



Description of the study:

“Role of space technologies and ICT in the surveillance of global threats”

Paris, 18 April 2012

This document provides the background for the OECD/IFP study, the objectives, the participants, the expected outputs, the process and the timeline.

BACKGROUND: The study has a unique angle that builds on three main pillars:

- OECD findings on the propagation of global shocks;
- OECD findings on the role of space technologies and information and communications technologies (ICT) in tackling a number of key societal challenges;
- And the World Economic Forum’s (WEF) Global Risks Survey.

OBJECTIVES OF THE STUDY: Space technologies and ICT can contribute to tackling a number of key societal challenges. The objective of this new OECD IFP study is to investigate how different space applications (Earth observation, telecom, navigation, positioning, and timing), combined with ICT, can assist in the surveillance of diverse global threats today and in the near-to-medium term future (8-10 years).

PARTICIPANTS: The one-year study will be conducted in partnership with public and private actors.

Organisation	Suggested Role
OECD	<i>Initiation, coordination, hosting of some meetings, synthesis OECD report</i>
Astrium	<i>Significant in-kind analytical contribution from senior research staff, proposal of experts for workshops, provision of background/expert materials and background studies</i>
Inmarsat	<i>Organising and hosting a workshop in London, proposal of experts, provision of background/expert materials</i>
OECD Space Forum Members	<i>Proposal of experts for workshops, provision of background/expert materials, participation in workshops depending on interest and availability</i>
European Virtual Institute for Integrated Risk Management	<i>Organising and hosting a workshop in Stuttgart, provision of background material/experts/data, possible financial contribution</i>
Others...	<i>E.g. Telecom operators, telecom providers (data processing), social networks...</i>

OUTPUTS: Toolbox for each of the WEF threats to be addressed (see Figure 1), summarised in excel spreadsheets and background documents:

- 1) Establishing current/future technical capabilities of space systems to monitor global threats for four specific missions:
 - a) Map vulnerabilities/identify root causes of potential crises;
 - b) Early warning systems in place (or not);
 - c) Capacities to track threat propagation (geographically, across sectors);
 - d) Monitoring the effectiveness of reactive measures.
- 2) Identifying gaps in coverage, timeliness, quality of results...

