to endocrine disruption properties https://www.env-health.org/wp-content/uploads/2021/04/2021.04.26-
 HEAL CHEMTrust Comments IR April2021 draft-final.pdf
- 1 June 2021: HEAL's input on the CLP revision roadmap consultation https://www.env-health.org/wp-content/uploads/2021/06/HEAL -Input-CLP-review-IIA web.pdf
- 7th June: Cross-Party MEP written parliamentary question to European Commission (MEPs Arena, Hojsik, Franssen, Ries, Hazekamp, Giegold) "<u>Updating the information requirements</u> for endocrine disrupting chemicals"
- 22nd June and 1 July 2021: HEAL supported the organisation of a webinar series hosted by MEP Maria Arena (S&D): Current opportunities for better identification of endocrine disrupting chemicals at European level https://www.env-health.org/webinar-series-current-opportunities-for-better-identification-of-endocrine-disrupting-chemicals-at-european-level/ - HEAL spoke in the second part about the update of the information requirements.

Webinars:

- Action on PFAS as part of the EU Chemicals Strategy for Sustainability: an opportunity for disease prevention; January 13, 2021
- An introduction to the "essential use" concept and its application to PFAS December 3, 2020
- Are fluoropolymers really of low concern for human and environmental health and separate from other PFAS?;

Public awareness raising on EDCs in the CSS:

• To increase public and health groups' mobilization on EDCs, HEAL teamed up with its member the Belgian Independent Health Insurance Funds (Mutualités Libres/ Onafhankelijke Ziekenfondsen) to launched an infographic and social media campaign in French, Dutch and English with ten tips to avoid endocrine disruptors in and around the

home. This infographic was created in response to results from <u>a survey</u> launched in November 2020 by Mutualités Libres — that revealed that nearly half of Belgian citizens have little to no knowledge of what EDCs are and how they impact health.

- Building on this momentum created in Belgium, HEAL continued its efforts to increase
 mobilization of independent healthcare insurers as important actors in the political
 dialogue by co-organizing <u>a webinar</u> for this target audience together with our members
 the Mutualités Libres and the International Association of Mutual Benefit Societies (AIM) in
 April 2021. The webinar explored actions which are currently being taken at international
 and European level to reduce exposure to EDCs, with best practices from French, Belgian
 and German insurers and care providers.
- As part of our track record to translate new international science to the European policy context, HEAL <u>invited</u> renowned epidemiologist Dr. Shanna Swan to speak about her new book, 'Count Down How our modern world is threatening sperm counts, altering male and female reproductive health, and imperiling the future of the human race'. Bringing together perspectives from epidemiology, toxicology and clinical experience, HEAL's special webinar and panel discussion brought together Dr. Swan, Dr. Majorie van Duursen (Professor of toxicology at the Vrije Universiteit of Amsterdam), and Dr. Lola Gómez Roig (Head of the Obstetrics and Gynaecology Department at the Hospital Sant Joan de Déu and a member of the International Federation of Gynecologists and Obstetricians FIGO).

Henkel AG & CO KGaA

Activity 1

Initialising a broad debate within Henkel's Top Management on the CSS objectives and related business implications including awareness raising on expected changes in sector-specific legislation (Cosmetics / Detergents).

Short description

The CSS is part of wider strategic reflection at top-managerial level on the implications of the EU Green Deal for the company. This reflection is embedded in a revision of our corporate sustainability strategy and builds on existing internal projects to identify improvement needs of existing formula. Expected changes in the future regulatory requirements for chemicals management result in a broad portfolio analysis and the identification of adaptation needs as well as business opportunities with current and future targeted R&D based on CSS objectives.

Time

Since the publication of the EU Green Deal

Geographical spread

Regional and global

Main results/highlights

Set up of a dedicated expert group on the CSS; presentations and internal work shop on the CSS. Participation in all related stakeholder consultations. Topical engagement in trade associations incl. round table participation in annual conferences.

Reach out (to citizens, other stakeholders' groups, etc.)

Internal reach out up to Board Level incl. the CEO and external engagement with stakeholders

Links to websites or social media (if available)

www.henkel.com

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance

- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Mobilising industrial value chains and trade associations on the CSS objectives

Short description

Henkel is proactively engaging in various industry associations and wider business fora to elaborate and establish business-based solutions to the CSS objectives. Respective initiatives cover all three business units of Henkel. They include ingredients transparency, reporting and digital data management of chemicals in value chains (Catena X project) or target to further improving the safety of food contact materials in the respective value chain network. Active and early participation in trade associations' initiatives cover projects on environmental fate of our ingredients to improve the environmental footprint of our products in the post-consumer use phase or targeted consumer information on overall environmental impacts.

Time

Since the publication of the EU CSS

Geographical spread

Regional and global

Main results/highlights

Participation in all related consultations, meetings and engagement in business fora.

Reach out (to citizens, other stakeholders' groups, etc.)

Supply chain and value chain business partners, customer base, diverse interested external stakeholders, and related internal expert level engagement

Links to websites or social media (if available)

https://catena-x.net/de/ www.henkel.com

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface

IndustriAll Europe / IG BCE

Activity 1 (industriAll Europe)

Description

Joint statement with the European Chemical Employers Group and Position Paper industriAll Europe

Objectives and actions

Clearly set out our assessment of the strategy, for information and basis of discussion with other stakeholders and policy makers

Internal awareness raising (180 European trade unions)

Time

Autumn 2020 and winter 2020/2021

Geographical spread

Positions disseminated Europe wide, talks in Brussels

Main results/highlights

Joint statement:

- balanced approach to three dimensions of sustainability as the basis for innovation and competitiveness
- commitment to responsible management of chemicals
- REACH as a model for regulatory systems, room for simplification and enhanced transparency, "one substance one assessment" should be the ultimate goal
- Call for a supportive framework for Research & Development & Innovation

Position paper calls for:

- a thorough socio-economic impact assessment
- a thorough and transparent process for defining "safe and sustainable" as well as "essential and non-essential uses"
- retaining industrial value chains and high-quality jobs in Europe
- defining skill needs for the new chemicals management paradigm and a strategy to close skills gaps
- focus on innovation, esp. within companies and the role of the workforce as innovators
- commitment to reshore some production of crucial substances to Europe

Reach out (to citizens, other stakeholders' groups, etc.)
Talks with MEPs and German representation

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles

- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance

<u>**Activity 2**</u> (industriAll Europe)

Description

Presentation and discussion of the Chemical Strategy in relevant industriAll Europe sector networks and policy committees

Objectives and actions

Information about the content of the strategy, its relevance to all industries, potential challenges and opportunities. Equipping trade unions with the knowledge needed to engage with their own members and other stakeholders on national level.

Time

Winter 2020/2021 and spring 2021

Geographical spread

Europe

Reach out (to citizens, other stakeholders' groups, etc.) Own member organisations

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

The chemicals strategy will remain a recurring topic in the networks and committees, informing and discussing about steps of implementation.

Activity 3 (IG BCE)

Short description

Hold regular meetings with the workers' representatives of the largest chemical and pharmaceutical companies in Germany and present the basic objective of the EU chemicals strategy.

We want to raise awareness of the strategic importance and possible far-reaching consequences of the EU chemicals strategy. In this context, we are presenting the challenges for the chemicalpharmaceutical industry, the security of the production site and the safeguarding of local added value.

This includes informing and strengthening the works councils and co-determination panels so that the employees can be involved at an early stage and company decisions made in the course of CSS can be accompanied.

It is important to have an exchange on as broad a basis as possible in order to reach a common position, to debate workers' questions and needs and to discuss the chemicals strategy.

Time

Regular events to accompany the HLRT process

Geographical spread Germany-wide

Main results/highlights

Workers' representatives are very worried because the chemicals strategy represents a paradigm shift. Proven basic principles, such as scientific risk assessment as a premise for decisions in chemicals management, are being called into question. The focus on the fundamentally hazardous properties of a substance endangers the number of available and usable chemicals in Europe and thereby also the basis of work for many people. In addition, further regulatory requirements for the handling of substances and which go beyond the previously proven system restrict the innovative capacity and research of companies and have a direct influence on the innovative capacity and competitiveness of European chemical and pharmaceutical companies.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies

- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

The listed goals of the Chemicals Strategy correspond to the goals of the chemical-pharmaceutical companies in Germany. Safety and protection for people and the environment, transparency, sustainability and clear international standards are the most important aspirations for the chemical-pharmaceutical industry.

