HERCA Workshop on implementation of Radiation Protection Expert (RPE) & Radiation Protection Officer (RPO)
Montrouge, France, 6-8 July 2015

IAEA activities related to QE and RPO

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Content

IAEA framework for QE and RPO

- *Requirements*, *Definitions*

Activities

- *Monitoring MSs legal and regulatory framework*
- *Providing training courses*

Way forward

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IAEA framework for QE and RPO

- Qualified Expert

An individual who,

by virtue of certification by appropriate boards or societies, professional licence or academic qualifications and experience,

is duly recognized as having expertise in a relevant field of specialization, e.g. medical physics, radiation protection, occupational health, fire safety, quality management or any relevant engineering or safety specialty.

The government shall ensure that requirements are established for the formal recognition of qualified experts

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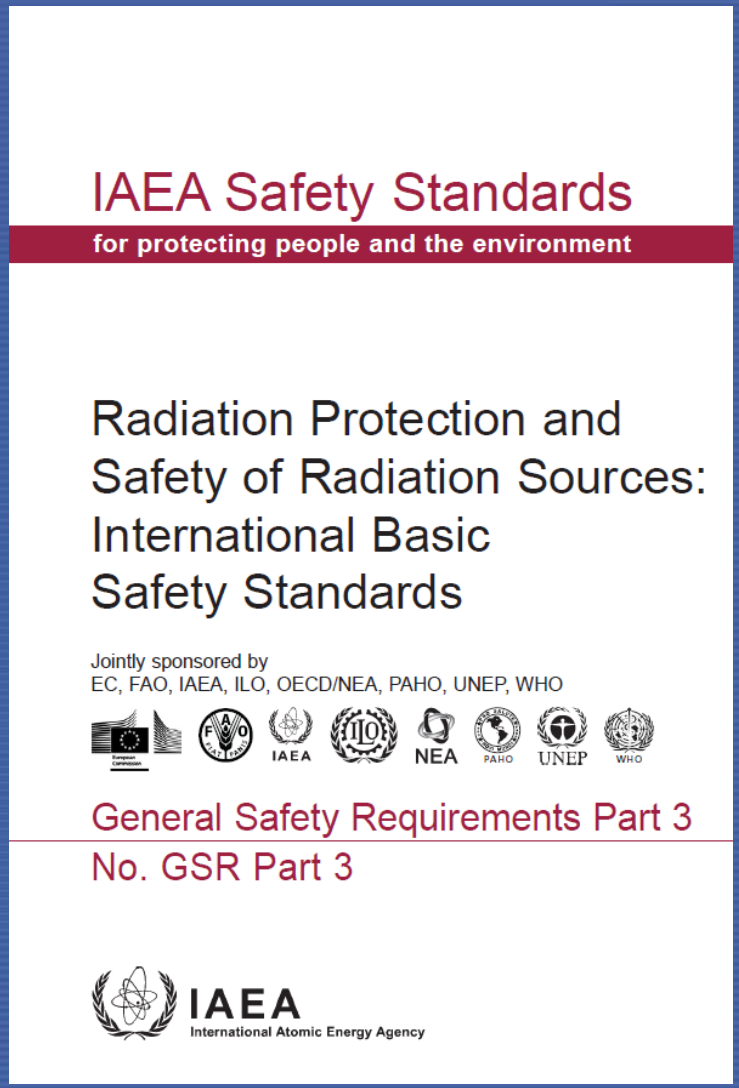


