



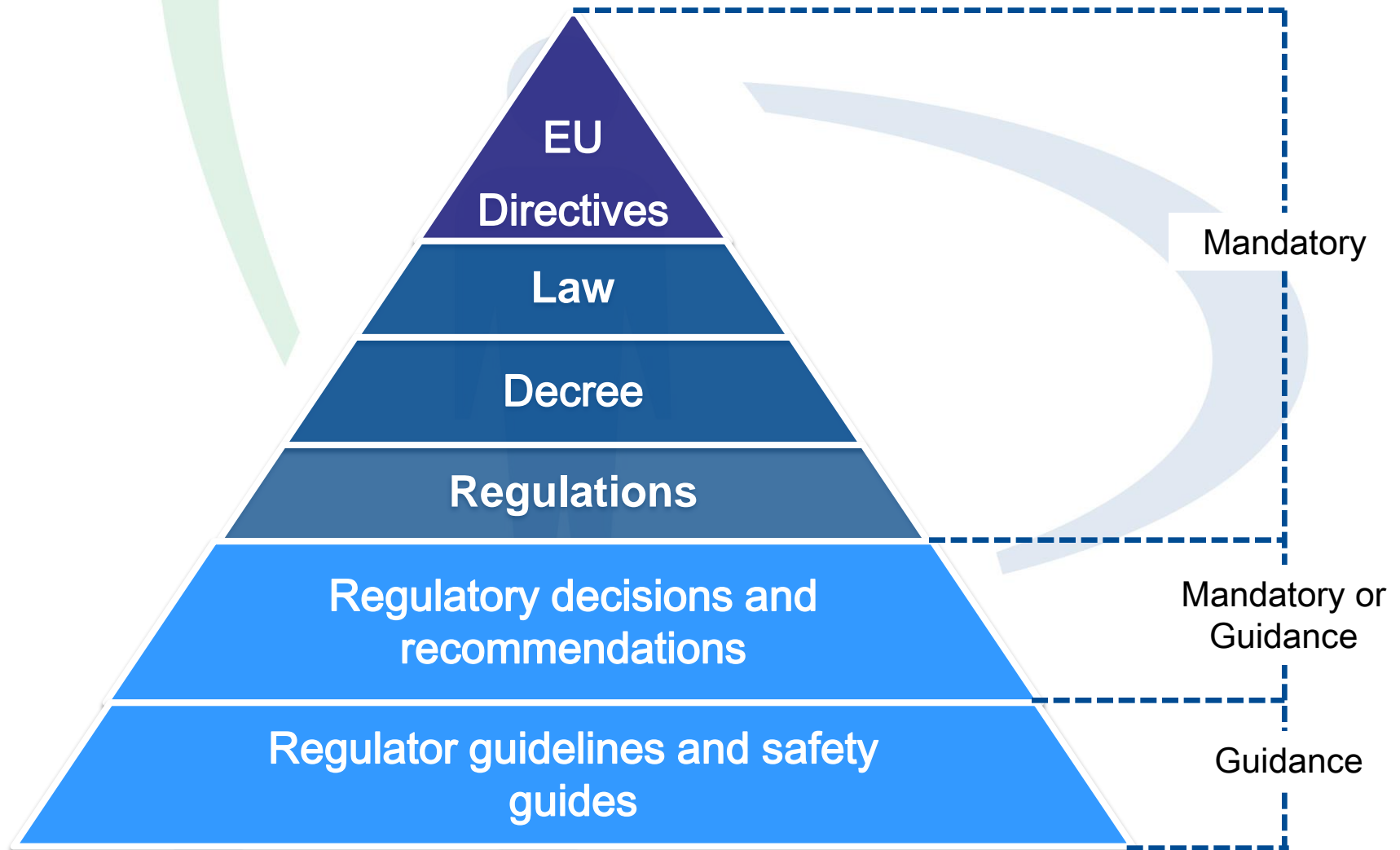
Heads of the European Radiological
protection Competent Authorities

A Forum for practical cooperation
between the European Radiation
Protection Authorities.

S.M.Magnússon
HERCA Chair

Background

Typical regulatory framework in Europe



Background

Despite common European Regulatory Framework, there is flexibility in transposing into national regulations which has led to differences in radiation protection practices throughout Europe

→ **There is a need for a network/association to address regulatory radiation protection issues in Europe**

- Recognition of the need for increased co-operation between Radiation Protection Authorities within Europe.
- Need for a common understanding, mutual approach and harmonization at the practical level.