Therefore, the points discussed at our events are how to continue to ensure this under the changing regulatory requirements while strengthening the competitiveness of companies and the jobs of the employees

Do you plan any future activity you want to inform the Roundtable about?

industriAll Europe: integration of the strategy' goals and challenges for social partners into the current sectoral social dialogue project "On the Road to Climate Neutrality 2050 – the Role of Social Partners in the Decarbonisation of the Chemical, Pharmaceutical, Plastics and Rubber Industries"

Karlsruhe Institute of Technology

Activity 1

Introducing, promoting and integrating the goals of the Chemicals Strategy for Sustainability within the German MAK commission

Short description

The Permanent Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area, the so-called MAK commission, provides scientific advice to the DFG (German Research Foundation) senate and federal/state governments, parliaments and authorities on health protection issues in connection with exposure to hazardous substances, especially in the field of occupational safety. The commission was established in 1955. Since then, the MAK Commission develops the scientific basis for this threshold setting, by proposing health-based occupational exposure limits as well as by contributing conceptual considerations in science-based risk assessment. With the support of the Commission's Scientific Secretariat, the latter collects all available information on substances and, on this basis, draws up scientifically based recommendations for maximum workplace concentrations (MAK values) in the air, as well as for biological tolerance values in blood and urine (BAT values). In addition, substances that are carcinogenic, germ cell mutagenic, sensitising, skin resorptive and pregnancy-affecting are specifically labelled and appropriate measuring methods are described for compliance with the threshold limit values. Since 2007, the commission is chaired by Prof. Hartwig.

Time

The commission consists of several working groups with different members and guests and the commission's scientific secretariat. Thus, several meetings take place every year, and the goals of the Chemicals Strategy for Sustainability have been introduced and promoted within several meetings.

Geographical spread

Germany

Main results/highlights

Prof. Hartwig chairs the commission since 2007. The recommendations of the commission are substantiated in detail and made freely available to scientists, policymakers and the public at large in German and English in the MAK Collection. Since knowledge is constantly expanding and new studies and findings are published all the time, the substantiations and the recommendations derived from them have to be constantly revised and reviewed. This is one of the reasons for the Commission's status as a Permanent Senate Commission. A list reflecting the current state of knowledge on all substances evaluated to date is published annually as the List of MAK and BAT Values and submitted to the Federal Ministry of Labour and Social Affairs. Recent evaluations include substances of high concern like carcinogenic metal compounds such as lead. The Senate Commission freely chooses its topics and priorities and makes proposals for threshold limit values based solely on scientific findings, regardless of political or economic interests. In addition to the science-driven compilation, discussion and publication of substance evaluations and measuring procedures, it also does a considerable amount of conceptual work, which in turn is incorporated into the proposals for threshold limit values

Reach out (to citizens, other stakeholders' groups, etc.)

The scientific evaluations and conceptual work of the commission is freely available to scientists, policymakers and the public at large in German and English in the MAK Collection

Links to websites or social media (if available)

https://www.dfg.de/en/dfg_profile/statutory_bodies/senate/health_hazards/index.html

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Achieving safe and sustainable-by-design chemicals
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals
- Hazard and risk assessments of chemical substances or groups of substance
 - \rightarrow By chairing the ongoing work of the scientific evaluation of the commission
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
 - \rightarrow By the principle of transparent and reproducible work of the MAK commission and the free accessibility of all outputs.
- Strengthening chemical science-policy interface
 - \rightarrow By the scientific support and basis of evaluation for the consultative body of the Federal Ministry of Labour and Social Affairs.

Next steps/recommendations also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Regular meetings and ongoing work of the commission.

Activity 2

Active participation in a project team of the German Committee on Hazardous Substances (AGS) discussing central aspects of the EU Green Deal initiative and the HLRT

Short description

The AGS is a consultative body of the Federal Ministry of Labour and Social Affairs on issues of the Ordinance on Hazardous Substances. Experts from all areas of occupational health and safety are working together to create a framework of rules. Prof. Hartwig participates in a project team with several members of the AGS to facilitate the discussion on the topics of the HLRT and to support and promote its goals Specific focus provided by Prof. Hartwig was given on future perspectives of science- and hazard-based risk assessment of chemicals, the need for comprehensive data exchange as well as the concept of safe- and sustainable by design chemicals, all with special respect to workers protection. The participation in this group proofed to be very useful and efficient to support the debate of the HLRT and to establish a network of experts on this field in Germany. Due to the various areas of experience of the members of this group, a high level of scientific expertise on hazardous substances, regulatory processes and consultative procedures supports the discussion on the enforcement of safe and sustainable chemicals in the economy and society.

Time

The group started their work on 20th July 2021 followed by a second meeting on the 1st October 2021. Several meetings within the next months have already been scheduled.

Geographical spread

Germany

Main results/highlights

Prof. Hartwig gave a presentation to summarize her expectations on the HLRT as presented within her statement at the first meeting of the HLRT in march 2021. She promoted multiple discussions on specific topics of the HLRT goals, including scientific risk-based evaluation of chemicals with a special focus on the work area on the national and international level, the use of new approach methods and the need of full data availability for a comprehensive scientific evaluation of registered substances under REACH.

Reach out (to citizens, other stakeholders' groups, etc.)

AGS (German Committee on Hazardous Substances), BfR (German Federal Institute for Risk Assessment), multiple associates of the chemical industry, including the BASF company, scientific experts on chemical evaluation, as well as members of the workers union.

Links to websites or social media (if available)

Not available

Objectives of the Chemicals Strategy the activity has contributed to

- Achieving safe and sustainable-by-design chemicals
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Hazard and risk assessments of chemical substances or groups of substance
 - → By facilitating the discussion and ensuring a comprehensive scientific risk-based evaluation in a network of several experts. The support of collaboration between expert networks and institutions.
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
 - → To inform on the need of full data availability and to promote this topic by discussion with several associates of the chemical industry and scientific experts
- Strengthening chemical science-policy interface
 - \rightarrow By participating in this project team, consisting of members who are already been involved in processes of regulation and consultative activities of hazardous chemicals on legal basis for the government in Germany

Next steps/recommendations also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Regular information on the progress and ongoing discussions to promote and create concrete action points for the HLRT activities.

Activity 3

Introducing the goals of the Chemicals Strategy for Sustainability within the German Research Foundation (DFG)

Short description

The Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) is the central independent research funding organisation in Germany. It serves all branches of science and the humanities by funding research projects at universities and other research institutions. The DFG promotes excellence by selecting the best research projects on a competitive basis and facilitating national and international collaboration among researchers. Its mandate also includes encouraging the advancement and training of early career researchers, promoting gender equality in the German scientific and academic communities, providing scientific policy advice, and fostering relations between the research community and society and the private sector. Its member organisations include research universities, non-university research institutions, such as the Max Planck Society, Fraunhofer, the Helmholtz Association and the Leibniz Association, the academies of sciences and humanities, and a number of scientific associations. As chair of the MAK commission, a permanent DFG-senate commission, Prof. Hartwig informed the foundation on the goals and activities of the HLRT to further promote a transition towards safe and sustainable chemicals in the economy and society. In addition to her work within the MAK commission, this also includes her participation in multiple past and present research projects at the KIT, focussing predominantly on basic toxicological research as a basis for improved toxicological risk assessment.

Time

Ongoing

Geographical spread

Germany

Main results/highlights

The DFG informed on the activities of the HLRT and Prof. Hartwig's participation

Reach out (to citizens, other stakeholders' groups, etc.)

The scientific community in Germany and the public.

