

# Focus on more consistency in responding to nuclear emergencies



Heads of the European Radiological  
protection Competent Authorities

## “Nuclear Transparency Watch”

Brussels, 7<sup>th</sup> November 2013

Presentation by Patrick Majerus (LU)

Chairman of the HERCA – WG “Emergencies” (WGE)

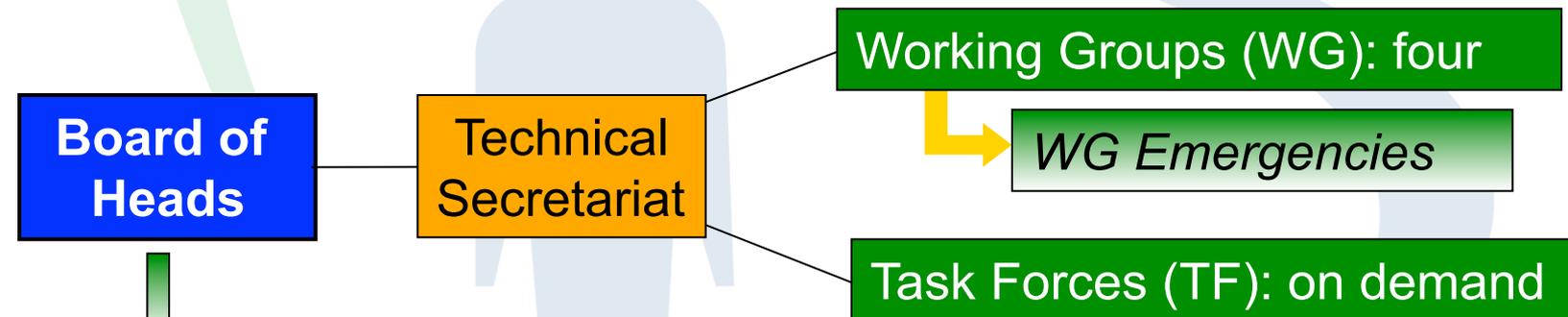
# HERCA Overview

**Creation & Status** : in 2007 on the initiative of ASN. Voluntary association

**Objectifs**: Build and maintain a European network of chief radiation safety regulators in Europe with the aim to develop, whenever possible; a common approach to radiation protection issues and to have an impact on the practice of RP within the States of HERCA members.

**Participation (official)** : 49 RPA from 31 European countries (including the 27 EU States).

## Structure & Working methodology



### Chairmanship:

Mr LACOSTE, ASN, France 2007-2008

Mr HARBITZ, NRPA, Norway 2008 – 2011

Mr MAGNUSSON, IRSA, Island 2012 - 2015

*Approved Internal & External Policies  
(Dec 2010)*

# HERCA Overview

## External relations :

- Since its creation HERCA approached by an increasing number of stakeholders + Aiming to collaborate and avoid duplication of work in some areas, HERCA has approached some international fora.



**The total number of organisations, associations, platforms, projects etc, with which some kind of relation has been established has been increasing especially over the two last years (they amount > 30)**

**Special status of the EC:** regular observer in Board & WG meetings

## Some achievements:

- European radiation passbook & practical guidance for its implementation
- A common European strategy in a nuclear emergency situation is under discussion : “Top-Down approach”;
- Several joint statements and common views approved (i.e the justification of full body x-rays scanners in security, in the medical and non medical field )
- A common view on the regulatory aspects of lamps containing small amounts of radioactive materials ...
- Coordination of efforts established with major stakeholders (i.e MOU w/ FDA, IAEA, ...)

