

Priority substances identified by the EU-Policy Board for the 1st year of the EHBMI

Provided as input to the 6 October 2015 EHBMI Steering Group meeting

The inclusion of the following substances in the EHBMI is justified from a regulatory point of view.

The main consideration at the basis for the selection of priority substances are:

- Use of the results for future policy decisions
- Increasing use of the substance with potential concern for public health
- Substances for which the current exposure is reason for concern

Chemical family	Substances	Goals
Phthalates & DINCH	<p>Restricted and non-restricted phthalates.</p> <p>Diisononylcyclohexane-1,2-dicarboxylate (DINCH)</p> <p>Substitutes from outside the phthalate family should be considered.</p>	<p>To follow time trends, aim at monitoring as many phthalates as possible using common analytical methods and with particular focus on substitutes.</p> <p>Advances in analytical tools to allow for a clear distinction to be made between regulated phthalates and replacement substances, in an efficient work process.</p> <p>Gather more evidence on the reproductive and developmental effects. This will require the involvement of existing long-term cohorts.</p>
Poly/Per-fluorinated compounds	<p>Restricted and non-restricted substances.</p> <p>Short-chain compounds and other substitutes are of particular interest.</p> <p>Prioritisation within this group should be done according to production volume, bioaccumulation potential and new toxicity studies. Information from the OECD PFC Steering Group on production volumes could be used.</p>	<p>Establish baselines and follow time trends in support of regulation.</p> <p>Develop new analytical methods and biomarkers of exposure and effect.</p>
Brominated and organophosphate flame retardants	<p>Production volumes, dispersive uses, bioaccumulation potential and public concern should be a driving factor for prioritisation.</p> <p>For brominated flame retardants it is suggested to</p>	<p>Establish baselines and follow time trends in support of regulation.</p> <p>Develop new analytical methods and biomarkers of exposure and effect.</p> <p>Carry out research on health impact of emerging flame retardants.</p>

	<p>focus on new substances coming up such as the examples listed in the assessment.</p> <p>PBDEs, PBBs, HBCDDs, TBBPA are NOT of interest as they are already banned or restricted, otherwise regulated, or in the process of becoming regulated.</p>	
Bisphenol family	Bisphenol A, S and F	<p>Gain better insight to the overall human exposure to Bisphenols through HBM and investigate exposure sources.</p> <p>Carry out research on health impact in support of risk assessment and possible further regulatory action.</p>
Elements	Cadmium and Chromium(VI)	<p>For cadmium the exposure from multiple sources is leading to values near to or exceeding the relevant toxicological reference values. The goal is to have a better view of the actual exposure and understand the exposure sources.</p> <p>For chromium(VI) there are occupational health concerns, concerns about exposure from different sources and routes with different impact, possible geographic variation and uncertainty about the contribution of different derivatives.</p>
Polycyclic aromatic hydrocarbons (PAHs)	<p>The 8 carcinogenic PAHs in entry 50 of Annex XVII to REACH and the 16 USEPA priority PAHs (see assessment for further details).</p> <p>Alkylated PAHs are of particular research interest.</p>	<p>Get a better insight into the overall human exposure to PAHs through HBM. One-go monitoring should be envisaged for as many compounds as possible.</p> <p>Understand the impact of PAHs on public health.</p>
Aniline derivatives	MOCA (4,4'-Methylene-bis(2-Chloraniline))	<p>Monitor exposure of workers.</p> <p>Results would be useful in the event of possible reviews of (potential) authorisations.</p>
Mixtures		We encourage the consortium to start addressing identification of chemical mixtures to which humans are exposed and develop concrete activities, across all three pillars, which would be carried out

		in the second half of the project. The pre-defined mixtures of substances having common mode of action could frame the initial perspective on this topic.
Emerging substances		We encourage the Consortium to include an activity dedicated to screening for new substances and to non-targeted analysis in the available samples. This could include establishment and optimisation of analytical methods for non-targeted analysis to trace the occurrence of non-identified substances.

Additional ideas for discussion:

Crisis response capability		To be reflected on as a long term vision.
Biomarkers for air pollution		Both for exposure and effect – possibilities to be discussed.