HERCA was established in 2007 to meet this need.

Objectives



The objective of HERCA is to contribute to a high level of radiological protection throughout Europe by:

- building and maintaining a comprehensive European network of radiation safety regulators in Europe
- promoting exchange of experience and learning from each other's best practices
- discussing and expressing a consensus opinion on significant radiological protection and regulatory issues when possible
- developing a common approach to radiological protection issues;

HERCA Overview - Members

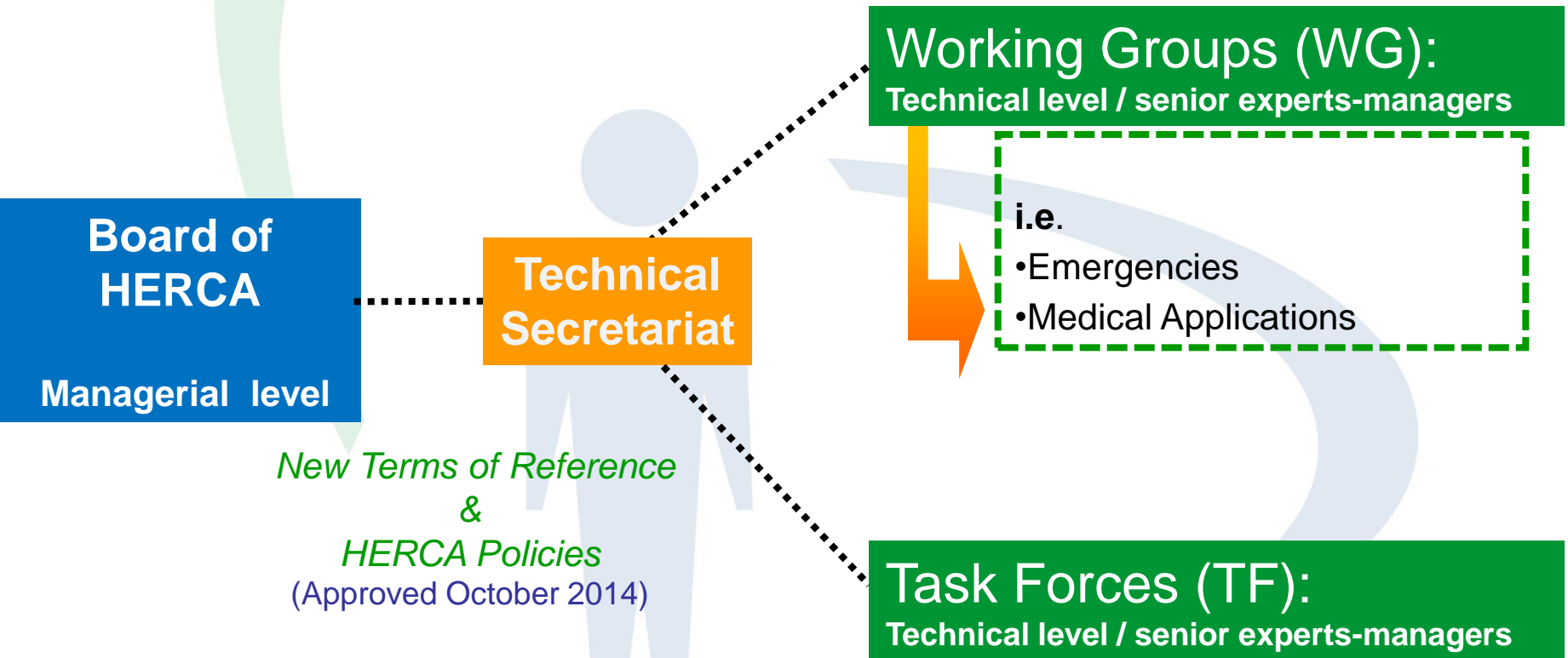
Official nomination by Radiation Protection Authorities (RPAs)

AT	:	Austria
BE	:	Belgium
BG	:	Bulgaria
HR	:	Croatia
CY	:	Cyprus
CZ	:	Czech Republic
DK	:	Denmark
EE	:	Estonia
FI	:	Finland
FR	:	France
DE	:	Germany
EL	:	Greece
HU	:	Hungary
IS	:	Iceland
IE	:	Ireland
IT	:	Italy
LV	:	Latvia
LT	:	Lithuania
LU	:	Luxembourg
MT	:	Malta
NL	:	Netherlands
NO	:	Norway
PL	:	Poland
PT	:	Portugal
RO	:	Romania
SK	:	Slovakia
SI	:	Slovenia
ES	:	Spain
SE	:	Sweden
CH	:	Switzerland
UK	:	United Kingdom