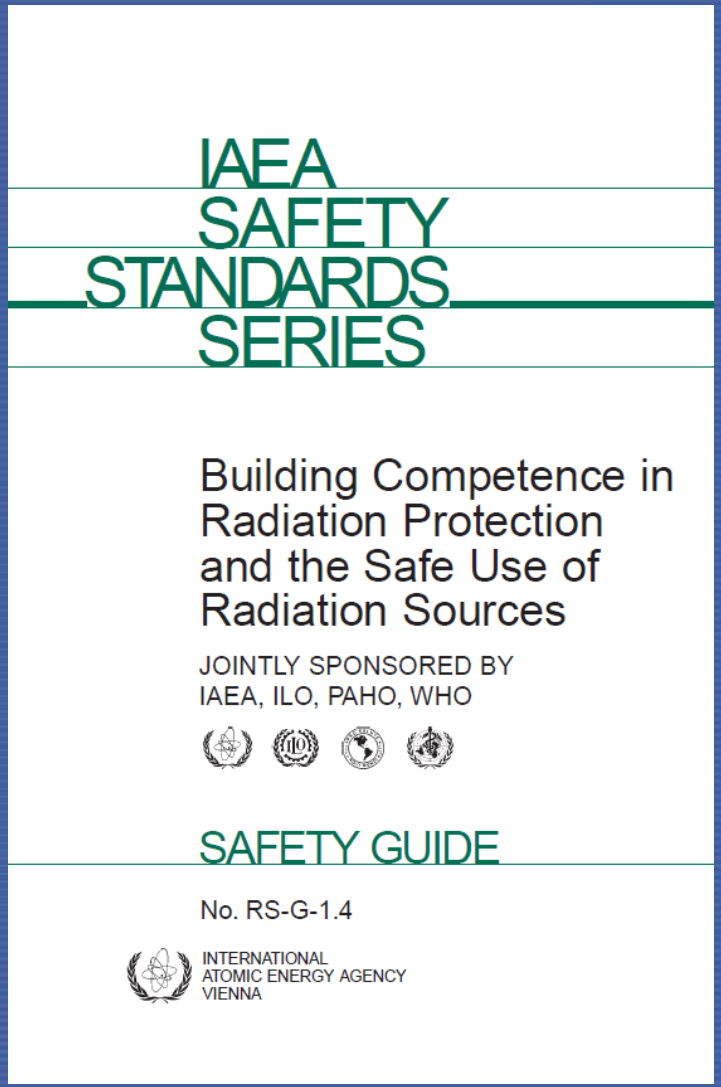
IAEA framework for QE and RPO

- Qualified Expert

*Qualified experts should provide **advice** on and/or conduct activities in their field of specialization and should promote safety culture.*

Whenever necessary, users of radiation sources should seek advice from a qualified expert.

Individual qualified experts are unlikely to have expertise in all areas but will probably be specialized in specific topics.



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IAEA framework for QE and RPO

- Radiation Protection Officer

A person technically competent in radiation protection matters

relevant for a given type of practice

who is designated by the registrant, licensee or employer

to oversee the application of regulatory requirements.

Employers, registrants and licensees, … shall designate, as appropriate, a radiation protection officer in accordance with criteria established by the regulatory body

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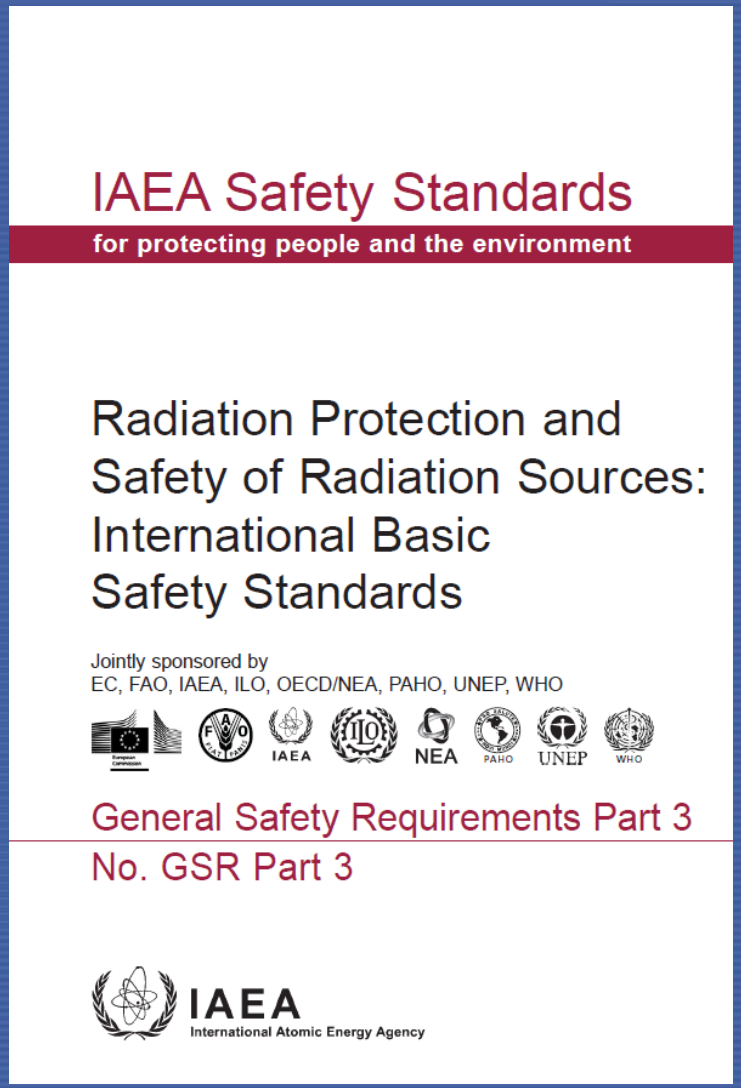