# HERCA: Focus on emergencies

*EP&R major priority for HERCA since its creation.*

## Chairman's proposals after Fukushima

- Internal communication: Sharing info on countermeasures adopted at national level IACRNE, Compilation by NEA made available (avoid duplication)
- External communication. → Statement: links from [www.herca.org](http://www.herca.org) to national radiological environmental surveillance networks, airborne monitoring systems & overview of countermeasures applied
- Mandate of the new WG emergencies Extend the mandate of new WG Emergencies to include accidents occurring far away (little or no direct impact in Europe) + Stress (very) early stages of accident, incl. pre-release

Accepted by Board of Heads on 18 April 2011

## Topical session on the role of HERCA on preparation for and management of nuclear emergencies after Fukushima (Jun.2011)

- need to enhance information exchange and communication relevant to national emergency management decisions at international level, in particular within European countries.
- need for harmonization and coordination of protective measures in a situation Fukushima-like in order to ensure a balanced response
- need for a mechanism to improve the communication exchange and coordination at international level and in particular at the European level

# WG-Emergencies

## Introduction

New WG Emergencies (WGE) (set up on the occasion of 7th HERCA meeting on 30/6/2011)

- **Main Goal** : propose practical, operational solutions for a more harmonized approach.
- **Participation**: 37 members from 21 countries. It is chaired by Patrick Majerus , DRP, Luxembourg

### HERCA published achievements in this area:

- *Emergency Preparedness. Practical Guidance – Practicability of Early Protective Actions (2011); [www.herca.org](http://www.herca.org)*
- *HERCA's views on achieving cross-border consistencies during a nuclear emergency - Volume 1 Number 2 Radiation Regulator - 2013.*
- *Practical proposals for further harmonisation of the reactions in European countries to any distant nuclear or radiological (2013); [www.herca.org](http://www.herca.org)*

# Presentation at various meeting

## Promotion of the “HERCA approach”

- WPNEM, Article 31, WENRA, NERIS workshop, ENSREG conference, Nordic country meetings

[https://  
scic.ec.europa.eu/  
streaming/index.php?  
es=2&sessionno=16d11  
e9595188dbad0418a85f  
0351aba](https://scic.ec.europa.eu/streaming/index.php?es=2&sessionno=16d11e9595188dbad0418a85f0351aba)

European Commission  
Energy DG

EUROPEAN NUCLEAR SAFETY CONFERENCE

Video On Demand

2013-06-11

Focus on more consistency

**HERCA**  
Hubs of the European Radiological  
protection Competent Authorities

**ENSREG Second Regulatory Conference:  
Nuclear Safety in Europe. Brussels, 11-12 June 2013**  
Session 2.- Responding to nuclear emergencies

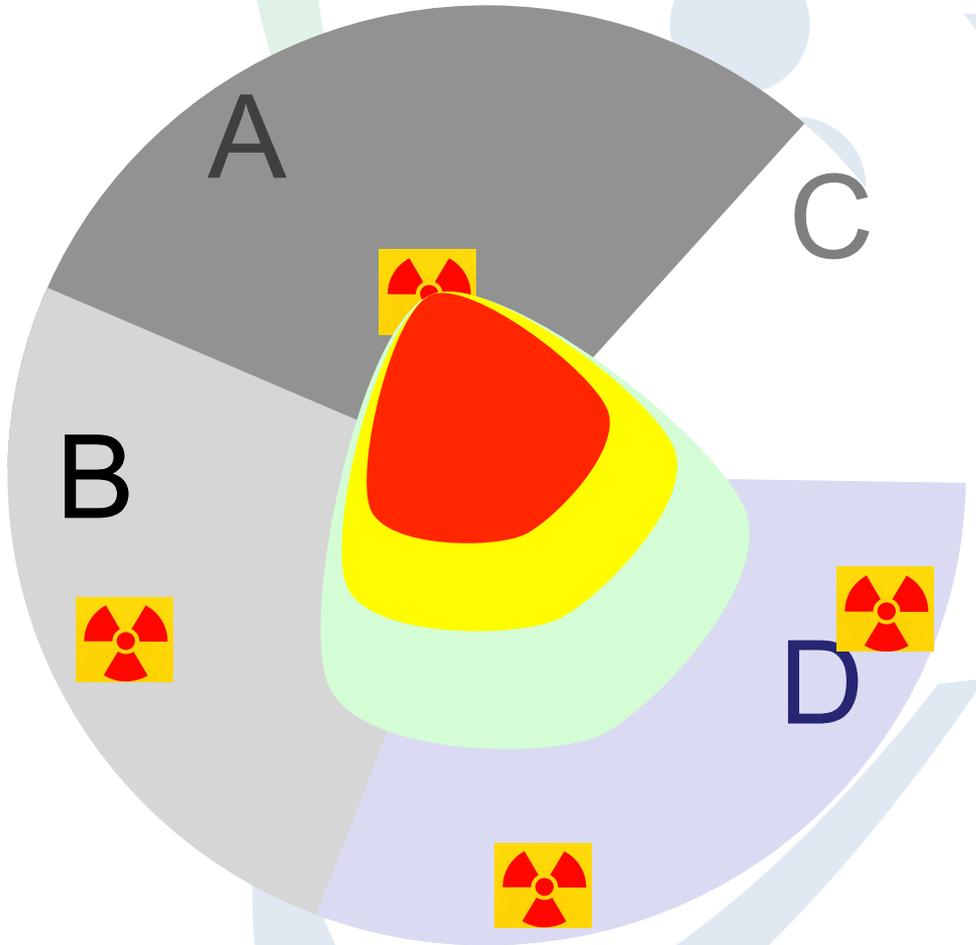
Presentation by Patrick Majerus (LU)  
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422:19 / 530:58

