

# EP&R and transboundary issues

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# Case study

## Belgium

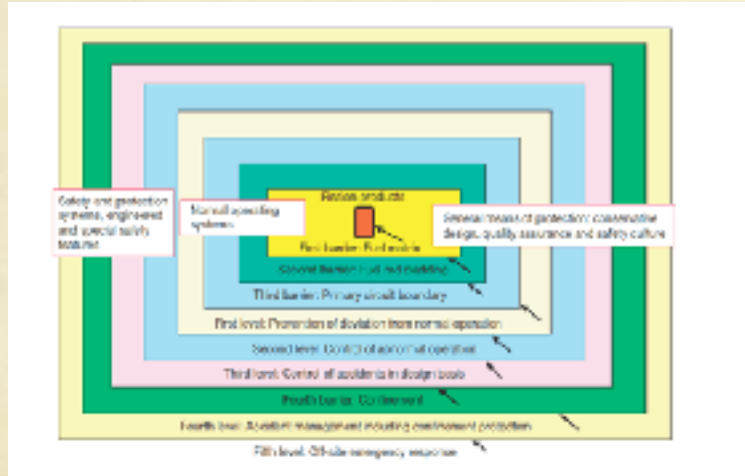


## France



# Principles

## Defence in depth



## Mitigation:

- Shelter in place
- Iodine prophylaxis
- Evacuation
- Food control

# Operational Intervention Levels

## Belgium

- Shelter in place:
  - 5 mSv
  
- Iodine:
  - 50 mSv
  - 10 mSv for infants
  
- Dose limit for rescuers:
  - 250 mSv
  - reference level: 50 mSv

## France

- Shelter in place :
  - 10 mSv
  
- Iodine:
  - 50 mSv
  - /
  
- Dose limits for rescuers:
  - 100 mSv (group 1)
  - 10 mSv (group 2)

# Information

- Information stops at the border for both countries:
  - No direct information to media and population on the other side of the border

# Lessons from Fukushima

# Which distance?

## Belgium

- Evacuation : 10 km
- Iodine : 20 km -> 100 km

## France

- Evacuation : 5 km
- Iodine : 10 km -> 20 km

### ATHLET2014 :

- evacuation should be prepared up to 5 km, and sheltering and ITB up to 20 km
- general strategy to extend evacuation up to 20 km and sheltering and ITB up to 100 km

# Evolution

## Belgium

- Superior Health Council:
  - Implement ATHLET
  - EP&R plans be adapted as promptly as possible in 2016
  - Systematic implementation of vulnerability analyses
  - New plan under preparation

Germany (SSK2014) :

- Central zone of 5 km radius
- Intermediate zone up to 20 km
- External zone up to 100 km

## France

- National plan of January 2014: no change
- Iodine distribution in 2016: no change
- New local emergency plans (PPI): extension to 20 km
- Long-term consequences: evolution
- New trend: reduce evacuation



# Population density

Site	Population in a 30 km radius
Chernobyl	110 000
Fukushima	170 000
Bugey	1 255 000
Fessenheim	1 036 000
Doel	1 510 000

# Stake-holders involvement

- ICRP: “During planning, it is essential that the plan is discussed, to the extent practicable, with relevant stakeholders, including other authorities, responders, the public, etc. Otherwise, it will be difficult to implement the plan effectively during the response.” (Publication 109)
- France and Belgium : some plans not public – never debated
- Espoo convention: equivalent possibility offered to other countries

# Aarhus convention

- In the event of any imminent threat to human health or the environment, whether caused by human activities or due to natural causes, all information which could enable the public to take measures to prevent or mitigate harm arising from the threat and is held by a public authority is disseminated immediately and without delay to members of the public who may be affected.

**Change of paradigm with respect of the usual top-down approach**

# Thank you for your attention

## Belgium



## France



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[Fukushima.eu.org](http://Fukushima.eu.org)