EC Tender project contract N° ENER/2022/NUCL/SI2.880751

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Welcome to the MARLIN project workshop!

September 5 & 6, Brussels

EC Tender project contract N° ENER/2022/NUCL/SI2.880751

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Session 1: Opening and Background

Carlos Prieto Martín

MARLIN Project Workshop
September 5 & 6, Brussels

"That's here. That's Home. That's us."

Workshop house rules

Moderators will officiate discussion at the end of each session, recognising onsite audience and reading questions from the online audience

Microphones are provided in the aisles so audience members can ask questions

Online audience may submit questions and comments to the speakers via the Q&A function

- Speakers will try to answer all questions/comments during the webinar or will answer in writing afterwards

Wifi: BluePoint Visitor network (open)

This project has received funding from the European Commission under Service Contract N°ENER/2022/NUCL/SI2.880751

Day 1 programme

13:00–14:40	**Session 1: Opening and Background**
	➢ Introduction and overview ➢ Underlying issues ➢ Perspectives of European, international and patient organisations
14:40–15:10	Coffee break
15:10–17:25	**Session 2: Status of Implementation of BSSD Requirements on ILSs**
15:10–16:30	➢ Survey methodology and results of questionnaires and expert interviews ➢ Member State reports and good practices — France, Germany, Belgium
16:30–17:15	➢ Discussion
17:15–17:30	➢ Conclusions & recommendations ➢ Wrap-up of day 1

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Registration

117 total registrations

MARLIN study countries

EU-27, Norway, Switzerland

MARLIN consortium

France, Germany, Ireland, Israel, Portugal, Spain, Sweden, Türkiye, UK

Austria	3		**Lithuania**	1	
Belgium	14		**Luxembourg**	2	
Bulgaria	1		**Netherlands**	3	
Croatia	4		**Norway**	3	
Cyprus	1		**Poland**	3	
Czechia	5		**Portugal**	9	
Denmark	1		**Romania**	3	
Finland	3		**Slovakia**	1	
France	6		**Slovenia**	1	
Germany	4		**Spain**	5	
Greece	2		**Sweden**	4	
Hungary	1		**Switzerland**	4	
Ireland	8		**Non-EU**	23	Türkiye 4, UK 3, etc.
Italy	2		**No rep**		Estonia, Latvia, Malta

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SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Session 1: Opening and Background
The project and its rationale

Carlos Prieto Martín

MARLIN Project Workshop
September 5 & 6, Brussels

The project and its rationale

Aim: Support the implementation of Council Directive 2013/59/Euratom by:

1. Providing a comprehensive description of the current status of incident reporting and
2. Develop consensus guidelines on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine, and interventional and diagnostic radiology in Europe

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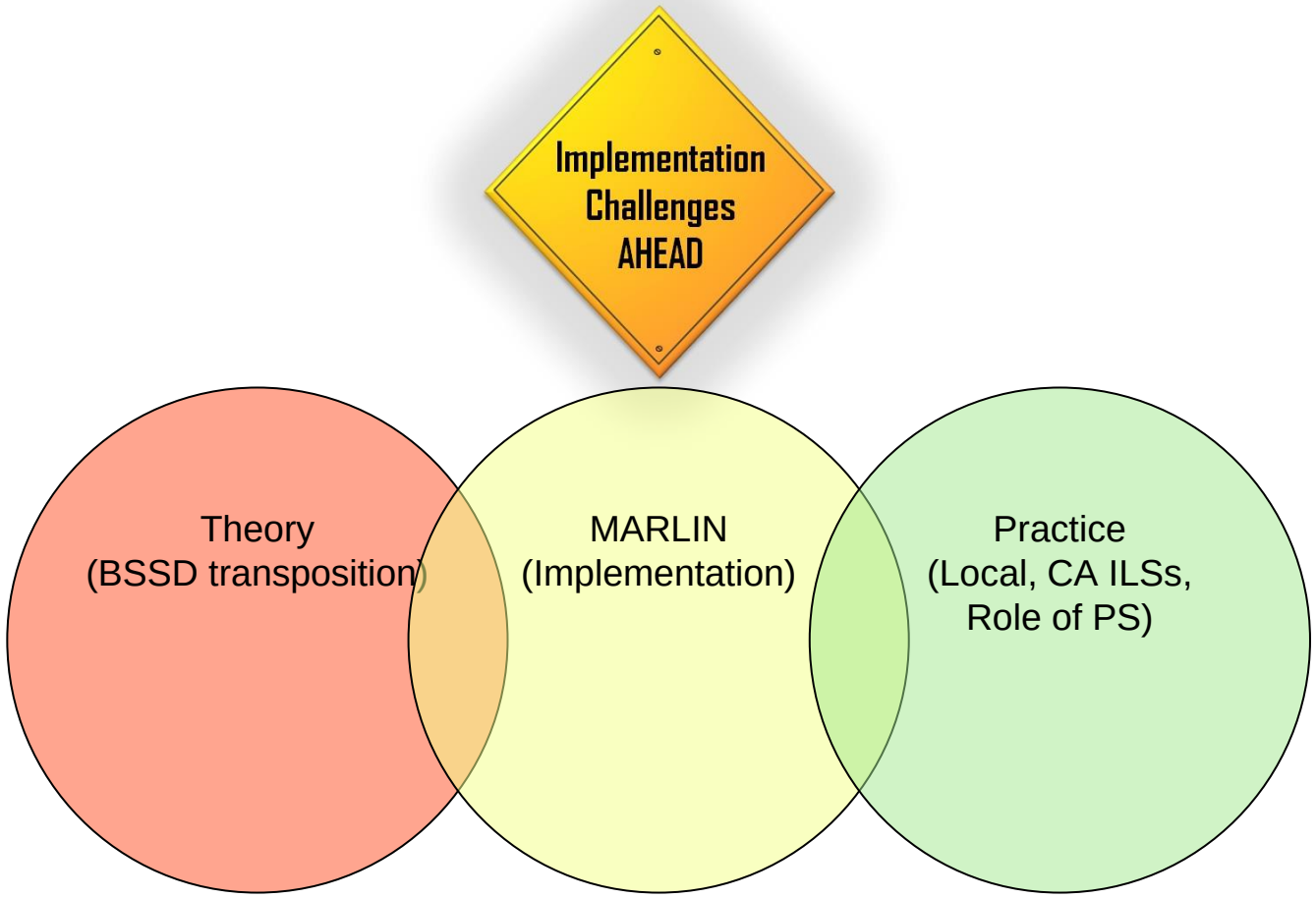
The project and its rationale

Implementation:



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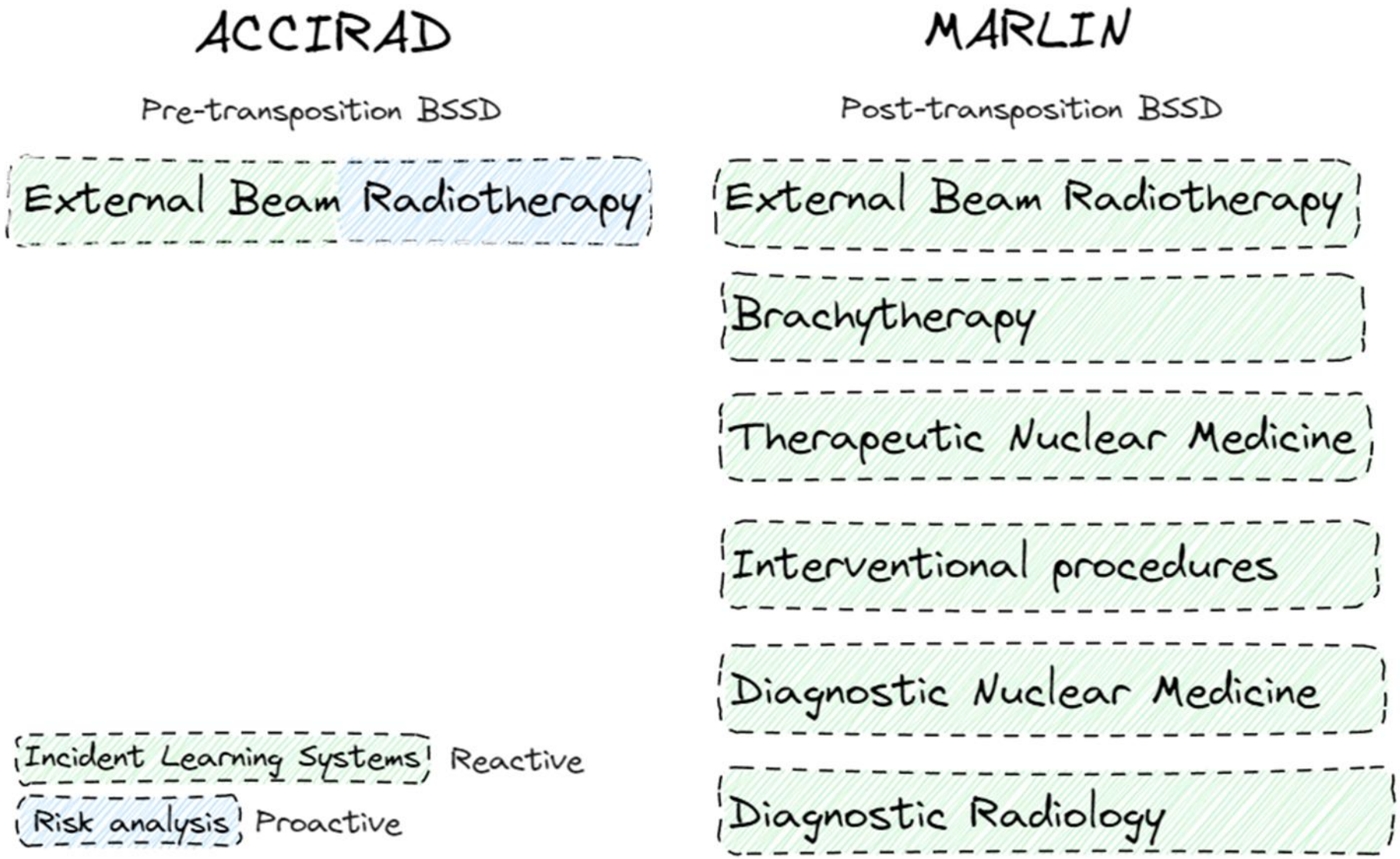
The project and its rationale



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The project and its rationale

Timespan: January 2023 – December 2024

Budget: €249,950

Consortium:

- EIBIR – European Institute for Biomedical Imaging Research as lead contractor
- ESTRO – European Society for Radiotherapy and Oncology
- EFOMP – European Federation of Organisations in Medical Physics

EUROPEAN INSTITUTE FOR BIOMEDICAL IMAGING RESEARCH

EFOMP

ESTRO European Society for RADIOTHERAPY & ONCOLOGY

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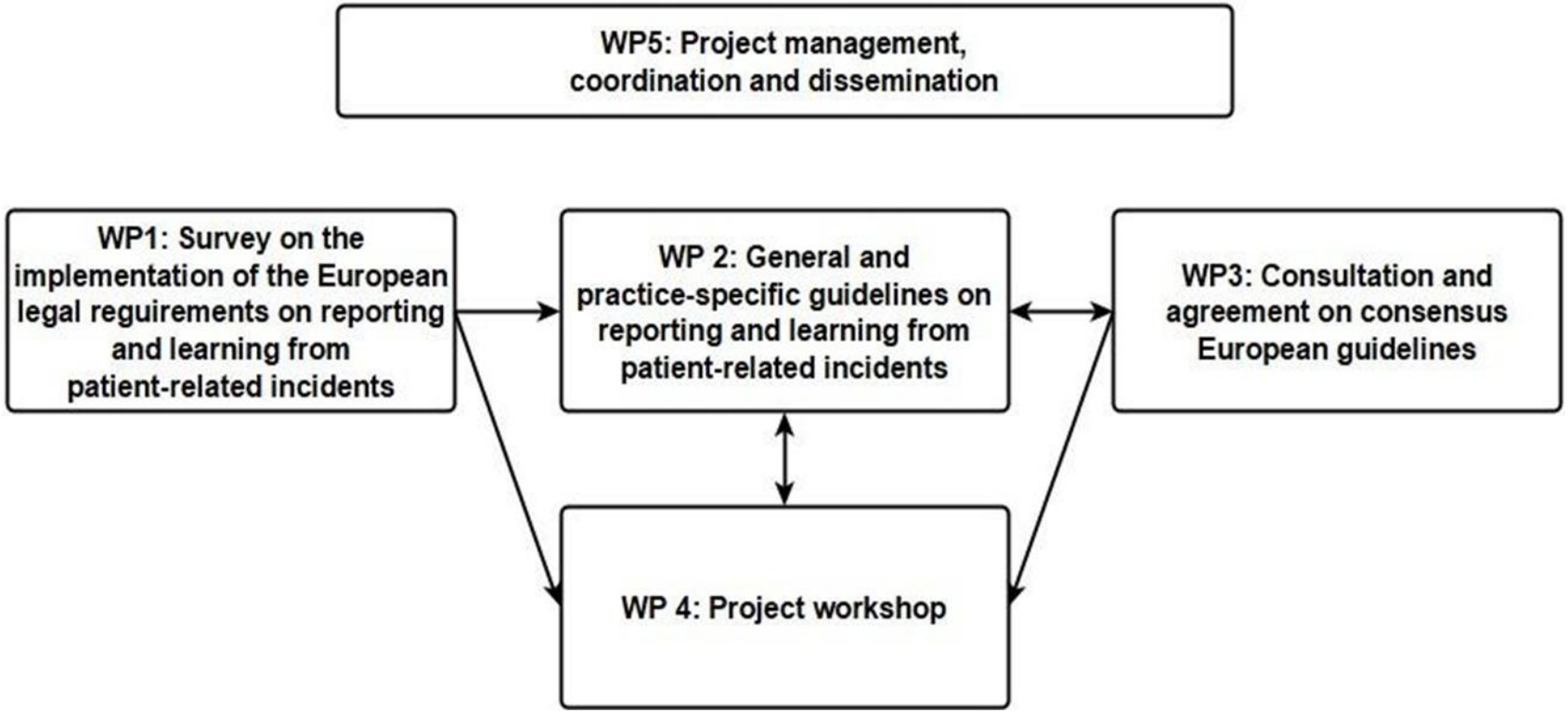
The project and its rationale