Languages  
Original language (or)

# Consideration of the issue

## Nuclear accident in country A

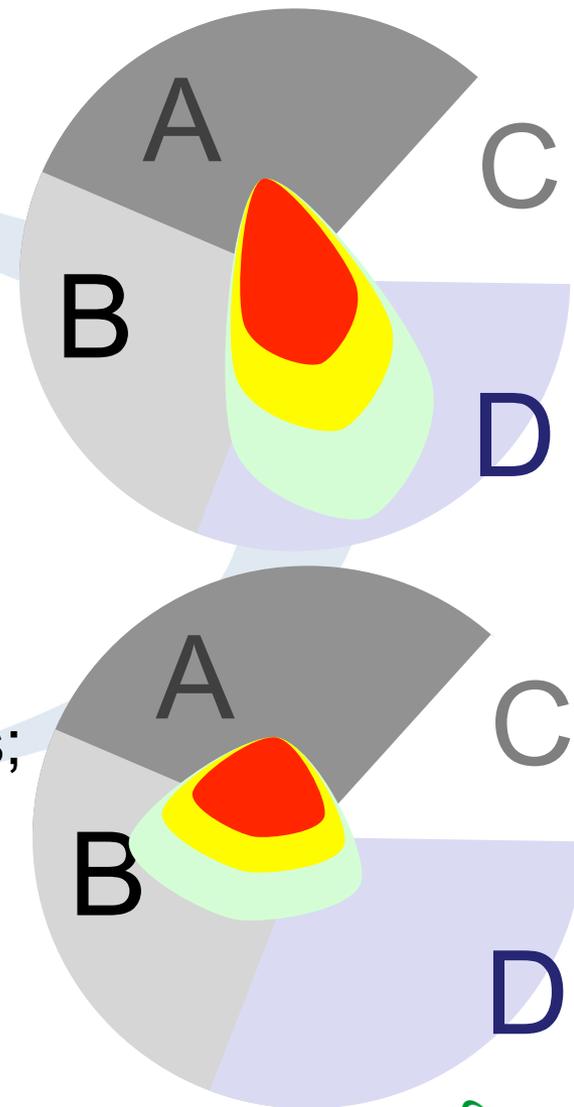


A nuclear accidents occurs in country A that affects the territories of neighboring countries.

All countries are fully sovereign in organizing the emergency.

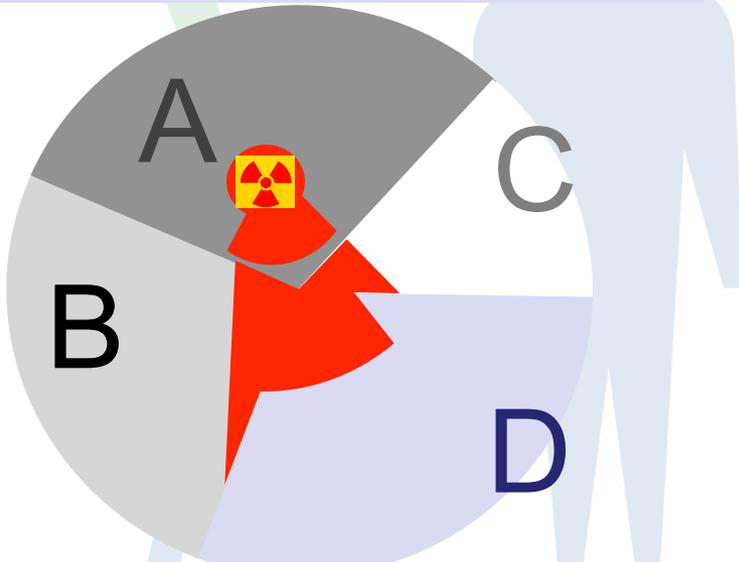
# Countries have different provisions - examples

