



Risk Governance in the European Union: The Role of Science, Technology and Civil Society

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1. The global context

2. The responsibility of science in the 21st century:

- How can science fulfil its responsibilities?
- The future of the science- society dialogue

3. The contribution of IRGC

4. What could be the role of the European Union?

- The globalisation process is strengthening interdependencies, risks and opportunities
- A multi-polar international public order is slowly being constructed as a result of multiple crises, which provoke conflict and cooperation between:
 - The big powers
 - Large multi-national corporations
 - Media conglomerates
 - NGOs
 - Science as a framework for reason and science as a measure of risk

- Increasing democracy of image, opinion and emotion, which generates spontaneous actions
- Increasing power of science, rise of 'star' scientists and knowledge industry
- Decline of the 'invisible institutions':
confidence, legitimacy, authority, respect, solidarity
- Achieving any social change is impossible without a change of culture

Culture (science + art + traditions ...etc) is becoming a major issue

The responsibility of science in the 21st century

- Explore the unknown: nature and the world as a laboratory
- Fight ideologies and contribute to the collective building of reason
- Contribute to solving the 'big' problems, e.g. climate change, hunger, water, armed conflict
- Contribute to risk/opportunity assessment and management
- Accomplish its revolution: increase simulations and modelling of reality using new capacities for the processing of information

Knowledge built according to scientific rules is good, in and of itself, and science is the only common language

How can science fulfil its responsibilities?

- Scientists must be self-critical; exemplary self-governance is key

- **Key question: What are the conditions under which science can play an increasingly important role and fulfil its 21st century responsibilities?**
 - Society must enter into the 'kitchen' (*entrer dans la cuisine*) of science
 - understand the scientific process
 - understand the role of doubt and uncertainty
 - use narratives to promote the understanding of scientific processes and cultures

- The scientific community must provide a 'venue' for disputes; stimulate debates

What can help science to fulfil its responsibilities?

- The public's confidence and trust in science must be founded upon a sort of 'social contract'

Trust

- Transparency
- Benefits for society
- Economic prosperity and productivity
- Equal opportunity
- Open access to knowledge
- Ability to solve problems

- Mistrust of science and its role in the risk assessment process

Mistrust

- Obscurity
- Fragmentation
- (Artificial) complexity
- Financial profits / conflicts of interest
- Arrogance

Example: the BSE epidemic in the UK

- Scientific information used in risk assessment was misrepresented – the public were assured that eating beef was safe. Evidence for this was not clear.
- 170 people in the UK are now suspected to have died from the human form of BSE
 - Result: significant **loss of trust** in scientific risk assessment; loss of trust in government regulation
 - Cause: Conflicts of interest (desire to protect industry)



Example: GM crops in Europe

- Scientific knowledge about GM crops was initially lacking – little evidence of safety nor risk
- The EU took a precautionary approach
- Lack of broad public engagement by agrochemical companies



- Result: Public opposition fuelled in part by **mistrust** of science
- Consequences: Restrictive regulatory regime and lost benefits

Science as a story – narrative – can interact with society in three ways :

- **Unilaterally** : “I know and I’ll explain”
- **Bilaterally** : “I need to know what you know and I’ll explain”
- **Multilaterally** “We all have some knowledge to share”.

Most democracies are moving from the unilateral to the bilateral model.

But only the multilateral model will be sustainable in a democracy:

- Scientist must therefore defragment and aggregate their fragmentary knowledge and this under close scrutiny by civil society
- The scientific narrative must stress the benefit for society, which becomes a priority (responding to global challenges and risk governance)
- The share of knowledge must integrate the new medias and the various forms of communication (internet, social network, ..etc)