Work package structure and interrelations:



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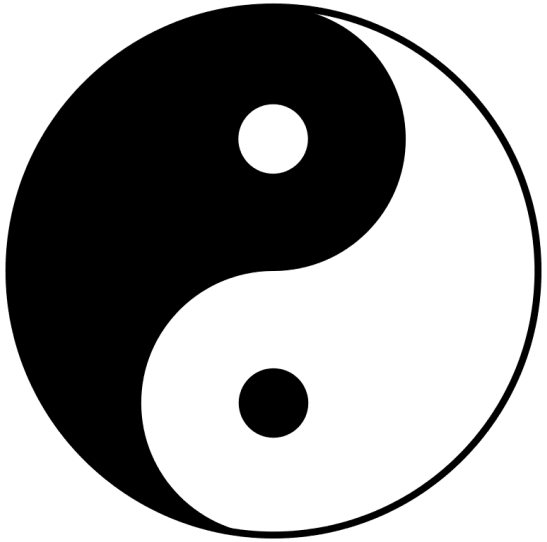
The project and its rationale

Event

- Individuals affected
- 2nd victims
- Institutions involved
- Public's confidence in healthcare systems



Learning opportunity

- ILS

"Successes are revised mistakes" James Clear

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Accident Reporting in the Context of SAMIRA and BSSD

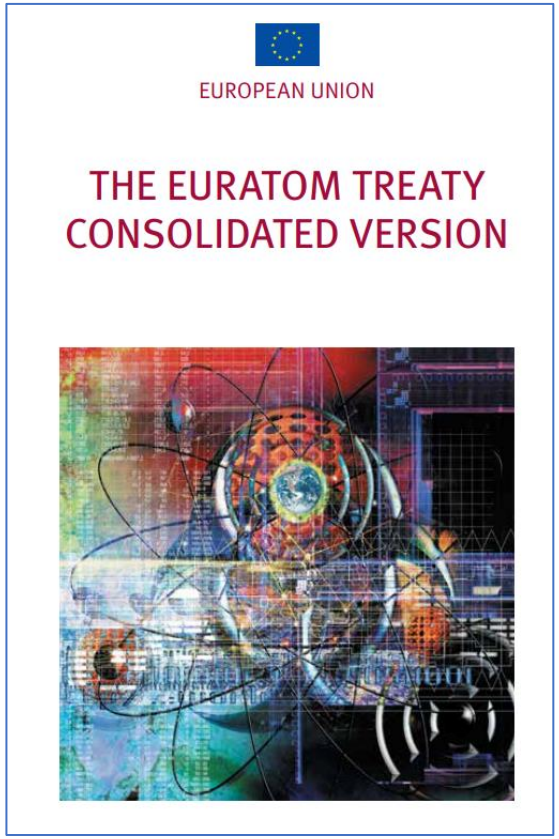
Filip Maksan, DG ENER

Introduction

Why are we here?

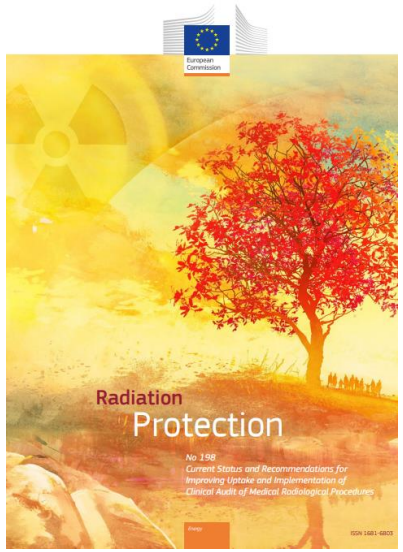
WHY: Euratom legal framework for radiation protection in medicine

#EUSamira
#EUCancerPlan



Chapter III Health and Safety

- **Basic Safety Standards Directive**
  2013/59/Euratom
- **Chapter VII, Medical Exposure**



- **EU Radiation Protection series**
  - **support Member States**
  - **studies, guidance, etc.**

Legal background of incident reporting

- Articles 63 and 96 of the BSSD
- Art. 63 requires measures to minimise risk and gravity of accidental exposures, and arrangements to record, notify, investigate and inform if an accident happened
- Art. 96 requires setup and maintenance of an appropriate system to record and analyse accidents, and notification to CA of a significant event, with result of investigation and proposed corrective measures

Previous work on accident prevention and reporting

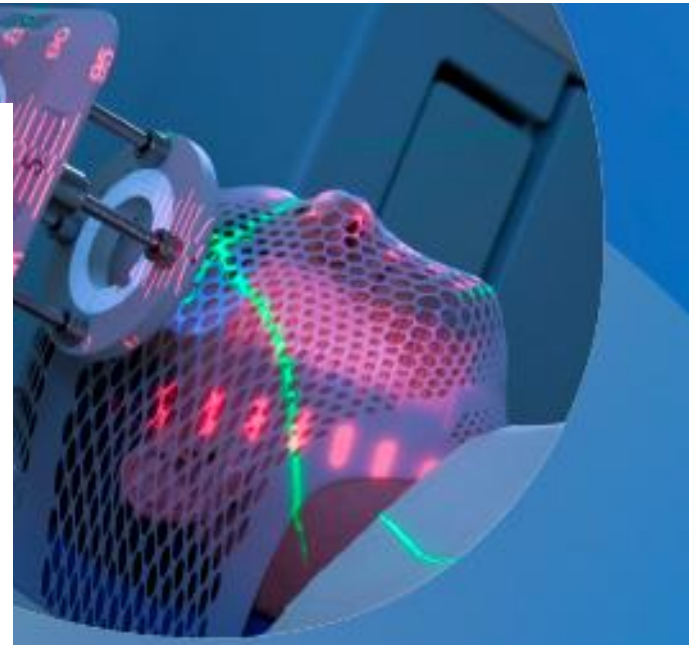
- Development of several accident reporting systems: SAFRON, and in external beam radiotherapy: (2015) - Support for MSs in ROSIS
- ACCIRAD project (ended 2014) -> RP 181 „General guidelines on risk management implementation of newly adopted BSSD”
- HERCA position paper (2017) „Accidental and unintended medical exposures“ – based on new requirement on MS to implement a regulatory system -> survey & multi-stakeholder workshop produced the PP, informing on matters as e.g. involvement of different stakeholders, and different approaches for dg./r.th. exposures…

Yes, but…

…. who is/are “we”?

*"This action plan will ensure that the EU continues to be the **global leader** in supplying **medical radioisotopes** and developing **radiological diagnostics and treatments,** while applying the **highest quality and safety standards**."*

*"The **SAMIRA Action Plan is our first deliverable under Europe's Beating Cancer Plan**, and it is an excellent example of collaboration between the energy, health and research communities."*



Security of supply of medical radioisotopes

- Launch of the European Radioisotope Valley Initiative (ERVI)
- Secure supply of source materials for production of radioisotopes
- Support to long-term sustainability of radioisotope production in Europe

Quality and safety of medical ionising radiation applications

- Launch of the European Initiative on Quality and Safety of medical applications
- Improvements to workforce availability, education and training
- Support for equal access to modern technology and interventions

Innovation and technological development

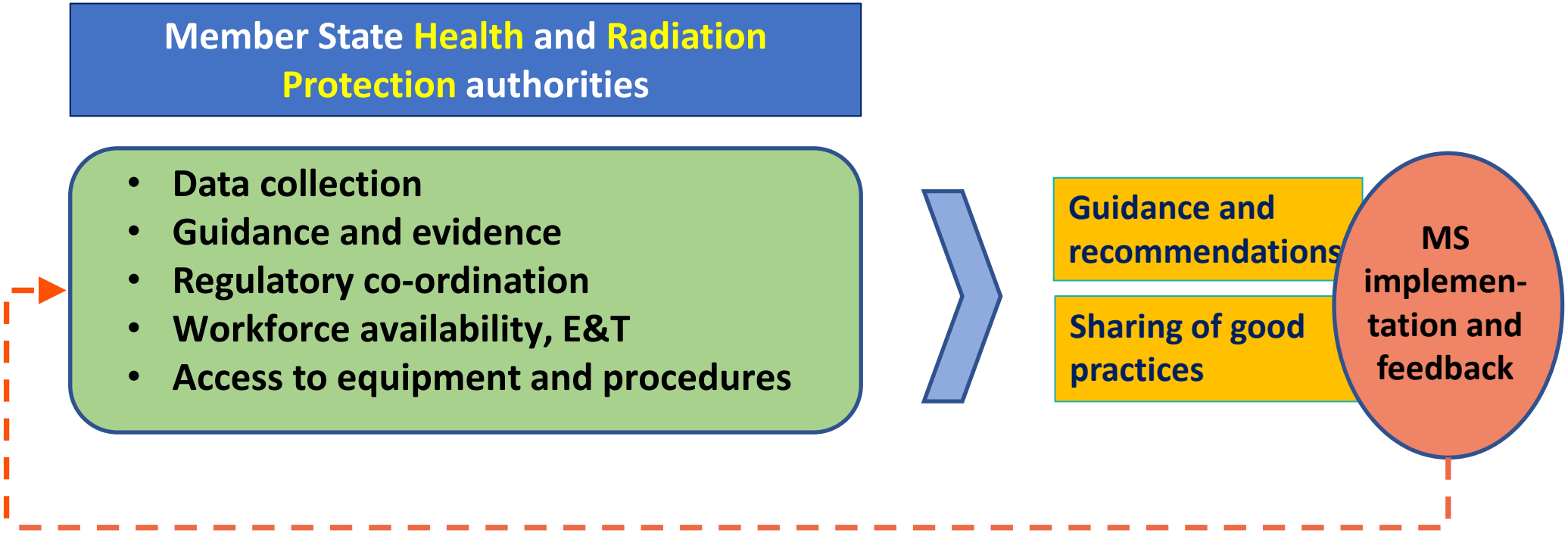
- Research roadmap for medical applications on ionising radiation technology
- Joint Health Technology Assessment of technologies and interventions involving ionising radiation

#EUSamira
#EUCancerPlan

European Commission

#EUSamira
#EUCancerPlan

Steering Group on Quality and Safety (SGQS) of medical applications



SAMIRA activities on quality and safety in 2024

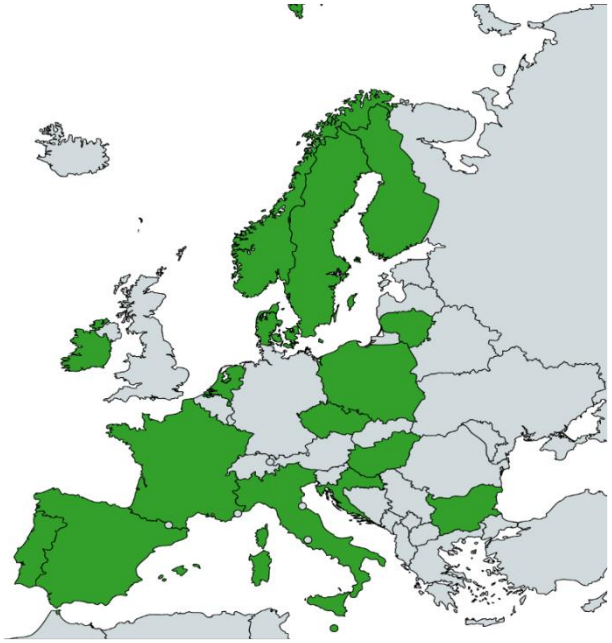
#EUSamira
#EUCancerPlan

SGQS:

- **draws conclusions from studies and activities**
- **supports implementation of recommendations in MS**

Activities ending 2024

- **SIMPLERAD** study
- **EU-JUST-CT** study
- **BSSD Equipment** study



Key activities planned/started 2024

- **Q&S KPIs** study
- **Medical devices** study
- **Acceptability criteria** study
- **DRL** Workshop -> PP

- **SAMIRA preparatory Joint Action** (direct grants to Member States)
- **Clinical audit campaigns** to improve quality and safety of medical radiation applications
- Radiation safety and quality of **CT of children, adolescents and young adults**

SAMIRA activities relevant in the context of accident reporting

- Medical equipment:
  - BSSD Equipment study on patient radiation dose monitoring (RP publication soon!)
  - MedDev study – interplay between BSSD and MDR
  - Update of acceptability criteria (RP 162)
- Clinical audit
  - Commission Recommendation 2024/1112/Euratom
  - EU JUST CT (RP publication soon!)
  - Clinical audit campaigns

- Education and training
  - INTERACT-EUROPE: inter-specialty cancer care training
  - EU-REST: current state of workforce, projection, recommendations (final review)
- Overarching: SAMIRA Preparatory Joint Action (PRISMA)
  - to support MS in implementation of SAMIRA output
  - Followed by full Joint Action, from 2026

Questions?