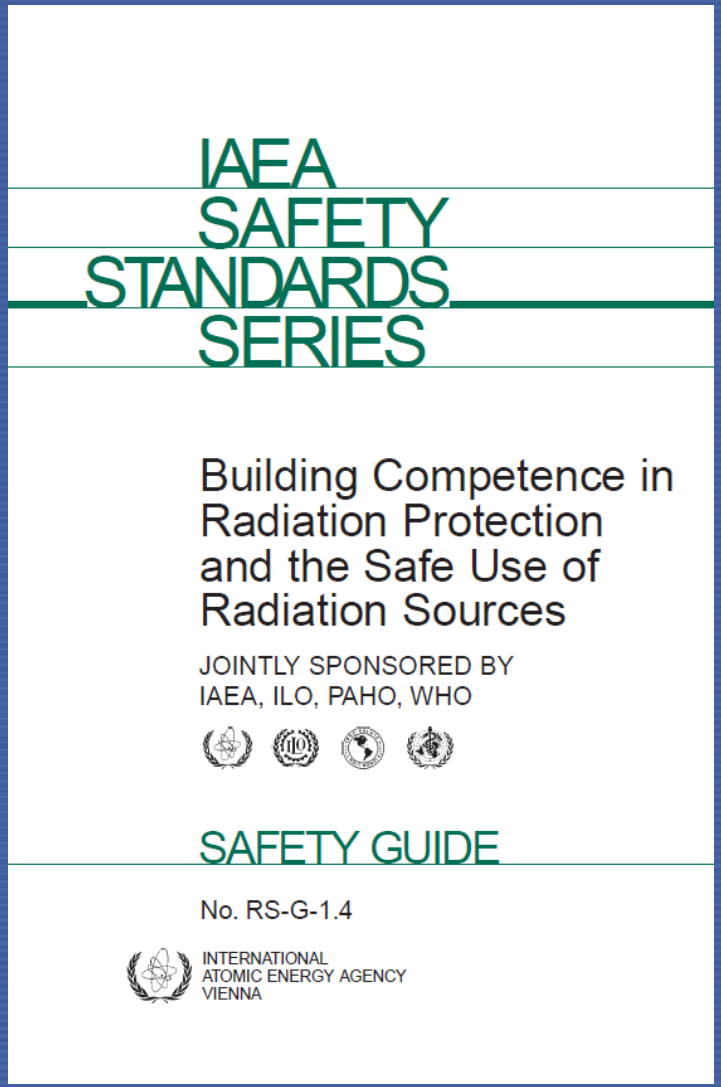
IAEA framework for QE and RPO

- Radiation Protection Officer

Radiation protection officers are employees who should be designated by the registrant or licensee

*to **supervise** radiation safety within a facility and*

to ensure that work is carried out safely and in accordance with the relevant national requirements



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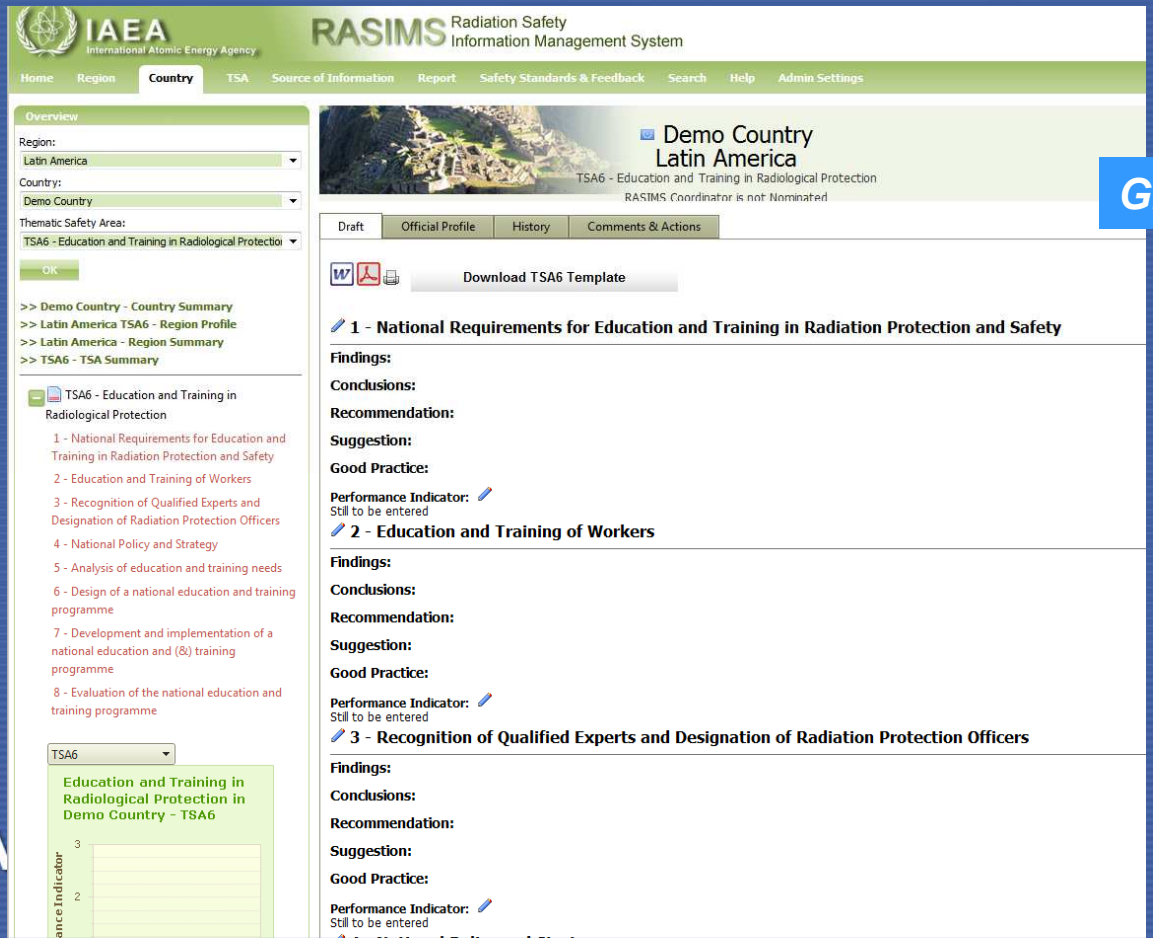
Monitoring MSs legal and reg. framework

