

**INTERNATIONAL WORKSHOP ON OPTIMIZATION OF  
RADIATION PROTECTION MEDICAL STAFF.  
ORAMED 2011**

**IAEA Education and Training policies and  
experiences related to Occupational  
Radiation Protection in Medicine.**

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**IAEA**

International Atomic Energy Agency



# IAEA Safety functions

## IAEA Functions in Radiation & Waste Safety (Article III.A.6)

To facilitate and  
service international  
conventions and  
other undertakings

To establish  
standards of  
safety

To provide for  
the application of  
international standards

# IAEA Safety functions

## Application of international standards

### INTERNATIONAL MECHANISMS FOR APPLYING STANDARDS

Rendering  
**RADIATION  
SAFETY  
SERVICES**

Providing  
**TECHNICAL  
COOPERATION**

Fostering  
**INFORMATION  
EXCHANGE**

Promoting  
**EDUCATION  
& TRAINING**

Knowledge  
Management &  
Networking

Education and Training  
is one of the mechanisms and primary strategies  
for assisting Member States  
in the application of the standards

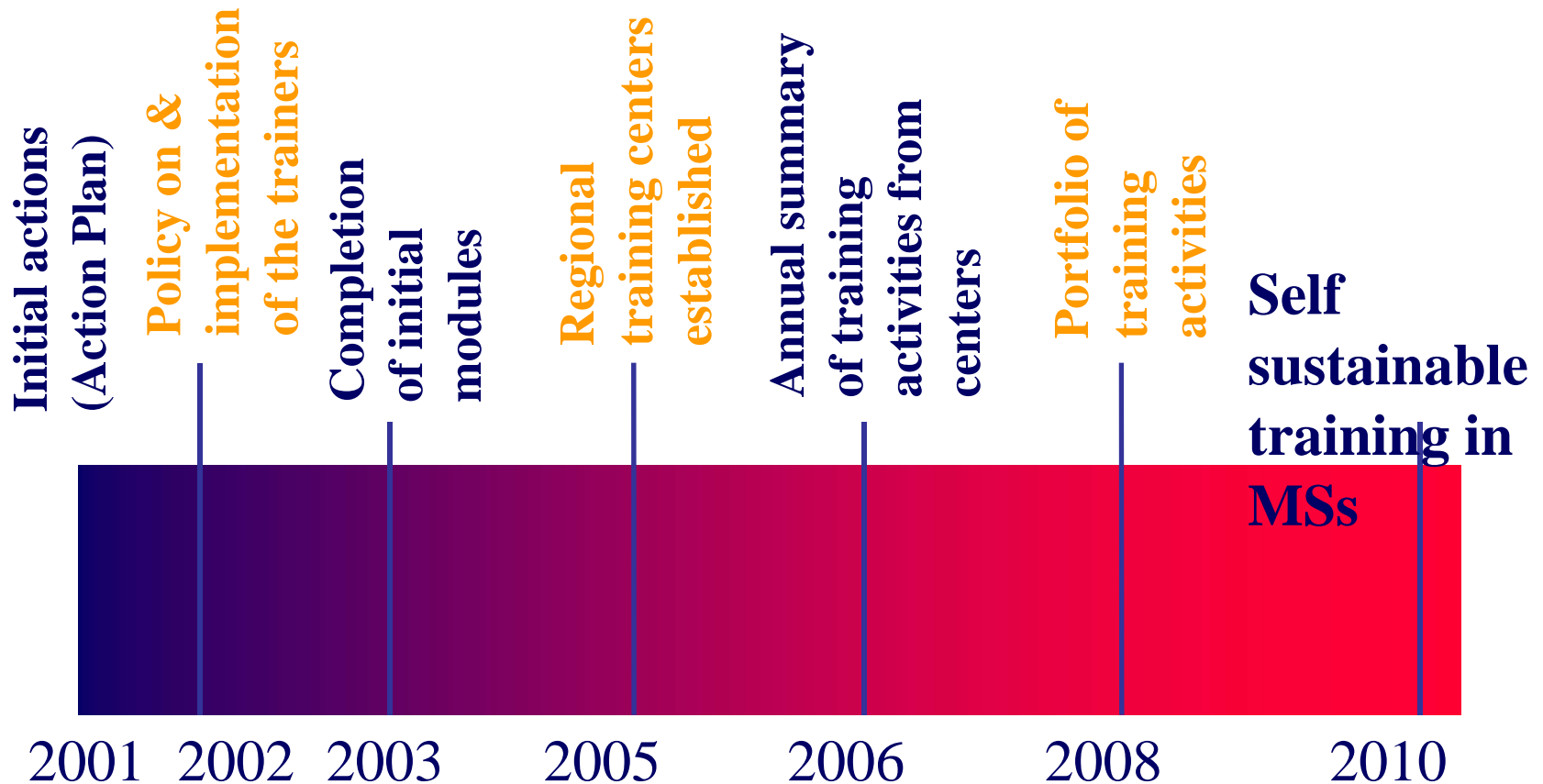
# IAEA's education and training activities in radiation, transport and waste safety

....follow the IAEA vision, strategy and resolutions of its annual General Conferences and reflect the latest IAEA standards and guidance. IAEA prepared a “**Strategic Approach to Education and Training in Radiation and Waste Safety**” (Strategy on Education and Training) aiming at establishing, by 2010, sustainable education and training programmes in Member States, which was endorsed by the **GC(45)/RES/10C in 2001**

# Objectives

- To strengthen radiation, transport and waste safety infrastructures through building competence in Member States.
- To facilitate the development and implementation of a national strategy for education and training for radiation, transport and waste safety in Members States.
- To ensure that education and training programmes in Member States address the requirements of the International Basic Safety Standards (BSS) and associated IAEA safety standards

# Key milestones



# Strategic Approach to Education and Training

To ensure that sustainable education and training is available in Member States by 2010 through:

- Developing and updating standardized syllabi, training aids and materials;
- Creating a network of regional, national and collaborating centers ;
- Training the trainers in radiation protection and safety and
- Encouraging all Member States to develop and implement strategies for building competence.