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georgi.simeonov@ec.europa.eu
filip.maksan@ec.europa.eu

Thank you

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SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Session 1: Opening and Background
Underlying issues

Carlos Prieto Martín

MARLIN Project Workshop
September 5 & 6, Brussels

Underlying issues

- **How to minimise the frequency and harm caused by accidental or non-intended exposures to patients**
- **How to comply with the provisions of the BSSD**
- **How many types of ILSs are there?**
- **How can these ILSs be organised and structured?**
- **Is it different in different countries?**
- **Is it different in different medical fields?**
- **How to define significant events?**
- **How can lessons learned be disseminated?**
- **How to improve safety culture?**

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Underlying issues

- **How to minimise the frequency and harm caused by accidental or non-intended exposures to patients**
- **How to comply with the provisions of the BSSD**

COUNCIL DIRECTIVE 2013/59/EURATOM

- ILS

  MARLIN

  All areas

- Proactive risk assessment

  ACCIRAD

Only EBRT (both ILS and PRA)

- Clinical Audit
- Equipment control
- Dose monitoring
- Education, Staffing, Training
- ….

NUC ADVISOR EFOMP EU-REST EURAMED ROCC-N-ROLL Simplerad

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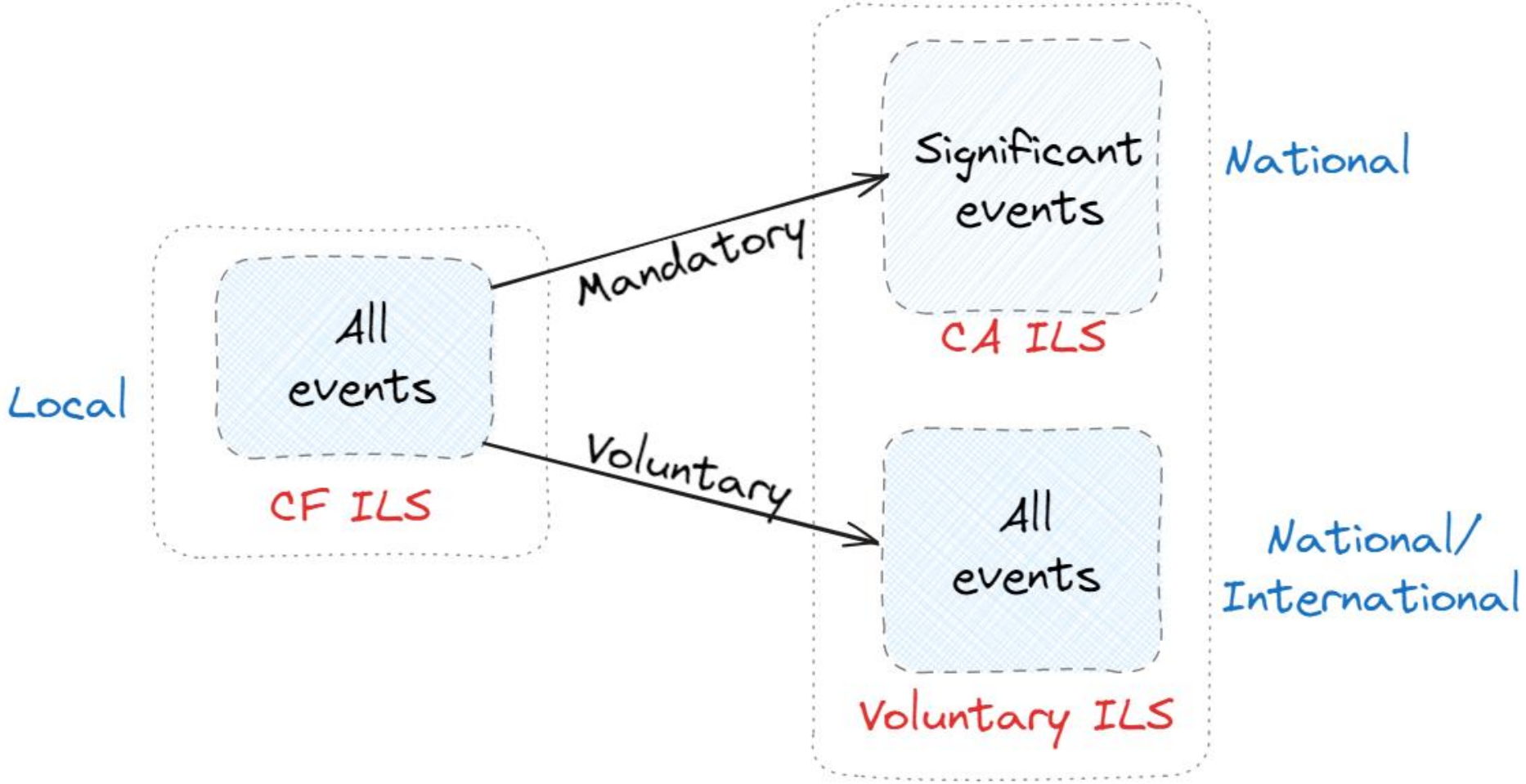
Underlying issues

- **How many types of ILSs are there?**



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Underlying issues

- **How many types of ILSs are there?**

❑ Department ❑ Clinical Facility ❑ National ❑ International
❑ Voluntary ❑ Mandatory
❑ Specific ❑ Generic
❑ Confidential ❑ Anonimous
❑ Restricted access ❑ Open
❑ All events ❑ Radiation only ❑ Significant events ❑ ...

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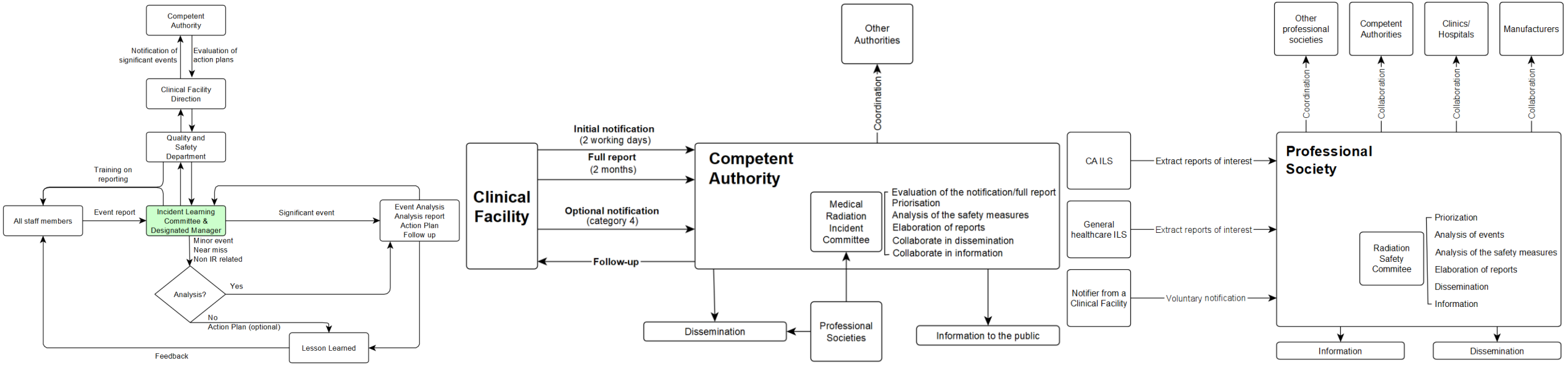
Underlying issues

- **How can these ILSs be organised and structured?**



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Underlying issues

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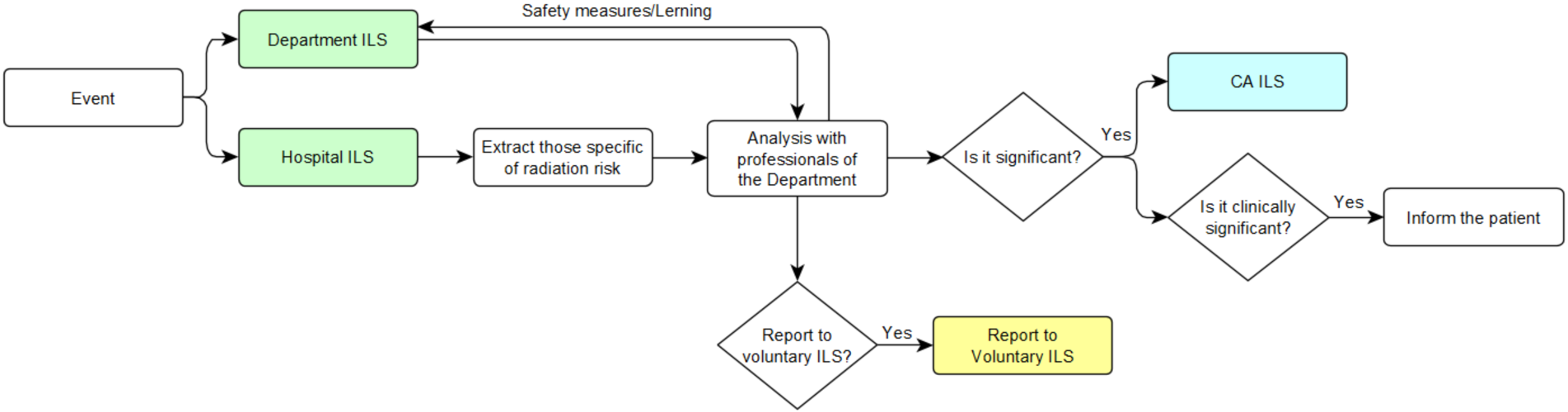

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Underlying issues

- **How can these ILSs be organised and structured?**

Departments/Hospital

- Any event with real/potential consequences
- Internal analysis
- Implementation of safety measures
- Internal learning
- Direct and 2nd victims

Competent Authority

- Significant events
- Administrative follow up
- Dissemination of lessons learned

Professional Societies

- Role not mandatory
- Standardisation (guidelines, training)
- Dissemination of lessons learned

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Underlying issues

- **Is it different in different countries?**

Yes (results of the survey, interviews and literature review):

- Different safety culture
- Different experience
- Different resources
- Different structures, organisations and regulations

How to implement and harmonise the highest safety standards in Europe, while allowing for regional variations?