- Methods for assessing the on site situation;
- Models for radiological impact assessment and dispersion projections;
- Appreciation of uncertainties;
- Intervention levels and their definitions;
- Definitions of emergency planning zones;
- Structures, responsibilities and organizations.



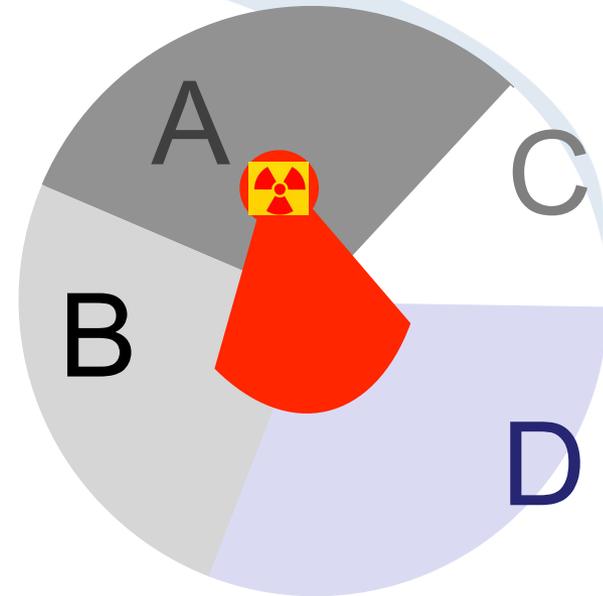
# Territories for protective actions

Individual differences risk to lead to inconsistencies along borders



Leads to distrust in the decisions of authorities and amplifies the serenity of the crisis

Main goal of the HERCA-WGE



= consistent.