Links to websites or social media (if available)

https://www.dfg.de/dfg_profil/gremien/senat/arbeitsstoffe/internationale_gremien/berufung_ha_rtwig/index.html

Objectives of the Chemicals Strategy the activity has contributed to

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals
- Hazard and risk assessments of chemical substances or groups of substance
 - → supporting toxicological research funding within the field of toxicology and new approach methods
- Strengthening chemical science-policy interface
 - \rightarrow By promotion of the HLRT goals within the scientific community of the DFG and additional network-building within the DFG.

Next steps/recommendations also in terms of having the initiative become a best practice for other Roundtable's members to replicate

 Regular information on the progress and ongoing discussions to promote and create concrete action points for the HLRT activities.

Activity 4

Introducing the goals of the Chemicals Strategy for Sustainability within RAC-ECHA

Short description

Prof. Hartwig has been re-appointed as co-opted member of the Committee for Risk Assessment (RAC) of the European Chemicals Agency (ECHA). Her main focus is given on proposing occupational exposure limits for chemicals of high concern, especially chemical carcinogens. Within these activities, she is promoting the goals of the Chemicals Strategy for Sustainability, by assessing toxicological properties of the respective substances, aiming to provide advice for health-based limit values to protect workers.

Time

Re-appointed in October 2021

Geographical spread

Europe

Main results/highlights

Work on different chemical carcinogens in progress.

Reach out (to citizens, other stakeholders' groups, etc.)

European authorities, workers, industry

Links to websites or social media (if available)

Objectives of the Chemicals Strategy the activity has contributed to

- Protecting consumers, vulnerable groups and especially workers from the most harmful chemicals
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface

Next steps/recommendations also in terms of having the initiative become a best practice for other Roundtable's members to replicate

• Continuous work on chemical risk assessment on substances of high concern

Leuphana University of Lüneburg

Activity 1 Activities at the Institute of Sustainable Chemistry (INSC)

Short description

At the Institute of Sustainable Chemistry (Director: Prof. Dr. Klaus Kümmerer) at Leuphana University of Lüneburg, Germany, we are interested in the topics of Sustainable Chemistry and Sustainable Pharmacy but also in environmental chemistry with a focus on water pollution. The use of chemical substances and the impact of chemicals and pharmaceuticals on the environment and society is one of the main foci of research and teaching activities. Based on this, the INSC develops solutions that meet the criteria of sustainability including measures at the source for input prevention and designing new molecules for environmental mineralization to protect water resources in a precautionary and proactive sustainable manner avoiding future follow up problems. Beyond the chemical substances and products themselves, we are also interested in the associated material flows, especially when it comes to the so-called strategic resources (e.g. phosphate, rare earth metals). In particular, we are interested in finding out how chemistry and pharmacy may contribute to sustainability in a sustainable manner.

We focus on:

- developing a better understanding of sustainable chemistry and sustainable pharmacy
- the sustainable design of chemical and pharmaceutical products (molecules, materials)
- developing concepts like benign by design and the dissipation of materials
- the experimental and practical implementation of such concepts
- protecting water resources from contamination by pharmaceuticals and chemicals

Furthermore, the INSC hosts the Research and Education Hub of the International Sustainable Chemistry Collaboration Centre (ISC₃, www.isc3.org) in Bonn (Germany) (see activity 2).

As part of the research at the Institute of Sustainable Chemistry and the ISC₃ Research & Education Hub results are published in scientific articles. The topics focus on sustainable chemistry in education, the sustainable design of chemical and pharmaceutical products (molecules, materials), developing concepts like benign by design and how to apply *in silico* tools for it, protecting water resources from contamination by pharmaceuticals and chemicals.

Time

ongoing

Geographical spread

Global

Main results/highlights

Latest scientific articles in 2021 address a high diversity of different topics (see links) ranging from education in green and sustainable chemistry, recycling and reuse of textiles, design for biodegradability of organo-silicon compounds and ciprofloxacin and other active pharmaceutical ingredients and a workflow for the application of *in silico* tools for benign by design.

Reach out (to citizens, other stakeholders' groups, etc.)

Scientific community

Links to websites or social media (if available)

Links to scientific articles published in 2021:

DOI: 10.1039/d1gc01048d DOI: 10.1002/lipd.12316

https://doi.org/10.1038/s41570-021-00253-w

DOI: 10.1039/d0gc03313h

https://doi.org/10.1021/acs.jchemed.1c00284

https://doi.org/10.1021/acssuschemeng.1c03070

https://doi.org/10.3390/nu13030989

https://doi.org/10.1016/j.chemosphere.2021.130442

https://doi.org/10.1021/acssuschemeng.1c02243

https://doi.org/10.1016/j.cogsc.2021.100535

Objectives of the Chemicals Strategy the activity has contributed to

As the short description above shows broad scientific areas within environmental, green and sustainable chemistry including fate and assessment of chemicals in the environment and in general using experimental and computational and modeling techniques, targeted design of chemicals and pharmaceuticals for environmental mineralization ("benign by design") and developing the framework of sustainable chemistry are addressed. Therefore, the following objectives are addressed by the research activities since safe and sustainable-by-design chemicals are promoted and the environment protected from chemical pollution. By applying *in silico* tools our research contributes to digitalising the design of chemicals. For bringing this thinking into practice, young professionals need to be trained in green and sustainable chemistry, which is also addressed in our research.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Activity 2 Activities at the Research & Education Hub of the International Sustainable Chemistry Collaborative Centre (ISC₃) (Project)

Short description

Prof. Dr. Klaus Kümmerer is the scientific director of the ISC₃ Research & Education Hub, which is allocated at the Institute of Sustainable Chemistry at the Faculty of Sustainability of the public Leuphana University of Lüneburg. As such, he is leading an interdisciplinary team of scientists.

The Research & Education Hub focuses on developing and advancing a better understanding of the opportunities and possible pitfalls of emerging concepts and hot topics of research in green and sustainable chemistry by doing own research, collecting and assessing good examples of green and sustainable chemistry as well publishing related studies. In addition, a common understanding of sustainable chemistry in accordance with the United Nations Sustainable Development Goals (SDGs) going far beyond green chemistry was developed together with a variety of different stakeholders (industry, NGOs, scientists, governmental institutions). Furthermore, two professional study programmes in sustainable chemistry were developed together with the Professional School of Leuphana University of Lüneburg (see activity 3). The MBA Sustainable Chemistry Management provides comprehensive training for sustainability-oriented management in various sectors connected to the chemical enterprise. The curriculum of the M.Sc. Sustainable Chemistry teaches how to understand and apply chemistry in the context of sustainability with regard to the molecular

level, global product flows, sustainability assessment and alternative business models for chemical products. The yearly Summer School on Sustainable Chemistry for sustainable development (see activity 4) aims to interlink young academics with professionals from authorities, companies and non-governmental organisations to discuss the understanding of sustainable chemistry and concepts of chemicals management as well as hot topics in research. In addition, the Green and Sustainable Chemistry Conference is co-organized together with Elsevier (see activity 5).

Time

2021-2024

Geographical spread

Global

Main results/highlights

Development of professional Masters programme M.Sc. Sustainable Chemistry, development of professional Masters programme MBA Sustainable Chemistry Management, Summer School on Sustainable Chemistry for Sustainable Development, Green and Sustainable Chemistry Conference, scientific publications (for more details see the following activities), Organization of a panel discussion on EU Chemicals Strategy on Sustainability at the 3rd ISC₃ Stakeholder Forum (12 November 2021),

Reach out (to citizens, other stakeholders' groups, etc.)