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Underlying issues

- **Is it different in different medical fields?**

Yes:

- In many areas the risk of radiation is not dominant
- The experience in the use of ILSs is different
- … And differences in different CFs and departments

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Underlying issues

- **How to define significant events?**

- Different definitions of “significant events” in different countries
- “Significant” for a patient (clinically significant) or for the safety of the patients (potentially clinically significant)

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Underlying issues

- **How can lessons learned be disseminated?**
- **How to improve safety culture?**
- **…**

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The project and its rationale

Conclusions:

- The use of ILSs contributes to improving safety and building a safety culture
- The BSSD sets the framework, but there are barriers to the implementation
- The MARLIN project aims to uncover these barriers and establish a consensus guidelines to facilitate the effective use of ILSs in Europe

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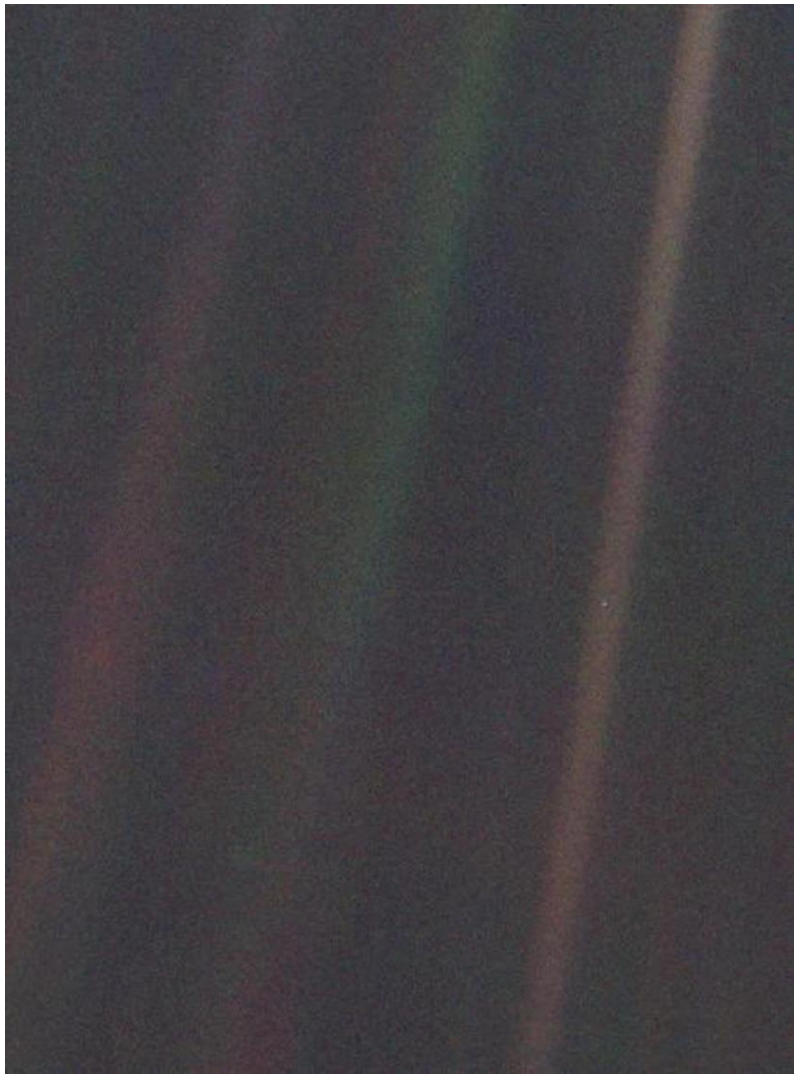

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The HERCA Perspective

Agnella Craig,
Health Information and Quality Authority, (HIQA)
Ireland

MARLIN Project Workshop
September 5 & 6, Brussels

Introduction

- HERCA, the **H**eads of **E**uropean **R**adiological protection **C**ompetent **A**uthorities, is a voluntary association founded in 2007.
- The goal of HERCA is to contribute to a high level of radiation protection throughout Europe
- The heads of the radiation protection authorities work together in order to identify and discuss common interests in significant regulatory issues

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Introduction

Brings together 56 competent authorities from 32 European countries

32 countries (EU MS + IS, NO, CH, RS)
56 organisations

Observers
EC, IAEA, OECD/NEA, WHO, US FDA

Chairmanship
Jean-Luc Lachaume (ASN, France)

Vice-chair
Pilar Lucio Carrasco (CSN, Spain)

HERCA
HEADS OF THE EUROPEAN RADIOLOGICAL PROTECTION COMPETENT AUTHORITIES

This project has received funding from the European Commission under Service Contract N°ENER/2022/NUCL/SI2.880751

HERCA - Goal

The goal of HERCA is to contribute to a high level of radiation protection throughout Europe by:

- building and maintaining comprehensive European network of chief radiation safety regulators in Europe
- promoting exchange of ideas and experience and learning from each other's best practices
- discussing and where appropriate, expressing its consensus opinion on significant radiological protection and regulatory issues
- developing, by consensus whenever possible, a common approach to radiological protection issues
- having an impact on the practice of radiological protection, within the states of HERCA members, through the voluntary implementation of outcomes from HERCA work

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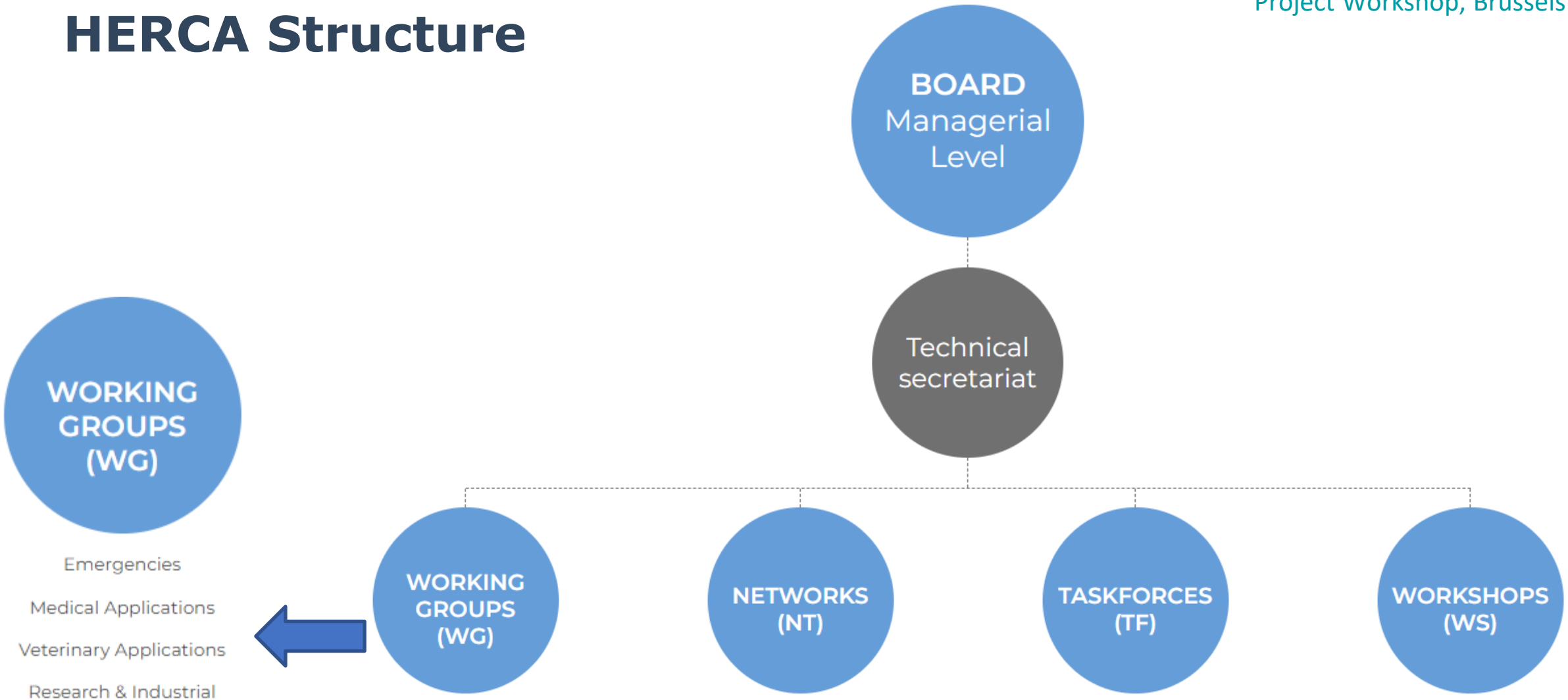
HERCA
HEADS OF THE EUROPEAN RADIOLOGICAL PROTECTION COMPETENT AUTHORITIES

HERCA Structure



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HERCA
HEADS OF THE EUROPEAN RADIOLOGICAL PROTECTION COMPETENT AUTHORITIES

Working Group on Medical Applications

- Emergencies
- **Medical Applications**
- Veterinary Applications
- Research & Industrial Sources & Practices
- Education & Training
- Natural Radiation Sources

Current mandate and action plan (2022-2025)

The HERCA WG on Medical Applications is interested in all radiation protection issues concerning medical applications of ionising radiation for diagnosis, therapy and research purposes

This includes medical exposures (patient, carers and comforters, biomedical research), occupational exposure and public exposures

The focus of the WG MA is on developing **common understanding and approaches**, where possible, regarding the implementation of radiation protection regulations in Europe, including those related to new medical applications and requirements

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Working Group on Medical Applications

Mission:

- Enhance common understanding and approaches, where possible, regarding the implementation of the radiation protection regulations on medical applications, focusing on justification and optimisation

- Engage in stakeholder involvement on radiation protection issues

- Give advice on radiation protection issues in medical practice

Chair: Katrien Van Slambrouck (BE)
Co-chair: Nicolas Stritt (CH)
Observers: EC, IAEA, WHO, FDA

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HERCA
HEADS OF THE EUROPEAN RADIOLOGICAL PROTECTION COMPETENT AUTHORITIES

Working Group on Medical Applications

Main areas of interest

- Inspection skills
- Nuclear medicine
- Clinical audit
- Radiation therapy
- Justification
- Optimization of imaging
- Interventional radiology
- Involvement of medical physics experts
- **Accidental and unintended exposures**

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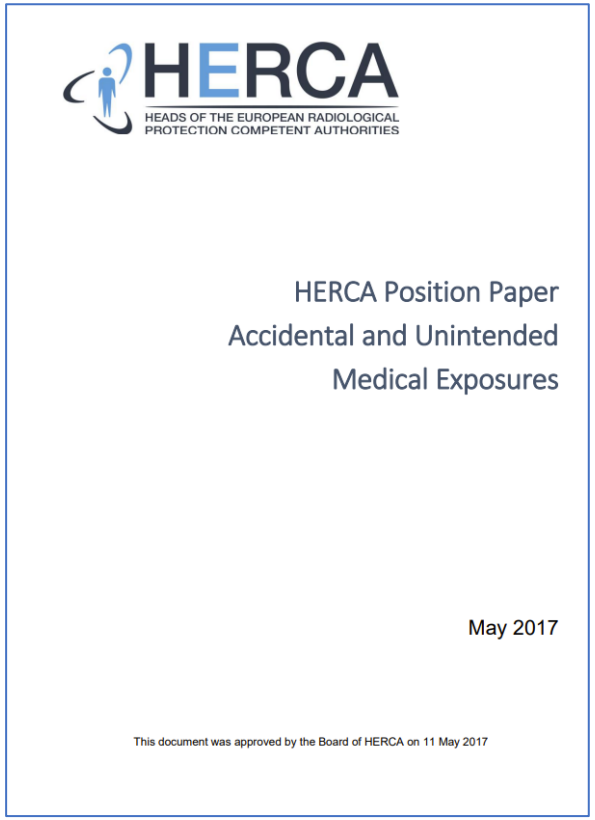
Working Group on Medical Applications

Major achievements include:

- Clinical audit
- CT manufacturers involvement
- Equipment (DAP-units, manufacturers info for risk assessment in RT)
- Proton therapy
- Generic Justification
- Individual justification
- **Accidental and unintended exposures**



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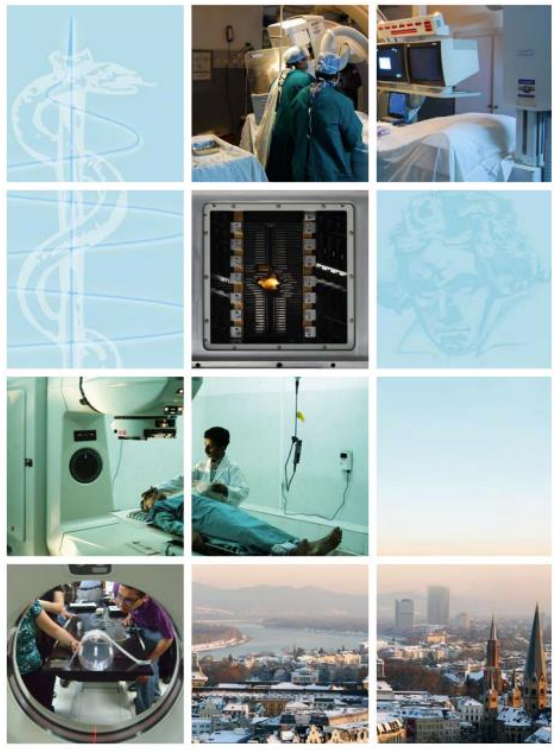
Background

Lack of a standardised approach to reporting accidental and unintended exposures is a long standing issue



BONN CALL FOR ACTION
10 Actions to Improve Radiation Protection
in Medicine in the Next Decade

Improve prevention of medical radiation incidents and accidents

- Implement and support voluntary educational safety reporting systems for the purpose of learning from the return of experience of safety related events in medical uses of radiation;
- Harmonize taxonomy in relation to medical radiation incidents and accidents, as well as related communication tools such as severity scales, and consider harmonization with safety taxonomy in other medical areas;
- Work towards inclusion of all modalities of medical usage of ionizing radiation in voluntary safety reporting, with an emphasis on brachytherapy, interventional radiology, and therapeutic nuclear medicine in addition to external beam radiotherapy;
- Implement prospective risk analysis methods to enhance safety in clinical practice;
- Ensure prioritization of independent verification of safety at critical steps, as an essential component of safety measures in medical uses of radiation.