Figure 1. The basis: the global risks landscape 2011

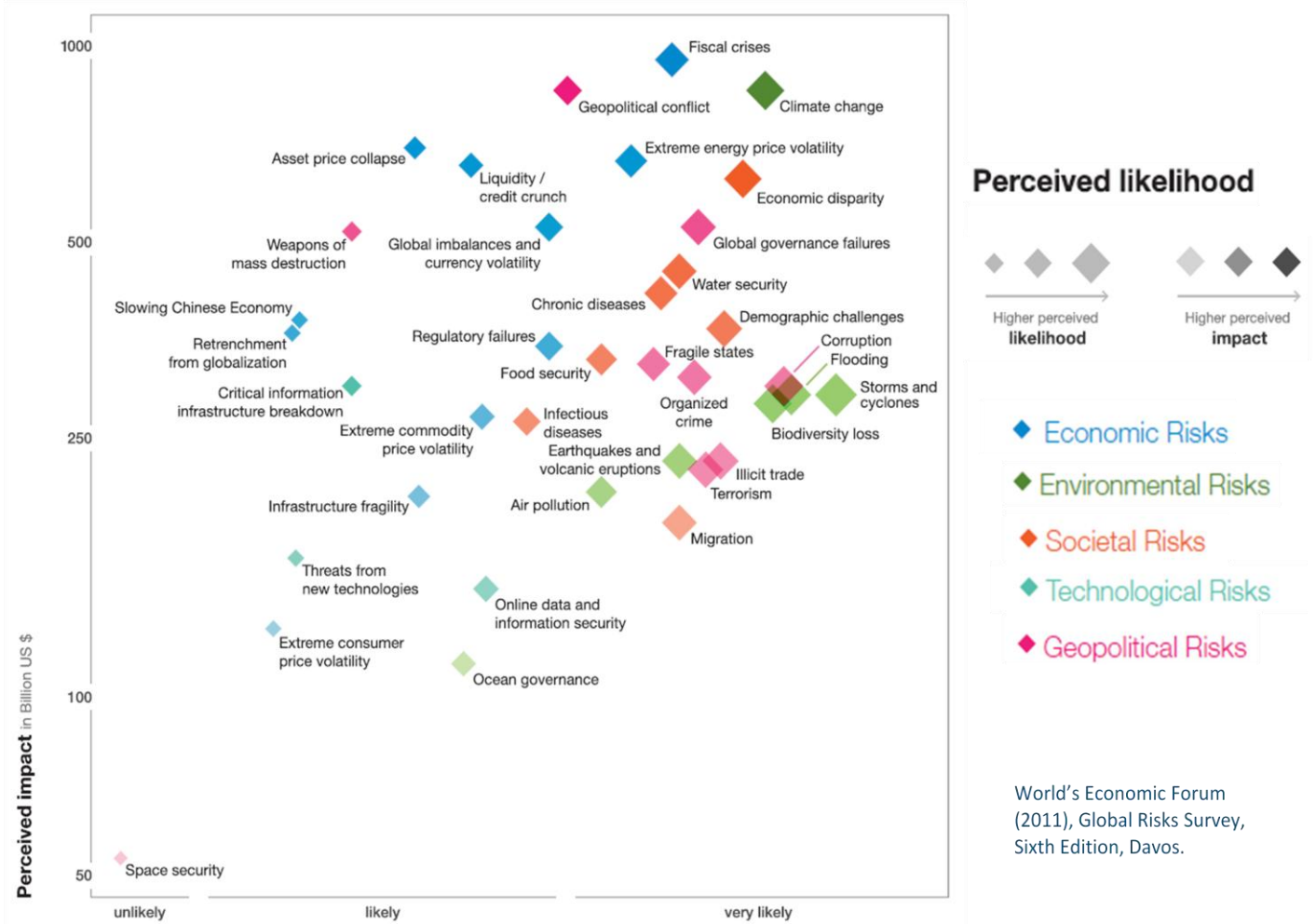
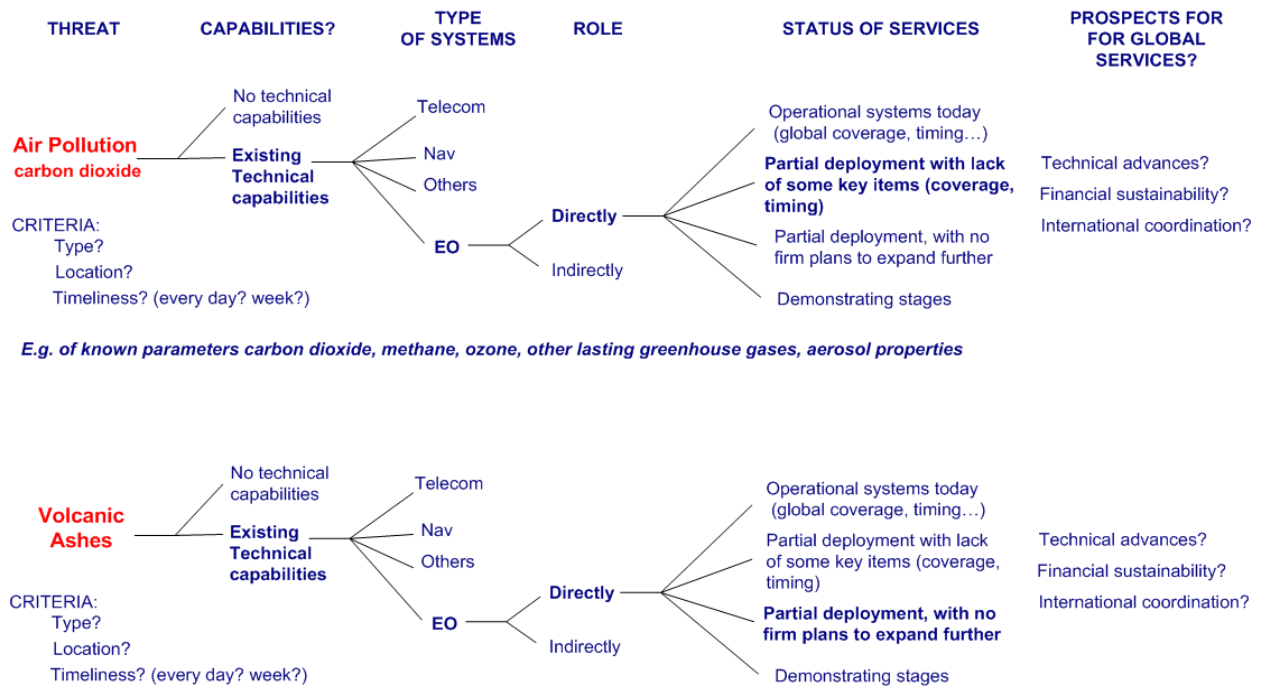