52 RPA from
31 European countries
(incl. the 28 EU MS).



HERCA Overview – Structure



*New Terms of Reference
&
HERCA Policies*
(Approved October 2014)

Chairmanship

- Mr **MAGNUSSON**, IRSA, Iceland 2012 - 2018
- Mr **HARBITZ**, NRPA, Norway 2008 – 2011
- Mr **LACOSTE**, ASN, France 2007-2008

Vice-Chairmanship (since June 2014)

- Mr **CHEVET**, ASN, France, 2015-2017
- MS **PETROVA**, Czech Republic, 2015-2017

HERCA Overview: Organisational issues

Chair & Vice-chairs

- One Chair and two Vice- Chairs. 3-year mandate
- The HERCA Chair presides at the BoH meetings and has decision capacity for day-to-day matters.

Technical Secretariat

- Ensures overall coordination and facilitation of all activities of HERCA including administrative aspects.
- The HERCA Secretariat is hosted by a member of HERCA (currently ASN) and funded by the HERCA members

Working Groups & Task Forces

- Working groups (WGs) and Task Forces (TFs) are established to address issues of common interest. .

External relations & Co-operation (1/2)

Framework

- HERCA collaborates with relevant stakeholders and approaches stakeholder involvement with a view on maximizing the efficiency and efficacy of its efforts.
- HERCA ensures appropriate opportunities for relevant stakeholders to comment on its work.

⇒ Since its creation (2007), HERCA has been approached by an increasing number of stakeholders.

⇒ With the aim to collaborate and avoid duplication of work, HERCA has approached some international organizations.

**Contacts with more than 50
stakeholders now.**

External relations & Co-operation (2/2)

Overview of External relations – HERCA stakeholders:

- **International Organisations:** EC, IAEA, IRPA, ICRP, NEA, WHO, UNSCEAR, ENSREG ...
- **Associations of Authorities:** WENRA, EACA, ERPAN, FORO
- **Medical societies:** ESR, EANM, EFRS, EFOMP, PFPS, WONCA, ...
- **Research Projects & Platforms:** ENETRAP, MEDRAPET, NERIS, ...
- **U.S. Organisations:** FDA, NCRP, CRCPCD,
- **Manufacturers:** COCIR, ELC
- **Other:** IEC, Radiation Regulator, ...
- **Special status** of the **European Commission:** regular observer in Board & WG meetings
- **Coordination of efforts** established with major stakeholders (i.e. MoU & CDA w/ FDA, Special Liaison with ICRP & NCRP, IAEA, NEA, ...).

The background features the HERCA logo, which consists of a stylized human figure in the center. The figure is composed of a light blue circle for the head and a light blue shape for the body and legs. Surrounding the figure are three large, curved, light blue lines that form a partial circle around the figure. A green curved line is also present, arching over the top left of the figure.

Some ongoing activities & recent achievements of HERCA

Emergency Preparedness & Response

Recent Achievements:

HERCA-WENRA Approach in emergencies

- Part I. HERCA-WENRA Approach for a better **cross-border coordination** of protective actions during the early phase of a nuclear accident.- General Mechanism.

*Approved by:
HERCA on 12/6/2014
WENRA on 22/10/2014*

- Part II. HERCA-WENRA Approach in case of a **Severe Accident** requiring **Rapid Decisions for Protective Actions**, while very little is known about the Situation.