Young professionals, NGOs, industry, governmental institutions, students, scientists

Links to websites or social media (if available)

https://www.isc3.org/en/isc3-hubs/research-education-hub.html

www.leuphana.de/sustainable-chemistry

www.leuphana.de/mba-sustainable-chemistry

https://www.leuphana.de/en/institutes/insc/summer-school-sustainable-chemistry.html

https://www.elsevier.com/events/conferences/green-and-sustainable-chemistry-conference

https://twitter.com/isc3centre?lang=de

Objectives of the Chemicals Strategy the activity has contributed to

The activities within the ISC₃ Research & Education Hub contribute to the following objectives of the Chemicals Strategy since the overall aim of ISC₃ is to shape the transformation of the chemical sector towards sustainable chemistry and thus contributing to a more sustainable world and a circular economy. By the study programmes, the summer school, the scientific conference and the research activities sustainable chemistry is promoted in different contexts (see more details in the following activities). Since sustainable chemistry considers the whole life-cycle of chemicals and aims to substitute chemicals that are harmful to humans and the environment, safe and sustainable-by-design chemicals are promoted and non-toxic material cycles pursued.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution

• Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Activity 3 Development and implementation of two study programmes

Short description

As a part of the ISC₃ Research & Education Hub activities, a Master of Science in Sustainable Chemistry (M.Sc. SC) for international professionals has been developed and launched in March 2020 at the Leuphana University Professional School. The unique curriculum teaches students how to understand and apply chemistry in the context of sustainability. This ground-breaking, interdisciplinary programme conveys a broad understanding of sustainable chemistry, ranging from the molecular level of chemical products, global material and product flows, alternative business models, tools for assessing sustainability, international regulations, and strategies for initiating and leading change towards sustainability. Extending far beyond the lens of green chemistry, the curriculum delivers novel perspectives on how chemistry can and must contribute to sustainable development and the Sustainable Development Goals of the Agenda 2030. The M.Sc. in Sustainable Chemistry is designed as a "blended modular learning program".

Following the development of the M.Sc. Sustainable Chemistry, the MBA Sustainable Chemistry Management is a second important milestone of transformative educational activities in sustainable chemistry. The MBA Sustainable Chemistry Management is developed at the ISC₃ Research & Education Hub and will be offered at the Leuphana University Professional School. The MBA Sustainable Chemistry Management provides comprehensive training for sustainability-oriented management in various sectors connected to the chemical enterprise. Participants learn the fundamentals of sustainability management combined with operational knowledge in the field of the chemical sector including the chemical enterprise. Framed by an interdisciplinary understanding of sustainable chemistry, and a general perspective of how the practice of chemistry is linked to sustainability. Most of the curriculum is delivered by online learning, framed by two onsite sessions on the Campus of Leuphana University at the beginning and the end of the curriculum, respectively.

Time

M.Sc. Sustainable Chemistry was launched in March 2020

Development of MBA Sustainable Chemistry Management started in 2020 and will be launched in March 2022

Geographical spread

Global

Main results/highlights

The Professional Master's programme Sustainable Chemistry (M.Sc.) is listed in the SDG Good practices of the United Nations Department of Economic and Social Affairs (UN DESA) for actively contributing to the SDGs 4, 9, 12 and 17.

On-Boarding of the 2nd cohort in M.Sc. Sustainable Chemistry in March 2021

Development of MBA Sustainable Chemistry Management and launch in March 2022

Reach out (to citizens, other stakeholders' groups, etc.)

Young professionals

Links to websites or social media (if available)

www.leuphana.de/sustainable-chemistry

https://www.leuphana.de/en/professional-school/events/news/single-view/2021/09/24/master-sustainable-chemistry-listed-among-sdg-good-practices-of-the-un.html

www.leuphana.de/mba-sustainable-chemistry

Objectives of the Chemicals Strategy the activity has contributed to

In order to achieve the objectives of the Chemicals Strategy, training for young professionals in green and sustainable chemistry is needed. Therefore, both study programmes the MBA Sustainable Chemistry Management and the M.Sc. Sustainable Chemistry contributes to the following objectives as they provide specific knowledge to pursue green and sustainable chemistry. Furthermore, both study programmes offer a module on an introduction to chemicals and environment law as well as international conventions and strategies for international chemicals management and therefore contributing to strengthen the sound management of chemicals and promoting safety and sustainability standards outside the EU.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 4 Summer School on Sustainable Chemistry for Sustainable Development

Short description

The Summer School provides general information and the latest insights on sustainable chemistry itself in the first part and focus in the second part on a specific topic to discuss the contribution of sustainable chemistry to this topic and vice versa. This year's focus topic was sustainable chemistry and agriculture. The exchange of the participants' experiences always is at the core of the discussions in the lectures, which are complemented by workshops. The Summer School aims at students, postgraduates and young professionals dealing with or being interested in the topic of sustainable chemistry as a crosscutting issue.

Time

12 July to 16 July 2021

Geographical spread

Glohal

Main results/highlights

High interest in understanding what sustainable chemistry means shows the need for such events like the summer school.

Presentation of Dr. Xenia Trier (European Environment Agency, Denmark) on "European chemical strategy for sustainability – the key role of innovation in safe and sustainable by design".

Presentation of Dr. Anja Klauk (Federal Environment Agency, Germany) on "SAICM – Pacemaker of International Chemicals Management".

Presentation of Sandra Averous-Monnery (UNEP) on "UNEP Green and Sustainable Chemistry Manuals"

Reach out (to citizens, other stakeholders' groups, etc.)

Young professionals, NGOs, industry, governmental institutions, students, scientists Links to websites or social media (if available)

https://www.leuphana.de/en/institutes/insc/summer-school-sustainable-chemistry/summer-school-2021.html

Objectives of the Chemicals Strategy the activity has contributed to

The Summer School contributes to the following objectives since it disseminates the concept and understanding of green and sustainable chemistry and raises awareness for more sustainability. As international participants attend the summer school and in the programme presentations on the Chemicals Strategy and SAICM were included, safety and sustainability standards were also promoted outside the EU.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 5 Green and Sustainable Chemistry Conference

Short description

The Green and Sustainable Chemistry Conference is a well established event in cooperation with Elsevier and Leuphana University Lüneburg and the International Sustainable Chemistry Collaborative Centre. The conference chaired Prof. Klaus Kümmerer, brings together international participants from all over the globe, representing academia as well as the private and public sector, to share the latest developments in the fields of green and sustainable chemistry. The programme is highly interdisciplinary ranging from education, synthesis, photochemistry, material flow management, energy conversion to environmental sciences. The Elsevier Foundation Chemistry for Climate Action Challenge is a unique feature of this conference. This year's session topics include energy conversion and storage, green analytical chemistry, recent developments in greener synthesis and catalysis, photochemistry and photocatalysis, sustainable chemistry in education and society, managing substance and material flows, sustainable chemistry for climate and energy and sustainable chemistry and environmental science.

Time

16 November to 18 November 2021

Geographical spread

Global

Main results/highlights

Keynote of Xenia Trier (European Environment Agency) on "Safe and sustainable substitution by design-an EU approach of high importance for future chemistry"

Reach out (to citizens, other stakeholders' groups, etc.)

Scientists

Links to websites or social media (if available)

https://www.elsevier.com/events/conferences/green-and-sustainable-chemistry-conference

Objectives of the Chemicals Strategy the activity has contributed to

The following objectives are addressed by the Green and Sustainable Chemistry Conference since the topics address how chemistry can contribute towards more sustainability. In particular, the session topics managing substance and material flows, sustainable chemistry and environmental science, recent developments in greener synthesis and catalysis are discussing the latest research results how the following objectives can be achieved.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Activity 6 Outreach (presentations, participation in workshops)

Short description

For outreach and spreading the understanding of sustainable chemistry, presentations are given for diverse institutions and at different workshops in different context (e.g. industry, academic events, education, the general public and different organisations: EuChems, IUPAC, UNEP).

Time

ongoing

Geographical spread

Global

Main results/highlights

The feedback during the events reveals high interest in the understanding of sustainable chemistry, designing environmentally benign chemicals and on education in sustainable chemistry.

Reach out (to citizens, other stakeholders' groups, etc.)

Industry, scientists, young professionals, students

Links to websites or social media (if available)

One lecture for You Tube lecture-series of Chemists for Future, https://www.youtube.com/watch?v=xKPibrLFJyU

Objectives of the Chemicals Strategy the activity has contributed to

Since this activity disseminates the understanding of green and sustainable chemistry and the research results just in another context than described in the activities before, it contributes to the following objectives of the Chemicals Strategy.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)
- Protecting the environment from chemical pollution

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

OECD

The OECD assists countries in developing and implementing policies and instruments that make their systems for managing chemicals as efficient and robust as possible, while protecting human health and the environment. Through the harmonisation of standards, the OECD's Environment, Health and Safety Programme saves countries and industry more than 309 Million Euros every year.

