

INTER-INSTITUTIONAL COOPERATION, GOOD EXAMPLES AND CHALLENGES ON RISK ANALYSIS, POLICY MEASURES, INFORMATION SHARING AND AWARENESS



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Seminar on effective management of technological risks of accidents triggered by natural hazards

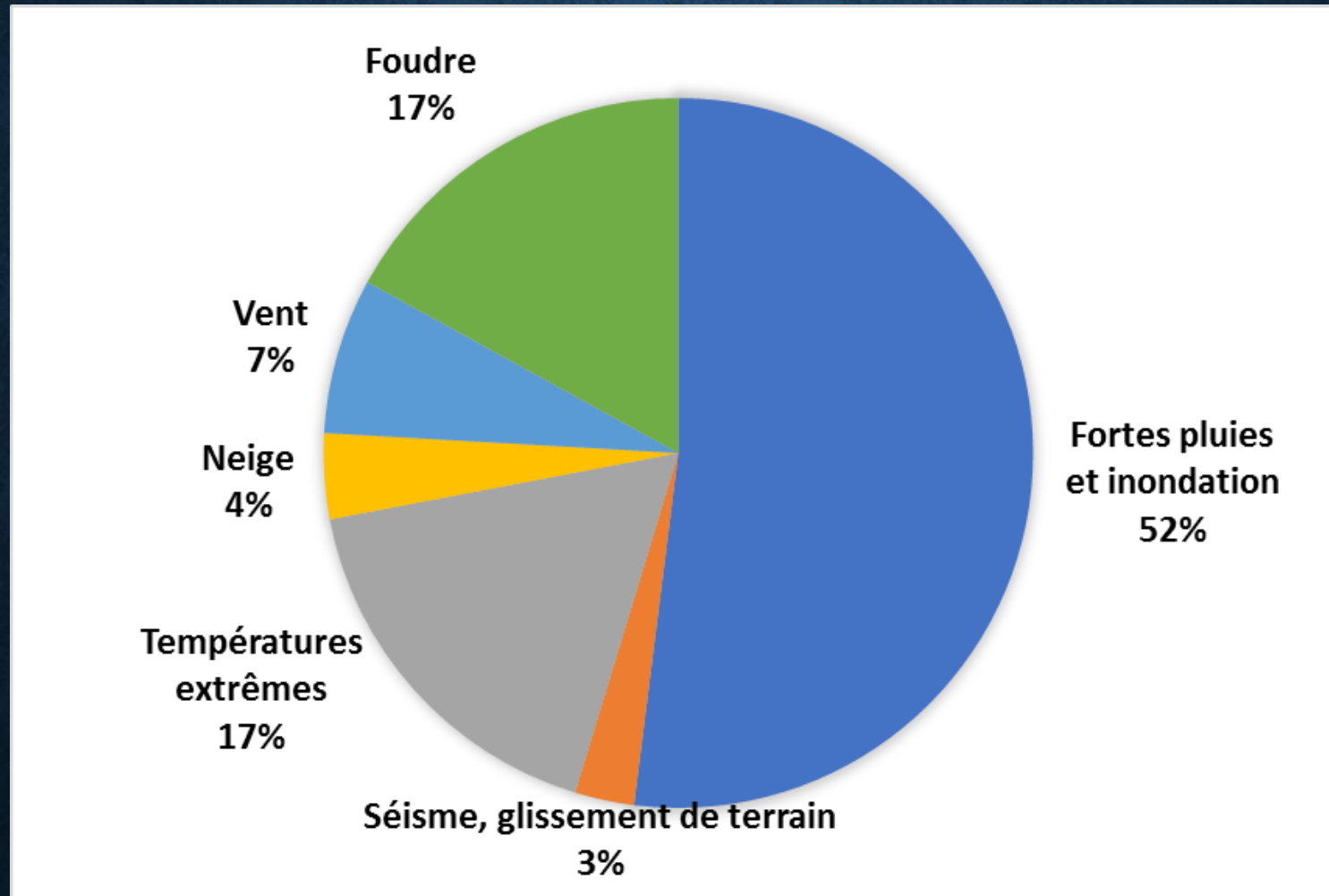
Geneva and online, 29 November 2022



NATECH: GROWING AWARENESS

- **In the past decades, we meet more and more frequently events, when natural phenomena cause chemical accidents – NATECHs**
- **About 5% of chemical accidents is NATECH – type (source: BARPI database)**
- **Climate change, poor economy and social instability aggravate NATECH risks**
- **NATECH events have frequently relation to water as cause or as environment compartment**
- **There is a high risk of transboundary impact**
- **NATECHS ARE „GREY RHINOS“, NOT „BLACK SWANS“**

