

ENGAGE final workshop

11-13 September 2019
Bratislava, Slovak Republic

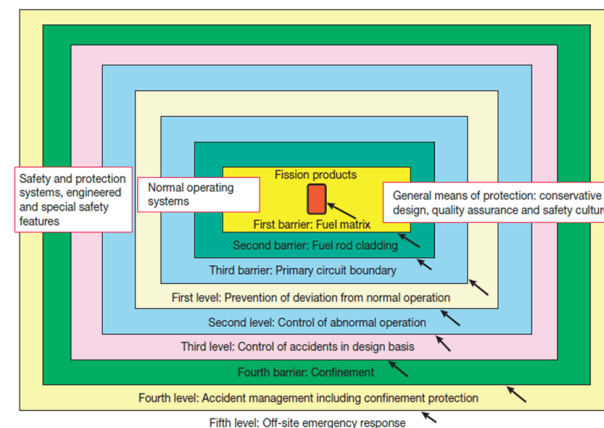
OVERVIEW OF CONTEXT, WORKING METHODOLOGY, STUDIES, FINDINGS

Stakeholder engagement

Emergency preparedness and response, post-accident exposures

Nadja Zeleznik, EIMV

- EP&R is recognised as **part of the defence in depth.**
- Therefore a **comprehensive emergency management system** should be established and maintained.
- **Many stakeholders** should be involved: institutional and non institutional.
- Investigation aimed at **finding out what prescriptions exist for EP&R, how they are understood and implemented**, and where are the **gaps and possibilities for improvement.**
- **Method:** documents review, interviews, practical examples study, RP practice with regards to **stakeholder engagement.**



- COUNCIL DIRECTIVE 2013/59/EURATOM of 5 December 2013 laying down **basic safety standards for protection** against the dangers arising from exposure to ionizing radiation: Stakeholders, Members of the public, public, Involvement, Participation.
- COUNCIL DIRECTIVE 2009/71/EURATOM of 25 June 2009 establishing a Community framework for **the nuclear safety of nuclear installations.**
- COUNCIL DIRECTIVE 2013/51/EURATOM of 22 October 2013 laying down requirements for the protection of the health of the general public with regard to **radioactive substances in water intended for human consumption.**
- 2005/844/EURATOM Commission Decision of 25 November 2005 concerning the accession of the European Atomic Energy Community to the Convention on **Early Notification of a Nuclear Accident.**
- COUNCIL DIRECTIVE of 27 November 1989 on **informing the general public about health protection measures to be applied** and steps to be taken in the event of a radiological emergency (89/618/Euratom).
- United Nations Economic Commission for Europe (UNECE) Convention on **Access to Information, Public Participation in Decision-Making and Access to Justice** in Environmental Matters.
- Other documents:
 - IAEA (GSR Preparedness and Response for a Nuclear or Radiological Emergency, Method for Developing a Communication Strategy and Plan for a Nuclear or Radiological Emergency, Communication with the Public in a Nuclear or Radiological Emergency, Arrangements for the termination of a nuclear or radiological emergency).
 - HERCA Working Group Emergency. Practical proposals for further harmonisation of the reactions in European countries to any distant nuclear or radiological emergency.
 - OECD NEA (Stakeholder Confidence in Radioactive Waste Management. An Annotated Glossary of Key Terms. Stakeholder Involvement in Decision Making: A Short Guide to Issues, Approaches and Resources).
 - ICRP (Application of the Commission's Recommendations for the Protection of People in Emergency Exposure Situation, Application of the Commission's Recommendations for the Protection of People Living in Long-term Contaminated Areas after a Nuclear Accident or a Radiation Emergency).
 - WHO (Emergency response framework, Iodine thyroid blocking: Guidelines for use in planning and responding to radiological and nuclear emergencies).
 - NERIS Strategic Research Agenda.
 - NTW Report of NTW Working Group on Emergency Preparedness and Response.
- National related legal and other documents (Belgium, Italy, Slovak Republic, Slovenia).

