NGOS PERSPECTIVE ON EMERGING SCIENTIFIC TOPICS AND ASSOCIATED KNOWLEDGE GAPS

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WHO WE ARE

• Europe’s largest network of environmental citizens’ organisations
  • around 150 civil society organisations... including a growing number of European networks representing some 30 million individual members and supporters
  • ...from more than 30 European countries
• Over 40 years of EU environmental policy expertise
WHAT MAKES US UNIQUE

• EEB is the only European umbrella organisation that
  • covers such a large number of environmental policy issues (incl. chemicals)
  • and at the same time is open to membership for all NGOs active in the field of the environment

• This makes the EEB a unifying actor for the European environmental movement and gives it a strong voice in EU and international policy processes

<table>
<thead>
<tr>
<th>ECHA (accredited stakeholder)</th>
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<tbody>
<tr>
<td>MSC</td>
</tr>
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<td>SEAC and RAC</td>
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<td>MB (+AG dissemination)</td>
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<tr>
<td>PBTs, EDCs and NMs expert group</td>
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<td>Enforcement FORUM</td>
</tr>
</tbody>
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MARKETPLACE

Watch what happens when this car seat meets the chemical of her dreams

https://www.youtube.com/watch?v=3VqJW6So2t4&feature=youtu.be
The last decade, the EU-28 has produced almost 930 million tonnes of chemicals (>900 million tonnes hazardous for the environment

• SVHC substances are still detected in our bodies and in the environment; this presence is increasing (e.g. POPs detected in almost/all population)
**THE THREAT-CHEMICAL POLLUTION**

- Pollution is the world’s largest environmental cause of disease and premature death.  
  The Lancet Commission on pollution and health. The Lancet, Published: October 19, 2017

- **Chemical pollution** also has a **high economic cost**
  - Cost of shellfish population declines by tributyltin as anti-fouling marine coatings = €22 million p/y to the UK shellfish industry alone.
  - Cleaning up contamination cost for EU just from polychlorinated biphenyls (PCBs) > €15 billion (1971 – 2018).


- **And impact firms’ competitiveness and their capacity to innovate**
Key Concept to Formulating: Reduce Risk by Reducing Inherent Hazard

Safer chemistries are defined as being safer for human health, effective, and more environmentally benign chemical products.

Safer chemistries due to their inherent chemical, properties deliver the functional performance required and exhibit a lower propensity to induce adverse effects in humans or animals and to persist in the environment.

– Adapted from OECD and the Lowell Center for Sustainable Production
Cosmetic innovation

“Starting in the 1990s, manufacturers of consumer products began to replace natural materials such as ground almonds, oatmeal and sea salt in personal care products with plastic microbeads”

- Now microbeads are one part of a massive plastic pollution problem

Innovation isn’t moving from one problem chemical to a not-yet controlled one in a group

- E.g. Perfluorocarbons (PFCs), Halogenated flame retardants, Phthalates, bisphenols etc
THE CHALLENGE

Main problems to enhance research and development of new, non-toxic substances

• **Complexity** and **lengthy** of the process and the related **costs**.

• **Conflicting information from studies and lack of consistent definitions for “safer”, “sustainable,” “eco innovation,” or “safe by design”**.

• **REGRETTABLE SUBSTITUTIONS**: Due to cherry picking without careful assessment of alternatives.

• **Specific funding programmes that support early-stage innovation research for safer chemistry do not currently exist**.

• **A focus on identifying and getting rid of “bads” rather than implementing “goods”**
Despite 70% of the chemicals present in the EU market are considered to have hazardous properties, only a small fraction of industrial chemicals has been thoroughly evaluated, is unknown as well as the level of exposure of people and the environment. (http://europa.eu/rapid/press-release_MEMO-06-488_en.htm)

Currently Estimated Toxicity

- Risk = Hazard x Exposure? – No - we almost never know these numbers for certain
- Currently estimated risk (CER) = currently estimated hazard (CEH) x currently estimated exposure (CEE)

- The reality
  - Currently Estimated Toxicity CET often increases over time, but real toxicity is a stable fact
  - Increases in CET = levels not protective in the past – e.g. Lead
  - Mixtures and subtle developmental effects (e.g. EDCs) increase the problem of accurately estimating these numbers
OPTIONS AND OPPORTUNITIES

Leading chemical companies agree that producing safer chemicals is good for business

ECETOC scientific activities and CEFIC LRI research projects could focus on upfront design and innovation of chemicals (e.g. definitions, criteria and methodologies to design safer chemicals and identify needs)

ECETOC has great potential to engage businesses with academia and governments to better translate academic research into application and business needs. E.g. TURI

Enhancing supply chain collaborations and partnerships within a sector or value chain can serve as critical accelerators for development of safer chemistry solutions e.g. USEPA DfE

Create costs’ partnerships for research and performance testing. e.g. U.S., the Green Chemistry & Commerce Council
CONCLUSIONS – OUR VISION

• Too many chemicals – and groups of chemicals – are discussed for years or decades (e.g. Bisphenols, Brominated Flame Retardants, Fluorocarbons, Phthalates...)

• But they all get regulated sooner or later

• Innovation isn’t moving from one problem chemical to a not-yet controlled one in a group.

• Obsolete- persistent and hazardous chemistry have no future

• NGOs want EU chemicals industry to be a frontrunner world wide on sustainable innovation

• Safer chemicals are the future for health, environment and business

• ECETOC has a key role to ensure truly safer chemicals by design
RECOMMENDATIONS

Focus on the future, not the past!

Pay greater attention to upfront design and innovation of chemicals

Avoid cherry picking of chemicals from the same group/family

Accept reality of ‘currently estimated toxicity’ (Delay is not protective)

Focus on hazard assessment and greater use of generic risk assessment

Change the mindset of the EU chemicals industry towards green chemistry and truly sustainable future

Then, become frontrunner on intrinsically safe chemicals!
OUR MISSION

ECETOC works with leading scientists from academia, governments and industry to develop and promote trusted and practical scientific solutions which ensure a safe, sustainable and healthy world.

OUR CHALLENGE

Where do you want to position your company?

LEADERS

or

LAGGARDS
THANK YOU!

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