



EFSA Scientific Conference on "Challenging boundaries in risk assessment– sharing experiences"

*Parallel session 4 : Expressing Risks
Framing risk assessment questions*

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Framing of risk assessment questions

'...tricky no-man's-land that separates complex, nuanced expert evidence from the blunt policy pronouncements they inform..'

'...uneasy three-way relationship between the people charged with calculating risk, the people charged with spreading that knowledge and the rest of us who want straightforward advice...'

'...the fact that something is unlikely does not mean it will not happen...'



Framing of risk assessment questions

'...Nobody would bother testing new technology because we would have a perverse and paralysing view of the risks...'

*'...Offering specialist advice would become an **Olympian exercise in back-covering**: public pronouncements reduced to an **impenetrable, unusable thicket of fudges, caveats and hedges...***

Anjana Ahuja, Financial Times 25.12.12 on the aftermath of the Italian court's conviction of 6 scientists found guilty for the L'Aquila April 2009 earthquake



Why RA in view of RM/policy-makers (1)

- Risk assessment outputs do not always meet the needs of RM/policy-makers.
- Scientific opinions are to be informative, consistent, transparent and easy to interpret and communicate.
- Interpretation of expressions used in risk assessment reports may be problematic for risk managers and the public, open to misunderstanding and distortion, and difficult to communicate.
- Multifactor risks, comparison between stressors and their possible alternatives and emerging issues require highly complex and technical language.

Why RA in view of RM/policy-makers (2)

- RA reports rarely address in a direct, systematic and transparent way the risks by an appropriate metrics.
- RA methods, procedures and expression of results are rarely co-ordinated with the cost-benefit analysis.
- Comparisons of non-standardised parameters (e.g. potential health benefit versus socio-economic costs) vary considerably
- Need for "grading" risks by RM within a pre-defined and agreed scheme.



Terms of Reference

- The three European Commission Scientific Committees initiated work to develop a discussion paper in 2009
- Joint Working Group with external experts
- Work on the discussion paper is ongoing with a view to finalise in early 2013
- Elements presented are from the current draft
- Draft discussion paper only reflects views of the Working Group and the SCs



Terms of reference (2)

- **Reviewing the current risk assessment practices**
- **Exploring the needs of risk managers and policy makers**
- **Identifying approaches to risk assessment which are informative, consistent, transparent and easy to interpret and communicate**



Dialogue with Risk Managers

Have risk assessments carried out by the Commission Scientific Committees been meeting the needs of risk managers?

- Series of consultations with Commission risk managers at various levels in three “customer” DGs
- One “round-table discussion” with 8 managers at desk-officer level
- 10 one-on-one interviews with high-level risk managers (heads of unit, directors, and director-generals).
- Public consultation



Outcome of Dialogue with Risk Managers

- Separation of risk assessment and risk management
- Making opinions policy relevant
- Expressing uncertainty
- Taking account of all the options
- Taking account of all the outcomes
- Risk communication and cost-benefit frameworks



Current Practices of Risk Assessment and Uncertainty

- **Human health risk assessment - four usual steps**
 - hazard identification
 - dose-response assessment
 - exposure assessment
 - risk characterisation
- **Ecological risk assessment**
- **Variability and uncertainty**