- **"Members of the public" refers to individuals who may be subject to public exposure. As public exposure means exposure of individuals, excluding any occupational or medical exposure, the exposure situations are: existing, planned and emergency exposure situations.**
- **Article 70:**
 - **Members of the public likely to be affected in the event of an emergency are given information** about health protection measures applicable to them and actions they should take in the event of such an emergency.
 - Information supplied **shall include at least** the elements set out in Section A of Annex XII.
 - Information **shall be communicated to members** of the public referred to in par. 1 **without any request being made.**
 - Member States **shall ensure that information is updated and distributed at regular intervals** and whenever significant changes take place. This information **shall be permanently available** to the public.
- **Article 71:**
 - **Members of the public actually affected are informed without delay about the facts** of the emergency, **the steps** to be taken and, as appropriate, **the health protection measures** applicable.
 - Information provided **shall cover those points listed** in Section B of Annex XII relevant to the type of emergency.
- **Article 73:**
 - In addition, in case of **areas with long-lasting residual contamination**, the member states shall ensure, in **consultation with stakeholders**, that arrangements are in place, as necessary, **for the ongoing control of exposure** with the aim of establishing living conditions that can be considered as normal.

- BSS directive **sets minimum standards** for the engagement of stakeholders. However, **it could be used in many different ways**, and could be implemented in a way allowing for two way communication to be established
- Aspirations:
 - Engagement considered mainly as **one-way communication** with provision of information by the responsible institutions.
 - **Consultation** is mentioned related to existing exposure situations.
- Motivations:
 - In BSS communication with the public is basic, with provision of information on key topics, and in addition communication/consultation for limited areas.
 - Engagement of members of public is very basic, and not specified.
 - The motivation for participation is mainly instrumental, as it is applied to secure the end point.
- Level of stakeholder engagement
 - The level of stakeholder engagement is mainly limited to provision of information for topics like emergency planning and response.
 - For existing exposure situations Member States shall provide **as appropriate** for the **involvement of stakeholders in decisions** regarding development and implementation of management strategies.

- International standards require the **provision of instructions, warnings and relevant information to the publics** who are affected, or are potentially affected, by a nuclear or radiological emergency.
- **Arrangements have to be in place for communication** with the public:
 - communication **prior to an emergency** (routine communication) is recognized to play an important role in the effectiveness of communication during an emergency (emergency communication),
 - during emergency response, arrangements should provide for **continued communication** with the public, as well as the **monitoring** of public opinion and the reaction in the news media,
 - **audiences mapping**, to identify their information needs, priorities and means (information channels), is pointed out,
 - **early involvement in emergency preparedness** improves plans, enables concerned stakeholders to prepare themselves to a post-emergency situation, and reinforces the potential for co-operation, communication and co-ordination in an actual crisis or during recovery.
- For the post emergency phases - **protective actions** and other response actions **are formalized** and included as part of **consultation with the interested parties**. The consultation process should include also the decision on the termination of a nuclear or radiological emergency where different topics should be discussed.
- **Stakeholder engagement is seen as having a major importance** for improving the efficiency and social robustness of emergency preparedness and response and ensuring that stakeholders are involved in decisions that impact their lives.
- It is advised that **appropriate resources** should be made available to local municipalities, civil rescue teams, medical support, civil society organisations and civil initiatives to participate in planning for emergencies.

- The requirements on EP&R from the revised EURATOM BSS Directive were **transposed only in some national legal frameworks**, although some provisions were in function from the earlier version of BSS requirements.
- Aside from the provision of information to population likely to be affected, stakeholder involvement **focuses on the involvement of formal institutions responsible** for EP&R management. **Consultations with the public are foreseen**, e.g. on the termination of emergency, the transition and post emergency recovery phases. Some national legal settings **suggest broader consultations already in the preparedness phase**.
- The level of participation of various stakeholders varies in the countries: mostly limited to the **engagement of official stakeholders (actors in the EP&R), and provision of information to the public, who is assumed to follow the instructions and recommendations**.
- Some changes in the approach are also noted, where the national framework stipulates **consultations with broader stakeholders and the establishment of communication strategies** for alerting and informing the population in the emergency, transition and recovery phases.

