ISR The International Society of Radiology

ESR EUROPEAN SOCIETY OF RADIOLOGY

PLENARY SESSION IV

Stakeholders' point of view:

5 Key issues for developing a RPCM: Radiologists

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European Society of Radiology – International Society of Radiology

IRPA International Organization for Medical Physics IOMP World Health Organization

2nd Regional IRPA-IOMP-WHO Workshop on
Radiological Protection Culture in Medicine
Geneva, 30 November – 2 December 2015

1. Leadership commitment (top down)

By calling radiation protection a priority of the **hospital / radiological institute**, the leadership tells the whole workforce:

- That RP is part of the duties of all staff members
- That RP – similar to teaching or research – is as important as those activities that are directly payed for, and that it will receive the needed material and personal resources

Professional organizations do not have the power to impose the new culture. Nonetheless, their suggestions have a strong supporting effect.
Several **campaigns** have been launched by inter-professional alliances: Image Gently, Image Wisely, Choose Wisely, EuroSafe Imaging, recently AfroSafe, CanadaSafe, and more campaigns are starting (Latin America, Japan).

ACTION CALL ITEMS

IAEA-WHO, Bonn

- 1: Justification
- 2: Optimization
- 3: Manufacturers' role
- 4: Education + Training
- 5: Strategic Research Agenda
- 6: Information on Medical Expo.
- 7: Prevention of radiation Incidents
- 8: Safety culture
- 9: Foster Benefit – Risk Dialogue
- 10: global implementation of Safety requirements

EuroSafe Imaging

- 1: Clinical Decision Support (1)
- 2: Clinical audit (1,2,4,8)
- 3: PiDRL project, data collection, (2) image quality
- 4: Equipment update policy (2,3)
- 5: Cooperation with COCIR (3)
- 6: E-courses, education projects (4)
- 7: MELODI research platform (5)
- 8: Data collection surveys (6)
- 9: Safety procedures for exams (7)
- 10: Comm.,Website, newsletters (8)
- 11: ESR Patient Advisory Group (9)
- 12: Network of campaigns (10)

2. RP as an integral part of everyday professional life

(bottom up)

Integrate RP into the clinical workflow + **Quality Control**

- **Clinical audits** provide an **internal** and external analysis of this workflow
- **EC RP 159** Guidelines on clinical audit for medical radiological practices, 2009
- **ESR Essential Audit Templates**, prepared by the ESR Audit and Standards Subcom. at Departmental level and at team/individual level