- RASIMS (Radiation Information Management System)



Graded approach

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Monitoring MSs legal and reg. framework

1.1.4 Qualified Experts*		
	Description of requirements/guidance	**Reference document & paragraph no. (e.g.: Law, regulations, decree etc)**
Education		
Training		
Qualification		
Competence		

* If there are requirements/guidance for qualified experts for different areas, such as for design, shielding, dosimetry, etc these should be detailed separately

1.1.2 Radiation Protection Officers*		
	Description of requirements/guidance	**Reference document & paragraph no. (e.g.: Law, regulations, decree etc)**
Education		
Training		
Qualification		
Competence		

* If there are requirements/guidance for RPOs for different areas, such as in medicine, industry, research etc these should be detailed separately

Education | *".. Graduate level…. Master in …. "*
Training | *"… training of… weeks … on… attending … "*
Qualification | *"… experience ..(other attributes to perform the job… Examinaiton .. (System of recognition if the qualifications"*
Competence | *"… Knowledge.. Skills .. Attitudes (role, responsibilities) … "*

Education | *"Regulation No. XX, Art.yy"*
Training | *"Regulation No. XX, Art.yy*
Qualification | *"Regulation No. XX, Art..yy*
Competence | *"Regulation No. XX, Art.yy*

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Monitoring MSs legal and reg. framework

Lithuania (English)

Belarus (Russian)

Bosnia and Herzegovina (English)

Kazakhstan (Russian)

Algeria (French)

Greece (English)

Tajikistan (Russian)

Morocco (French)

Jordan (Arabic)

Cuba (Spanish)

Thailand (English)

Cote d'Ivoire (French)

Nicaragua (Spanish)

Ghana (English)

Malaysia (English) (2)

Tanzania (English)

Brazil (Spanish)

Botswana (English)

