

E&T in the frame of nuclear and radiological emergency preparedness:

**Belgium's experience and
future plans**

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Overview

- **Building nuclear emergency response capacity**
 - Step 1: Diagnostic capacity: Recognition and evaluation of possible risks and threats
 - Step 2: Response capacity: How do we get organised and how would we react if an incident or accident occurred?
 - Step 3: Remedial capacity: What is required for effective operational response?
- **Information, E&T efforts 1995-2005**
- **Problems and Concerns observed internationally**
- **Information, E&T future plans**
- **Conclusions**



Building adequate response capacity (step 1)

Recognition and evaluation of possible risks and threats

- Nuclear power plants
- Industrial applications
- Medical and research applications
- Transport
- Satellite atmospheric re-entry
- **Malevolent use of radioactive materials**



Building adequate response capacity (step 2)

How do we get organised and how would we react if an incident or accident occurred?

- **ICRP, IAEA**
- **EU**
- **Belgian legislation :**

Nuclear **and Radiological** emergency plan
for the Belgian territory
Royal Decree, October 17th 2003



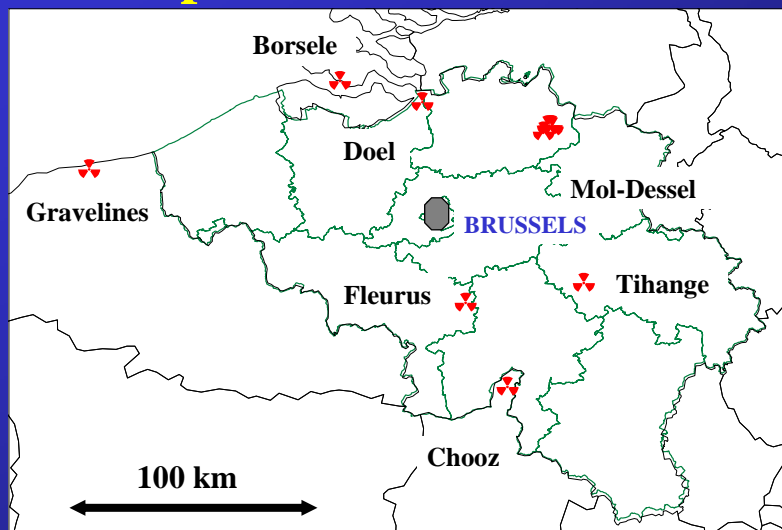
Building adequate response capacity (step 3)

What is required for effective operational response?

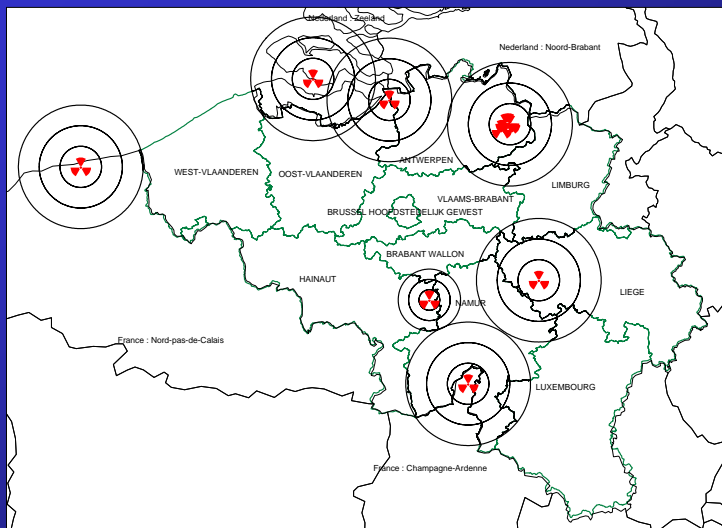
- Performant alert and notification systems
- “Immediate” activation of a sufficient number of **well-prepared responders** aiming at:
getting an asap and correct picture of the current situation as well as its probable evolution, allowing for **advise** on possible protective measures; appropriate and timely **decision** making; **implementation** of countermeasures in the affected areas; correct and convincing **communication** with the responders, the press and the public.
- Availability of appropriate material and facilities
- Sustainability of the response capacity during the full span of the crisis



Important nuclear sites



Emergency Planning Zones



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Information, E & T Efforts 1995-2005

- General population (20km emergency planning zones)
- « Disciplines » involved in crisis remedial actions (esp. 20km NEPZ)
- Decision makers at local level : province governors and mayors



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Problems and concerns observed internationally

- **Low probability (of occurrence) risk :**
 - Political world may have « other priorities »
 - Allocated budget can be correspondingly low
 - Limited number of devoted members of personnel, new faces regularly appear
 - Limited interest among potential actors: personnel of intervening organisations, public at large,...
- **Many intervening organisations, authorities:**
 - Determining responsibilities and coordination can be difficult
 - lessons learned could lie dormant, constructive critical feedback could remain unused
- **High technicity : very few really understand, many may have « an opinion »**

A major communication challenges: If you fail to explain comprehensibly (**laypersons !**), you'll fail to convince people to adopt a specific behavior and they will decide for themselves what is best and act accordingly, ...potentially damaging your plans and the whole construction on which you intended to build further in order to mitigate consequences



Information, E & T needs Future plans

- People in charge of measuring, evaluating, coordinating and proposing protective measures
- **Decision makers**
- Various 'disciplines' involved in the execution of decisions taken, « planning zones » **and beyond**
- General public and **specific target groups** within the population (farmers, schools, ...), **whole territory**
- **Journalists**



Conclusion (1): Information, E & T needs must **all** be met

Broad consciousness-raising campaigns should be organised and efforts on education supported. These efforts should be considered **explicitly** for decision makers, for the press, for the general public and for populations likely to be targeted for the adoption of specific protective measures



Conclusion (2)

In the context of nuclear and radiological emergencies, E&T is essential for the (potential) responders
but information, E&T efforts shouldn't stop there
if we want to manage these events successfully.

A lot of work still has to be done