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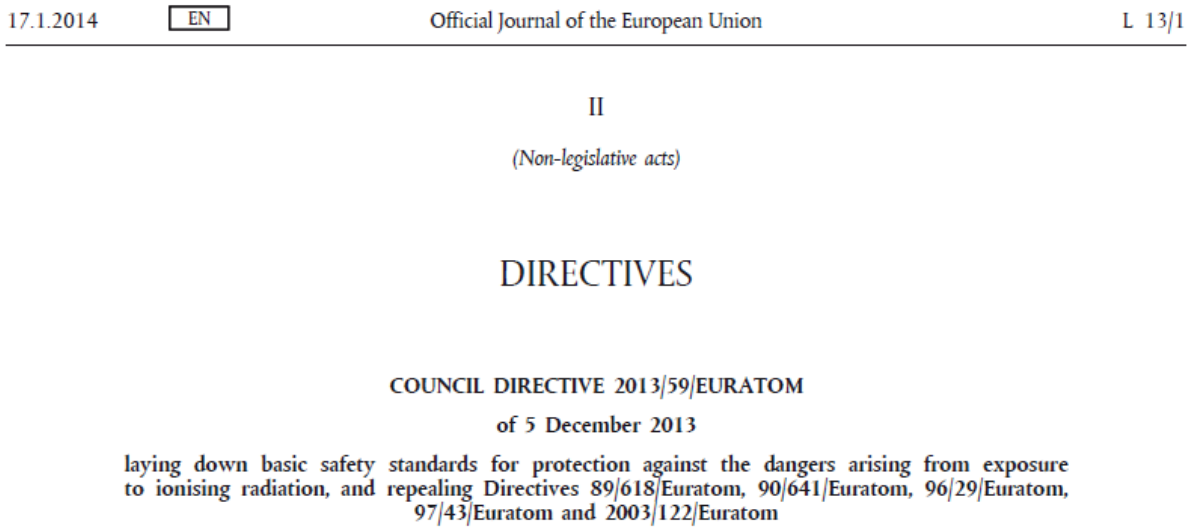
Background



17.1.2014 EN Official Journal of the European Union L 13/1

II

(Non-legislative acts)

DIRECTIVES

COUNCIL DIRECTIVE 2013/59/EURATOM

of 5 December 2013

laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom

Article 63 and 96 include the responsibilities placed on facilities:

- To ensure that reasonable measures are in place to minimize the probability and magnitude of accidental or unintended medical exposures,

- To have systems in place for:
  - the analysis of events involving or potentially involving accidental or unintended medical exposures
  - for informing the referrer, practitioner and patient, or their representative, of clinically significant accidental or unintended exposures
  - reporting the occurrence of significant events and their subsequent investigation and corrective measures to the competent authority

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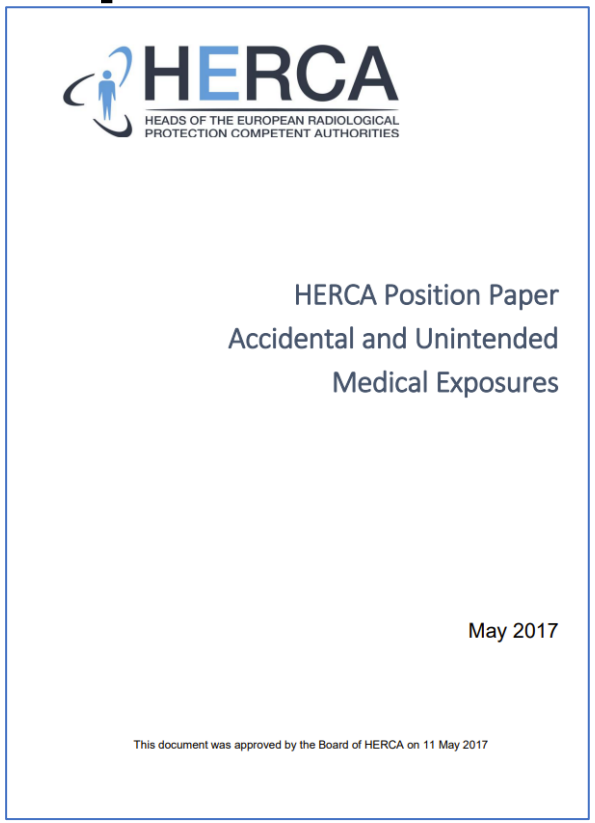
HERCA Position paper – 2017

HERCA, through the WGMA, conducted a series of surveys between 2012-2015 and a multi-stakeholder workshop (Oct 2016) to discuss the requirements of the BSSD

Position Paper on **"Accidental and Unintended Medical Exposures"**

Key findings in 2017 included:

- Practices of the European competent authorities differed but common factors highlighted for consideration by Member States
- Different approaches are required for events involving diagnostic and radiotherapeutic exposures
- No single reporting approach will be possible for the whole of Europe



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HERCA Position paper – 2017

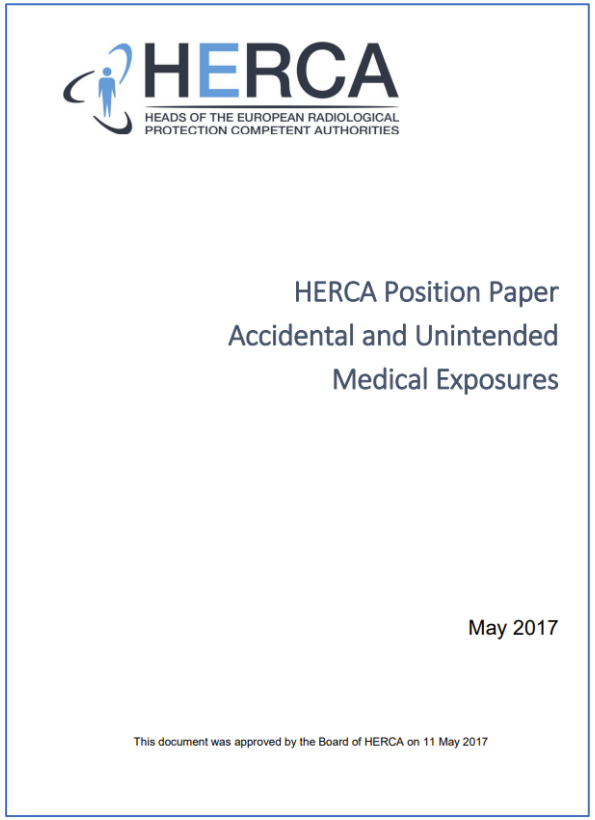
7 key messages:

1. Article 63(e) places the responsibility for defining significant events on the competent authority. HERCA is of the view that it is unlikely that a single descriptive European approach will be possible, particularly in relation to the definition of significant events and reporting levels to competent authorities.

2. Regarding "clinically significant:"

   HERCA is of the view that its definition is not the responsibility of the radiation protection authority and would support that this is based on foundations provided by a body or bodies with clinical expertise or is based on guidance provided by medical societies.

3. HERCA encourages the competent authority to establish a reporting system commensurate to the radiation risk and its available resources.



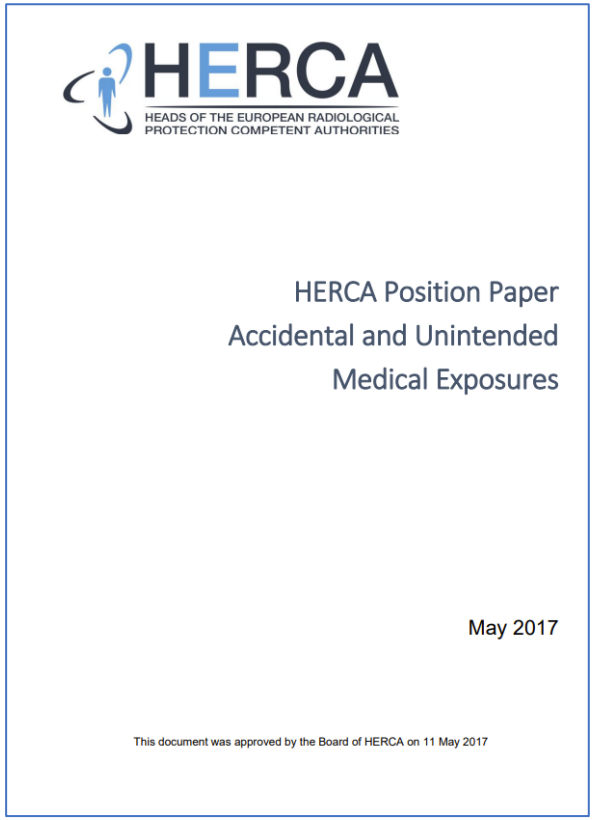
This project has received funding from the European Commission under Service Contract N°ENER/2022/NUCL/SI2.880751

HERCA Position paper – 2017

Key messages:

4. Regarding underexposures:

   - In radiotherapy, HERCA believes the BSSD requirements for reporting accidental and unintended exposures to the competent authority should be interpreted to include underexposures
   - In diagnostic specialties, HERCA does not advocate that individual events related to exposures less than intended should be defined as significant by the competent authority



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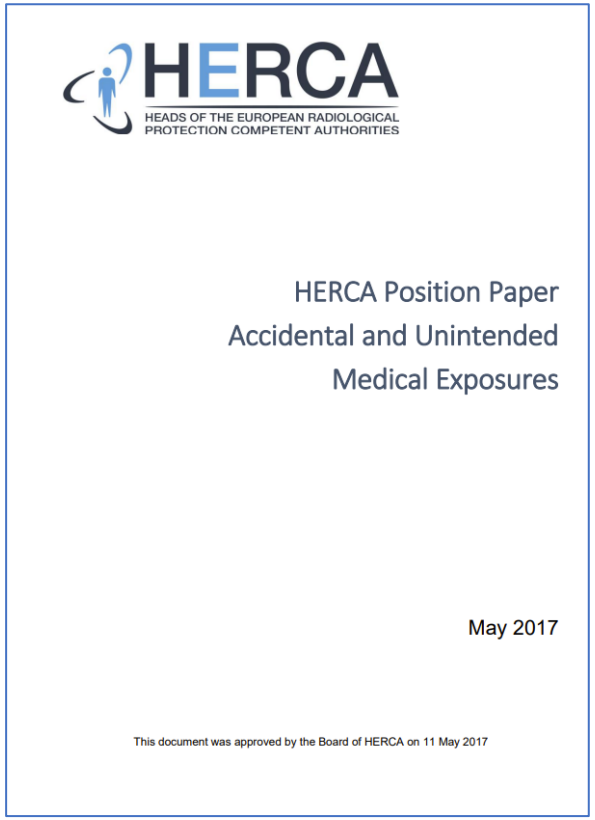
HERCA Position paper – 2017

Key messages:

5. HERCA believes that dissemination of information regarding lessons learned from:
   - reported significant events might best be undertaken by the competent authority, to whom such events are reported
   - other events, such as near misses, should be run through national initiatives by the professional bodies themselves or by bodies other than the competent authority
6. HERCA believes that this information regarding lessons learned will be helpful to undertakings when reviewing their procedures, risk analyses and quality assurance programs



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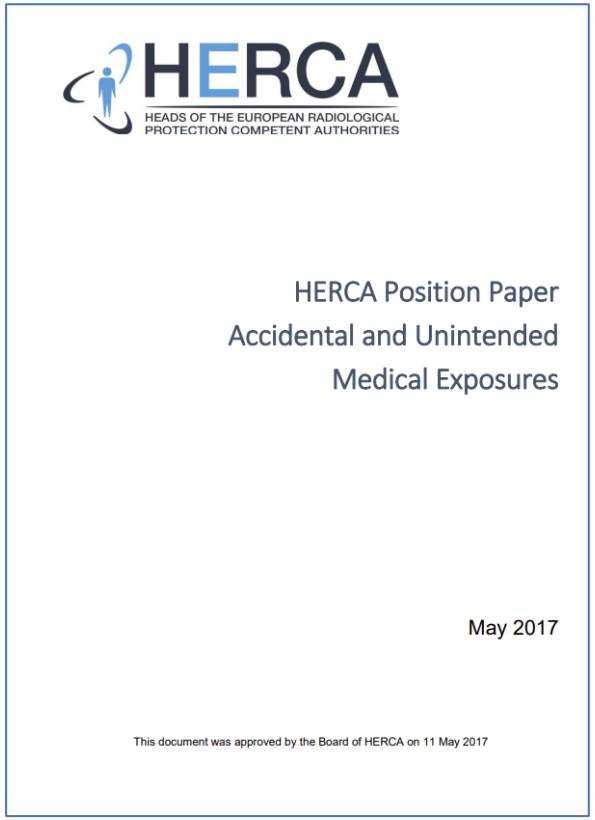
HERCA Position paper – 2017

Key messages:

7. HERCA is of the view that in cases where deliberate actions or gross negligence have contributed to significant events, then enforcement is appropriate, but in all other circumstances the emphasis should be on improved standards and patient safety and future compliance and a "no-blame culture" should prevail



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Considerations of the MARLIN guidelines

MARLIN project objectives	Comments
Collect and analyse up-to-date information on the implementation of Council Directive 2013/59/Euratom requirements for reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology	Identifies that progress that has been made in implementing the requirements of the BSSD across Member States since the surveys conducted by the HERCA group, however still shows varied approaches across different MSs, identifying importance of guidance such as this to support MSs

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Develop best-practice consensus guidelines on the implementation of the Directive in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology	The underlying principles in the guidelines largely aligns with the key messages identified by the HERCA WG MA. Adaption rather than adoption is a realistic solution in many countries due to transposition differences, CA structures and systems in place, other legislation, etc.