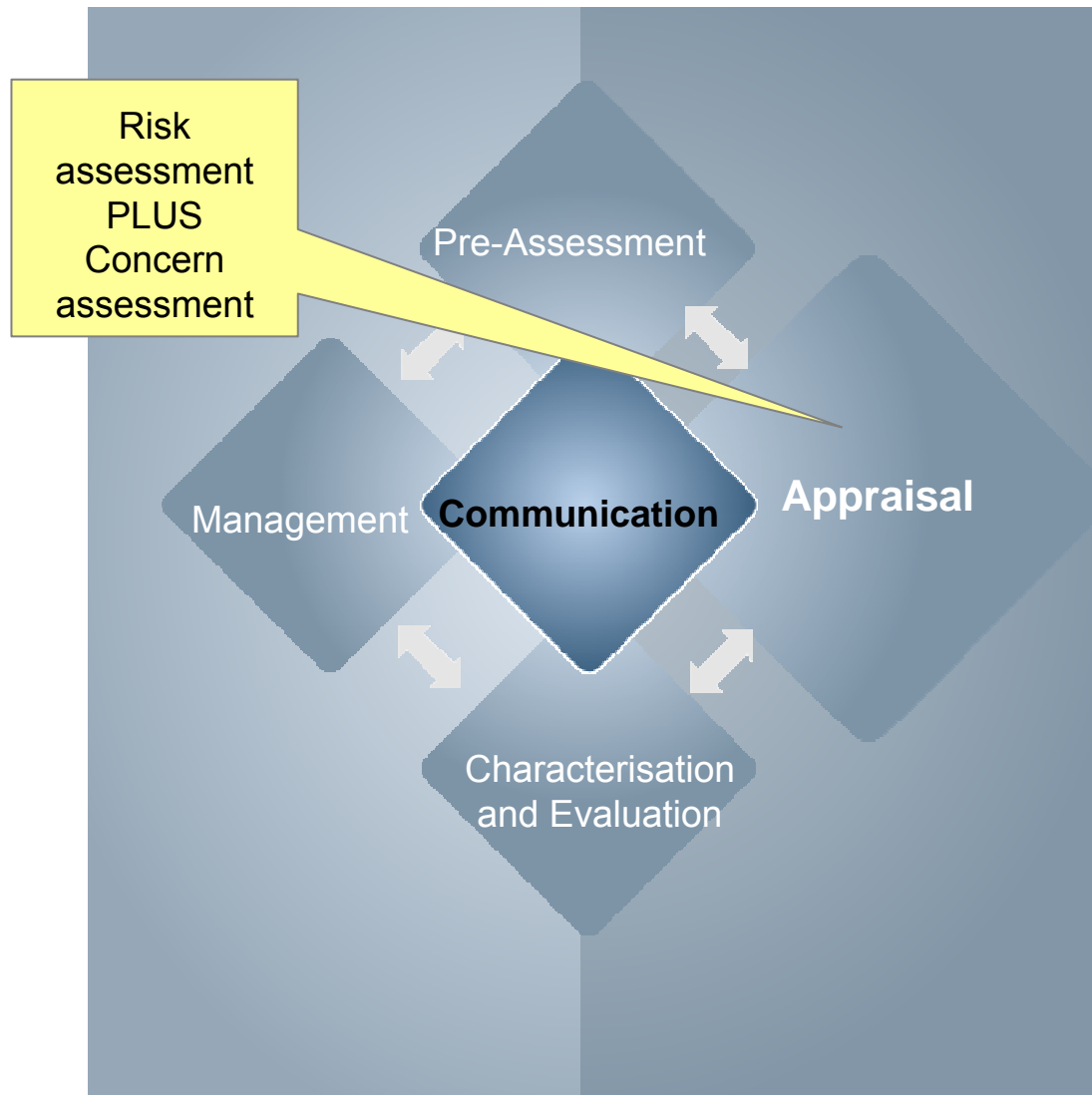
- IRGC is an independent organisation whose purpose is to improve the understanding and the governance of global risks that impact on human health and safety, the environment, the economy and society at large

- IRGC is:
 - Independent, agile, innovative and neutral
 - Truly global
 - Constituted by a mix of academic, governmental and private sector resources
 - Focused on the governance of risk and on bridging the gap between science and policy
 - Interested in risk topics which are emerging or may be neglected

IRGC contributes to:

- Developing appropriate risk cultures as a condition for sustainable social change and development of new opportunities
- Reminding people of the importance of context: the environment in which an issue or a decision takes place
- Stressing the need to engage in dialogue with the main stakeholders in an issue
- Providing scientific evidence for policy-making, balanced with evidence about concerns and values

