



# Scientific Committee of Health and Environmental Risks

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Risk Assessment and the EC Scientific  
Committees

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# Mandate of the SCHER

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Questions relating to examinations of the toxicity and ecotoxicity of chemicals, biochemicals and biological compounds whose use may have harmful consequences to human health and the environment.

In particular, questions related to new and existing chemicals, the restriction and marketing of dangerous substances, biocides, waste, environmental contaminants, plastic and other materials used for water pipe work (e.g. new organic substances), drinking water, indoor and ambient air quality are addressed including human exposure to mixtures of chemicals, sensitisation and identification of endocrine disrupters.



# Functioning of the SCHER

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The SCHER has 18 members, covering the following areas of expertise:

Toxicology (sensitive populations, genetic differences, toxicokinetics, epidemiology), ecotoxicology (water, soil, air, metabolism), exposure assessment (indoor-outdoor, biomonitoring, the different environmental compartments).

If necessary external experts are invited.

There are 6 plenary meetings and about 30 WG meetings.

The major source of information is the peer reviewed literature. Opinions of other SCs, documentations of governmental agencies, NGOs are helpful to identify the underlying problem.



# Range of issues the SCHER has dealt with recently

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## **SCHER**

- Indoor air
- BUAV report on alternatives to animal testing
- TGD of ECB on Human Health Risk Assessment
- Organotin compounds in aquatic environment

## **SCHER and CSTEE**

- Health benefit of reducing Cr<sup>VI</sup> to Cr<sup>III</sup> in cement
- Opinions on Risk Assessment Reports



# Specific Example 1

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## Indoor Air: Summary and Conclusions 1

Indoor air may contain over 900 chemicals, particles, biological materials with irritating and sensitizing potential. Since their concentrations are usually higher than outdoors and most humans spent more time indoors than outdoors SCHER recommends that any studies to correlate outdoor air concentration with health effects need to consider the impact of indoor exposure.



# Specific Example 1

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## Indoor Air: Summary and Conclusions 2

Composition and concentrations of components in indoor air vary widely. Since it is not feasible to regulate all possible scenarios, prevention from possible health effects and protection of sensitive populations is best achieved by reducing exposure. Consequently, all sources that contribute to indoor air contamination should be evaluated for measures to reduce emissions. These are tobacco smoke, open fires (candles!), building materials, furniture, pets and pests, household products and conditions that lead to the growth of molds. Sufficient air exchange reduces accumulation of pollutants.



## Specific Example 2

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### BUAV\* report on alternatives to animal testing

The report stresses that relevance of toxicological information from animal experiments for humans is insufficient and that in vitro tests are suitable for risk assessment.

The report focused on hazard identification, not on risk assessment. Even for hazard identification a limited number of endpoints can be evaluated.

The situation can only be improved by further research.

\* British Union for the Abolition of Vivisection



## Specific Example 3

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### TGD of ECB on Human Health Risk Assessment

#### Summary and Conclusions 1

The TGD specifically addresses **risk assessment of chemicals with limited or insufficient data**. The almost exclusive consideration of this situation bears the danger, that compounds with sufficient information will be evaluated by a formalistic procedure. SCHER's major recommendation is that the TGD clearly indicates, that each compound is a specific case and that any risk assessment has to consider the specific data available.





## Specific Example 4

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### Organotin compounds in aquatic environment

#### Summary and Conclusion

Intensive use as antifouling resulted in high endocrine effects on molluscs. CSTEER pointed out that these effects escaped traditional risk assessment protocols. Scientific evaluation of the mode of action as antifouling allowed sound risk assessment.

In its recent opinion SCHER re-evaluated the risk and recommended need for further risk reduction measures.



# Conclusions - closing statements

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The SCHER warrants that the risk for human health and the environment has been addressed using the best available scientific knowledge.

The scientific independence of the SCHER is essential for the credibility of the scientific advice to the citizens and stakeholders.

**This paper was produced for a meeting organized by Health & Consumer Protection DG and represents the views of its author on the subject. These views have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission's or Health & Consumer Protection DG's views. The European Commission does not guarantee the accuracy of the data included in this paper, nor does it accept responsibility for any use made thereof.**