



# Challenge 1: Understanding and preventing accidental water pollution as a result of natural hazards (Natech): lessons learned

## Joint Expert Group on Water and Industrial Accidents

*Seminar on emerging risks in accidental water pollution:  
focus on natural hazard-triggered accidents*  
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# COMPLEXITY OF NATECH

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Source: JRC Ispra



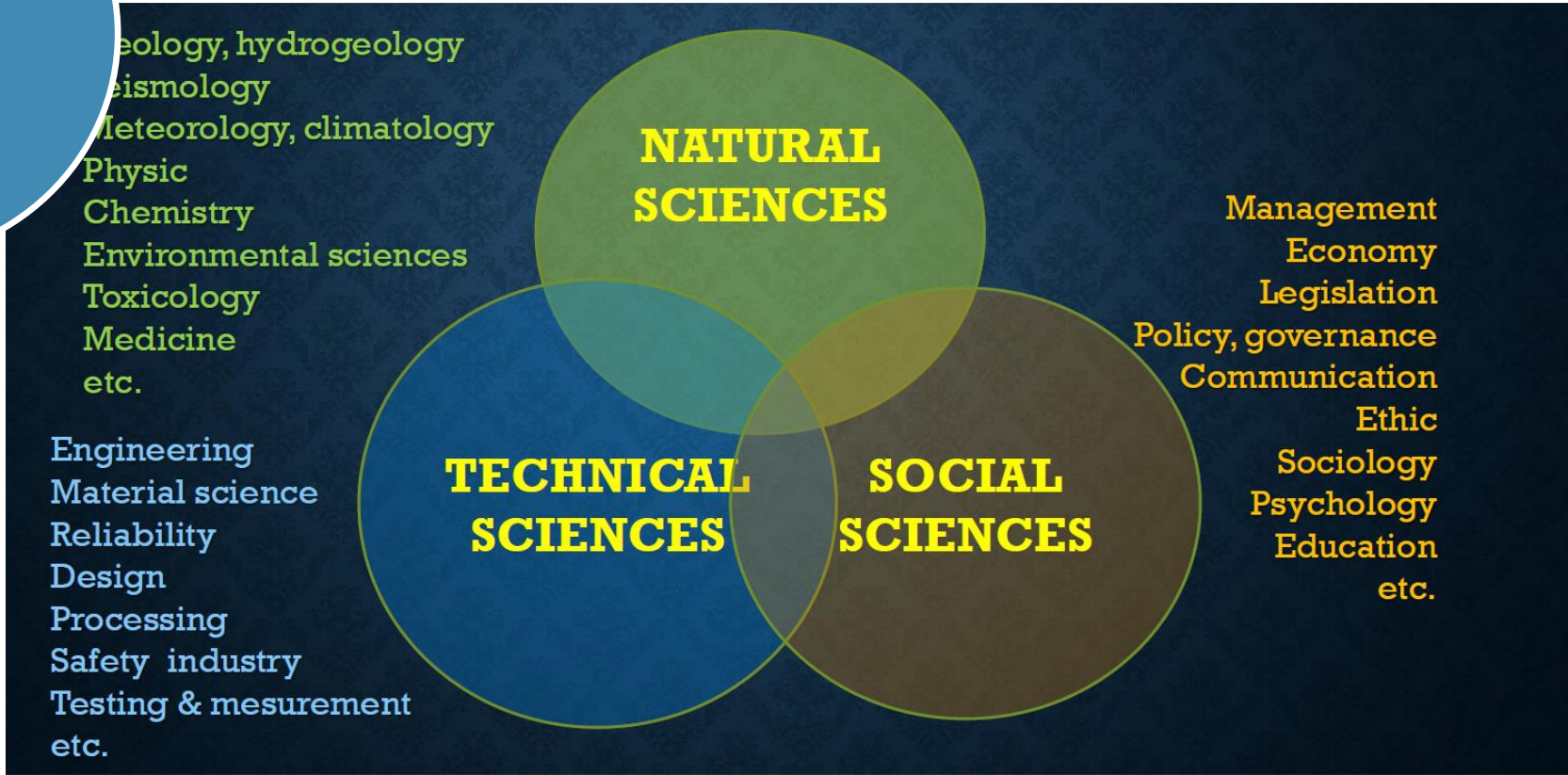
## NATECH: GROWING AWARENESS

- In the past two decades, we meet more and more frequent events, when natural phenomena cause chemical accidents - Natech
- Some institutions are active in Natech understanding and prevention, e.g, UNECE, OECD and since Sendai Framework, UNDRR as well
- Climate change, poor economy and social instability aggravate Natech risks

SOME LESSONS WHICH  
HAVE ALREADY BEEN  
LEARNED FROM  
NATECHS

- About 5% of chemical accidents are Natech events
- Natech events frequently relate to water as cause or as environmental compartment
- There is a high possibility of transboundary impacts
- The natural event can block access to the facility and hamper communication; back-up plans are needed
- Response resources and lifelines may be unavailable because of the natural disaster
- Secondary containments may fail due to flood events
- Natech accidents can easily propagate to nearby units and neighboring facilities (domino effect)
- Emergency plans should address Natech events and responders should be prepared for various scenarios
- Understanding and preventing Natech accidents demand better knowledge base

DISCIPLINES  
IN NATECH  
KNOWLEDGE  
BASE



# EMERGING NEEDS

- Better understanding of Natech
- Systemic and systematic approach is the key tool to prevent and to mitigate Natech
- Teamwork is necessary to understand and prevent Natech
- Already arising collaboration of institutions as national governments, UNECE, OECD, UNDRR (and other stakeholders) should be strengthened
- International exchange of experience and good practices is very important