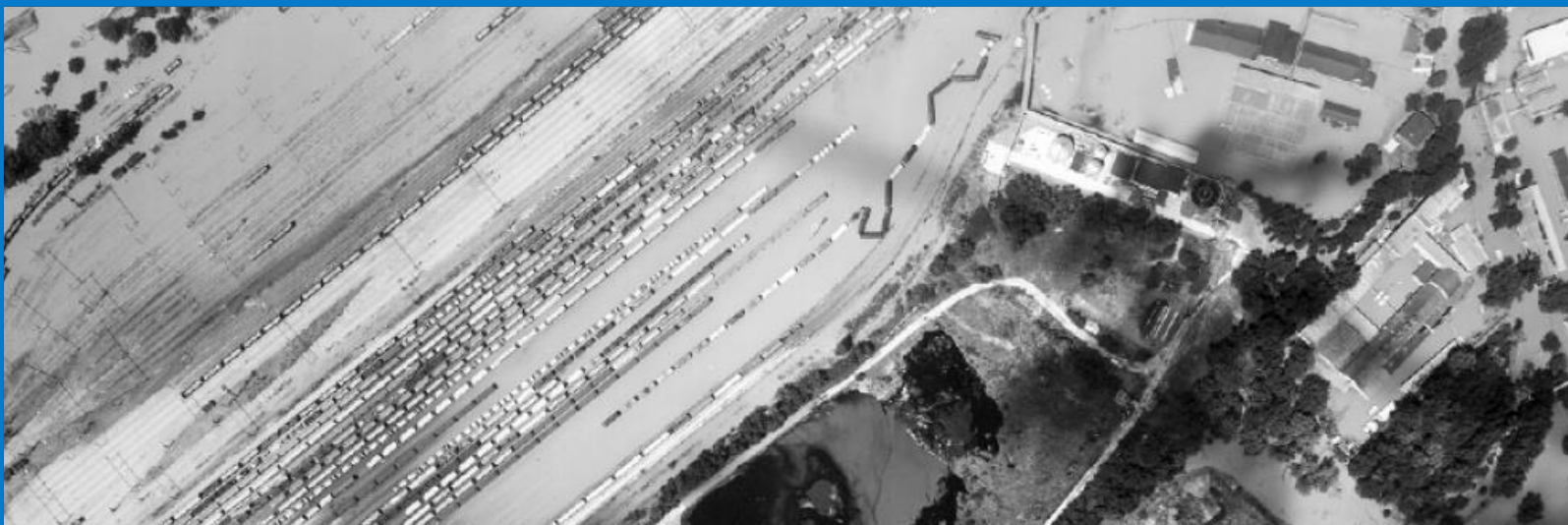
LESSONS WHICH HAS BEEN ALREADY LEARNED FROM NATECHS: COMPLEXITY OF NATURE PHENOMENA INVOLVED