*Approved by HERCA &
WENRA on 22/10/2014*

Based on principles of:

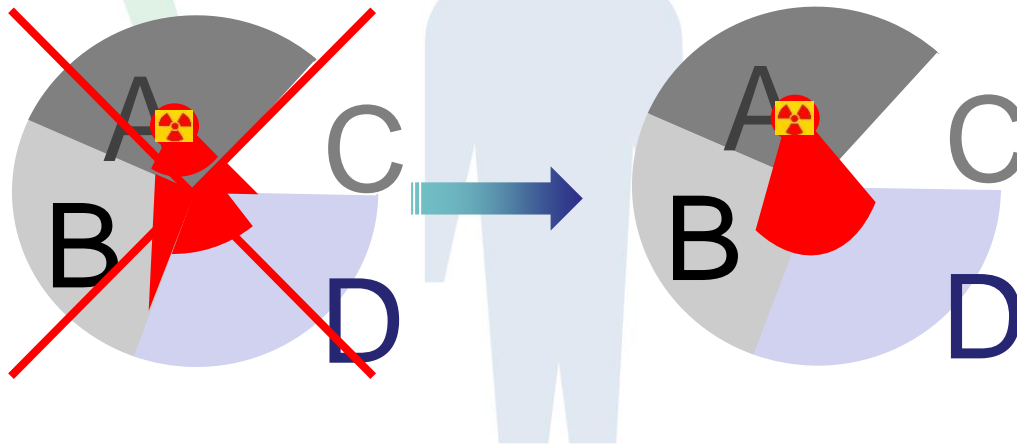
- mutual understanding
- mutual trust
- coordination

EP& R – 1st part H-W approach

HERCA – WENRA Approach.- Framework

Context: present national arrangements can lead to different levels of protection .

Goal: Uniform way of protecting people independent of national borders



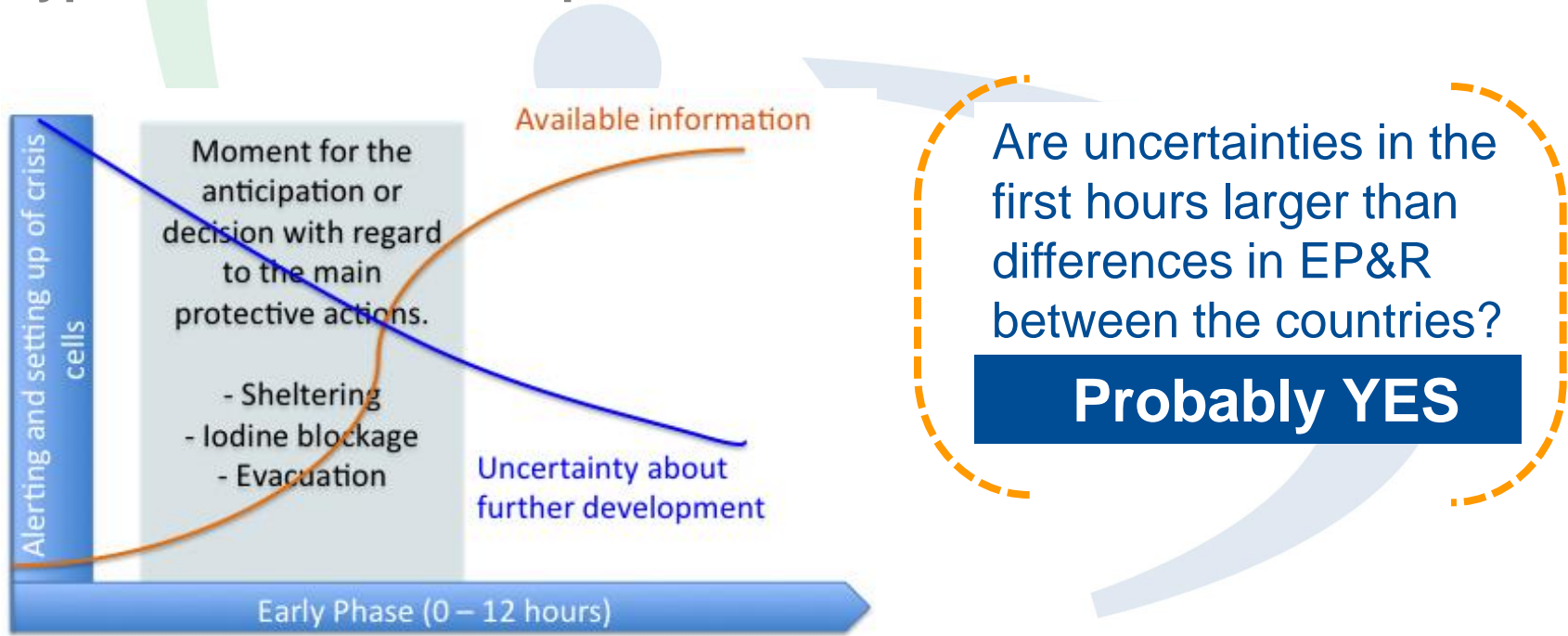
Protective actions are not recommended in a coherent way because of numerous differences in EP&R between the countries!