Below, two recent representative products of the OECD Environment, Health and Safety Programme are outlined.

<u>Activity 1</u> Adoption of a Guideline on Defined Approaches for Skin Sensitisation

Short description

The OECD published a new Guideline on Defined Approaches for Skin Sensitisation (OECD GL No. 497). This is a new type of OECD Guideline that uses several types of combined information to provide chemical safety information and can fully replace the need for animal test data.

A Defined Approach (DA) consists of selected information sources (e.g. in silico predictions, in chemico, in vitro data) used in a specific combination, and resulting data are interpreted using a fixed data interpretation procedure (DIP) (e.g. a mathematical, rule-based model). DAs are intended to overcome some limitations of the individual methods. The first three DAs included in this Guideline use combinations of OECD validated in chemico and in vitro test data, in some cases along with in silico information. The DAs included in this Guideline have shown to either provide the same level of information or be more informative than the Local Lymph Node Assay, LLNA (OECD TG 429) for hazard identification (i.e. sensitiser versus non-sensitiser). In addition, two of the DAs provide information for sensitisation potency categorisation that is equivalent to the potency categorisation information provided by the LLNA.

Time

The Guideline was published in June 2021.

Geographical spread

This Guideline was developed in the context of the OECD System of Mutual Acceptance of Data, to which all OECD Members and 7 Partners (Argentina, Brazil, India, Malaysia, Singapore, South Africa and Thailand) have adhered.

Main results/highlights

This is the first quideline that can fully replace an animal test

Reach out (to citizens, other stakeholders' groups, etc.)

OECD Test Guidelines are developed by Member countries in consultation with chemical industry, trade unions, environmental NGOs and animal welfare NGOs.

Links to websites or social media (if available)

OECD Test Guidelines for Chemicals - OECD

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

This Guideline provides standardised non-animal methods to identify sensitising chemicals, so that chemical industry and governments can implement the necessary risk reduction measures.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

The OECD will continue to develop "state of the art" Test Guidelines to ensure that countries have the tools to identify chemicals that need to be managed.

Activity 2 Description

On 14 September 2021, the OECD Council amended the Recommendation on the Access and the Protection of Proprietary Rights to Non-Clinical Health, Safety and Environmental Data and Information on Chemicals.

The 1983 version of the Recommendation solely focused on protecting the proprietary rights associated with safety data of new chemicals, e.g. by recommending that authorities responsible in Adherents for receiving notifications of new chemicals not accept from a notifier health, safety, and environmental data for which the notifier cannot provide a certification of the right of use.

The amended Recommendation expanded the scope to include existing chemicals, including pesticides, biocides and nanomaterials to cover all the product types within the mandate of the OECD Environment, Health and Safety Programme.

This revised instrument also recommends that governments disclose as much information as possible in an open and transparent fashion to increase citizens' trust in regulatory decision-making while protecting the proprietary rights of companies.

All OECD Members and Bulgaria have adhered to the Recommendation. Romania has requested adherence.

OECD Council Acts Related to Chemicals and Biotechnology products - OECD

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

The recommendation will contribute to a level-playing field between companies and ensure that the concept of "no market, no data" is implemented across all adhering countries. Furthermore it will contribute to an increase in publicly available information on the properties of chemicals and hence increase the public's right-to-know.

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

A Best Practice Guide is in preparation showcasing how some Members implement the provisions of the Council Recommendation.

PETA Science Consortium International e.V.

Activity 1

Highlighting uncertainties associated with reliance on animal data and developing alternative approaches, focusing on two projects that address urgent regulatory needs:

- 1) assessing inhalation effects, and
- 2) identifying non-genotoxic carcinogens.

Short description

The CSS promises a transition to safer chemicals and a toxic-free environment, but these objectives cannot be met without rapid innovation in test method development. The two projects described below aim to improve upon test methods that are inherently unreliable and cause severe suffering to test animals, and address endpoints for which testing is expected to increase under the CSS.

Our webinars and publications aim to reflect the current state of play regarding replacement of animal tests in these areas, which we believe is scientifically achievable and necessary within the revision of REACH.

Our scientists work on numerous projects and endpoints, as can be seen on the <u>PSCI website</u>. The projects described below, along with several others concerning chemical safety assessment, are of particular importance to the success of the CSS.

Time

Ongoing

Geographical spread

International, and relevant to future EU data requirements.

Main results/highlights and Reach out (to citizens, other stakeholders' groups, etc.)

Inhalation: test method development, data analysis, webinars, publications.

Carcinogenicity: data analysis, webinar, OECD expert group participation, publications.

Links to websites or social media (if available)

Inhalation toxicity: webinars, publications and testing resources

In vivo inhalation toxicity tests introduce many sources of variability, which challenge the reproducibility of the test and the translation of the results to humans. Variability may arise from difficulty in achieving uniform and appropriate particle or aerosol size; confinement of test animals causing stress that affects results, and differences in anatomy and physiology of animals compared to humans. A brief overview of these elements can be found here (p.4 case study).

Combinations of *in silico* and *in vitro* methods can reduce variability in inhalation toxicity testing and provide accurate, human-relevant results. Several *in vitro* inhalation toxicity testing models have been published in recent years. EURL ECVAM has identified a total of 284 different models to assess respiratory diseases (link to <u>EURL ECVAM report</u>). These vary in complexity from relatively simple systems with one cell type grown on in a petri dish to three-dimensional reconstructed human lung tissues with several cell types that are grown at an air-liquid interface in a dynamic microenvironment (e.g. lung-on-a-chip). Three-dimensional reconstructed human lung tissues reproduce features of intact physiological human anatomy and can be exposed to test substances in inhalation toxicity studies the same way as animals. Using organ chip technology, it is possible to mimic blood circulation or the expansion and contraction of the lungs during breathing.

Such advanced *in vitro* systems can offer more insight in the mode of action of a toxic substance than animal tests, increase reproducibility and repeatability, and provide more human-relevant data.

Since the adoption of the CSS, PSCI has:

- continued the development of a test method for acute inhalation toxicity together with the
 Flemish CRO VITO. This work was presented at several conferences in 2021 including the
 Society of Toxicology (SOT) 60th annual meeting and the 11th World Congress on
 Alternatives and Animal use in the life sciences (WC11). Link to poster at SOT; organised a
 three-part public webinar and invite-only workshop series together with Unilever, Syngenta
 and the US EPA. The invite-only workshop was attended by academia, industry and
 regulators. Link to webinar;
- published a manuscript together with the US National Institute of Standards and Technology (NIST), the US Consumer Product Safety Commission (CPSC) and the German Federal Institute for Risk Assessment (BfR) on optimizing the reliability of in vitro inhalation toxicity measurements using an air-liquid interface. Link to manuscript;
- <u>chaired session 128 "Lessons Learned and Practical Considerations for the Use of In Vitro Exposure Systems to Assess Respiratory Toxicity" at WC11;</u>
- collaborated with the US EPA on two publications (one accepted, one under review) including an Integrated Approach to Testing and Assessment (IATA) using New Approach Methods (NAMs) under the Toxic Substances Control Act (TSCA). Link to poster at SOT;
- co-authored adverse outcome pathway (AOP) 411: Oxidative stress leading to decreased lung function. Link to AOP. Link to manuscript;
- and, funded the Luxemburg Institute of Science and Technology (LIST) who successfully
 transitioned the human lung cell line A549 to a culture condition without the use of foetal
 bovine serum, which is a common source of variability in *in vitro* methods. This work was
 presented at several conferences and a manuscript is in preparation. Link to poster

An overview of PSCI's work on inhalation toxicity can be found here: https://www.thepsci.eu/ourwork/inhalation/

Carcinogenicity: Webinars and publications

Scientific confidence in the rodent cancer bioassay, which is currently used to identify non-genotoxic carcinogens, is low and regulatory decisions based on animal cancer data are frequently disputed. The cancer bioassay is known to be poorly reproducible; Gottman et al demonstrated a concordance of only 57% in carcinogenicity classifications for duplicate studies. In an attempt to assess the carcinogenicity of the pesticide active ingredient, glyphosate, international evaluators analysed at least five separate tests in mice, and nine in rats. More than 3,500 animals were used, but results from repeat experiments lack consistency. Additionally, combinations of chemicals can have different carcinogenic capabilities compared to the individual components, and testing to predict these near-infinite potential variables is impossible using animal tests (see p.3 case study).