19 Regional workshops; More than 300 participants from about 90 Member States

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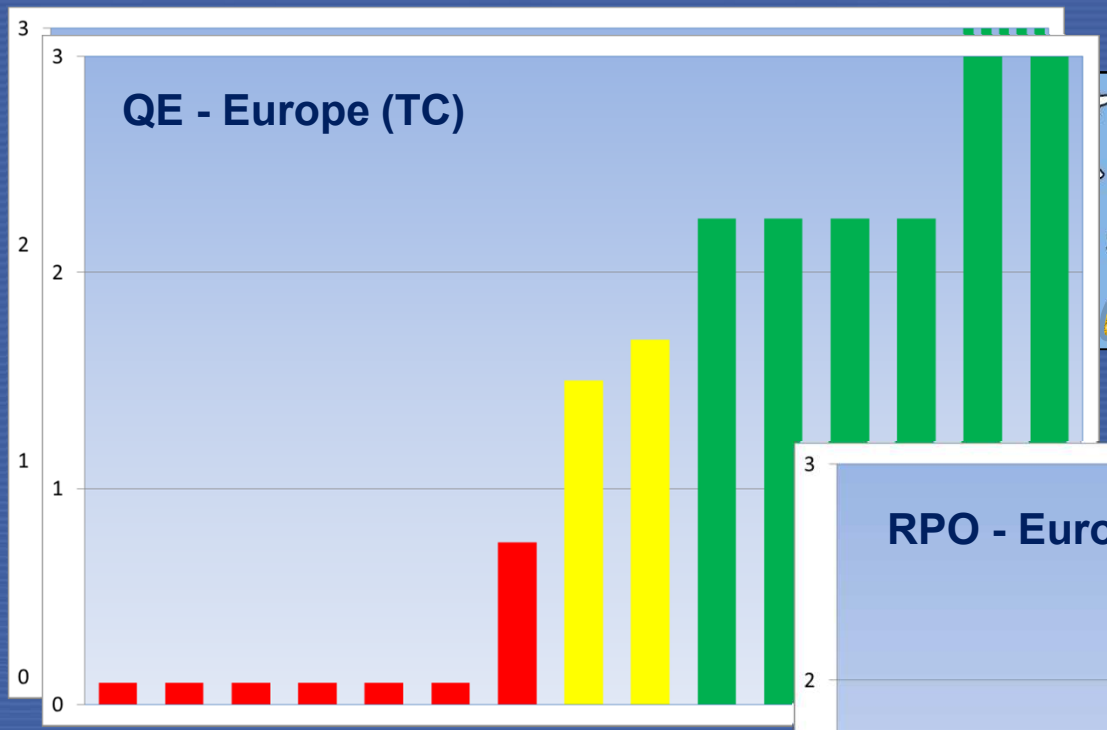
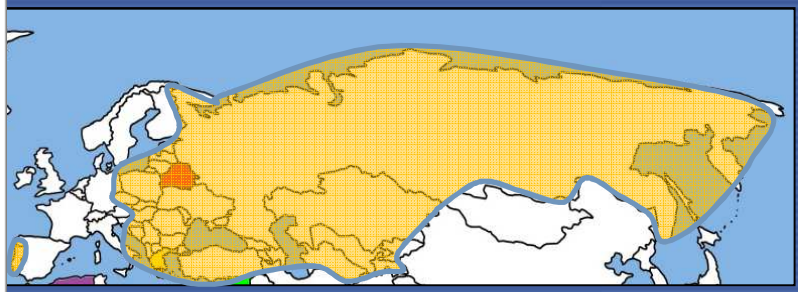
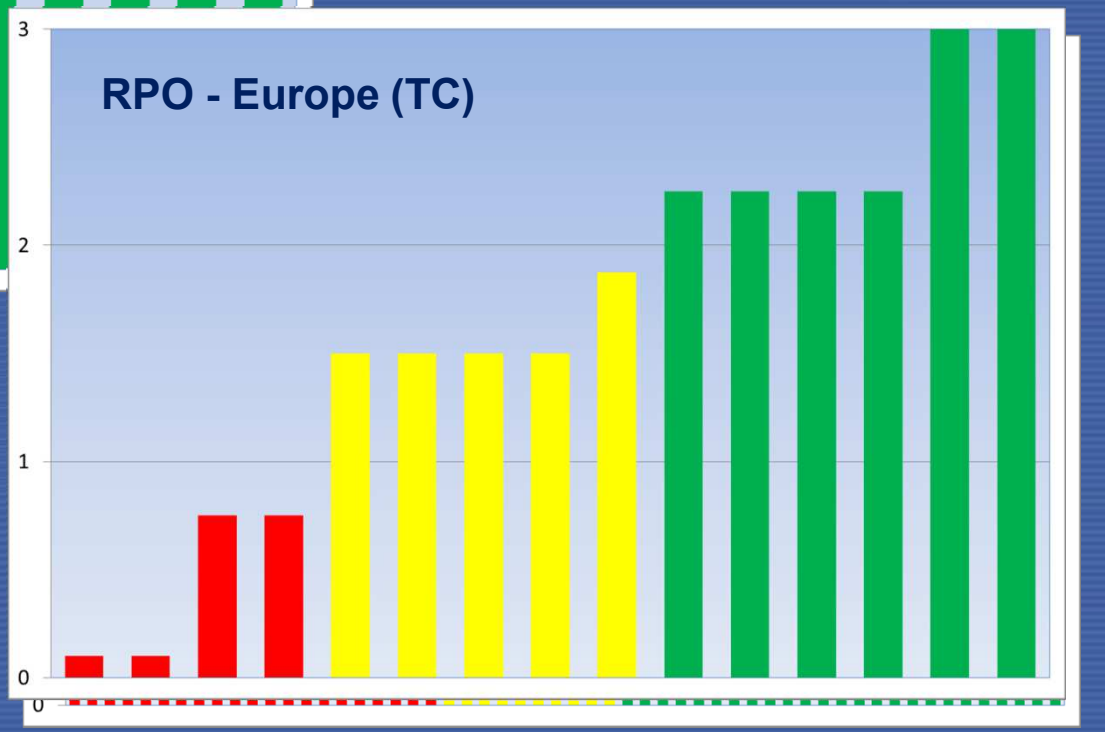
Monitoring MSs legal and reg. framework