# Possible Approach

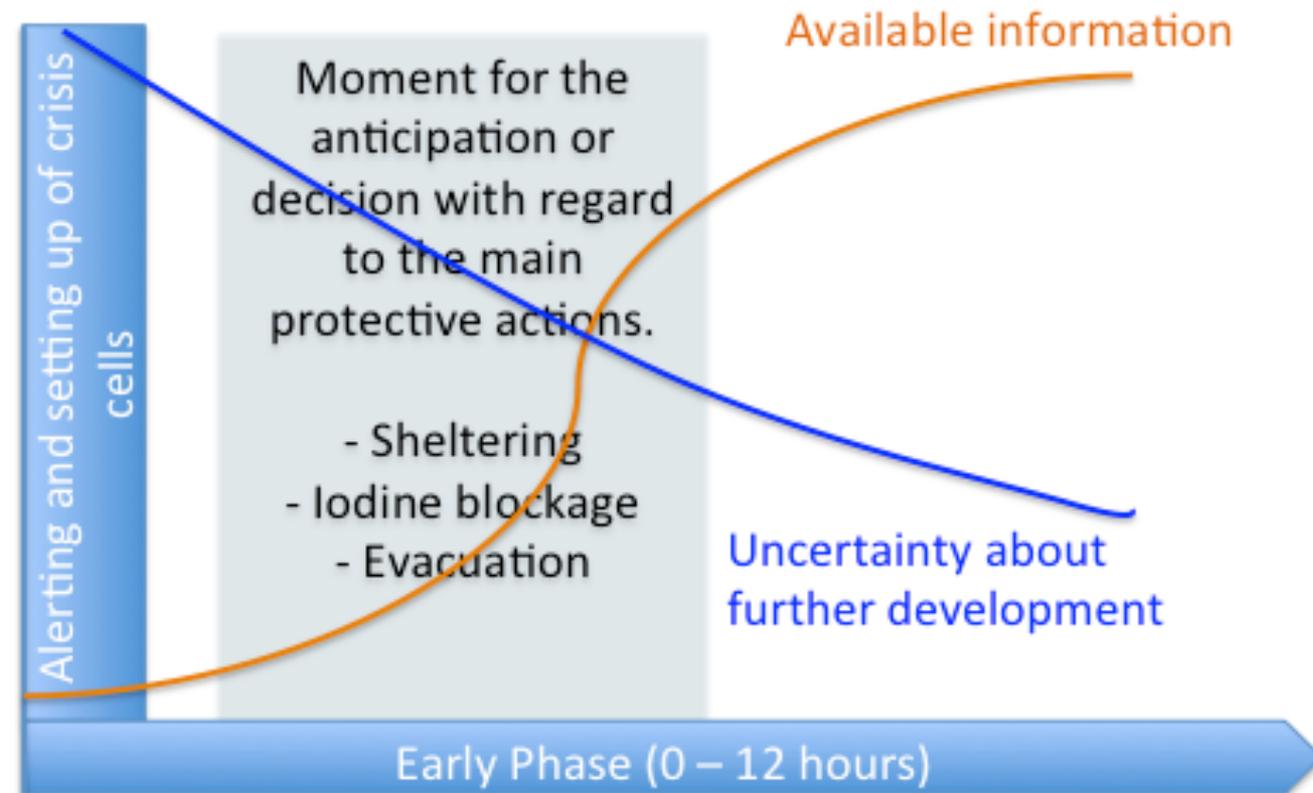
Harmonize identified differences

## However:

A complete harmonization of different national provisions is very difficult, since the provisions stand in most countries on very solid grounds.  
**(national provisions ≠ wrong)**

Important differences also come from uncertainties → Doing things in the same way does not mean getting the same results!

# Proposed HERCA approach



Availability of information is higher within accident country

Uncertainties inevitably leave room for flexibility in decisions.

- *Enhance the cooperation between the European organizations responsible for emergency radiological assessment.*
- *Develop a common understanding of a given emergency situation between those bodies as the basis for consistent and appropriate recommendations on protective actions and other response actions.*

# HERCA approach

Accident country shares early information that is not yet validated at national level



Neighbor country uses the information to anticipate further developments



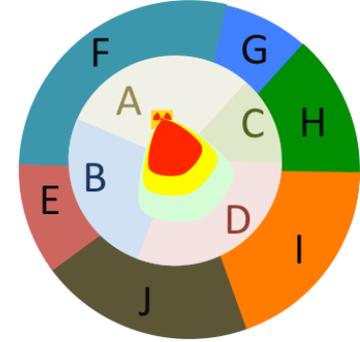
Neighbor country aims at aligning recommendations for decisions on protective actions with accident country

# HERCA approach

## Implementation during an emergency - coordination!

- Intensive local and/or regional coordination/consultation mechanisms between neighboring countries for deciding protective actions consistently. Following the recommendations of the accident country should be the privileged scenario.
- Ad-hoc coordination/consultations between all European Countries in case of important differences of the assessments (audio-conference).

# HERCA approach



## Prerequisites

- In depth knowledge of the existing arrangements and capacities in the neighboring countries – to be prepared well in advance for getting the assurance that things are done properly – **TRUST!**
- Countries need a nuclear emergency framework that allows for some flexibility (ex: intervention levels should not be a strict criterion)

# Outlook

The ideas as presented have been translated into a draft road map consisting of 3 phases:

1. Preparedness phase – Enhance mutual understanding (work has started to assist implementation).
2. Early phase of an accident (a workshop for testing the ideas from the road map was held in September 2013 – conclusions are presently being drawn).
3. Later on (around 12 hours later), development of a common situation report – Further discussions on the principles are still needed.

## **ENSREG action plan 25/7/12:**

ENSREG will ask HERCA and WENRA jointly to develop improved guidance on mutual assistance between regulators (WENRA action item I.4)