- The main strategy is to **aim at an alignment of the response** between neighbouring countries or neighbouring territories.
- This is supported by early information exchanges using existing bilateral and international arrangements as far as possible.

Emergency Preparedness & Response

HERCA – WENRA Approach.- Framework

Typical accident development

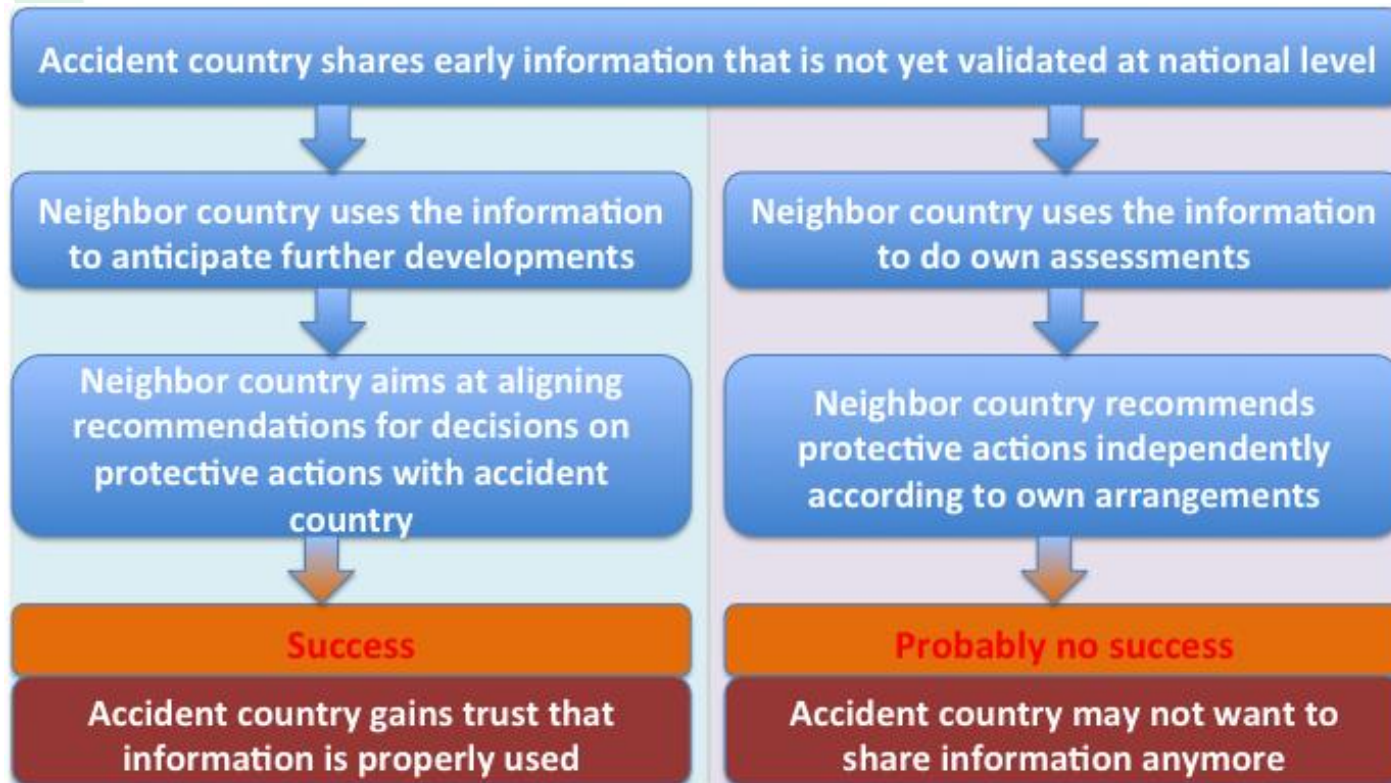


Does this permit to align recommendations for protective actions during a nuclear emergency across national borders?

YES - Aim of the HERCA- WENRA approach
– “do the same as the accident country” in the first hours of the accident.

Emergency Preparedness & Response

HERCA – WENRA Approach.- Overview



In the early phase of an accident, the proposed HERCA-WENRA Approach foresees rapid information exchange through existing bilateral and international arrangements. If the response is thought consistent, the neighbouring countries can recommend their governments to follow these recommendations, i.e. adopt the principle **“We do the same as the accident country”** in the first hours of the accident.