- Three interviews were conducted (Greenpeace, NERIS and HERCA).
- Reference was primarily made to **normative rationales for setting** up stakeholder engagement (reflecting the idea that involving stakeholders who might be affected is the right thing to do).
- Respondents mentioned **several forms of stakeholder engagement**: information provision, dialogue, consultation and involvement in research. In these different forms of engagement, the broader (affected) public is also expected to be involved.
- After the Fukushima accident, **stakeholder engagement in post-accident conditions is understood also as a means to improve existing exposure** management. It can be seen that the engagement of a very broad public is now considered as **useful also in the emergency preparedness phase**.
- **Main challenges for stakeholder engagement** identified in the interviews are: the provision of a robust and sustainable engagement process (e.g. dealing with limited resources, time and participatory fatigue), the building of trust, the effectiveness of the engagement process, communication challenges and the need for a stronger legal basis for stakeholder engagement.

1. Stakeholder engagement in prescriptions and in practice

- a. Stakeholder engagement - Nuclear & Radiological Emergency Plan (Belgium)
- b. Mapping stakeholder engagement in emergency management in Belgium
- c. Steering Committee for the Management of Post-Accident Situation (CODIRPA): a Step-by-step and Sustainable Process of Stakeholder Involvement (France)
- d. Drills and exercises practice at different levels related to the nuclear accident at Slovak NPPs
- e. EP&R Information and communication in Slovenia: national, regional and local level
- f. EP&R Stakeholder Participation in Nuclear and Radiological Emergency Preparedness and Recovery in Spain: Benefits and Challenges

- **National Nuclear & Radiological Emergency Plan**

- **Objective & Method**

- Stakeholders engagement in **developing the revised plan**, AND as **prescribed and enacted**
- Document analysis, Individual interviews, Focus group discussion

- **Findings (selected)**

- **EP&R plan**

- **Possible bottle-neck** at development of and consultation for emergency plan
- Formal involvement not necessarily desired by local stakeholders, although they want their voices heard

- **Involvement in emergency planning (in practice)**

- **Distinction made between:** professionally involved stakeholders (knowing and agreeing on their role in an emergency) and general public (knowing how to cope with an emergency)
- **Interactive forms of participation:** some initiatives taken, but not (yet) formalized
- **Bottom-up involvement** through local partnerships for nuclear waste
- **Need for transparency and interaction**, but beware of hierarchical understandings of stakeholder engagement
- Stakeholder engagement **less developed for post-emergency phases**
- **Integrating EP&R with other risks** might overcome resource-related challenges for engagement

Case studies – Findings – Belgium (2/2)

● Mapping stakeholder engagement in emergency management in Belgium

• Objective & Method

- **Insight in the Belgian landscape** of stakeholder engagement AND looking **beyond the dominant core** to explore possibilities of stakeholder engagement
- Sampling via internet search and identification of outlier cases

• Findings

- **Outliers identify relatively unexplored avenues** of stakeholder engagement in EP&R, uncovering '*what could be*
- Using a core/periphery frame enables **reflexivity on resources, power and dominance + evolutions in their distribution**
- **Boundaries are fluid**: actors can move from core to periphery, or in the other direction

Outliers in terms of	Examples	Incites reflection on
Initiator	▪ Citizens of neighboring countries filing official complaints to Belgian authorities ▪ Local partnerships on radioactive waste active in EP&R	▪ Boundaries on who participates ▪ Engaging existing networks and groups of stakeholders
Objects involved	▪ Citizens taking care of a 'nuclear artwork' ▪ Basements being turned in emergency bunkers by market actors	▪ Engagement through ▪ Engagement through markets vs commodification of sa
Geography	▪ Little evidence for questions raised by citizens to local authorities in Flanders, as opposed to Wallonia	▪ Geographic contexts of engagement
Opposition to core	▪ Criticism of (earlier versions of) nuclear emergency plan by NGO's	▪ Challenges to and evolutions in 'core'
Medium	▪ 'Facebook live' sessions for Q&A organized by federal authorities	▪ Interdependency of medium, stakeholders and engagement

- **Steering Committee for the Management of Post-Accident Situation (CODIRPA):
a Step-by-step and Sustainable Process of Stakeholder Involvement**

- **Objective & Method**

- **Steering Committee** launched by ASN in 2005: **16 topical WGs with a membership of institutional and non-institutional** representatives (300 participants)
- 2 pluralist committees in charge with **elaboration of the policy for the transition phase, and for the late phase of nuclear accident**
- Integration of the **practical experience regarding the management of post-accident situations** (Chernobyl and, later, Fukushima)