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Providing training courses

Postgraduate Educational Course on Radiation Protection and the Safety of Radiation Sources

- **Aim**

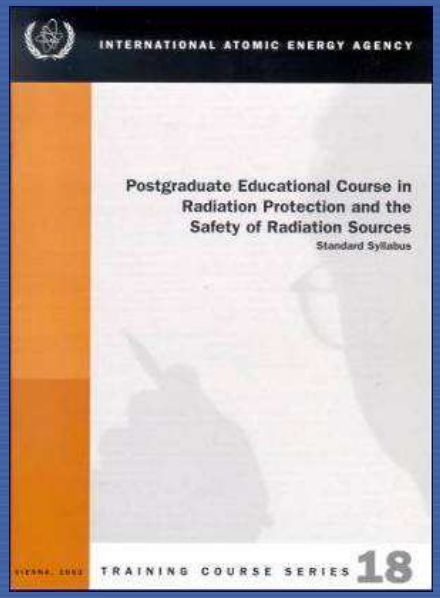
  To meet the initial education & training needs of young professionals in radiation protection and the safety of radiation sources

- **Participants**

  Science/engineering graduates and have been selected to work in the field of radiation protection and safety of radiation sources

Providing training courses

Postgraduate Educational Course on Radiation Protection and the Safety of Radiation Sources



- *Review of Fundamentals*
- *Quantities and Measurements*
- *Biological Effects of Ionizing Radiation*
- *The International System of Radiation Protection*
- *Assessment of Doses due to External and Internal Exposures*
- *General Requirements for Radiation Protection and Safety*
- *Planned Exposure Situations (requirements for occupational, public, and medical exposure)*
- *Emergency and Existing Exposure Situations.*
- *Train the Trainers (TTT)*
- *Work Project*

- **Evaluations**
  - ✓ Examinations at the end of each module
  - ✓ Preparation of a Work Project
  - ✓ Defence of the Work Project

- **QMS**
  - ✓ Pre- and Post-training test
  - ✓ Participants' feedback on Lectures and Lecturers
  - ✓ Impact analysis (*cold assessment*)

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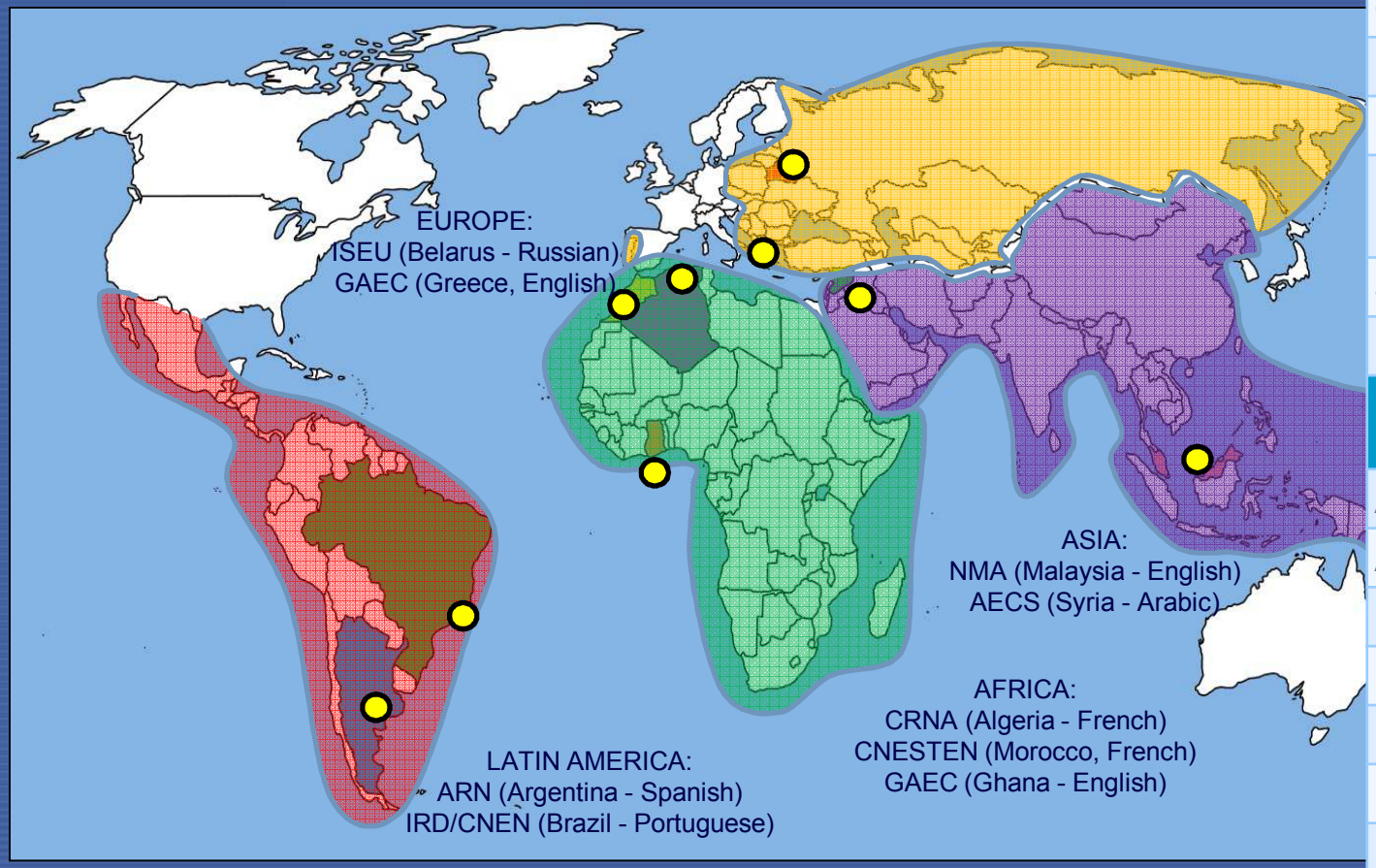
Providing training courses