Emergency Preparedness & Response

Part 2: EP&R for severe nuclear accidents

- The general mechanism of this new approach is independent of the accident scenario and includes severe accidents like Fukushima.
- A severe nuclear accident is not impossible anywhere in the world, including Europe. Emergency preparedness and response arrangements must be prepared for such accidents.
- The initial stage of a severe accident may require rapid decisions for protective actions while very little is known about the accident situation and reliable dose calculations are not yet available.
- Recommendations of protective actions may need to be formulated rapidly, leaving very limited time for cross border coordination during the first phase of the accident.
- Therefore, the HERCA-WENRA approach contains **pre-defined simplified schemes for protective actions that may be applied in case of a severe nuclear accident.**

Emergency Preparedness & Response

Emergency preparedness for severe accidents

The **European nuclear and radiation safety regulators propose** a common European approach to urgent protective actions as well as a minimum common level of preparation for these actions:

- evacuation should be prepared up to 5 km around nuclear power plants, and sheltering and iodine thyroid blocking (ITB) up to 20 km;
- a general strategy should be defined in order to be able to extend evacuation up to 20 km, and sheltering and ITB up to 100 km;

The need for rapid decisions using the simplified schemes for protective actions will only apply during the initial phase.

As soon as the accident country is in a position to present a more elaborate assessment of the plant status and the expected off-site impact, it will take the necessary steps to align its decisions and cross-border coordination mechanisms accordingly.

Medical Applications

CT Manufacturer Involvement in Reducing Patient Doses

- ▶ **Basis:** Voluntary self-commitment of CT Manufacturers (2011) by COCIR (represents radiological, electromedical and healthcare IT industry in Europe).
- ▶ **Joint press release** HERCA-COCIR in 2014
Focus on ensuring appropriate and effective use of CT's with continued dose reduction while maintaining diagnostic image quality.
- ▶ **Position paper** "The process of CT dose optimisation through education and training and role of CT Manufacturers".
- ▶ **Multi-stakeholder meeting** on the optimised use of CT scanners in 2015

Medical Applications

Justification | Stakeholder Involvement

Multi-Stakeholders HERCA Meeting on Justification (Sept. 2014)

Scope | Diagnostic and interventional medical imaging, in a curative care setting.

Ultimate goal | To improve justification at “level 3” i.e. at the level of radiological procedures on individual patients.

Participation | 12 HERCA Stakeholder Organisations

Outcomes

- ▶ Each of Stakeholder Organisations committed to improve justification in medical imaging, identifying specific issues relevant to their organization.
- ▶ Further concrete steps were agreed upon & will be followed up.



Medical Applications

Justification | Recent Position Papers

- ▶ [“HERCA Position Paper on Screening”](#) (2012). Proposes a clear distinction between screening and radiological procedures as part of an IHA and highlights special requirements for the latter.
- ▶ [“I-131 therapy : patient release criteria”](#) (2013) HERCA has agreed on general principles and approaches for releasing a patient from a hospital after I-131 therapy. A “card” or a “paper” should be given to him → HERCA model [“HERCA Patient release card”](#).
- ▶ [Position paper on Justification](#) (2014). Intended to provide clarity on the regulator’s approach to roles and responsibilities concerning justification. It considers a number of factors associated with the justification process.
- ▶ [Position paper “Justification of medical exposures – Take home messages”](#) (2014) HERCA recommendations on the transposition and implementation of BSS requirements concerning the application of justification principle for medical examinations using ionising radiations”.
- ▶ Position Paper on [Justification of Hand-held Dental Equipment](#) (2014).

Other workgroups and taskforces.

Working groups:

- Non-Medical Sources and Practices
- Outside Workers & Dose Passport
- RP in Veterinary Field (Focus: RP of humans)

Taskforces:

- Education & Training in RP
- Transposition of the new EU BSS into national regulations.

Conclusions

■ Through HERCA a **forum for closer co-operation** between the authorities has been established and has contributed to:

- increased efficiency and efficacy;
- gathering of good ideas and good practices;
- improved overall transparency;

■ HERCA has consolidated its role as a **key player and one of the pillars in the radiation protection community in Europe and internationally.**

What HERCA can do as an association of RPAs is far beyond what any national RPA can do.



**Thank you for
your attention!**

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