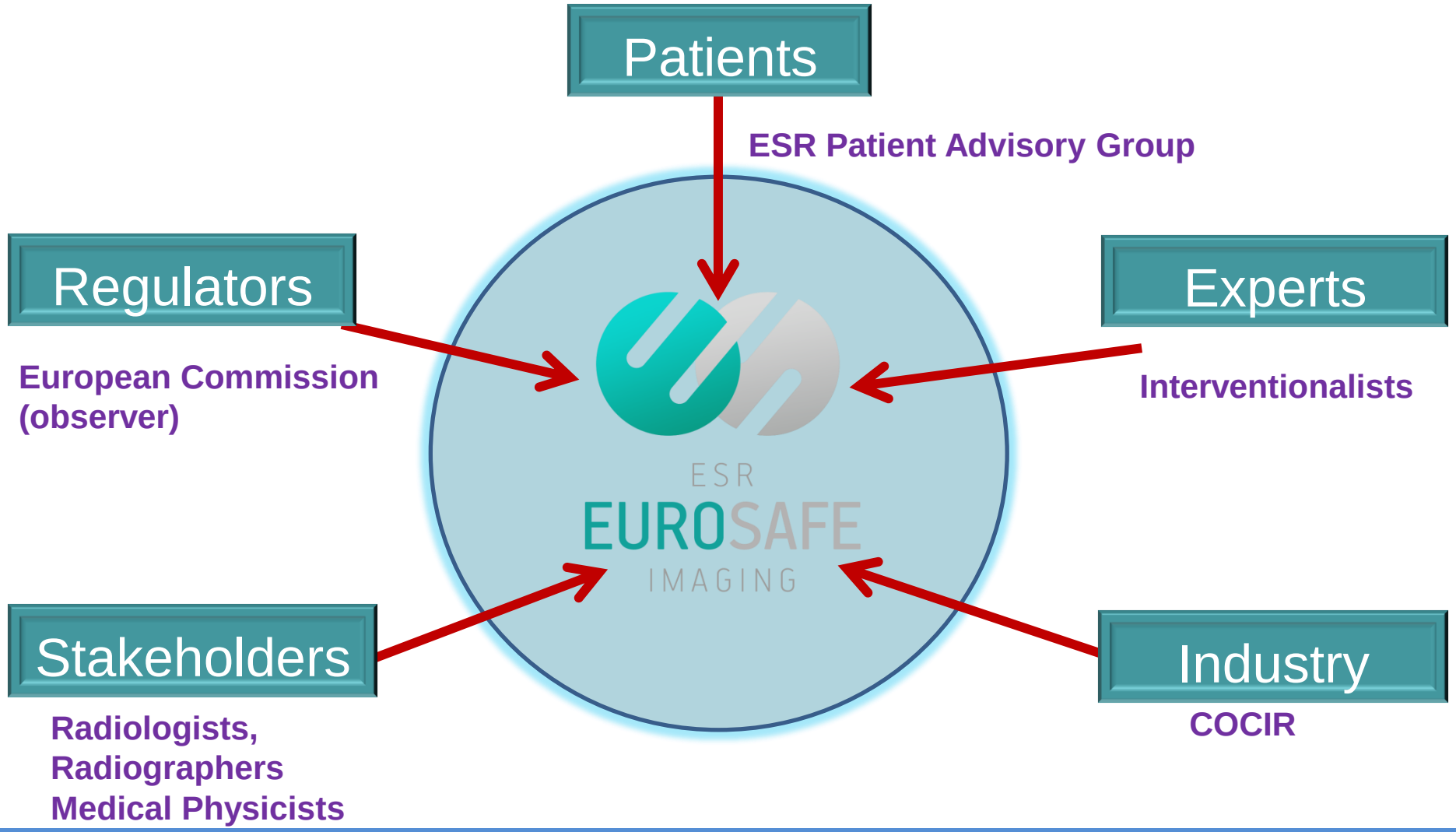
3. Cooperation among all actors:

Join forces:

- in departments: radiologists + radiographers + medical physicists (team approach)
- with referrers (consensus guidelines, decision support)
- with patients (patient empowerment)
- with regulators
- with industry
- with international RP bodies: ICRP, IAEA, WHO