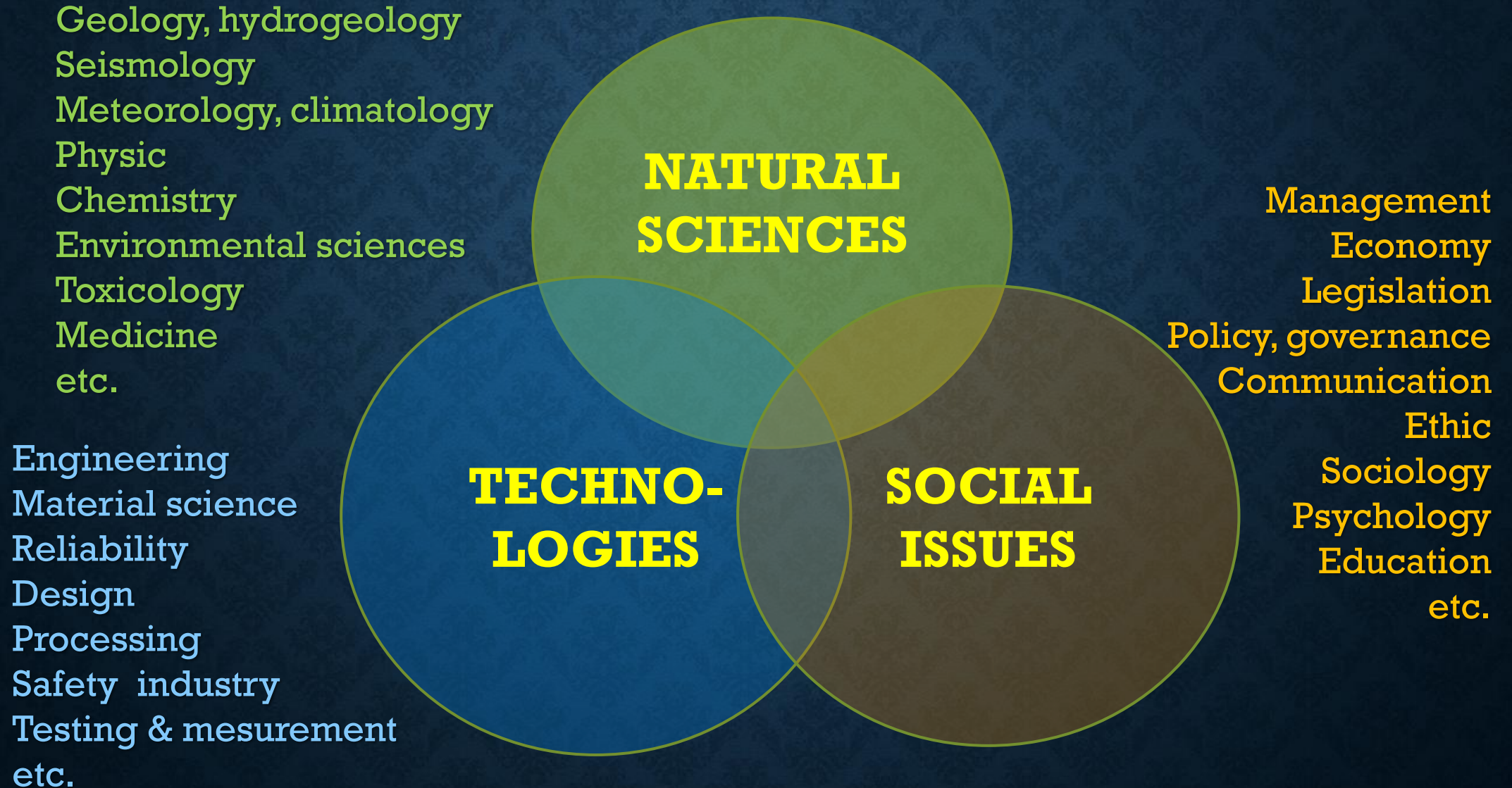
Initial events of NATECH accidents, BARPI (France) database

SOME LESSONS WHICH HAS BEEN ALREADY LEARNED FROM NATECHS EMERGENCIES

- **Natural event can block access to the facility and hamper communication.**
- **Response resources and lifelines may be unavailable because of the natural disaster**
- **Secondary containments may fail due to flood events**
- **Domino effects are frequent**
- **UNDERSTANDING AND PREVENTING NATECH ACCIDENTS DEMAND BETTER KNOWLEDGE BASE**



DOMAINES IN NATECHS RISK MANAGEMENT



...and others already strongly interdisciplinary...

GUIDING PRINCIPLE:

ALL STEPS OF RISK MANAGEMENT SHOULD BE INVOLVED IN THE CAPACITY BUILDING. RULES OF RESILIENCE BUILDING ARE APPLICABLE

COMPLEXITY IS AN INHERENT PART OF NATECH RISK MANAGEMENT. THE COOPERATION BETWEEN VARIOUS PROFESSIONAL DOMAINS, INSTITUTIONS AND STAKEHOLDERS IS CRUCIAL

CHALLENGES

- NATECHs as a special complex type of risk management with corresponding capacities need
- Involvement of various stakeholders and experts, including social sciences
- Need for more „soft“ capacities
- NATECHS are part of climate resilience building

THANK YOU FOR YOUR ATTENTION