Postgraduate Educational Course on Radiation Protect
Safety of Radiation Sources



- about 24 Weeks duration
- Hosted by IAEA Regional Training Centres (Learning m
available in Arabic, English, French, Russian & Spanish)

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PGEC Greece 2014-2015
Armenia
Bosnia and Herzegovina
Georgia
Greece
Hungary
Lithuania
Republic of Moldova
Slovenia
Uzbekistan

PGEC Belarus 2012-2013
Armenia
Azerbaijan
Bulgaria
Kazakhstan
Latvia
Lithuania
Moldova
Russian Federation
Tajikistan
Uzbekistan

Providing training courses

Train-the-Trainers course for Radiation Protection Officers

- **Aim**

  To build a core of national trainers in radiation protection to support the establishment of sustainable national infrastructures to train radiation protection officers.

- **Topics**

Soft Skills

- Learning factors (motivation, perception, memorization, understanding)
- Training rules and techniques
- Designing a training programme
- Tools and teaching aids

Notions

- Radiation protection principles and source safety
- The general requirements of the IAEA BSS
- The role and duties of the RPO
- The training needs of the RPO

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Providing training courses

Train-the-Trainers course for Radiation Protection Officers

TABLE OF CONTEN

Core module / Learning Objectives

- have a basic understanding of radiation protection principles and source safety;
- have a basic understanding of the requirements of the IAEA BSS;
- understand the role and duties of the RPO

Practice-Specific modules / Learning Objectives

- have a more detailed understanding of the radiation protection and source safety principles associated with the specific practice; and
- will better understand the role and duties of the RPO for the specific practice

