

REACH and Sustainable Chemistry: Contribution and Demand

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GC3 Round Table
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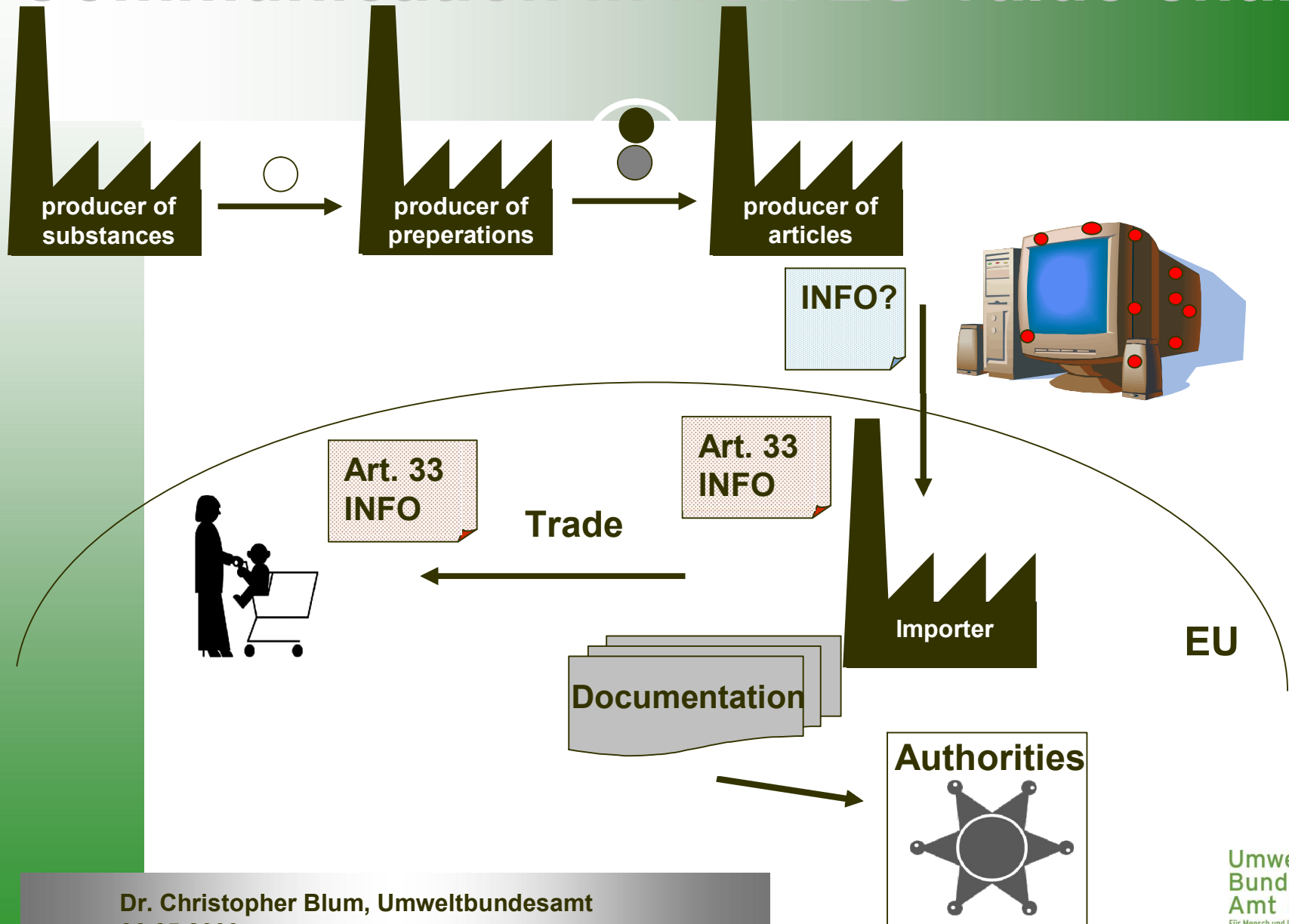
Overview

- **Benefits of and Innovation through REACH**
- **Challenges of REACH**
 - Imported Articles
 - Substances of Very High Concern
- **Safety and Sustainability of Chemicals**
- **Criteria beyond Inherent Safety**