Regulators and health advocates acknowledge there is an urgent need for more reliable human mechanistic data. OECD and EU programmes, among others, are now focusing on developing new technologies and approaches to improve human safety. To optimize human-relevant carcinogenicity testing approaches, researchers need funding, human data (e.g. from clinical trials), and international knowledge sharing programs. In the meantime, health protective approaches are available to improve carcinogenicity assessment without the rodent cancer bioassay.

Examples of PSCI work on carcinogenicity, undertaken since adoption of the CSS:

Publications:

- co-authored a manuscript published in Reg Tox and Pharm entitled: A comprehensive view on mechanistic approaches for cancer risk assessment of non-genotoxic agrochemicals (link). Dec 2020
- co-authored a manuscript recently accepted for publication in Crit Reviews in Tox entitled: Assessing Chemical Carcinogenicity: Hazard Identification, Classification, and Risk Assessment. Insight from a Toxicology Forum State-of-the-Science Workshop.

Oral presentations:

- presented a "Problem Formulation for Assessing Carcinogenicity: Hazard Identification, Classification, and Risk Assessment" at The Toxicology Forum winter conference in 2021.
- presented "ReCAAP: Rethinking Carcinogenicity Assessment for Agrochemicals Project" at the WC11 in my workshop session entitled "Modern, Mechanistic Approaches to Cancer Risk Assessment". August 2021

Chaired workshops:

- WC11 (Aug 2021) Modern, Mechanistic Approaches to Cancer Risk Assessment
- EuroTox (Sept 2021) Modernizing Cancer Risk Assessment: Beyond the Bioassay

Objectives of the Chemicals Strategy the activity has contributed to

The following objectives of the CSS require innovation in test method development, as described above:

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Several Roundtable member organisations and representatives are directly concerned with, or have experience of, conducting chemical safety assessments. We hope that all stakeholders – including those without direct or detailed knowledge of toxicology – will find our webinars and publications useful. Policy approaches that assume existing animal test regimes are fit-for-purpose, and can reliably, efficiently, and effectively protect citizens and the environment from harmful chemicals, risk being undermined because of the numerous scientific and practical limitations associated with animal testing. Our position is that the sooner these limitations are assessed and recognised, and new – superior – technologies embraced, the sooner and more effectively the objectives of the CSS can be met.

The next step for the projects described above is to promote regulatory acceptance of the alternative approaches identified. For carcinogenicity, a longer term objective is to help develop a fully integrated AOP-based test testing strategy, as currently under development through the <u>OECD</u> expert group.

Activity 2

Description

Protecting the EU cosmetics animal testing bans

One of the most significant drivers concerning test method development and innovation has been the EU cosmetics animal test ban and its associated ban on the sale of newly animal tested cosmetics ingredients. Although the CSS itself fails to mention the bans, they are of immense importance to citizens and are supported by the European Parliament, and the transition to innovative non-animal test methods is essential to the success of the CSS.

The animal protection community together with cruelty-free cosmetics companies are campaigning to preserve and strengthen the bans, not only to stop cosmetics animal testing but also to ensure

that innovative next generation safety assessment approaches, as developed and already applied by companies wishing to improve chemicals management and avoid animal testing, are shared and replicated. The campaign directly addresses goals of the CSS and advocates for human and environmental protection to be based on innovative, humane test methods.

On August 30th 2020, a coalition of animal protection organisations launched the European Citizens' Initiative, <u>Save Cruelty-Free Cosmetics / Commit to a Europe Without Animal Testing</u>. Within the first few months of launching, signatures have been gained from citizens in all EU member states.

PSCI coordinates the scientific and regulatory expertise of PETA entities including PETA Germany, PETA France and PETA Netherlands, as well as the PETA Foundation; all of which are actively supporting the ECI.

Objectives of the Chemicals Strategy the activity has contributed to

As above, application of non-animal test methods is essential to the following objectives.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Continue to promote the development, use and regulatory acceptance of non-animal methods, and detail the regulatory need to replace animal tests. Ensure the cosmetics animal test bans are protected and strengthened, and that rapid uptake of next-generation safety assessment approaches is achieved across all relevant legislation.

RECETOX, Masaryk University

In general, for the area of chemicals, the RECETOX hosts the National Centre for Toxic Compounds (NC), which is the coordinator of national activities related to the implementation of international conventions on chemicals in the Czech Republic. The National Centre is advisory body to the Czech Ministry of the Environment (MoE) in this field. The main executive body of the NC is an interministerial Council of the National Centre that plays a main role in the national coordination of the related activities including science to policy interaction (and vice versa), including coordination of implementation and dissemination of the relevant EU policies in this regard.

Activity 1 HERA Webinar Chemical Management for a Healthy Future

Short description: Webinar, co-organised by RECETOX, as part of the "Health and Environment Research Agenda for the EU" (heraresearcheu.eu) focused on the implementation tools of the EU Chemical Strategy.

The webinar aimed at linking and highlighting some aspects and tools that are support the implementation of the EU Chemicals Strategy for Sustainability:

- o Excellence and collaboration in science bridging the knowledge gaps
- o Interdisciplinary education developing the necessary in the human capacities
- Shared European infrastructures and their capacities
- Science to policy transfer a close collaboration beyond Europe on chemicals management and the need for strengthening it.

Time: 30 June 2021

Geographical spread: EU + beyond

Main results/highlights: raising awareness, interlinkages and science-to-policy. The webinar aimed at linking and highlighting some aspects and tools that are support the implementation of the EU Chemicals Strategy for Sustainability as shown in the short description above.

Reach out (to citizens, other stakeholders' groups, etc.) - over 100 participants

Links to websites or social media (if available): https://www.heraresearcheu.eu/news/hera-webinars-chemical-management-for-a-healthy-future

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Webinar is a part of project with the aim to support EU Green Deal implementation. Collected research needs shown in the webinar are also reflected in the EU Research agenda in the field of Environment, Health and Climate (see final draft here: https://www.heraresearcheu.eu/hera-2030-agenda)

Activity 2

Description: Expert Consultation Workshop on Strengthening Coordination and Collaboration between Biodiversity and Chemicals/Waste Clusters (UNEP)

Time: 23 - 24 and 27 September 2021

Geographical spread: Global

Main results/highlights: A report on the linkages of chemical pollution to biodiversity. RECETOX participated and contributed to the expert discussions, focusing on the national, regional (EU) and global policies

Reach out (to citizens, other stakeholders' groups, etc.): RECETOX will participate in the UNEA-5 side-event in March 2022, promoting several aspects of the EU Chemical Strategy vis-à-vis biodiversity

Links to websites or social media (if available): Expert Consultation Workshop on Strengthening Coordination and Collaboration between Biodiversity and Chemicals/Waste Clusters (unep.org)

Objectives of the Chemicals Strategy the activity has contributed to

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

RECETOX will participate in the UNEA-5 side-event in 2022, promoting several aspects of the EU Chemical Strategy vis-à-vis biodiversity

Activity 3

Description: Article on the website entitled The European Commission has set up a round table on the EU's chemical strategy and RECETOX is its member

Time: 5 May 2021

Geographical spread: EU

Main results/highlights: raising awareness on the EU chemical policies / stakeholder participation An article on the main goals of the EU Chemical Strategy on the RECETOX website – it was shared on RECETOX social media and sent to the Ministry of Environment directly

- The article describes the role of the High-level Roundtable and the main goals of the EU Chemical Strategy and an outline of RECETOX position

Reach out (to citizens, other stakeholders' groups, etc.): https://www.recetox.muni.cz/en/about-us/news/the-european-commission-has-set-up-a-round-table-on-the-eus-chemical-strategy-and-recetox-is-its-member

was also shared by "vedavyzkum.cz" portal and others.