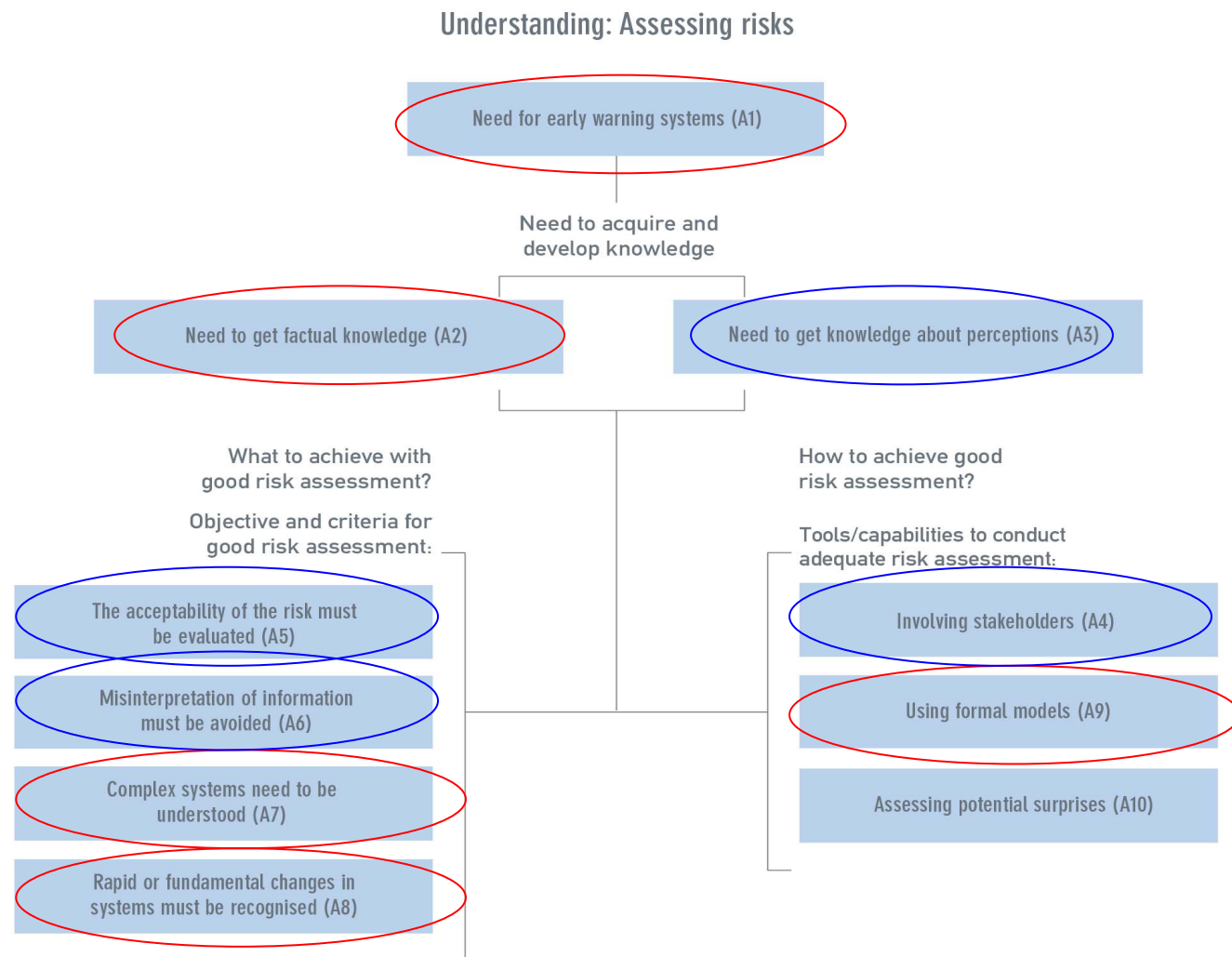
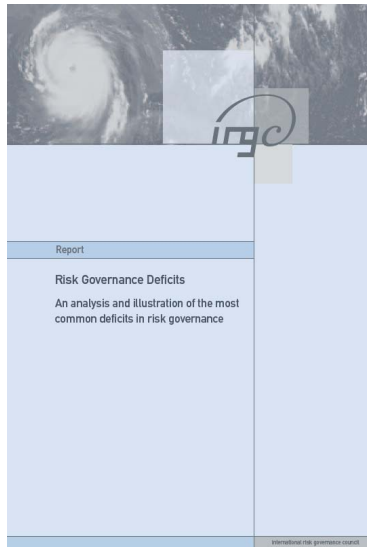
Science in risk governance, the IRGC view



- ▶ Scientific Risk Assessment
 - Hazard identification and estimation
 - Exposure assessment
 - Risk estimation

- ▶ Concern Assessment
 - Socio-economic impacts
 - Economic benefits
 - Public concerns (stakeholders and individuals)

Science in risk governance, the IRGC view



➤ deficits related to risk assessment

- The EU should become more a learning society
 - Greater competition in research development and training / greater cooperation in basic research and for major shared infrastructure
 - Stimulate the knowledge industry
 - Foster the emergence of knowledge societies and regions
 - Capitalise on cultural and linguistic diversity
 - Guarantee scientific freedom and the ethics of truth
 - Build social links with science and ensure citizen support

- Work on integration of national science policies, so that the whole, and its parts, become more coherent and powerful
 - Improve efficiency, avoid duplication

What could be the role of the EU?

- Strengthen the regulatory framework and make it more flexible
- Stimulate the ethical debate in the risk taking process
- Facilitate the introduction of a risk/ opportunity culture

Thank you

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