Draft Agenda for OECD workshop on socioeconomic impact assessment of chemicals management

Experiences, methods & information requirements for quantifying the costs and benefits of regulating the risks related to chemicals

Hosted by the European Chemicals Agency

6-8 July 2016, Helsinki Finland

Introduction and Purpose

There is currently significant international interest and various ongoing initiatives related to assessing the socioeconomic impacts of chemical management frameworks and, in particular, of chemicals risk management. To foster the discussion and share experiences on this topic, the European Chemicals Agency will host a workshop as part of the work of the OECD’s Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology and the OECD’s Environment Policy Committee’s Working Party on Integrating Environment and Economic Policies. The focus of the OECD activity is to work towards developing harmonised methodologies for estimating the economic value of the health and environmental benefits of chemicals management programmes, or particular risk management activities for targeted chemicals.

The workshop will aim to identify the current status of cost-benefit analysis, cost-effectiveness analysis and other relevant approaches for economic measurement of risk management frameworks addressing the human health and environmental impacts of chemicals in OECD Member Countries. These analyses can contribute to the decision-making process which is of a broader scope and also takes into account other elements such as distributional effects, ethical aspects, risk tolerance, the nature of the risk in question and the level of certainty.

The workshop will focus on and exemplify the methods currently used across jurisdictions and intergovernmental organisations and also focus on information requirements for quantifying the costs and benefits of regulating the risks related to chemicals. The workshop will help in identifying future work and activities in this area at the OECD.

In addition, the outcomes of this work will support the longer term goal of developing harmonised OECD methodologies for estimating the economic cost and benefits of managing chemicals, in turn supporting the implementation of the Strategic Approach to International Chemicals Management.

Workshop programme

The workshop, conducted in English, will consist of:

i) Presentations of and discussions on the methodologies used to analyse socio-economic impacts of individual risk management measures taken in different Member Countries. This will include methods for monetising various health and environmental benefits. This part will also cover the assessment of substitution efforts, including the net compliance costs to relevant actors, the economic feasibility of alternatives, possible effects on consumers due to changes in product qualities, trade and other economic impacts.
ii) Presentations of and discussion on the methodologies used to assess the costs and benefits of chemicals management systems based on experiences in Member Countries and intergovernmental organisations.

iii) Discussions on commonalities between i) and ii), with an in-depth discussion of the background papers, identify the main gaps in existing methodologies and make recommendations as to further work to be done at OECD.

With revisions taking account of the discussions at the workshop, the background papers will be published as OECD Environment Working Papers, and a workshop report will be prepared and published.

**Participants**

The workshop will involve country experts on chemicals assessments and economic assessments, industry representatives and a number of leading academic experts on these issues will be invited.

**Background papers**

The OECD will have four background papers prepared and made available for the workshop:

- One paper outlining the type of information available in a typical chemical risk assessment, and reviewing existing methodologies and information requirements for translating the results of a chemical risk assessment into attributable health or environmental impact(s) of a given chemical (or collectively chemicals in use) as input for an economic evaluation.

- One paper discussing methodologies and information requirements for estimating the economic value of a given impact, including the strengths, weaknesses and uncertainties of the methodologies. The paper will discuss the various values that can be of relevance, and the willingness-to-pay for avoiding the different impacts. Further, the paper would discuss the methods and information of estimating costs and benefits to firms, public entities and households of complying with policy measures to limit a given environmental or human health impact.

- One paper reviewing existing methodologies for transferring/extrapolating the monetised value of human health and environmental impacts from one chemical to another chemical or many chemicals. In general, what methodologies there are to estimate the benefits to society from regulating chemicals?

- One paper focusing on quantifying regulatory efficacy of risk management activities. How does one measure and compare the actual costs and benefits to those predicted at the time of regulation, and, ultimately, relate those back to whether or not they helped to achieve the specific human health and environmental policy objectives that the risk management measure was intended to address.

**Logistics**

The meeting will take place at the European Chemicals Agency - 18 Annankatu, Helsinki, Finland.
**Wednesday, 6 July 2016**

### Introductory Session

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<tr>
<td>9:00 – 9:15</td>
<td>Welcome and introduction by OECD and ECHA</td>
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<td>9:15 – 10:00</td>
<td>Keynote presentation - Alan Krupnick (RFF)</td>
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### Experiences with Socioeconomic Impact Assessment in Chemicals Management

Chaired by Eeva Leinala, OECD

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| 10:00 – 11:15 | Presentations by countries and jurisdictions, international organisations, and industry, exemplifying their approaches to socioeconomic assessment for chemicals management. Presentations by agencies from different countries/jurisdictions:  
- Overview in analysing the costs and benefits of applications of authorisation and restriction under REACH - Matti Vainio (ECHA)  
- Experiences in restricting Bisphenol A - Thea Sletten (Norwegian Environment Agency)  
- Experiences in regulating Formaldehyde or other US case example - Cody Rice (US EPA). |
| 11:15 – 11:45 | Coffee Break |
| 11:45 – 13:30 | Experiences in cost-benefit analysis of risk management measures; – Joe Devlin and Michael Donohue (Environment and Climate Change Canada and Health Canada)  
- Assessment of costs and benefits of policy instruments to address trichloroethylene - Daniel Slunge (University of Gothenburg)  
- Recent valuation research on environmental and human health impacts linked to harmful chemicals; Michael Donohue/Wambui Kipusi (Environment and Climate Change Canada and Health Canada)  
- Australian experience with cost-benefit analysis in chemicals management - Sara Broomhall (Australian Government Department of the Environment) |
| 13:30 – 14:30 | Lunch |

