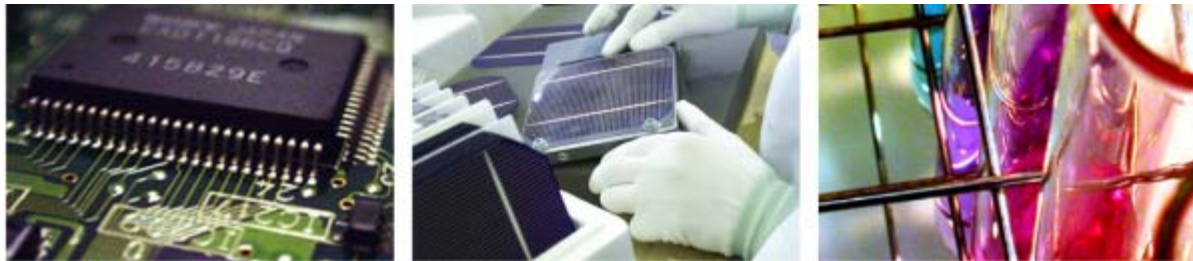


How to eliminate hazardous chemicals from consumer articles?

RoHS Directive – State of Play

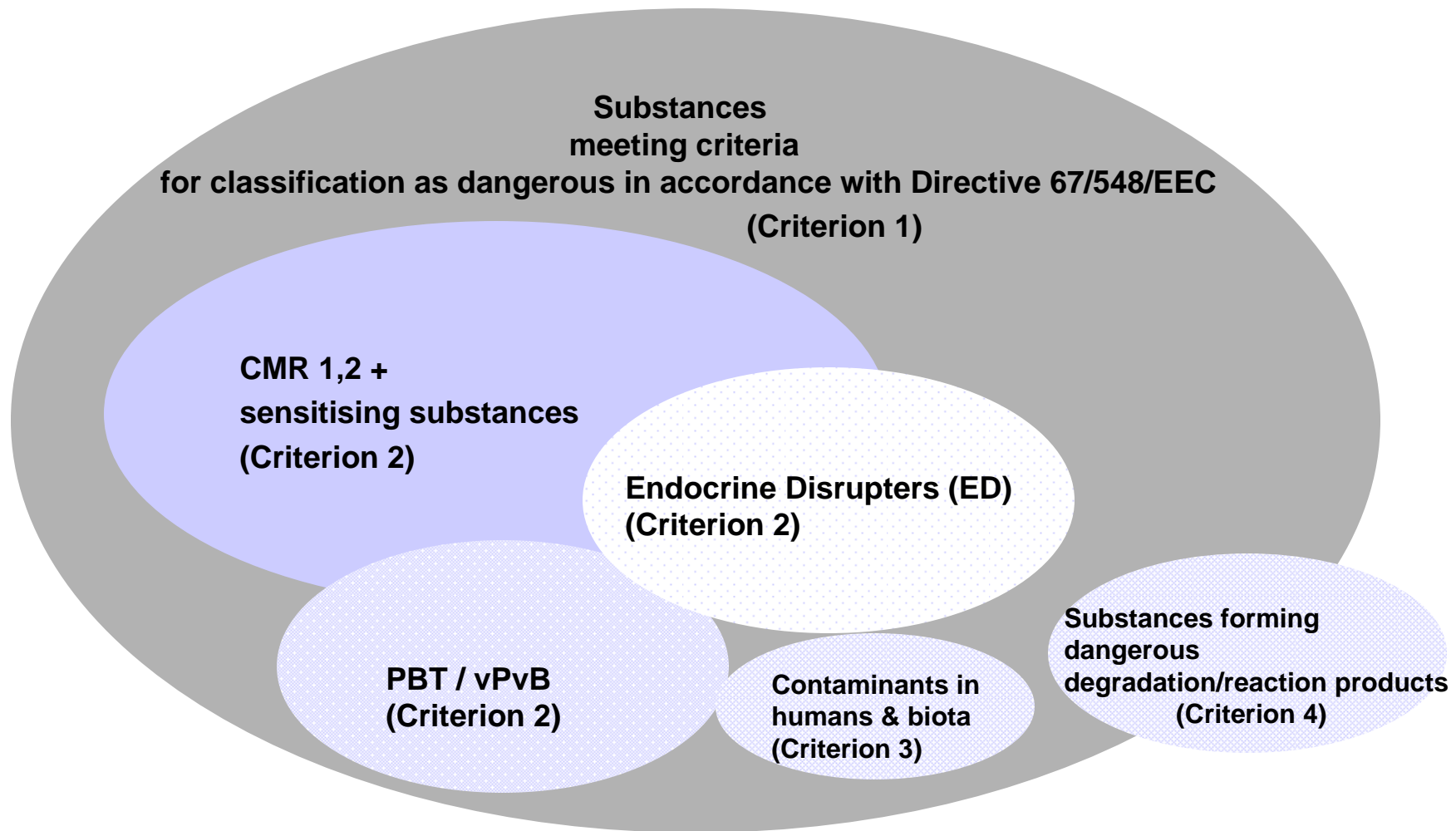


Brussels, 5 October 2011

What has been achieved?

- Six hazardous substances have been nearly fully phased-out from EEE
 - Industry has learnt how to substitute them and how to communicate within the supply chain
 - Hazard and need for ban has been identified with regard to waste (environment) aspects mostly: consumer exposure was not under focus
 - Exemption evaluation had to take consumer health and safety aspects into account
 - With RoHS II the need for a sector-specific regulation has been acknowledged

Study recast: selection criteria



Risk management of high priority hazardous substances

- Exposure to humans and environment + resulting risks
 - Monitoring data in human, other biota and environmental media
 - Relevance of EEE with regard to total consumption
 - Availability of substitutes
- Identification of substances that have major impacts on environment and human health by **combination of intrinsic properties and exposure**

⇒ **Candidate substances for potential inclusion in RoHS**

Study recast: candidates proposed for potential inclusion in RoHS

Substance name	CAS-No.	Classific. (Dir 67/548/EEC)	REACH SVHC	Further hazard potential	Quantity used in EEE [t/y in EU]	Information on Substitutes	Recommendation
TBBP-A	79-94-7	Proposed classification: N; R50/53	-	- DDRP - Detections in biota	40,000 (10,890)	Available	Inclusion in RoHS
HBCDD	25637-99-4	Proposed classification: N R50-53;	PBT	- DDRP - Detections in biota	210 (3,348)	Available	Inclusion in RoHS