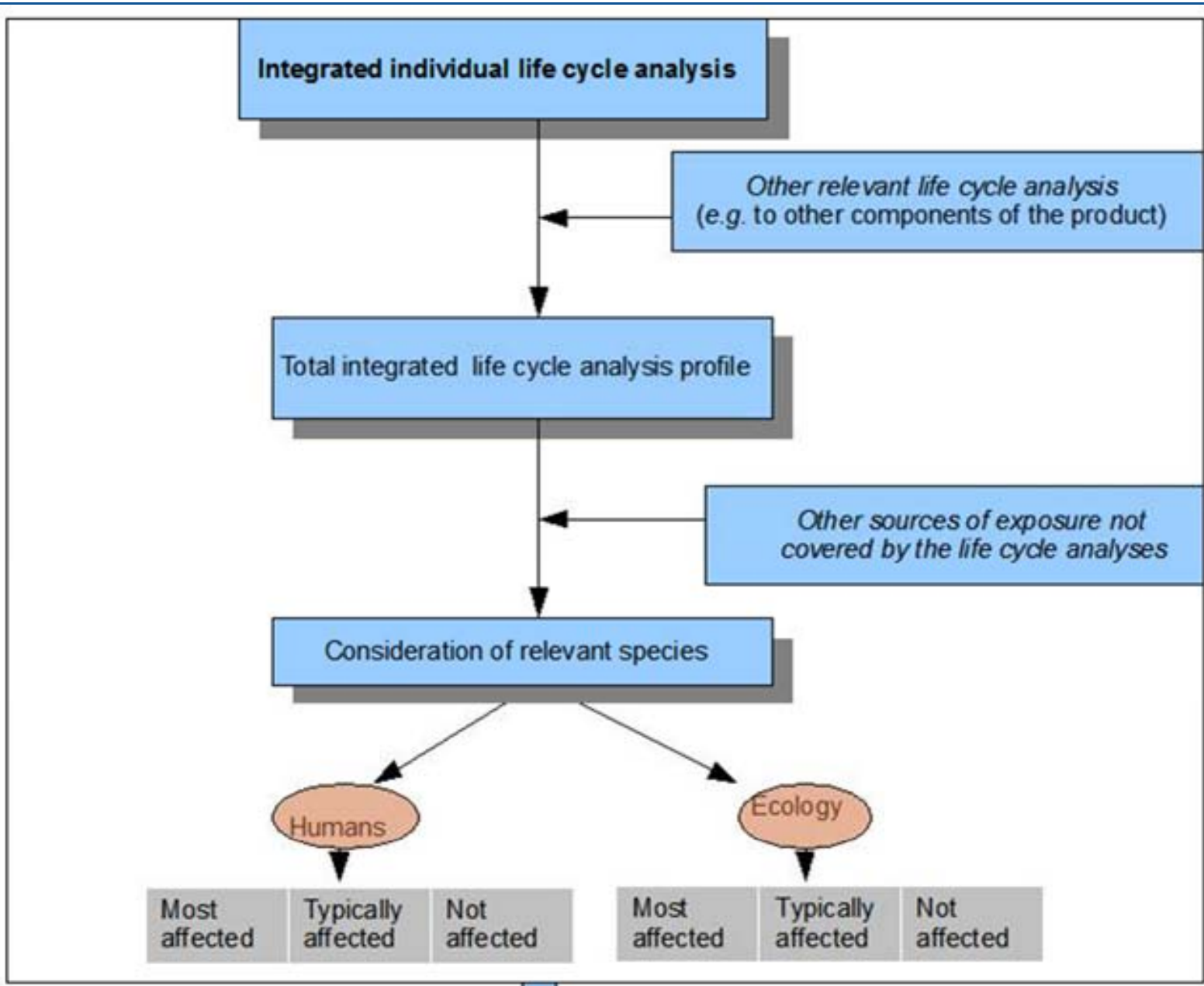
Socio-Economic Analysis (SEA) and Uncertainty