- **Findings**

- The **absence of a prior structuration of activities**: WGs were created step by step, to address the questions raised by stakeholders
- The **accessibility and openness** to any member in the WGs
- The **construction with time** of a common language, a mutual understanding between all members of the WGs, creating a climate of respect and trust
- The **strong involvement of the President of ASN**, personally chairing the plenary sessions
- The **strong implication** of TSOs
- The **search for consensual decisions** and orientations of the works (co-construction process)
- Challenges associated with the involvement of some NGO's
- Challenges associated with a long-term process

Case studies – Findings – Slovak Republic

- **Drills and exercises practice at different levels related to the nuclear accident at Slovak NPPs**

- **Objective & Method**

- **Testing, review and revision of emergency response plans** (INEX4 exercise, national civil protection exercises and other emergency preparedness and response activities),
- **Exercising of the arrangements for establishing contacts** with other Member States (INEX5 exercise),
- **Scenario-based workshops and exercises** with assigning responsibilities for implementation of strategies for the management of existing exposure situations and ensuring appropriate coordination.

- **Findings**

- **Update of the National Emergency Plan** is needed, which should include explicitly the responsibility and interaction with stakeholders on development and implementation of strategies.
- Institutional stakeholders might not recognize the **urgency or need for allocating resources or participating** in a dialogue on the longer-term phases.
- Most stakeholders (even those having roles and responsibilities in case of a nuclear emergency) **lack previous experience with post-accident** issues and knowledge about radiation protection background.
- **Roles and responsibilities** in post accident **are not clearly identified**, which hampers reflection about strategies to cope with a hypothetical accident.
- The **good practice** on the scenario-based workshops and exercises has to have systematic status with the goal of assigning responsibilities for implementation of strategies .
- Handbooks for management of contaminated inhabited areas, food production systems and drinking water have to be given in practice.

- **EP&R Information and communication in Slovenia at different levels**

- **Objective & Method**

- **Practical use of transposed BSS directive at different levels (national, regional, local) in relation to EP&R:**
 - What and where are available contents, who is involved in the development, how the information is communicated, responses of different stakeholders (nuclear regulatory authority, civil protection authority, municipalities, other involved).
- Desk top analysis of websites and documents, discussion with representatives.

- **Findings**

- The information provision as in BSS directive are introduced in Slovenian legislation, but in not very obvious and transparent way. **Extent of information is very limited and modest**, some particular areas are not covered.
- Although the population in 10 km zone receive occasionally the information material, the **public survey shows many knowledge gaps, misinformation and wrong concepts**.
- The stakeholders as perceived by the authorities are almost limited to official representatives. Only municipalities perceive the local population as their principal stakeholder.
- The **importance of exercises and lessons learned was stressed**.

- **Stakeholders involvement in Radiation protection (Nuclear Emergency and post-accidental recovery) in Spain**
 - **Objective & Method**
 - Observe and analyse stakeholder participation including **motivations, interests, activeness or passiveness**
 - Observational study of seminars, analysis of stakeholder discussions during two events, and individual interviews
 - **Findings**
 - **Research institutions play an important role** in stakeholder engagement in EP&R for nuclear accidents
 - **Network was created** of stakeholder that are not used to work together
 - Joint participation leads to **better understanding** of these new stakeholders and allows for **more efficient response**
 - **Providing adequate basic knowledge** in radiation and radiation risk and safety to certain stakeholders such as general public and journalist **remains challenging**

Theme 1: Connection between stakeholder engagement prescriptions and practice

- **Misalignment between prescriptions and practice**

- **Concerning various topics**

- **Example 1: Motivations for participation**

- Influence on
 - Type of stakeholder
 - Type of engagement

- **Example 2: Type of stakeholder and participation**

- What is prescribed is not (always) the same as what is practiced

- ➡ **Missed opportunities**

- **Recommendations**

- **Stakeholder analysis & analysis of engagement**

- **At the on-set** of all engagement process
- **During evaluation and updating** of ongoing processes

- **Make use of lessons learned from practice**

- **Successful engagement processes** can be included in prescriptions and/or guidelines