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Develop best-practice consensus guidelines on the implementation of the Directive in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology	The underlying principles in the guidelines largely aligns with the key messages identified by the HERCA WG MA. Adaption rather than adoption is a realistic solution in many countries due to transposition differences, CA structures and systems in place, other legislation, etc.
Discuss the results of the work with representatives of Member States and relevant stakeholders, with the view of stimulating further national and EU-wide efforts in this area	Drives the standardisation of reporting and learning from incidents and near misses across Member states while recognising that different countries have different prerequisites, resourcing and capacity for adopting these guidelines

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herca.org

Agnella Craig,
Health Information and Quality Authority (HIQA), Ireland
HERCA - WG MA Member

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EC Tender project contract N° ENER/2022/NUCL/SI2.880751

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Perspectives of European and International Organizations - IAEA

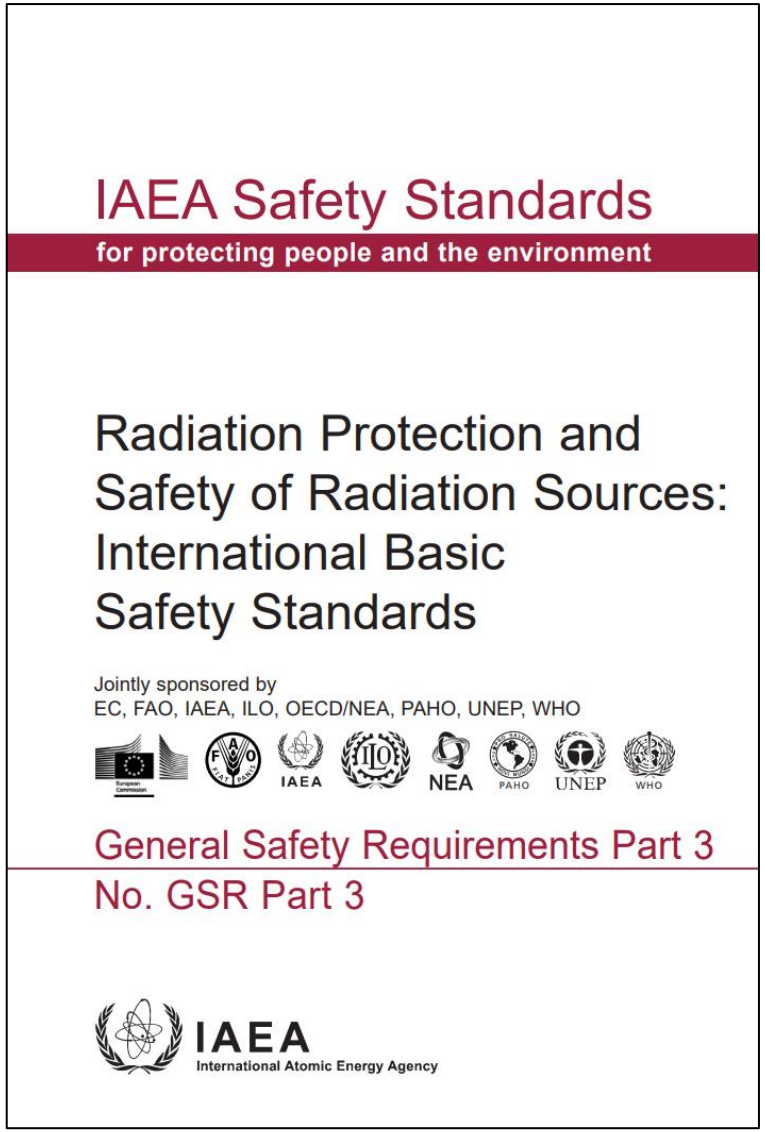
Ola Holmberg

MARLIN Project Workshop
September 5 & 6, Brussels

GSR Part 3 – International Basic Safety Standards

Requirement 41: Unintended and accidental medical exposures

"Registrants and licensees shall ensure that all practicable measures are taken to minimize the likelihood of unintended or accidental medical exposures"



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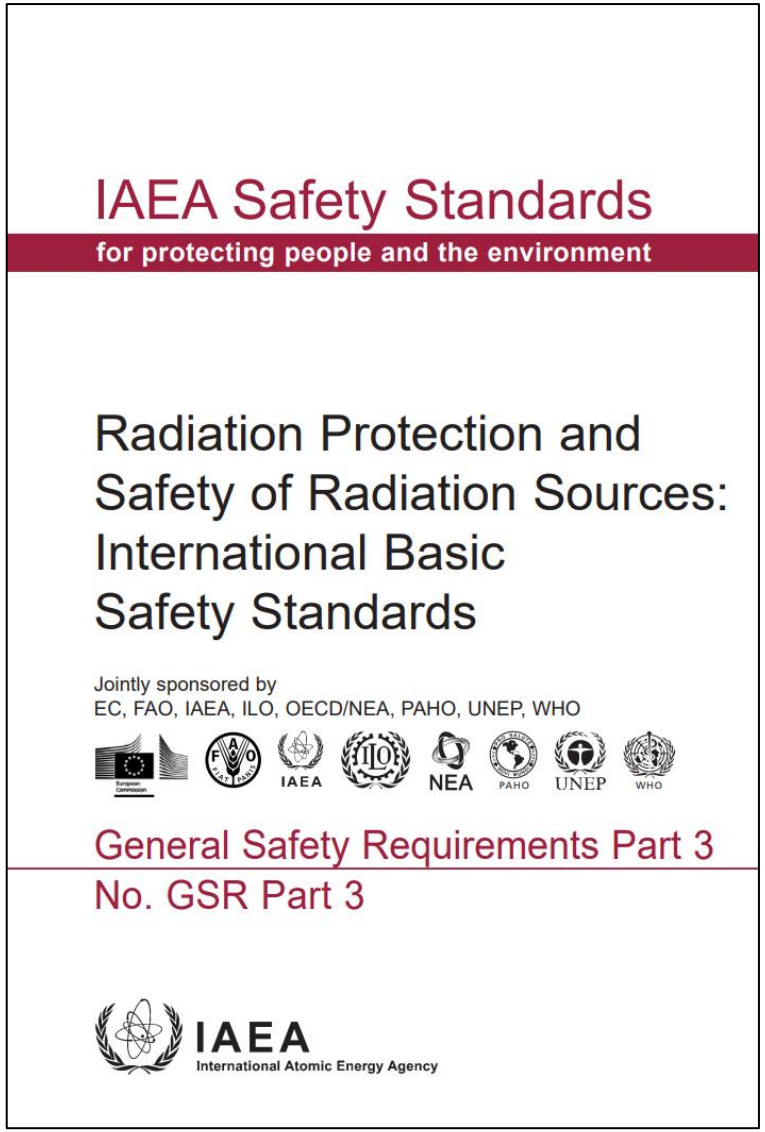
GSR Part 3 – International Basic Safety Standards

Requirement 3: Responsibilities of the regulatory body

"The regulatory body shall ensure that mechanisms are in place for the timely dissemination of information to relevant parties … on lessons learned for protection and safety … from incidents and accidents and the related findings. The mechanisms established shall, as appropriate, be used to provide relevant information to other relevant organizations at the national and international level"



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MARLIN study

Very useful study, for many interested parties, e.g.,

- Competent authorities – Criteria for notification (with survey of practice in different countries); coordination efforts
- Professional organizations – Role in collaboration with clinical facilities, competent authorities, manufacturers, and with other professional organizations
- Clinical facilities – How to report, analyse, and implement learning from incidents in a structured way
- Individual health professionals
- International organizations

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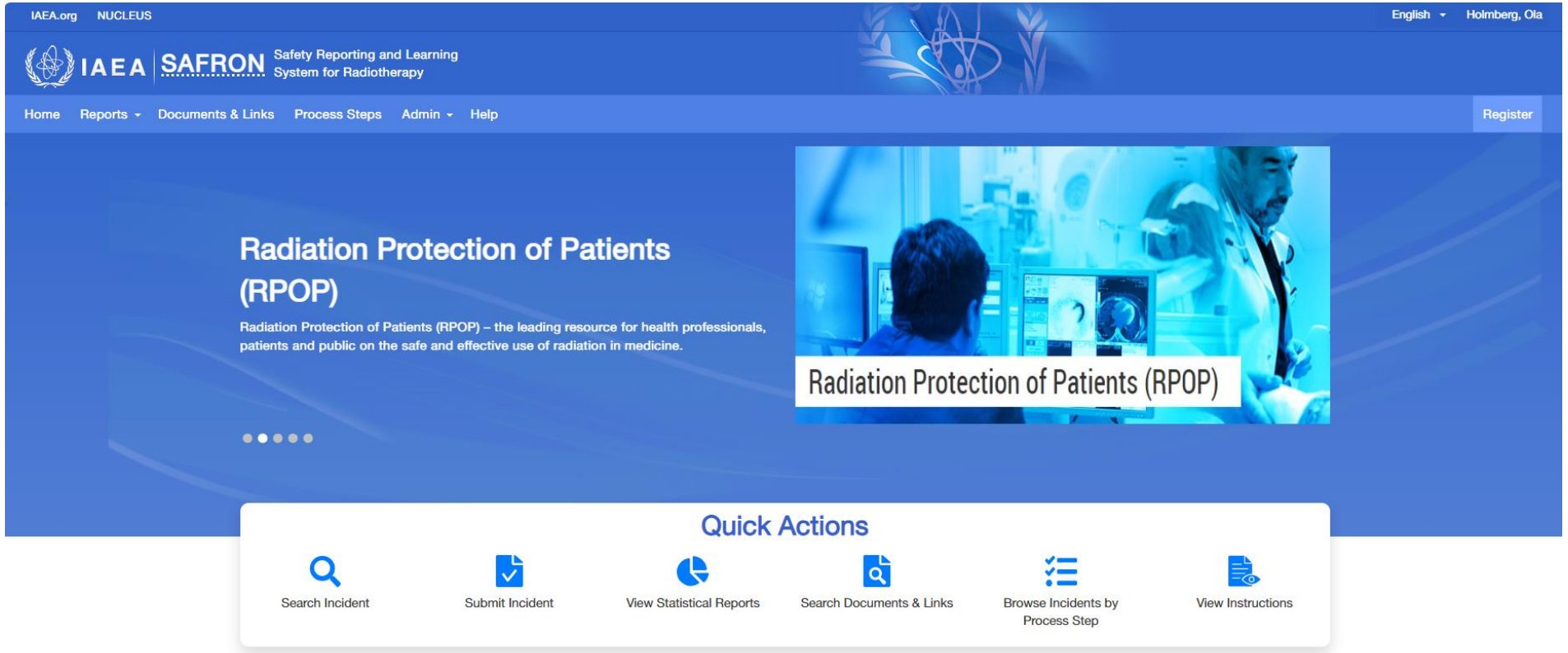
SAFRON

SAFRON (Safety in radiation oncology) incident learning system

Provided by the International Atomic Energy Agency (IAEA)



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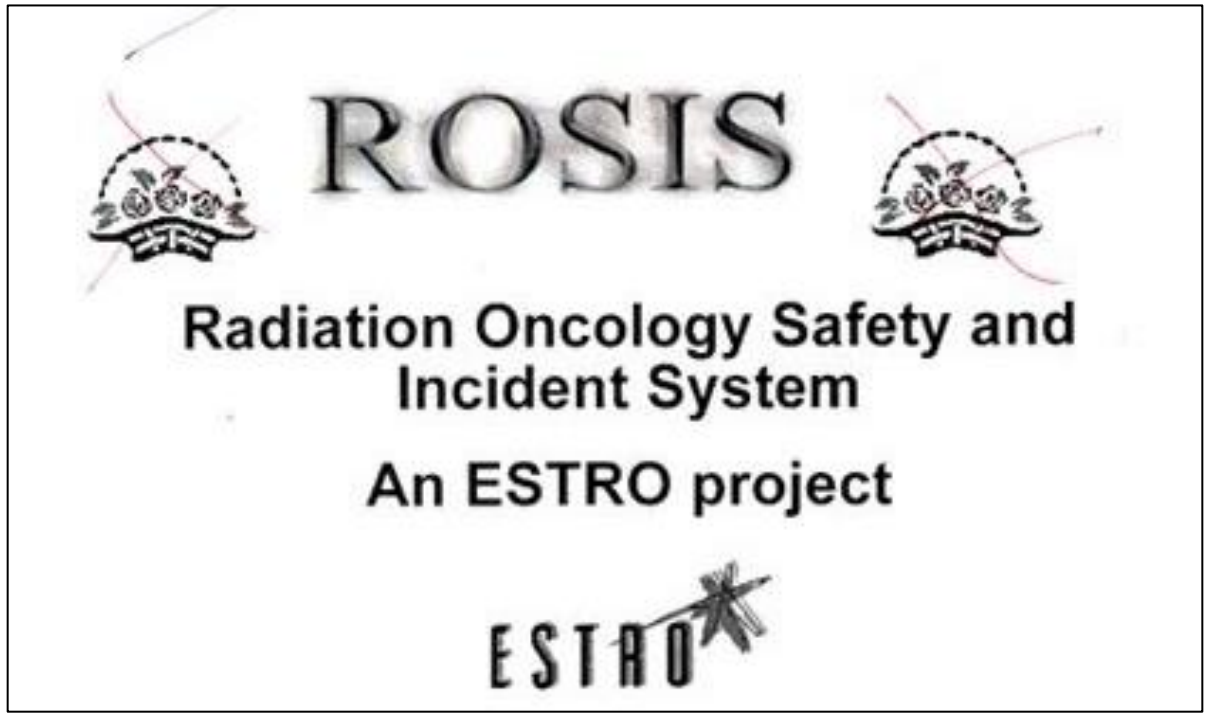
History, functionality and funding of SAFRON

SAFRON was released 12.12.12. (12 December 2012)

SAFRON originated in the old ROSIS (Radiation Oncology Safety Information System) where development of ROSIS started around 2001.