Principles of socio-economic analysis

**Linking Risk Assessment to Socio-Economic
Analysis**

Uncertainty in Socio-economic Analysis

Towards holistic risk assessment



Risk assessment

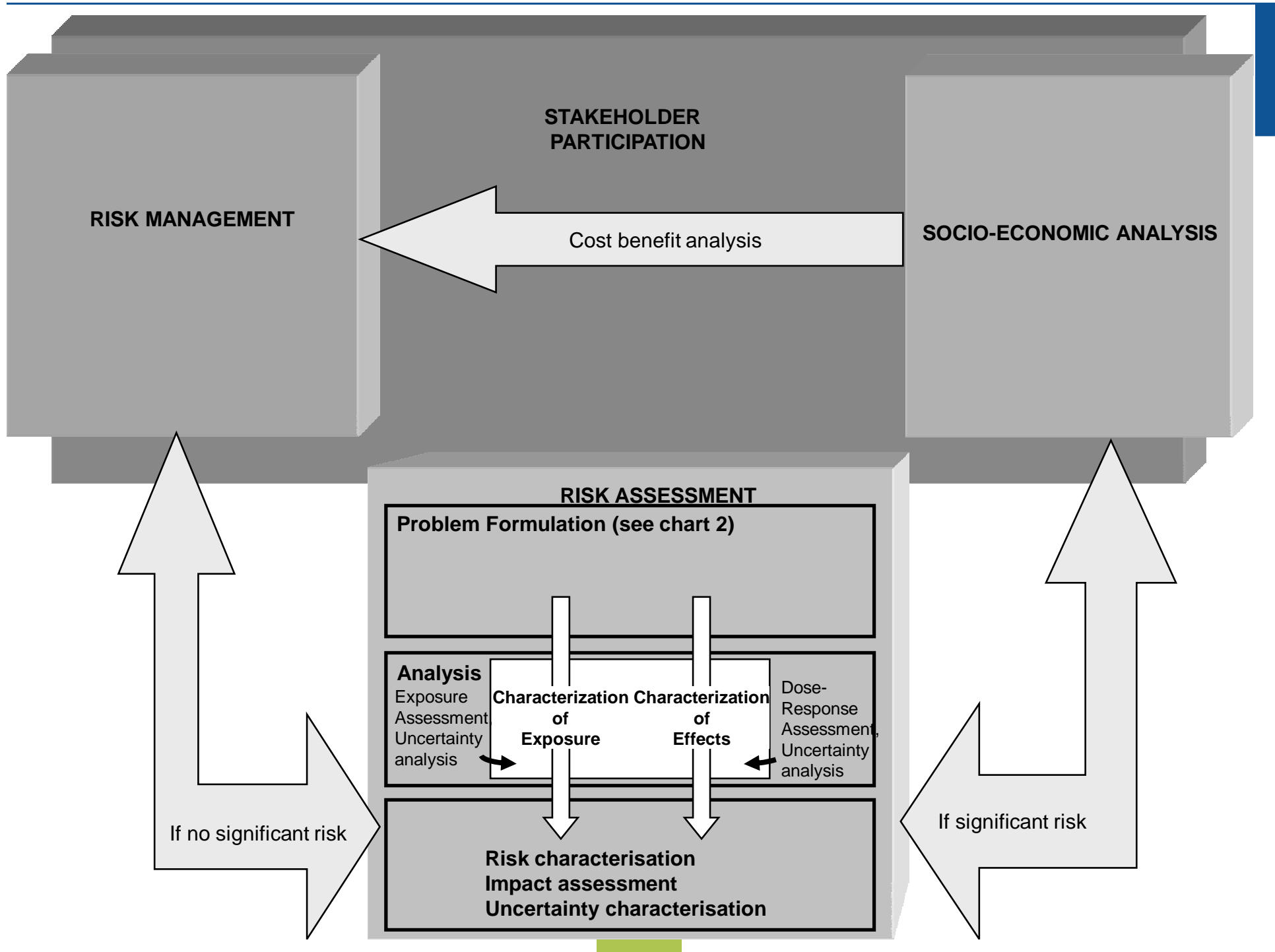


The Way Forward

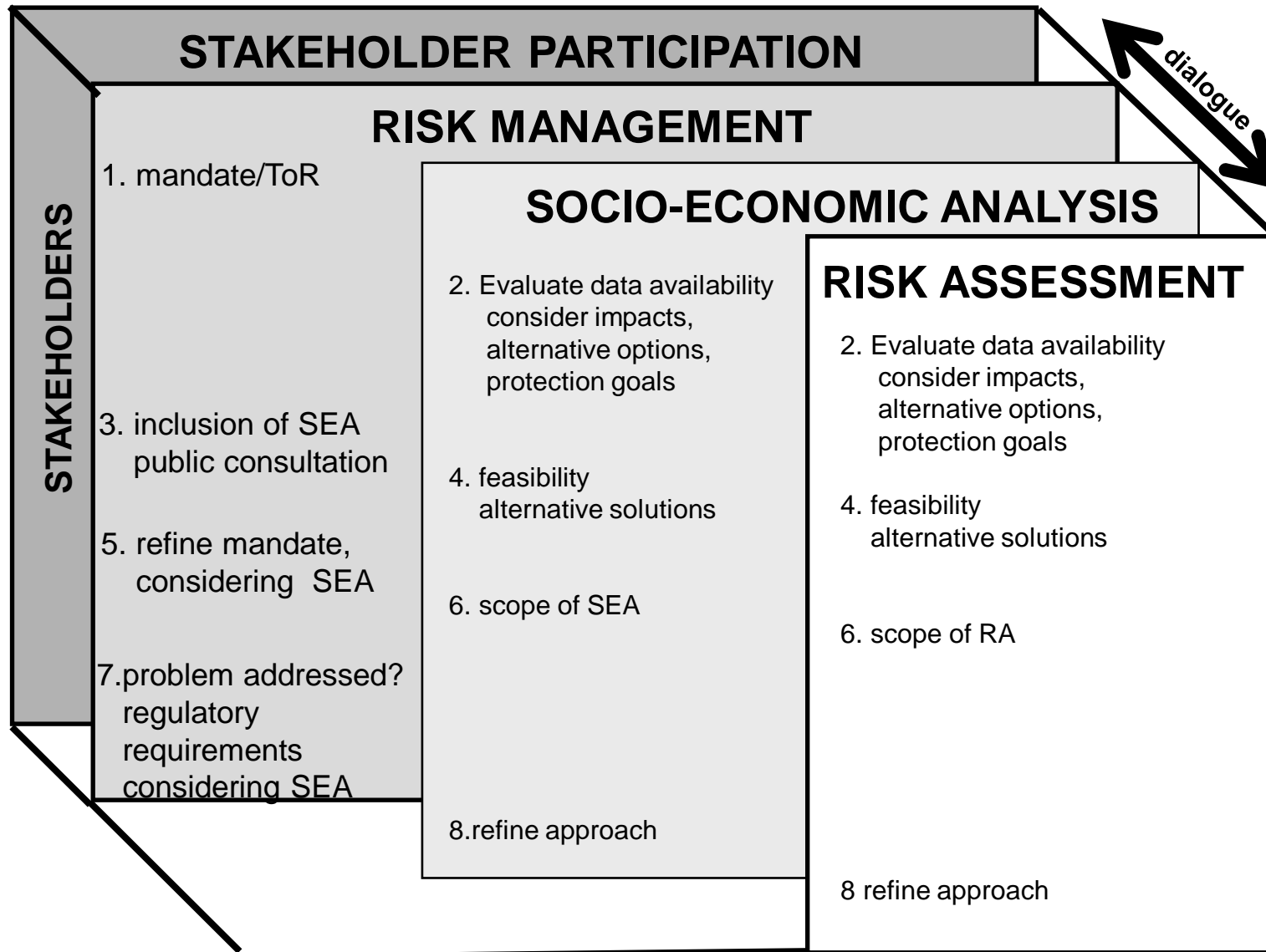
Setting the scope of the dialogue between risk assessment and socioeconomic analysis

Alignment between risk assessment and risk management

Improving the dialogue between risk assessors and risk managers



Problem formulation



Start analysis

Need for Further Research

- **Develop an integrated methodology for risk assessment of health and ecosystems impacts and translate them into a form(s) that stakeholders, including the general public, understand**
- **Express risks in probabilistic terms rather than deterministic terms**
- **Develop a better understanding of individuals' perceptions of safety**



Draft SC discussion document

Conclusions and Recommendations (1)

- The outputs of risk assessment need to be more policy and management relevant and this ought to be facilitated by more dialogue
- To be “management relevant”, risk assessments need to inform about possible trade-offs between the benefits of interventions for human health and environment and the costs of restrictions for the economy.
- Risk assessments should not however conduct the socioeconomic analysis
- It is often necessary to compare impacts across very different entities, such as humans and ecosystems; therefore, the risk assessment outputs need to be compatible with economic valuation.



Draft SC discussion document Conclusions and Recommendations (2)

- To express opinions on risk in terms of likely impacts on human health and ecosystem processes and services rather than in terms of the more prevalent risk characterizations.
- To achieve this more dialogue between risk assessors and socio-economists is recommended.
- To extend the dialogue to all stakeholders in both initial forums and final consultations as a way of clarifying issues and ensuring more ownership, especially important where the issues are complex and the outcomes are likely to be of major socio-economic importance.
- To arrange training for both assessors and managers based on a common manual



Draft SC discussion document

Conclusions and Recommendations (3)

- The improved and transparent dialogue between risk assessors and risk managers is only a limited aspect of the broader area of risk communication which should involve stakeholders and the general public.
- Recommendations for improving risk assessment reports:
 - evaluation of different possible scenarios (risk management options);
 - making full characterization of the whole populations/ ecosystems at risk with attention to particularly sensitive subpopulations/species;
 - including clear expressions of uncertainty;
 - making explicit disclosure of hypotheses and assumptions used without supporting evidence.



Next steps

Discussion paper to be finalised by WG in early part of 2013

Review and agreement by the Scientific Committees

Intended to serve as the Scientific Committee contribution to future dialogue on the subject



European
Commission

Thank you!!

Health and
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