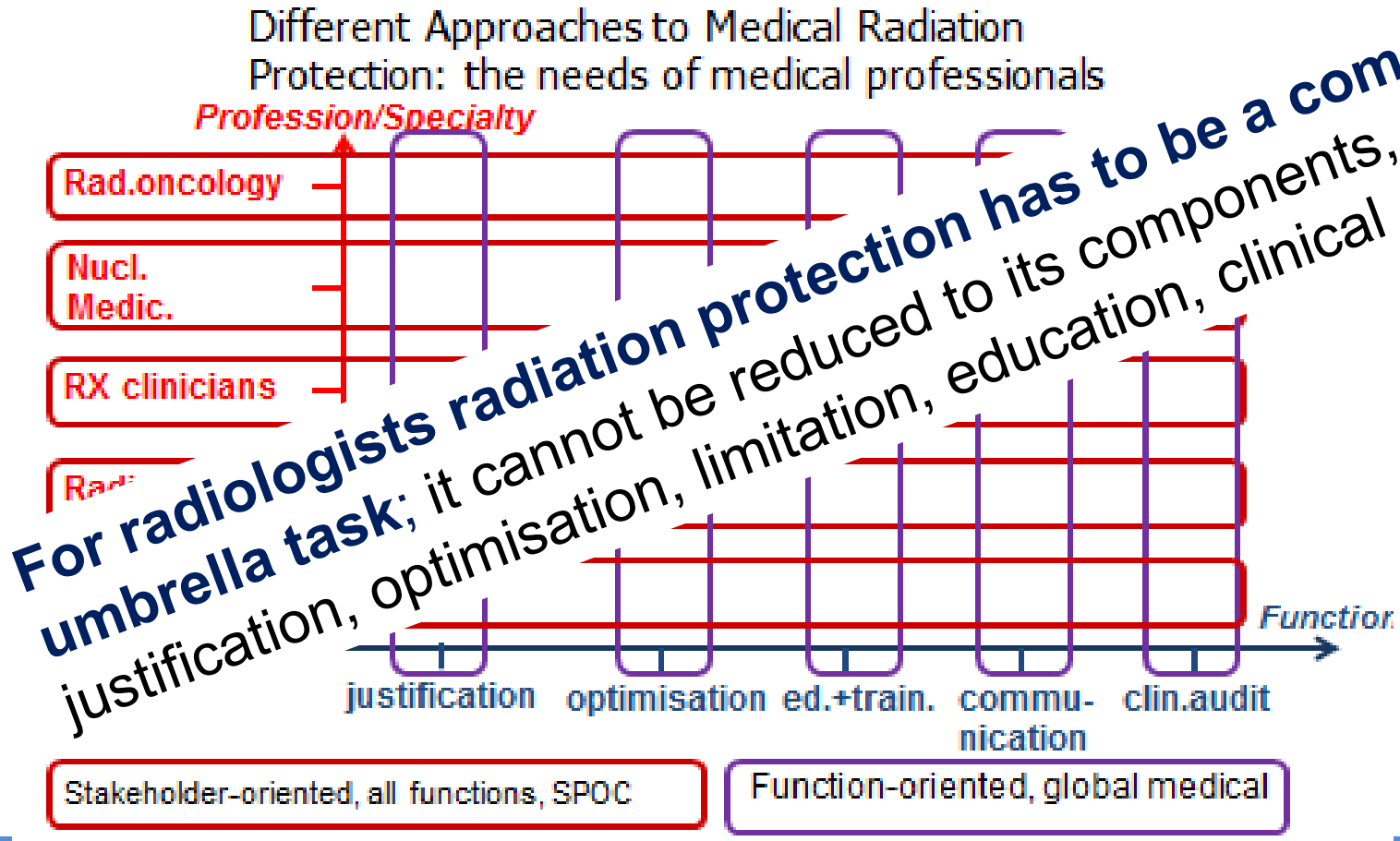
→ brings mutual recognition, adds innovative potential

EUROSAFE IMAGING Steering Committee members



Task	Partners, project group
Justification	ESR iGuide project group
Examination definition	subspecialties' societies
Appropriate quality def.	subspecialties' societies modality experts
Exam.protocol definition	subspecialties' societies modality experts, medical physicists, radiographers
Indication-specific DRLs	ICRP, PiDRL project: methodology subspecialties' soc., modality exp. medical physicists, radiographers

4. Tailor RP duties and responsibilities to the real needs of the profession/function



For radiologists radiation protection has to be a comprehensive umbrella task; it cannot be reduced to its components, such as justification, optimisation, limitation, education, clinical audits

EDUCATION + TRAINING AS CONTRIBUTORS TO RP CULTURE (MEDRAPET GUIDANCE)

- General introduction and medical **profession-specific** chapters

- 20 Core RP topics

¤	MEDRAPET·Core·RP·Topics¤
1¤	Atomic·Structure,·X-ray·production·and·interaction·of·radiation¤
2¤	Nuclear·structure·and·radioactivity¤
3¤	Radiological·quantities·and·units¤
4¤	Physical·characteristics·of·X-ray·systems¤
5¤	Fundamentals·of·radiation·detection¤
6¤	Fundamentals·of·radiobiology,·biological·effects·of·radiation¤
7¤	Risks·of·cancer·and·hereditary·disease·and·effective·dose¤
8¤	Risks·of·deterministic·effects¤
9¤	General·principles·of·RP¤
10¤	Operational·RP¤
11¤	Particular·patient·RP·aspects¤
12¤	Particular·staff·RP·aspects¤
13¤	Typical·doses·from·diagnostic·procedures¤
14¤	Risks·from·foetal·exposure·to·ionizing·radiation¤
15¤	QC·and·QA·in·RP¤