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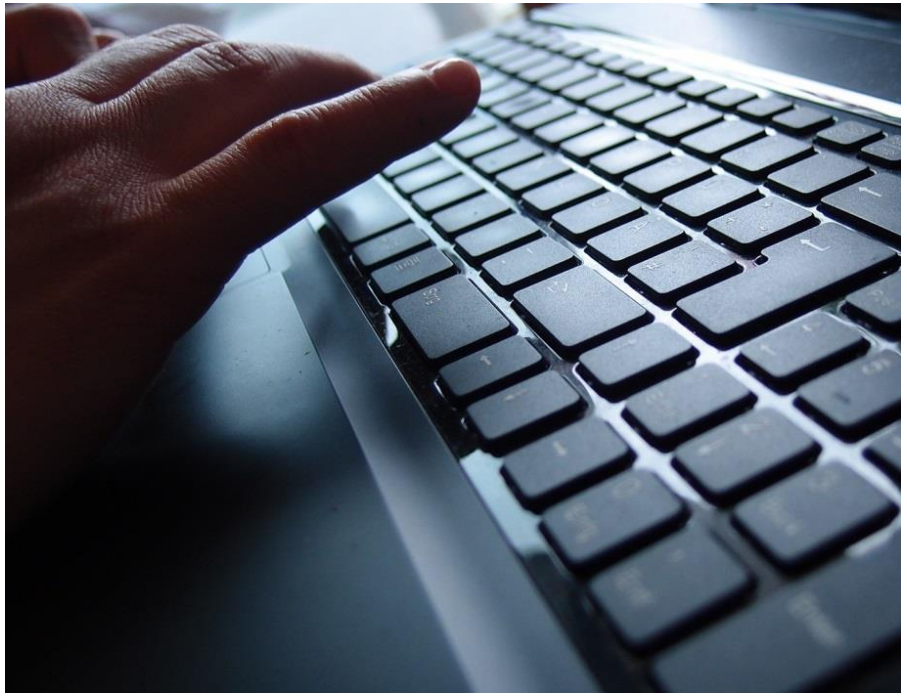
History, functionality and funding of SAFRON

SAFRON incident learning system:

- Is a non-punitive, anonymized, voluntary, educational and international system
- does not replace the national regulatory reporting requirements of an institution
- collaborates with other learning systems, and contains incident information gathered by the IAEA, ROSIS, CRCPD, ASN, Norway, Spain, and by registered participants



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History, functionality and funding of SAFRON

Support from the US (extrabudgetary resources) for development, maintenance and promotion of system

Regular IAEA staff resources for running of system

Training material

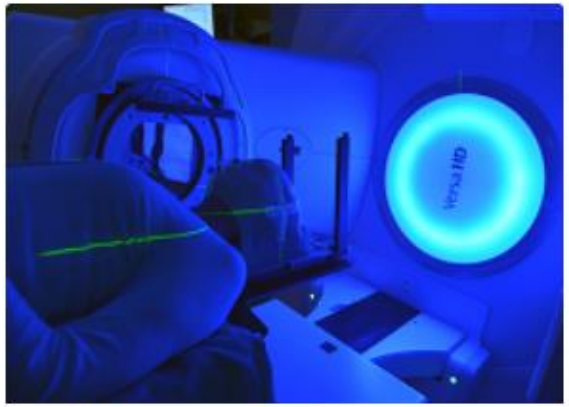
Radiotherapy: Prevention of accidental exposure (Available in English, Spanish and Russian)

Recorded Webinar

Radionuclide therapy events: What we can learn and what to do?

Resources

Safety in radiotherapy: Responsibilities of health professionals



Trifold

Delivering Safe Radiotherapy is in your Hands

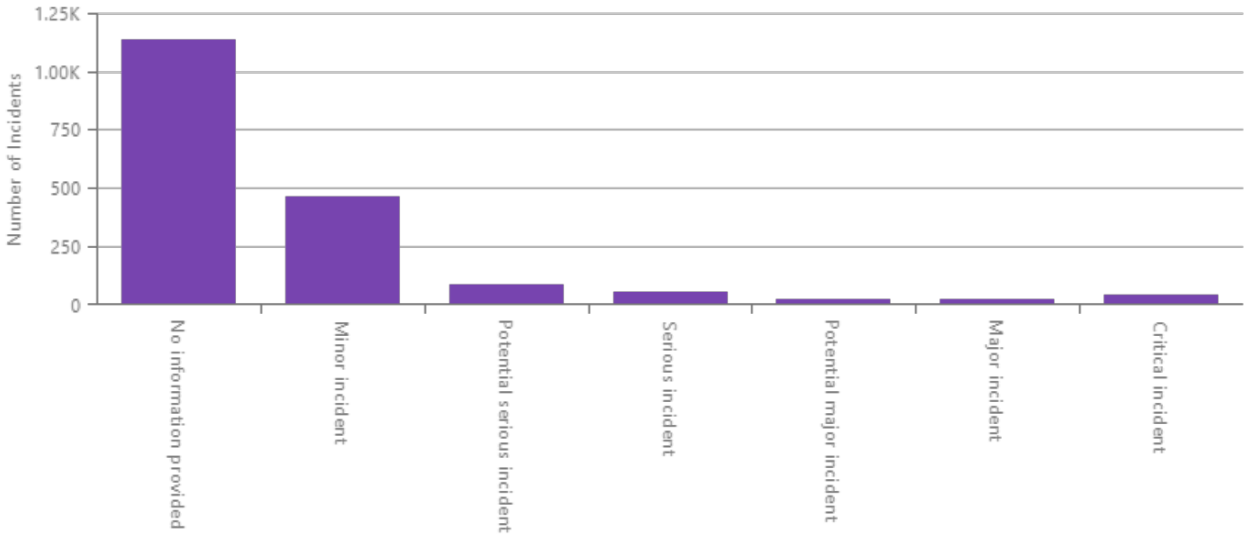
This project has received funding from the European Commission under Service Contract N°ENER/2022/NUCL/SI2.880751

Some statistics of SAFRON

Currently contains more than 1820 events, mainly in external beam radiotherapy, but also in brachytherapy and radionuclide therapy

Majority (>70%) of all reported incidents or near misses discovered by radiation therapists

Mainly near misses or minor incidents, but some serious, major or critical incidents



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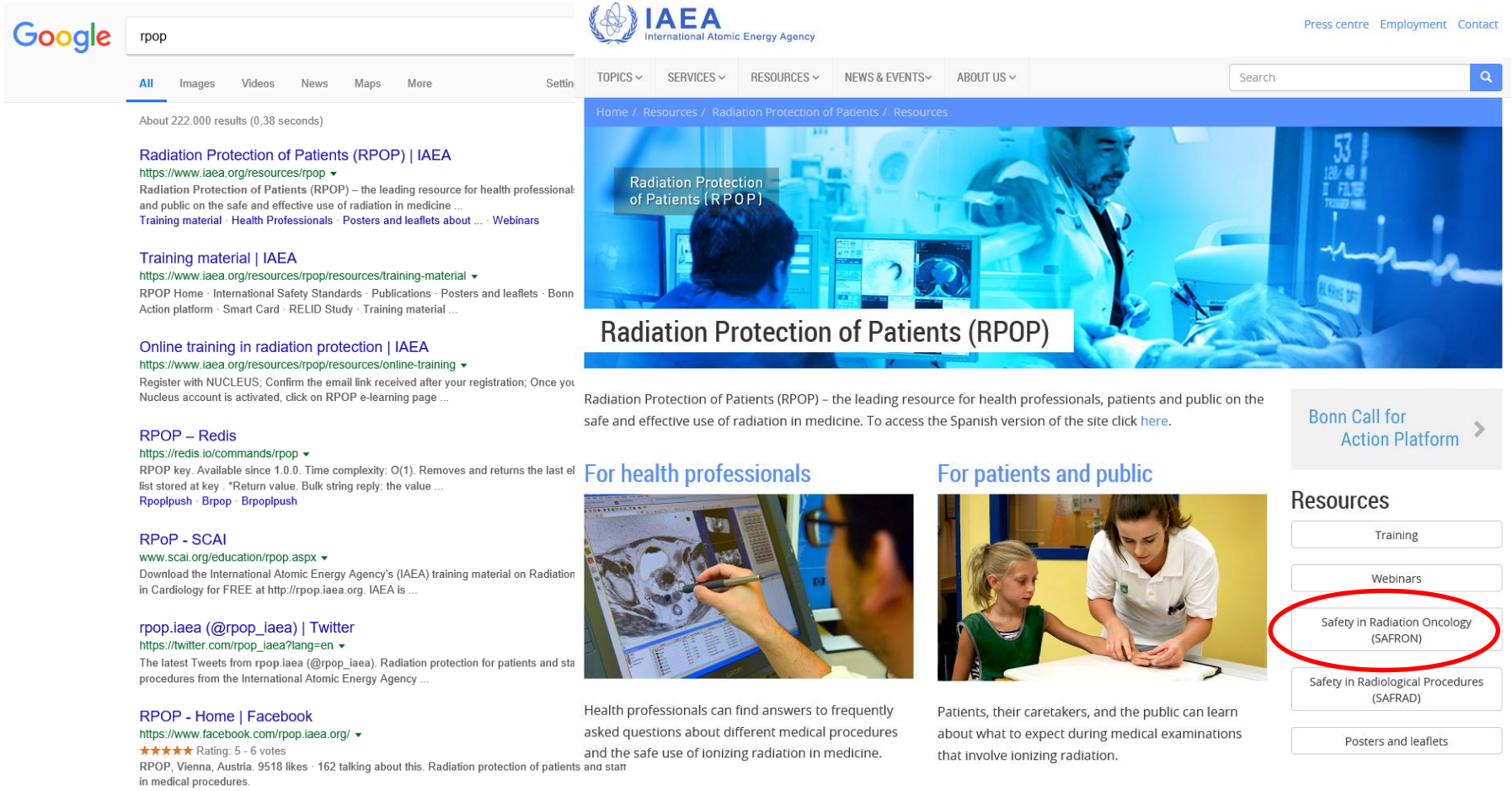
Sharing of SAFRON information

Shared on RPOP website (> 1.5 million pageviews per year)



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Sharing of SAFRON information

Anyone can access SAFRON, browse and search all incidents. To report, you must register.

SAFRON is also mobile phone friendly!