REACH is an important step towards sustainability of chemicals

- **Information on hazardous properties of chemicals is generated – closure of data gaps.**
- **Information upstream and downstream the supply chain improved (enhanced dialogue).**
- **Most hazardous chemicals must be authorized and will be under control – if not substituted.**
- **Chemicals can only be marketed if it is proven that their identified use is safe.**
- **Improved confidence of consumers by better information of hazards and risks.**
- **Long-term benefits on health of workers and consumers and protection of the environment → saving costs.**

Communication in non-EU value chain



EU-Import under REACH

Risk-communication within the value chain in the EU is missing outside the EU

- **serious issue for producers/importers**

Challenges for the importers:

- **What are their duties under REACH?**
- **How can conformity be proven?**
- ⇒ **Art. 7, 33, 57 & 59; Annex XIV and XV**

SVHC in Articles - Notification

Notification at ECHA, if SVHC

- Is on the candidate list
- Concentration in article is $> 0,1 \%$ (w/w)
- > 1 t/a in (all) articles of the producer/importer
⇒ Substance identity, amount, C&L
and use characterisation
- Accounts also for packaging materials !

No Notification, if

- Exposition can be ruled out
- Substance is already registred for specific use

SVHC in Articles - Information

Information is obligatory

if article contains SVHC (of the candidate list)
in concentrations $> 0,1\%$ (w/w)

- Informations on safe usage
(to the acceptor of the article)
- On demand informations for consumers (45 d)
- Independent of total amount,
exposition or registration
- Activ since Oktober 2008 (1. candidate list)

SVHC-Example: Cable

- DEHP as softener (ca. 30% DEHP in PVC)
 - DEHP repro. cat. 2 (→ candidate list)
- ⇒ Notification according to Art. 7(2), if
- concentration in article > 0,1%
 - Exposition can not be ruled out
- check 1: amount of DEHP > 1 t/a?
(from ca. 3 t/a produced/imported cable)
- check 2: DEHP already registered in the EU for this specific application?

SVHC-Example: cable + power supply

DEHP in cable + power supply

- ca. 30% DEHP in PVC-parts
- PVC-part ca. 0,3 % in power supply

⇒ Impact according to the conc. limit of 0,1%?

Homogenic part (cable):

- DEHP-proportion 30%
- ⇒ Notification if ...
- ⇒ Information is obligatory

Hole article (cable + power supply):

- DEHP-proportion 0,09%
- ⇒ Notification is not obligatory
- ⇒ Information is not obligatory

Is the 0,1% limit for SVHC sufficient for the hole article?

ECHA

Study for the update of the guidance document „Substances in Articles“ (Autumn 2009)

KEMI (lead country; 6 MS, Norwegen und Island – 08/2009)

Assessment of alternative applications of the 0,1% limit in REACH triggering information on SVHC in articles

6 case studies to investigate the implications of the reference of the 0,1% limit to hole articles, homogenic parts and detachable components.

German EPA

Gaps in legislation ? Is the 0,1% limit in the hole articles sufficient to reach the protection goals ?

=> case studies with complex and homogenic articles

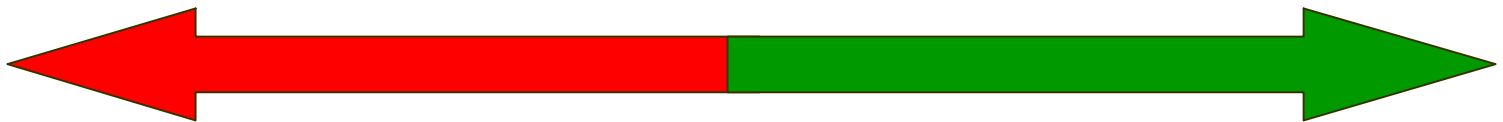
REACH and Sustainability

Safe Chemicals under REACH are not necessarily sustainable !

- **Sufficient protection from hazardous chemicals released by imported articles?**
- **Reference of the 0,1% limit of SVHC.**

Sustainable chemicals are unlikely to pose a risk for human health and environment due to the **lack of hazardous properties - even without specific exposure control.**

Inherent Safety of Chemicals



Unsustainable

- CMR properties
- Respiratory sensitizers
- Extreme acute (eco)toxicity
- PBTs/vPvBs
- High persistence and mobility

Sustainable

- No irreversible and chronic effects
- Low acute (eco)toxicity
- Low persistence
- No bioaccumulation
- Low spatial range

Criteria beyond Inherent Safety

Qualitative development: substances with no/low dangers to environment and human health; resource-efficient production and long-life products => **prevention & innovation**