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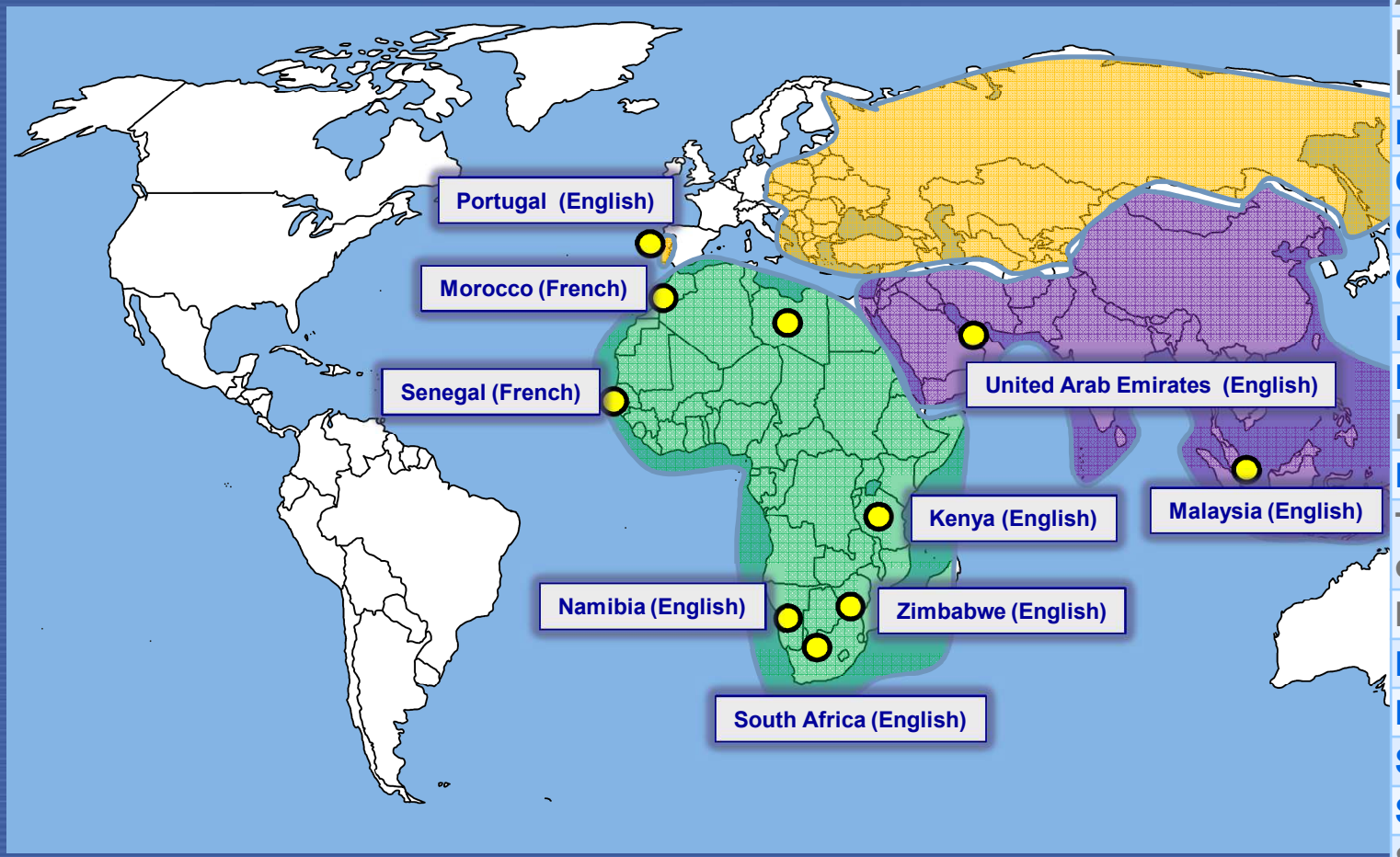
Providing training courses

Train-the-Trainers course for Radiation Protection (



TTT RPO Portugal 2014
Albania
Armenia
Azerbaijan
Bosnia and Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Estonia
Hungary
Kazakhstan
Lithuania
The Frmr.Yug.Rep. of Macedonia
Montenegro
Portugal
Romania
Slovenia
Slovakia
Serbia
Turkey
Ukraine

- 1 week duration
- Hosted by several IAEA Member States
- Courses conducted in English and French

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Way forward

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Way forward

- Continuing to monitor MSs legal and regulatory framework for E&T in respect to compliance with IAEA safety standards

- Providing training courses addressing:
  - regional needs *(effective)*
  - sustainability *(efficient)*

- Supporting MSs to establish a National Strategy for E&T in radiation, transport and waste safety

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Good 4 3 2 1 0 Poor

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Education and Training in Radiation, Transport and Waste Safety

Building competence through education and training in radiation safety is fundamental to the establishment of a comprehensive and sustainable national infrastructure for radiation safety, which in turn is essential for protecting people from the harmful effects of radiation. In order to establish a sustainable education and training infrastructure in radiation, transport and waste safety, Member States should develop a national strategy for building competence through education and training , based on the approach provided in the Safety Guide "Building Competence in Radiation Protection and the Safe Use of Radiation Sources".

The national strategy is based on 4 interlinked phases, where the outcome of one phase is the starting point for the next phase.The design and development of an education and training programme for a national strategy requires the organization of training courses in radiation protection. IAEA Safety Reports Series No. 20 "Training in radiation protection and the safe use of radiationsources" provides trainers and training organization with information on and examples of training methods and materials that have proven to be effective in use with appropriate target audiences.

The Strategic Approach to Education and Training in Radiation, Transport

Resources

- Educational and training material
- Education and Training Appraisals (EduTA)
- Newsletters

http://goto.iaea.org/rtws-E&T

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