DEHP	117-81-7	Repr. Cat. 2; R60-61	CMR ED Cat 1	- Detections in biota	29,000 (18,329)	Available	Inclusion in RoHS
BBP	85-68-7	Repr. Cat.2; R61 Repr. Cat.3; R62 N; R50-53	CMR ED Cat 1	- Detections in biota	Total use: 19 500 however no data available on share of EEE applications	Available	Inclusion in RoHS
DBP	84-74-2	Repr. Cat. 2; R61 Repr. Cat. 3; R62 N; R50	CMR ED Cat 1	- Detections in biota	Total use: 14 800 however no data available on share of EEE applications	Available	Inclusion in RoHS

Recommended substances - REACH

- Annex XIV: does not apply to imported products!
 - HBCDD: sunset date 21 August 2015
 - DEHP, DBP, BBP: sunset date 21 February 2015
 - DIBP recommended for inclusion (December 2010)
- Annex XVII: restriction of certain uses
 - Entry 51: DEHP, DBP and BBP in toys and childcare articles
 - DIBP: recommended by Denmark + revision
- TBBP-A: pre-registration under REACH
 - For use without restriction following EU Risk Assessment and risk reduction strategy conclusions
 - Not exposure-relevant for consumers

RoHS II Directive - Overview

- RoHS II recently published (2011/65/EU)
 - Six hazardous substances banned have remained: Hg, CrVI, Pb, Cd, PBB, PBDE
 - Review of substance ban should in future take Annex XIV (authorisations) and XVII (restrictions) of REACH into account
 - Priority to be given to HBCDD, DEHP, BBP, DBP (as a result of the substance ban review in the context of the RoHS recast) (recital 10)
 - Reinvestigation of substances that were already subject to previous assessments and that fulfill the new RoHS II criteria

What could be improved?