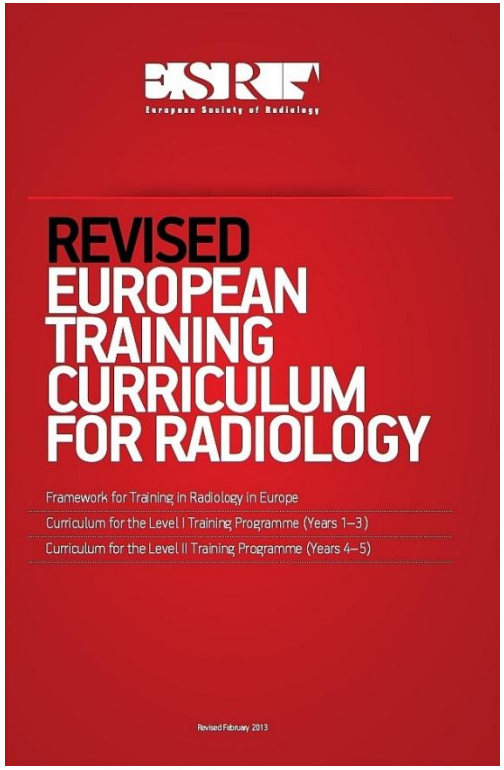
- Each profession: learning outcomes as **K**nowledge-**S**kills-**C**ompetences according to **EQF**

- Level of RP education: radiologists' entry requirement: EQF **level 7** through CPD activities → **level 8** (most advanced)

Model for uniform definition of learning objectives of different medical professions

MEDRAPET
Medical Radiation Protection EDUCATION AND TRAINING

ESR Training Curriculum: RP Educ. + Training



B. EUROPEAN TRAINING CURRICULUM

LEVEL I TRAINING PROGRAMME (YEARS 1–3)

- B-I-1 Breast Radiology
- B-I-2 Cardiac and Vascular Radiology
- B-I-3 Chest Radiology
- B-I-4 Gastrointestinal and Abdominal Radiology
- B-I-5 Gynaecological and Obstetric Radiology
- B-I-6 Head and Neck Radiology
- B-I-7 Interventional Radiology
- B-I-8 Musculoskeletal Radiology
- B-I-9 Neuroradiology
- B-I-10 Paediatric Radiology
- B-I-11 Urogenital Radiology
- B-I-12 Nuclear Medicine as Basic Training
- B-I-13 Radiation Protection Education and Training
- B-I-14 Principles of Imaging Technology & Molecular Imaging
- B-I-15 Communication and Management
- B-I-16 Research and Evidence-Based Medicine

same KSC Table

LEVEL II TRAINING PROGRAMME (YEARS 4–5)

B-II: Subspecialties (1/several)
deepening of Level I programme

CME: life-long contuous medical education

5. Communicate transparently: within department, with professionals, with patients

The complex cooperation in radiology between all stakeholders does not succeed unless communication is specifically addressed

Communication must be adapted to the understanding level of all partners involved. E.g., patients cannot be empowered to give informed consent if they do not understand the risk-benefit arguments discussed before justification

PLENARY SESSION IV: Stakeholders' point of view

CONCLUSION: RADIOLOGISTS

5 Key issues for establishing and maintaining RPCM	Comments
1 **Leadership commitment** (top down)	professional organizations department chair/hospital director
2 Make **RP an integral part of everyday professional life** (bottom up)	RP during work, not interrupting workflow (internal clinical audit)
3 **Cooperation among all actors**: in depart-ment, referrers, regulators, industry	Team approach: Radiologists – Radio-graphers – Medical Physicists
4 **Tailor** RP duties and **responsibilities** to the **needs of the profession/function**	people get interested and prowd
5 **Communicate** within department, with other professionals, and with patients	justification (benefit-risk assessm.), opti-mization, education+training transparentbenefit