### Experiences with Socioeconomic Assessment for Chemicals Management (cont.)

Chaired by Nils Axel Braathen, OECD

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<th>Time</th>
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| 14:30 – 16:00 | Presentations by international organisations:  
- Presentation by WHO – Frank George (WHO Europe)  
- Presentation by UNEP on Global Chemicals Outlook - Pierre Quiblier - UNEP Chemicals and Waste Branch  
Learnings from cost-benefit analysis of air pollution regulation:  
- Experience in air pollution regulation: benefit valuation - Mike Holland (Ecometrics Research and Consulting)  
- The Cost of Air Pollution - Rana Roy (Consulting Economist) |
| 16:00 – 16:30 | Coffee break |
| 16:30 – 17:30 | Social costs of morbidity impacts of air pollution - Alistair Hunt (University of Bath)  
- NGO perspective on Socio-economic analysis in REACH authorisation - Sonja Haider (ChemSec)  
- Industry Perspectives - Dr William Carroll (University of Indiana) |
| 20:30 – 23:30 | Dinner cruise |
# Thursday, 7 July 2016

## Chemical risk assessment as input for the economic valuation of impacts

*Chaired by Jack de Bruijn, ECHA*

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<th>Time</th>
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| 9:00 – 11:00 | **Background Paper 1:** Paper outlining the type of information available in a typical chemical risk assessment, and reviewing existing methods and information requirements for translating the results of a chemical risk assessment into attributable health or environmental impact(s) of a given chemical (or collectively chemicals in use) as input for an economic valuation.  
- Presentation by Weihsueh A. Chiu (Texas A&M University)  
- Discussion by Cody Rice (US EPA), Leo Trasande (New York University)  
- Discussion regarding Working Paper 1 topic |
| 11:00 – 11:30 | **Coffee Break** |
| 11:30 – 13:30 | **Economic valuation of chemicals’ impacts on health and the environment**  
*Chaired by Cody Rice, US EPA*  
**Background Paper 2:**  
Paper discussing methodologies and information requirements for estimating/measuring the economic value of a given impact, including the strengths, weaknesses and uncertainties of the methodologies. The paper discusses the various values that can be of relevance, and the willingness-to-pay for avoiding the different impacts. Further, the paper discusses the methods and information of estimating costs and benefits to firms, public entities and households.  
- Presentation by Anna Alberini (University of Maryland)  
- Discussion by Rana Roy (Consulting Economist), Mike Holland (Ecometrics Research and Consulting) and Christoph Rheinberger (ECHA)  
- Discussions regarding Working Paper 2 topic |
| 13:30 – 14:30 | **Lunch** |
| 14:30 – 16:30 | **Transferring/Extrapolating monetised impacts from one chemical to other chemicals**  
*Chaired by Joe Devlin, Environment and Climate Change Canada*  
**Background Paper 3:**  
Policy makers are interested in estimating the economic value of chemical management frameworks as a whole, not just for individual risk management measures. This paper would review existing methodologies for transferring and extrapolating the economic value of impacts from one chemical to one or more other chemicals.  
- Presentation by Ståle Navrud (Norwegian University of Life Sciences)  
- Discussion by Alistair Hunt (University of Bath) and Michael Donohue (Health Canada)  
- Discussions regarding Working Paper 3 topic |
| 16:30 – 17:00 | **Coffee Break** |
| 17:00 – 18:00 | **Discussion of the outcomes and implications of the three background papers**  
*Chaired by Nils Axel Braathen, OECD*  
Workshop conclusions and recommendations for OECD’s future work on valuing chemicals impacts. |
### Quantifying regulatory efficacy of risk management activities

**Chaired by UK, Stavros Georgiou**

**Background Paper 4**

This paper will focus on quantifying regulatory efficacy of risk management activities including how one measures and compares the actual costs and benefits to those predicted at the time of regulation, and, ultimately, relate those back to whether or not they helped to achieve the specific human health and environmental policy objectives that the risk management measure was intended to address. It will also address what should be included in such an analysis, how it can be built into the regulatory plan from the outset and how information gleaned from such analysis can inform comparative analyses of future regulatory options.

- Presentation of paper by Susan Dudley (George Washington University)
- Discussants: Sonja Haider (ChemSec) and Kevin Flowers (EU Commission)
- Discussions regarding Working Paper 4 topic

**Coffee Break**

### The costs of regulatory action in chemicals impact assessment

**Chaired by Health Canada, Michael Donohue**

**11:30 – 13:30**

This session will focus on the costs of chemicals management regulatory actions. It would include presentations on:

- Costs of switching to an alternative technology/substance/material
- Cost of compliance/containment/abatement
- Cost to consumers apart from costs related to changes in prices

Presentations

- Reach and Chromates: Strategic and Economic Challenges for an International Operating Company like Tata Steel - Hans Dommershuijzen (Tata steel)
- EU regulation of siloxanes and DCB Toilet Blocks - Stavros Georgiou (Health and Safety Executive, UK)
- Assessing the proportionality of restriction proposals and authorization applications for persistent, bioaccumulative and toxic (PBT) substances - Frans Oosterhuis (VU University, Amsterdam).
- Presentation on cost of authorisation to EU industry, Hugo Waeterschoot (Eurometal)

**Lunch**

### Recommendations and scope for future work at the OECD

**Chaired by Eeva Leinala, OECD & Matti Vainio, ECHA**

**14:30 – 17:00**

Two topics will be discussed:

- The outcomes and implications of the fourth background paper - workshop conclusions and recommendations for OECD’s future work on quantifying regulatory efficacy
- The usefulness of a regular experience exchange between OECD member countries and jurisdictions in the spirit of this workshop and identify follow-up actions.