Links to websites or social media (if available):

Objectives of the Chemicals Strategy the activity has contributed to

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Activity 4

Description: Consultations with national policy makers - regular meeting

Time: 26 October 2021

Geographical spread: national (Czech Republic)

Main results/highlights: A report on the work and activities of the Roundtable in 2021 and on the planned 2nd meeting for 25 November 2021 at the 30th meeting of the Council of the National Centre for Toxic Compounds.

Reach out (to citizens, other stakeholders' groups, etc.): Discussion with decision makers, enforcement agencies, industry representatives and other stakeholders.

Links to websites or social media (if available): not available

Objectives of the Chemicals Strategy the activity has contributed to

- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

RECETOX will report to the next meeting (spring 2022) on the Roundtable activities.

Activity 5

Description: Consultations with ENVHEALTH network

Time: 8 October 2021

Geographical spread: EU

Main results/highlights: A report on the set up, work and activities of the Roundtable in 2021 and on the planned 2nd meeting for 25 November 2021.

Reach out (to citizens, other stakeholders' groups, etc.): Discussion with researchers network as the roundtable and the strategy have impact on the research in the field, in particular in needs.

Links to websites or social media (if available): not available

Objectives of the Chemicals Strategy the activity has contributed to [choose one or more and provide reasons]

- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

RECETOX will report to the next meeting (spring 2022) on the Roundtable activities.

Do you plan any future activity you want to inform the Roundtable about?

Possibly, but at the moment still pending to be further specified. Some activities will be linked to the implementation of the EU Partnership on Assessment of Risks of Chemicals starting in 2022 (EU wide) and other to the research infrastructures supporting environment-health research.

SETAC

Activity One

On the 5th May 2020 during the 30th SETAC Europe Annual Meeting (Open Science for Enhanced Global Environmental Protection) #SETACSciCon, a Special Session called the Green Deal Discussion Forum was held with 200 attendees. Prior to the event, a questionnaire was prepared and sent out to the 6,000 SETAC members. The questionnaire received 240 responses and the data was used as the backbone to the event, which included guest speakers Professor Colin Moffat (Scotland's Chief Scientific Advisor Marine, Scottish Government), Professor Anne-Marie Van Wezel (Professor of Environmental Ecology, University of Amsterdam) and Dr Sylvie Lemoine (Executive Director Product Stewardship, Cefic), (Figure 1).



Figure 1. QR code to access an overview of the 5th May 2020 SETAC Europe Green Deal Discussion Forum

A discussion paper based was also published: Joanke van Dijk, Annegaaike Leopold, Hannah Flerlage, Annemarie van Wezel, Thomas-Benjamin Seiler, Marie-Hélene Enrici, Michelle C. Bloor (2021), The EU Green Deal's ambition for a toxic-free environment: Filling the gap for science-based policymaking. Integrated Environmental Assessment and Management. 17 (6), 1105-1113. https://doi.org/10.1002/jeam.4429

Activity Two

On the 4th May 2021, two events were held at the 31st SETAC Europe Annual Meeting #SETACEurope, namely a Chemicals Strategy for Sustainability Discussion Forum (attended by 250 delegates) and a Chemicals Strategy for Sustainability Open Town Hall (attended by 250 delegates and members of the general public). Both events were based on chemical-related questions that were gathered from the general public. The questions were gathered through an electronic form and a video was created to promote the opportunity and shared on social media (Figure 2).



Figure 2. QR code to access the video used to engage the general public, collect questions on chemicals and promote the Chemicals Strategy for Sustainability Open Town Hall event at #SETACEurope

Four questions were then selected to use for the events:

Question 1. How would you define criteria for Safe and Sustainable-by-Design chemicals, and how should these criteria be implemented?

Question 2. How is the polluter-pays principle implemented when there are so many unstudied effects of known substances, and we assume non-toxicity for non-assessed endpoints, while we raise concerns about unknown contaminants, for which there is no known polluter to be held responsible.

Question 3. How can we trust scientists, validators or industry (who are all prone to conflicts of interest), without open reviews of the studies untampered raw data?

Question 4. What can be done about the large amount of down-the-drain chemicals (such as pharmaceuticals) that are episodically emitted due to extreme weather events e.g via sewer overflows?

An invited panel of six speakers responded to the pre-collected questions and discussed the topics with the audience. The panel of speakers also pre-recorded presentations.

Serenella Sala (European Commission Joint Research Centre) - the Life Cycle Assessment approach being taken to ensure that chemicals are designed for sustainability.

Leo Posthuma (RIVM) and Martin Wimmer (Austrian Federal Ministry) - a vision to join forces to promote sustainable-chemicals' based products within a non-toxic environment. Addressing the EU-regulatory perspective and bridging perspectives of the chemistry, chemical safety assessment, life cycle assessment and field ecological impact worlds.

Dominique Debecker (Solvay) - the whole life cycle of chemicals and the social dimension.

Jean-Luc Wietor (European Environmental Bureau) - case study discussing how the policies proposed in the Chemicals Strategy for Sustainability would help to address real life situations.

lan Malcomber (Unilever) - some opportunities and challenges presented by the European Green Deal from the point of view of a consumer facing company.

A questionnaire was subsequently distributed to the event attendees and through a SETAC Globe article: Michelle Bloor, Michelle Bloor, Annegaaike Leopold, Carla Patinha-Caldeira, Joanke Van Dijk (2021) Survey of SETAC Members on the Green Deal: Chemical Strategy of Sustainability. SETAC Globe. 22 (5). https://globe.setac.org/survey-of-setac-members-on-the-green-deal/. 100 respondents shared their thoughts and ideas through the questionnaire, which will be incorporated along with output from the discussion events into a peer reviewed publication that aims to be submitted for review in early 2022.

Activity Three

In June 2021, a SETAC Europe Sounding Board was established to support SETAC's work at the High Level Roundtable for the Chemicals Strategy or Sustainability, to ensure that the voices of the tripartite (Academia, Business and Government) society can be taken into consideration. Details of the Sounding Board and its role can be found in a recent SETAC Globe article: Annegaaike Leopold, Michelle Bloor, Hans Sanderson, Bruno Campos, Ksenia Groh, Paul Thomas, Leo Posthuma (2021), How SETAC Europe Is Contributing to the Chemicals Strategy for Sustainability. SETAC Globe. 22 (9). https://globe.setac.org/how-setac-europe-is-contributing-to-the-chemicals-strategy-for-sustainability/, which is an open access publication and was also distributed to SETAC's 10,000 members and Globe subscribers.

SMEunited

Activity 1

Short description

Strengthening of chemicals policy within SMEunited

Time

As long as necessary.

Geographical spread

EU

Main results/highlights

The CSS was integrated directly at the office of the secretary general as a horizontal topic. This way communication and decision streams are faster and even more holistic. An adequate amount of resources was dedicated only for the CSS. There is a clear contact person for this topic, who also advises the secretary general.

Reach out (to citizens, other stakeholders' groups, etc.)

Not in this context, but we are now expanding our reach out and awareness raising within our network. While we have already set important organisational steps, this is still work in progress. So far we are reaching out via our established channels.

Links to websites or social media (if available)

Not relevant.

Objectives of the Chemicals Strategy the activity has contributed to

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Greening and digitalising the production of chemicals (e.g. cleaner and safer industrial processes and technologies, innovative business models)

The argument for all three is comparable. By streamlining our communication-channels internally and handling the CSS strongly horizontally, the spirit of the CSS is stronger present also in our other policy activities.

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

The initiative is very much specific for SMEunited, but we can confirm, what we have expected from the start, that properly handling the CSS in an organisation, requires certain measures and resources.

SOLVAY

Activity 1

Contribute to deliver a safe and sustainable by design economy and society.