Quantitative development: few (renewable) resources; avoid/decrease emissions and release => **saving costs**

LCA: analysis of raw material exploitation, production, processing, use and disposal => **reduction of resource & energy demand + avoidance of dangerous substances**

Action instead of reaction: precautionary principle => **avoidance of following costs for enterprises & government**

Economic innovation: Sustainable chemicals, products and processing provide confidence to industrial user and private consumer => **advantage in competition**

Implementation of Criteria of Sustainable Chemistry

R&D Project of the German EPA: Development of a guidance document for enterprises

- requirements for production, processing (and use) characteristics with respect to sustainability
- allows a comparison for users of chemicals for identifying most sustainable solutions

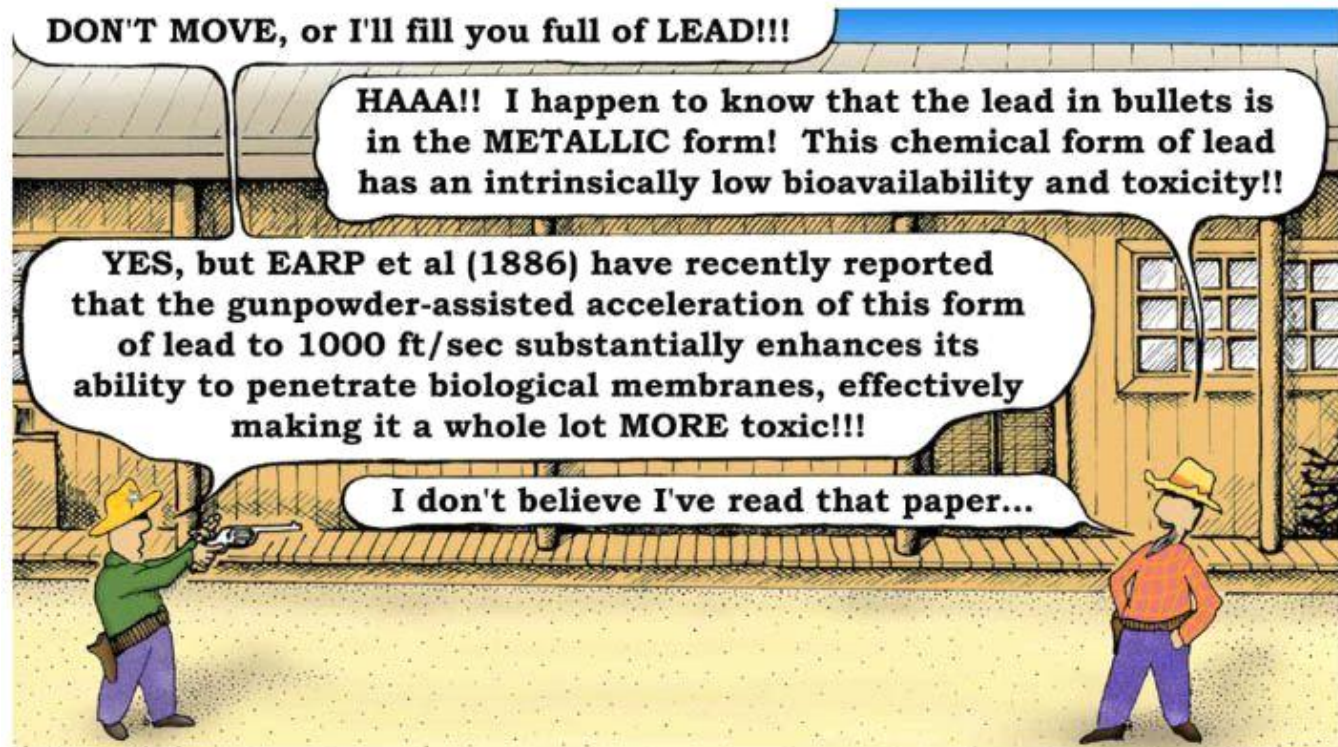
Communication of Sustainability

Sustainability in the product chain is only achievable when economic actors share the corresponding information

- Safety information under REACH is communicated by the SDS
- Additional information on sustainability criteria (resource demand...) should be communicated voluntarily
- Confidentiality must not be violated
 - Format needs to be developed

Customer demand for such info is important!

It's all about information !



COMBINATION TOXICOLOGY IN THE WILD WEST

(c) Nick Kim, www.nearingzero.net

Thank you very much for your attention !



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