- Substances recommended to be banned are still at high priority
 - They have been identified using inter alia consumer health aspects
 - E.g. brominated FR and phthalates can be emitted during use
 - Some are or will be regulated under REACH but
 - Focus not on use in articles
 - 0,1% limit
 - Industry only needs to prove that article is safe
- Incorporation of cocktail-toxicity as criterion
 - Mixture toxicity (added exposure from one product)
 - Cumulative exposure (one substance in different products)

How to add further substances (recital 16)?

- As soon as **scientific evidence** is available and taking into account the **precautionary principle**, the restriction of other hazardous substances and their substitution by more environmentally friendly alternatives which **ensure at least the same level of protection of consumers should be examined**.
- The **review and amendment of Annex II** should be coherent, maximise synergies with, and **reflect the complementary nature of the work carried out under REACH**.
- Consultation with the relevant stakeholders should be carried out and specific account should be taken of the **potential impact on SMEs**.

How to add further substances (article 6)?

Amendment of Annex II shall be considered by the Commission **before 22 July 2014**, and periodically thereafter **on its own initiative or following the submission of a proposal by a Member State**

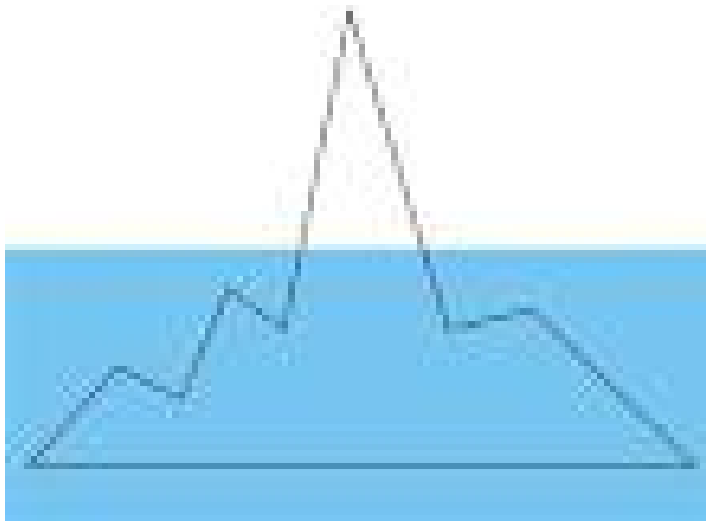
- (a) precise and clear wording;
- (b) references and scientific evidence;
- (c) information on the use of the substance in EEE;
- (d) information on detrimental effects and exposure in particular during waste EEE management operations;
- (e) information on possible substitutes and other alternatives, their availability and reliability;
- (f) justification for considering a Union-wide restriction as the most appropriate measure;
- (g) socioeconomic assessment.

RoHS II criteria amendment Annex II

Whether a substance

- (a) could have a negative impact during EEE waste management operations
- (b) could give rise, given its uses, to uncontrolled or diffuse release into the environment of the substance, or could give rise to hazardous residues, or transformation or degradation products through treatment of materials from waste EEE under current operational conditions;
- (c) could lead to unacceptable exposure of workers involved in the waste EEE collection or treatment processes;
- (d) could be replaced by substitutes or alternative technologies which have less negative impacts.

Criteria identification further substances



Annex XIV

Candidate List

SVHC Article 57: CMR I+II; PBT, vPvB

CMR III: sensitising to skin and
respiratory ways, neurotoxic

Dangerous to the environment: risk
phrases 50 - 53

Additional activities

- German Federal Environmental Agency has launched project on a feasibility study to create a common reporting format for the use of SVHC in articles
 - Articles to be handed out with a mini info sheet on contained hazardous substances
 - Use of existing information systems in different sectors (e.g. IMDS, JIG)
 - Feed in UN SAICM process on chemicals in products

Conclusions

- Use and exposure situation specific for EEE
 - Need to differentiate between consumer and non-consumer goods?
 - Consumer-specific aspects vs. general health aspects?
 - Keep sectoral regulation
- Need for inclusion of further substances in RoHS
 - Verify suitability of criteria with regard to substance ban
 - Build upon REACH Annex XIV and XVII (watch out for 0,1% rule!)
- Horizontal approach may be useful for identification of substances' hazard assessment with regard to use in consumer-relevant products