Short description

The concept of "Safe and sustainable-by-design" will determine the future of not only chemical innovation but also chemical markets. Solvay regards the Safe and Sustainable-by-Design (SSbD) approach in the CSS as lever to create business opportunities and growth while addressing the raising concerns. Grounded in the latest cutting-edge science, it should further boost the development of chemicals that are safe for humans and environment, offer an improved environmental footprint, and deliver the expected performance and value to stakeholders throughout the value chains and markets, with a no concession approach.

The concept of sustainable chemistry and sustainable products is not new but requires effective operationalization. Solvay pioneered in developing its proprietary methodology — Sustainable Portfolio Management, SPM — and applying it since 2009 to existing business but also innovation projects, investment projects and M&A operations. Solvay reports today more than 52% revenue in safe and sustainable solutions (audited figures).

In order to propagate the adoption of such good practice, Solvay co-chaired in 2018 the World Business Council on Sustainable Development roadmap for the Chemical Industry Methodology for Portfolio Sustainability Assessments. This roadmap identifies different approaches used by pioneering chemical companies to assess their sustainable performance, to proactively steer their overall product portfolios towards safer and more sustainable outcomes. Solvay is strongly involved with the CEFIC's "Safe and Sustainable by Design" project and the WBCSD's "Portfolio Sustainability Assessment" platform to increase its adoption and simultaneously improve its capability to capture emerging signals from consumers and value chains.

Time: October 2020 - on-going

Geographical spread: EU and global

Main results/highlights: Already 40 companies sharing expertise and learning in the WBCSD's "Portfolio Sustainability Assessment" platform, pre-competitive.

Reach out (to citizens, other stakeholders' groups, etc.): Peers, customers, suppliers, investors, academics

Links to websites or social media (if available):

https://www.solvay.com/en/sustainability/sustainable-portfolio-management-tool

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals

- Protecting the environment from chemical pollution
- Hazard and risk assessments of chemical substances or groups of substance
- Availability, interoperability and accessibility of chemical data, harmonisation of methodologies
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

We look forward to engaging with the European Commission and other stakeholders to arrive at a common assessment framework. This framework is essential to the success of the Chemicals Strategy for Sustainability and has the potential to accelerate innovation in the chemical sector and the value chains we serve, to the benefit of realising the SDGs in general and the circularity and climate-neutrality objectives in particular.

Stockholm University

Activity 1 Funding received for a new research project "Realizing a non-toxic circular economy"

Short description The realization of a circular economy has become a focus in the EU and other countries to move towards sustainable use of resources. This is a necessary transformation to meet the current environmental and climate challenges. However, one important, but often disregarded part of a circular economy is the role of hazardous chemicals. Hazardous chemicals are used in everyday products and when recycled the new products will inevitably contain these chemicals. The proposed project will address conflicts and synergies between a circular economy (SDG 8, 12, 13) and the protection of human and environmental health (SDG 3, 6, 14). We aim to address chemical management in relation to the notion of a non-toxic circular economy. Our research will result in analyses of importance for decision-makers developing and deciding on risk management measures, as well as legal tools for management of hazardous chemicals in recycled materials. We have the following research questions.

- 1. What are the current conflicts and synergies in chemical management with regards to the goal of a nontoxic circular economy?
- 2. How can conflicts be overcome and how can synergies be utilized for a faster and more efficient transition to a non-toxic circular economy?

We will explore and develop policy instruments using a multi- and interdisciplinary approach, integrating expertise in a circular economy, procurement, toxicology, risk assessment, chemical regulations, and science-policy interactions.

Time 2022-2023

Geographical spread EU

Main results/highlights To be reported on.

Reach out (to citizens, other stakeholders' groups, etc.) To be reported on.

Links to websites or social media (if available) www.aces.su.se/staff/marlene-agerstrand/

Objectives of the Chemicals Strategy the activity has contributed to

- Achieving safe products and non-toxic material cycles
- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution
- Strengthening chemical science-policy interface

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate To be reported on.

Activity 2 Workshop and sign-op campaign on Global Chemicals & Waste Management

Short description As a member of the IPCP board (https://www.ipcp.ch/about-ipcp) Ågerstrand contributed to organising a workshop and sign-op campaign on Global Chemicals & Waste Management. The workshop aimed to create new momentum on recognizing the global threat of

chemical pollution and inspire ambition to take immediate actions on grand challenges. The signon campaign is calling for a global intergovernmental science-policy body for informing policymakers, businesses, and the public about reducing harm from chemical pollution. This campaign builds on a peer-reviewed article published on February 18, 2021 in the journal Science, where the authors explains how limited and fragmented science-policy interactions on chemicals and waste have contributed to widespread health and environmental problems.

Time 2021

Geographical spread Global

Main results/highlights Successful workshop with approximately 250 participants. The sign-on campaign currently has been signed by Over 1800 scientists & practitioners from over 80 countries.

Reach out (to citizens, other stakeholders' groups, etc.) See description of the workshop.

Links to websites or social media (if available)

https://www.ipcp.ch/news/workshop-on-grand-challenges-opportunities https://www.ipcp.ch/news/academic-scientists-call-for-a-new-global-science-policy-body

Objectives of the Chemicals Strategy the activity has contributed to

- Strengthening chemical science-policy interface
- Strengthening international standards on the sound management of chemicals and promoting safety and sustainability standards outside the EU

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Switzerland and other UN Member States are intending to propose the establishment of a global science-policy body on chemicals and waste, akin to the Intergovernmental Panel on Climate Change (IPCC) and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). This proposal will be discussed at the upcoming February 2022 session of the United Nations Environment Assembly, UNEA5.2.

Activity 3 Rudén talking about the CSS on national television in Sweden

Short description Talking about the CSS on national television in Sweden. Explaining the importance of the CSS in relation to risk management of EDCs.

Time October 2021

Reach out (to citizens, other stakeholders' groups, etc.) Communication to the general public in Sweden

Links to websites or social media (if available)

https://www.svtplay.se/video/32986386/vetenskapens-varld/vetenskapens-varld-sasong-35-den-farliga-plasten?info=visa

- Protecting consumers, vulnerable groups and workers from the most harmful chemicals, in particular endocrine disruptors, persistent substances and combination effects of chemicals
- Protecting the environment from chemical pollution

Next steps/recommendations and possible sharing of best practices from other Roundtable's members

Do you plan any future activity you want to inform the Roundtable about?

We are Task Leaders of WP6.3 of PARC.

University of Massachusetts Lowell

Activity 1

Short description: Association for the Advancement of Alternatives Assessment Webinar Time:

• February 10, 2021

Geographical spread:

• US mostly; but also Europe

Main results/highlights:

Reached 169 participants including from academia, industry, NGOs and gov't officials.
 Improved general awareness about the rationale for the Strategy and the main components/elements.

Links to websites or social media (if available)

• https://saferalternatives.org/resources/webinars/a4-webinar-february-10-2021

Objectives of the Chemicals Strategy the activity has contributed to — NONE RELEVANT: OBJECTIVE = GENERAL AWARENESS OF THE STRATEGY

Next steps/recommendations, also in terms of having the initiative become a best practice for other Roundtable's members to replicate

Activity 2

Description: Developing vision, principles, definition and criteria for sustainable chemistry

Objectives and actions:

- To establish an ambitious, actionable definition and criteria for sustainable chemistry that
 can enable effective government policy, marketplace actions, and chemistry education
 accelerating innovation and the broad-based adoption across all supply chains of chemicals
 that are safer and more sustainable.
- Started with exploratory discussions with a broad stakeholder group to help establish a vision of sustainable chemistry. Will use this vision with an expert panel, who will be charged with developing associated principles, definition and criteria.

Time:

• Ongoing (started in January 2021; to be completed in the fall of 2022)

Geographical spread:

US and Europe

Main results/highlights:

None yet.

- Promoting safe and sustainable-by-design chemicals (e. g. research, and innovation activities and objectives to ensure substitution of chemicals that are harmful to human health or the environment)
- Achieving safe products and non-toxic material cycles
- Protecting the environment from chemical pollution