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Sharing of SAFRON information

SAFRON newsletter is sent out occasionally

The system also contains links to featured incidents and to safety related documents

International training courses and workshops on radiotherapy incident prevention

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Observations to highlight from reports

Physica Medica 111 (2023) 102618

Contents lists available at ScienceDirect

Physica Medica

journal homepage: www.elsevier.com/locate/ejmp

Original paper

Safety in radiation oncology (SAFRON): Learning about incident causes and safety barriers in external beam radiotherapy

Maryam Zarei *, Vesna Gershan, Ola Holmberg

Radiation Protection of Patients Unit, Radiation Safety and Monitoring Section, Division of Radiation, Transport and Waste Safety, International Atomic Energy Agency, Vienna, Austria

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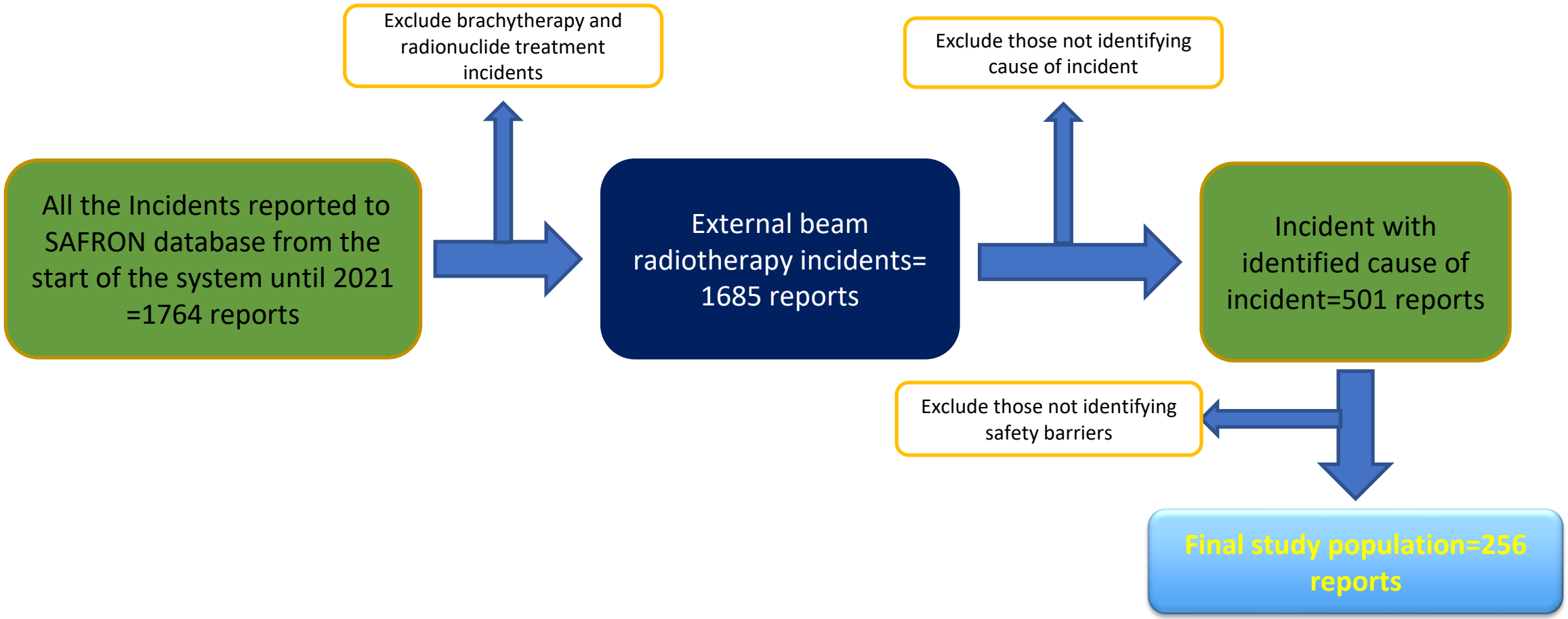
Observations to highlight from reports



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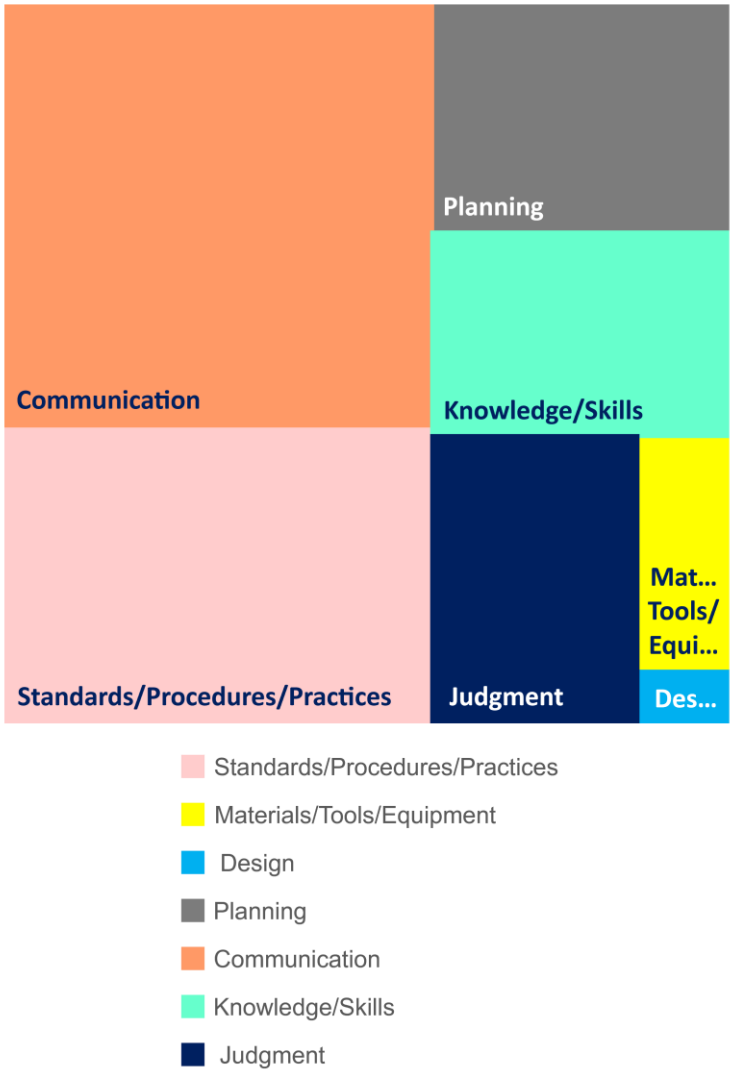

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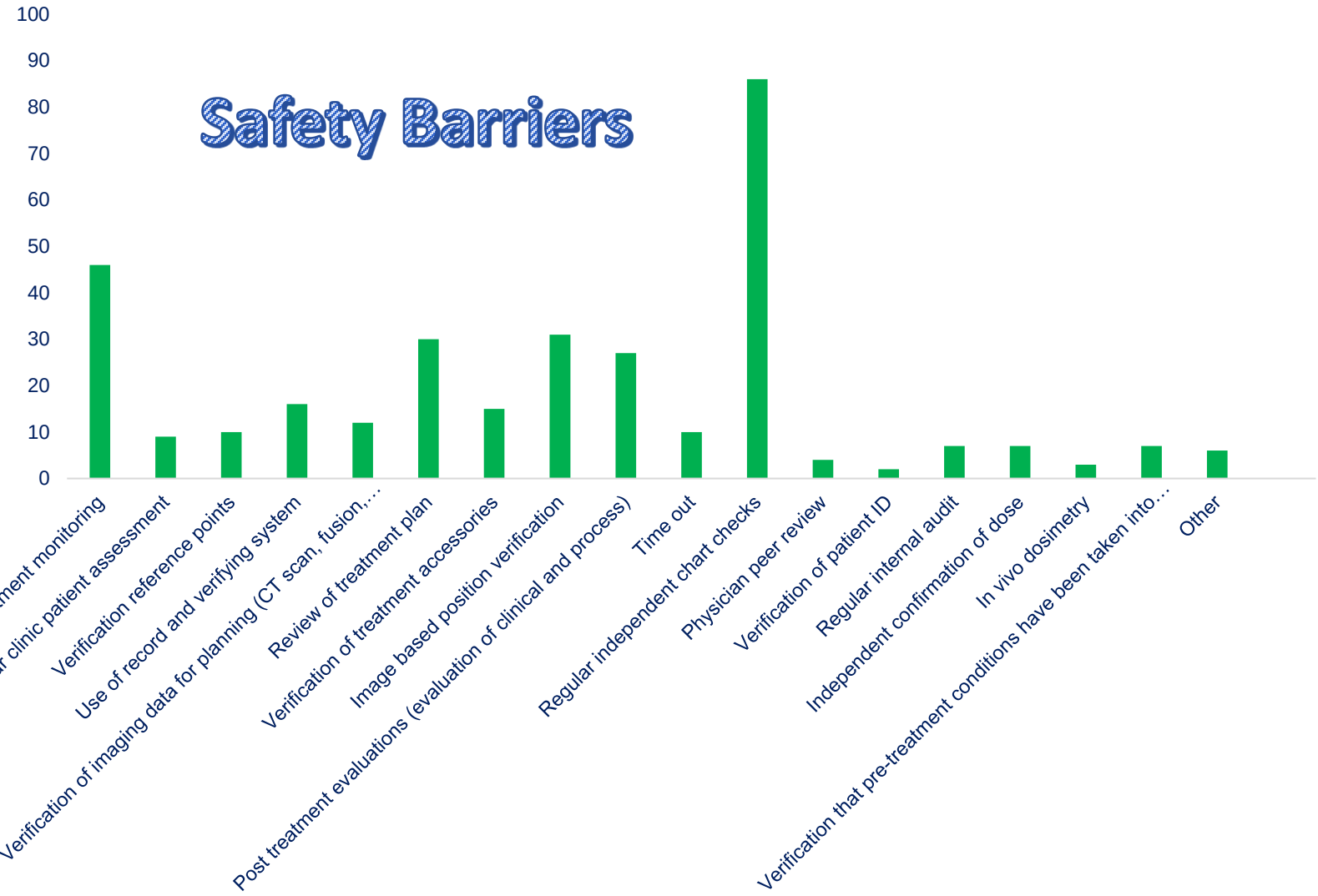

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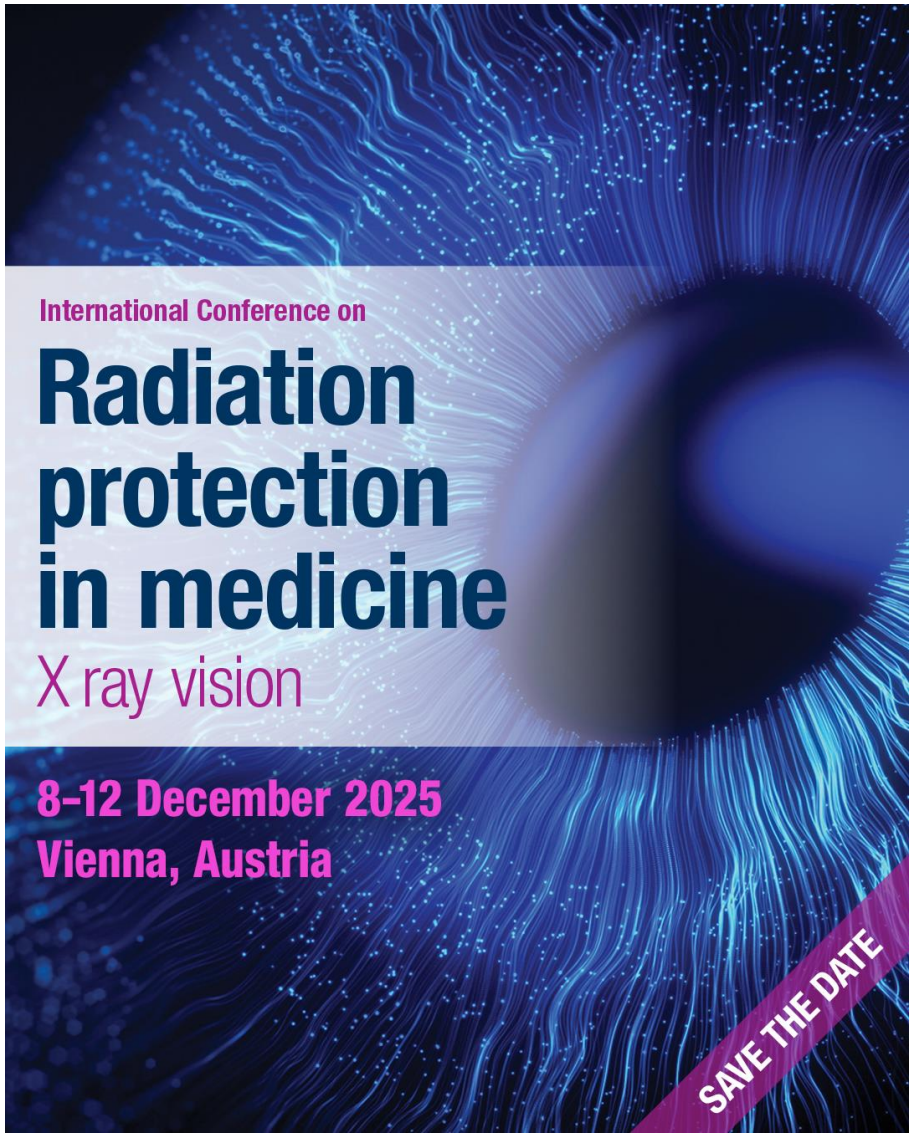
International conference on radiation protection in medicine – X ray vision

The purpose of the event is to review significant global developments in the radiation protection and safety of patients and health professionals, taking into account current trends and advances in medical radiation technology and procedures, and to identify future challenges and opportunities. The impact of the decade-long Bonn Call for Action on strengthening radiation protection in medicine will also be assessed, with a vision to formulate a robust strategy for the next decade



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EC Tender project contract N° ENER/2022/NUCL/SI2.880751

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Perspectives of Patient Organisations

Steve Ebdon-Jackson

ESR Patient Advisory Group

MARLIN Project Workshop

September 5 & 6, Brussels

EC Tender project contract N° ENER/2022/NUCL/SI2.880751

SAMIRA Study on reporting and learning from patient-related incidents and near misses in radiotherapy, interventional cardiology, nuclear medicine and interventional and diagnostic radiology

Coffee break

14:40–15:10

MARLIN Project Workshop
September 5 & 6, Brussels