- France: Elaboration of “Policy elements for post-accident management of nuclear accident” in the framework of CODIRPA
- Italy: Preparedness to nuclear emergency management at the level of hospitals
- Slovak Republic: Improving and strengthening the emergency and post-accident preparedness and recovery management at all levels: national, regional and local
- Belarus: Radiation protection knowledge and culture in education and in Public Information / mass media, after the Chernobyl accident

In preparedness phase of emergency and post-accident management

- **Stakeholders involved in the various processes** (elaboration of guidelines or handbook, exercises, workshops, ...):
 - **Professionals that would be involved in the emergency phase:** public authorities, civil security, firemen, health professionals, ...
 - **Professionals that would be involved in post-accident management, due to their function and responsibilities:** public authorities (national and local level), health professionals, teachers, economic actors, ...
 - **Representatives of populations**
- **Aim of RP culture for these stakeholders:**
 - To allow stakeholders **to make their mind on what is at stake** in case of a nuclear accident for the daily life
 - To **identify their role** during emergency and/or post-accident situations and **the consequences of their actions/decisions**
 - To **build capacities to participate** and to **interact** in the process of elaboration of EP&R plans and exercises, and to identify needs for policy framework, tools, guidelines,...

In the emergency or post-accident phase

- For the local communities, general population affected by an accident, the aims of RP culture are:
 - To **understand their environment** (characterization of the radiological situation, interpretation of measurements) and to get a grasp on the potential health effects
 - To **be able to act** (individually or with the support of local authorities or professionals) in their day-to-day life
 - To take **informed decision**, participate to decision-making processes
 - To better **discern the consequences of exposures and the other consequences**, other disturbances in their daily life
- For the professionals involved in the emergency or post-accident management, due to their function and responsibilities, the aims of RP culture are:
 - To identify which **role** they have to play for the management of the situation
 - To consider the **consequences of their actions/decisions** from the RP point of view
 - To **act as relay in disseminating RP culture** in order to favour the involvement/empowerment of affected population in the decision-making processes

For the stakeholders involved in the preparedness phase of emergency and post-accident management