Figure 2. Example of matrix which could be derived from detailed analysis



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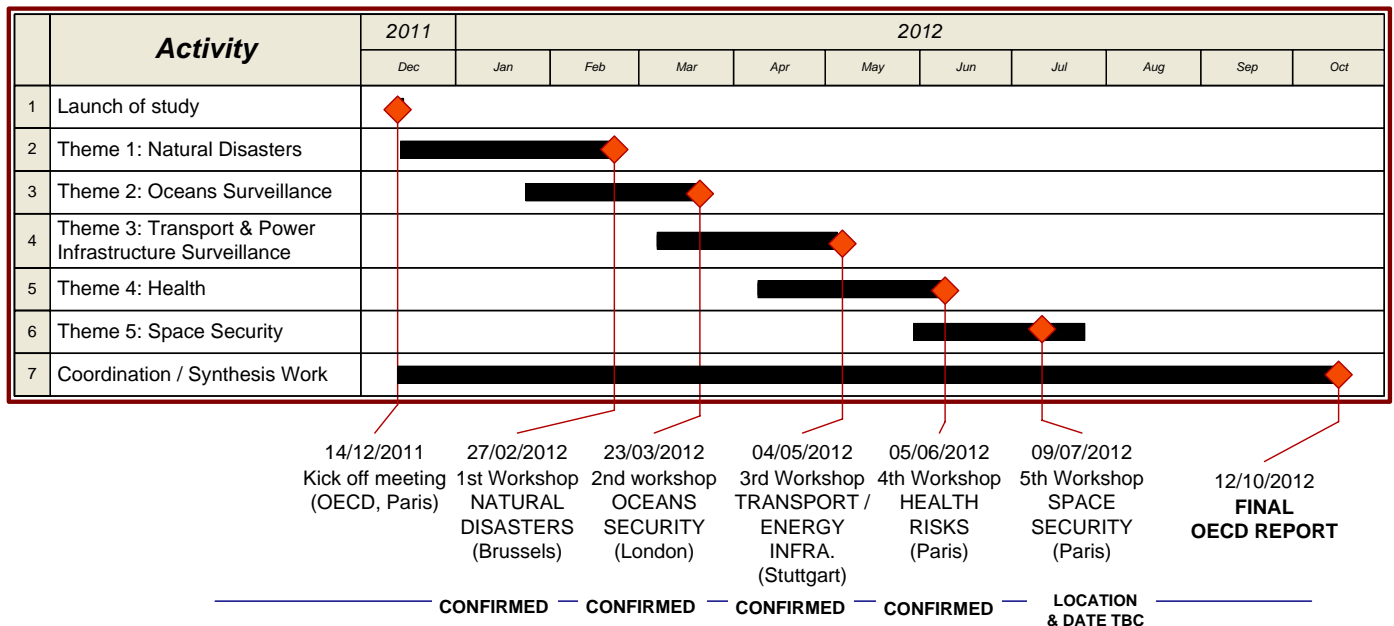
PROCESS:

- Organisation of 5 workshops by participants with invited experts (20 to 25 participants) to allow for in-depth treatment of a large number of the WEF threats:
 - Natural Disasters (extreme weather, earthquakes, impact of geomagnetic storms on critical infrastructures...)
 - Ocean Surveillance (piracy, illegal fishing, pollution, zone monitoring...)
 - Transport and Power Surveillance (multimodal transport, energy production and transmission, site surveillance)
 - Health (pandemics, infectious diseases, epizooties)
 - Space security (space debris, near earth objects, satellite collisions ...)
- Background papers / studies from selected participants serving as preparatory documents for the workshops.
- Summary report of each workshop.

DELIVERABLES:

- Final OECD synthesis report
- Diverse background documents drafted by participants and made available on OECD website (if desired).

TIMELINE:



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