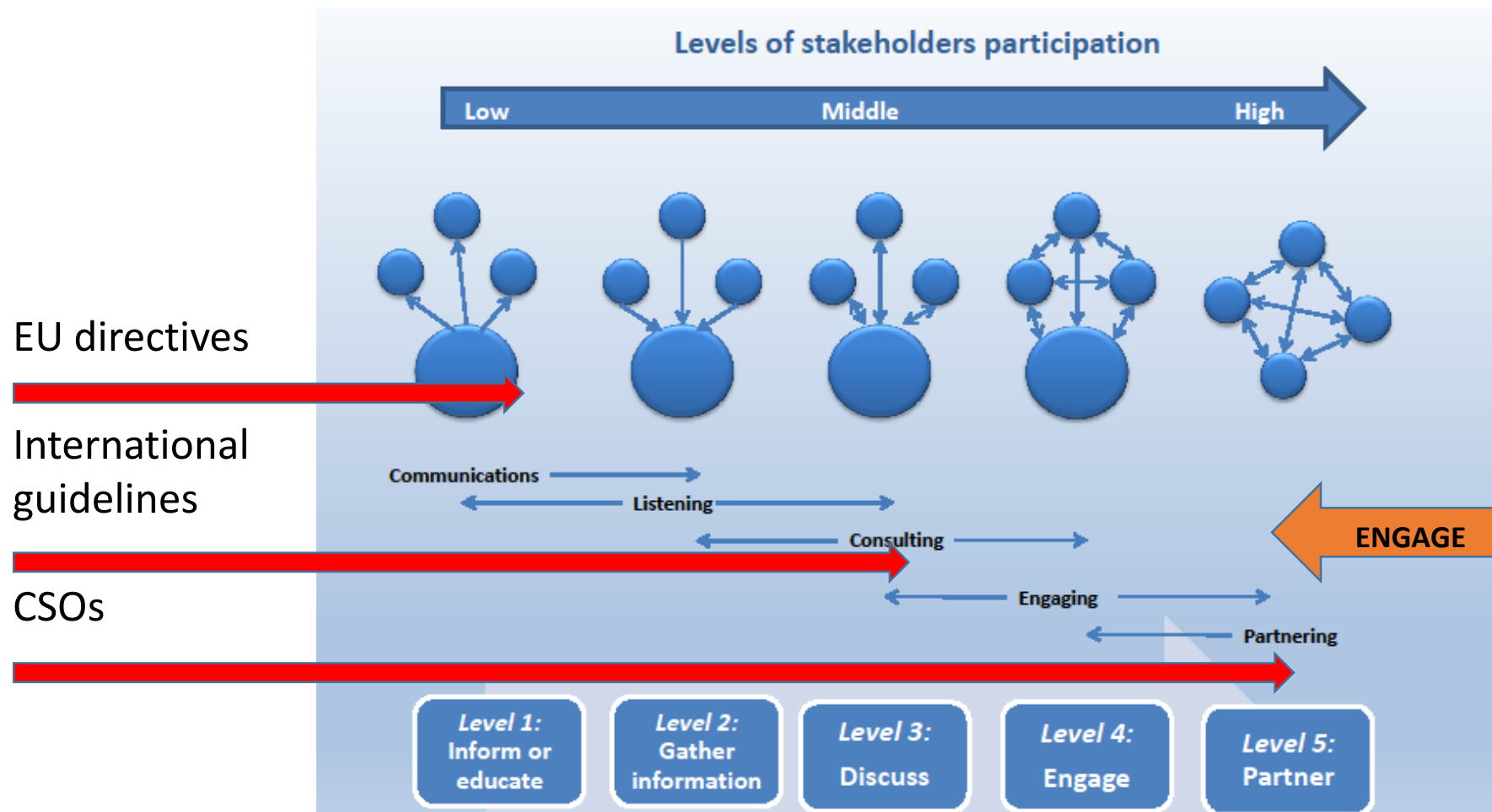
- Working groups, seminars, training sessions, nuclear emergency exercises, ...
- Some key elements from these processes:
 - **Present practical issues** rather than theoretical knowledge.
 - **Implement practical experimentation or real-situation based exercises:** testimonies, feedback from past accident situations, use of models and simulation tools...
 - Put the **radiological risk into perspective**
 - Key role of the European projects in EP&R (EVATECH, EURANOS, NERIS-TP, PREPARE, CONFIDENCE, TERRITORIES, ...) and INEX

For the local communities, general population affected by an accident, and the professionals involved in the management of the situations

- **Need to train experts** that would be in charge of answering questions from the various stakeholders
- **Provide guidelines** to the population regarding RP in their day-to-day activities
- **Favour co-operation between experts and stakeholders** to share local knowledge and scientific expertise, assess together the radiological situation and develop actions to improve living conditions and protect people and the environment

Lessons learned – Key issues in developing RP culture in the framework of EP&R

- One of the major aims of the RP culture is to **contribute to informed decision-making processes** both for individual decisions related to self-help protective action as well as for collective protective actions.
- Need to **set-up involvement processes during preparedness phases** where RP culture can be disseminated and shared among various categories of stakeholders.
 - Usefulness to use networks of stakeholders, such as national association of local liaison committees, education professionals, health professionals...
 - Involve and motivate those stakeholders to address the preparation of guidelines, policy frameworks, tools...
 - Provide them ability to cope with the complexity of the post-accident management, using multi-disciplinary approaches and combining RP culture with other dimensions associated with the disturbance of daily life induced by an accident
- Both preparedness phase and response to emergency/post accident recovery phases are characterized by **a co-construction of RP culture**: contribution from the RP experts together with the stakeholders themselves allowing to favour the development of skill, knowledge and practical measures combining science, expertise and practical experience



- The results of analyses suggest that the **legal requirements for stakeholder engagement in EP&R are mainly basic** and assure provision of information from responsible authorities to the relevant stakeholders.
- **Other documents**, which are not part of the legal framework, like recommendations and guidelines of international organisations or associations, **address stakeholder engagement broader and provide evidence that it is important to maximize the interactions** with different groups of stakeholders.
- Also other methods of investigations (like case studies) prove that more engagement **improves plans, enables concerned stakeholders to prepare themselves to a post-emergency situation, and reinforces the potential for co-operation**, communication and co-ordination in an actual crisis or during recovery.

Thank you for your attention!

Questions?