# IMPLEMENTATION OF THE STRATEGY

Competence building tools

**Strengthened  
radiation and waste safety  
through education & training**

On the Job  
training

Distance  
learning in  
radiation  
protection

Postgraduate Education  
Course in radiation  
protection and the safety  
of radiation sources

Specialized Training  
Courses in thematic areas

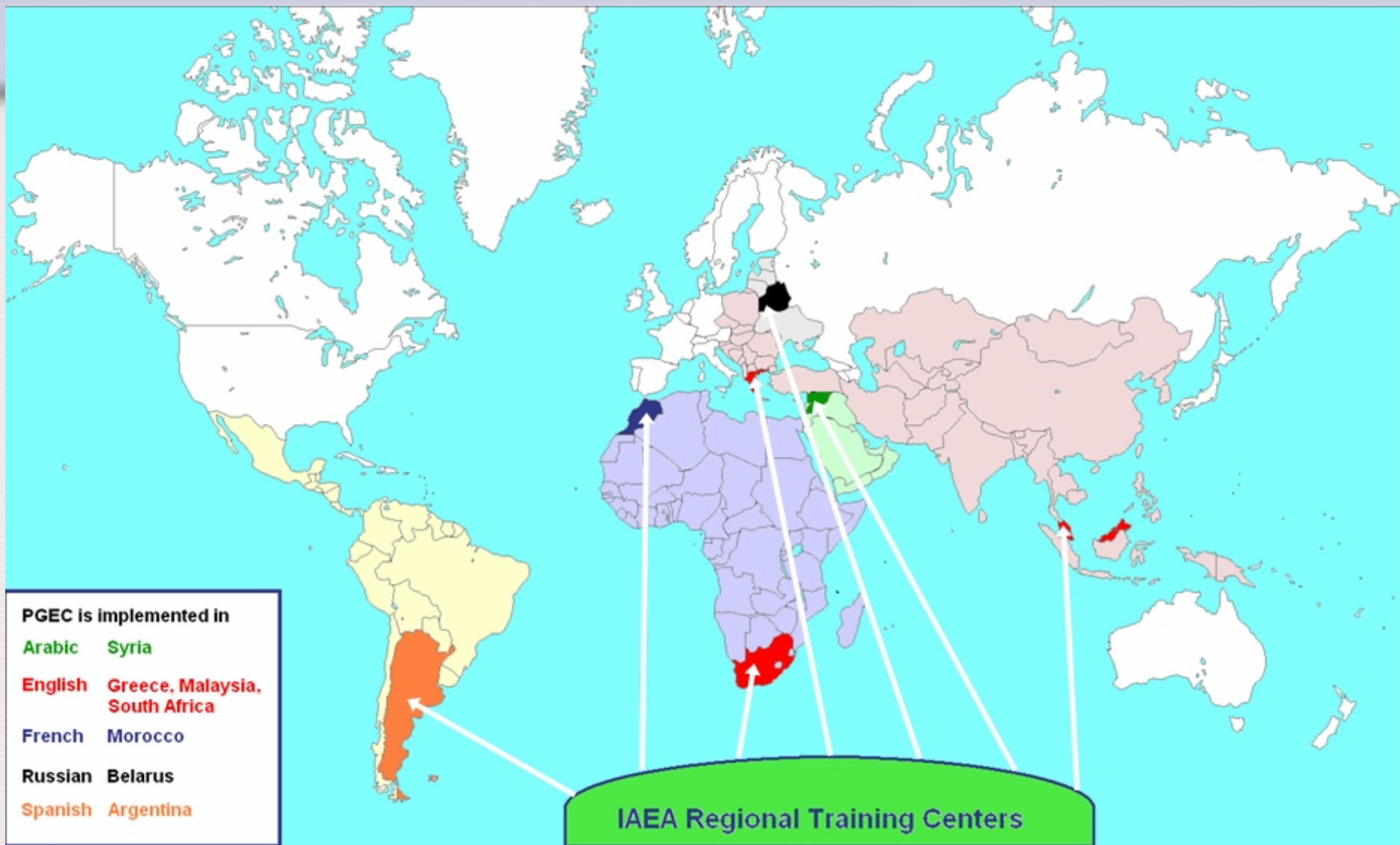
Training of Radiation  
Protection Officers

Train the  
Trainers  
Workshops

**IAEA + Training Regional Centres**







# TRAINING PACKAGES AVAILABLE

## Occupational Radiation Protection

- IAEA Training Course on Assessment of Occupational Exposure due to Intakes of Radionuclides (E,S, R)\*
- IAEA Training Course on Assessment of Occupational Exposure due to External Radiation Sources (E,R)\*
- IAEA Training Course on Occupational Radiation Protection (E,S) \*
- Radiation Protection and the Management of Radioactive Waste in the Oil and Gas Industry (E)
- IAEA Training Course on Neutron Dosimetry (E) \*
- IAEA Training Course on Workplace Monitoring (E,S) \*

## Quality Management

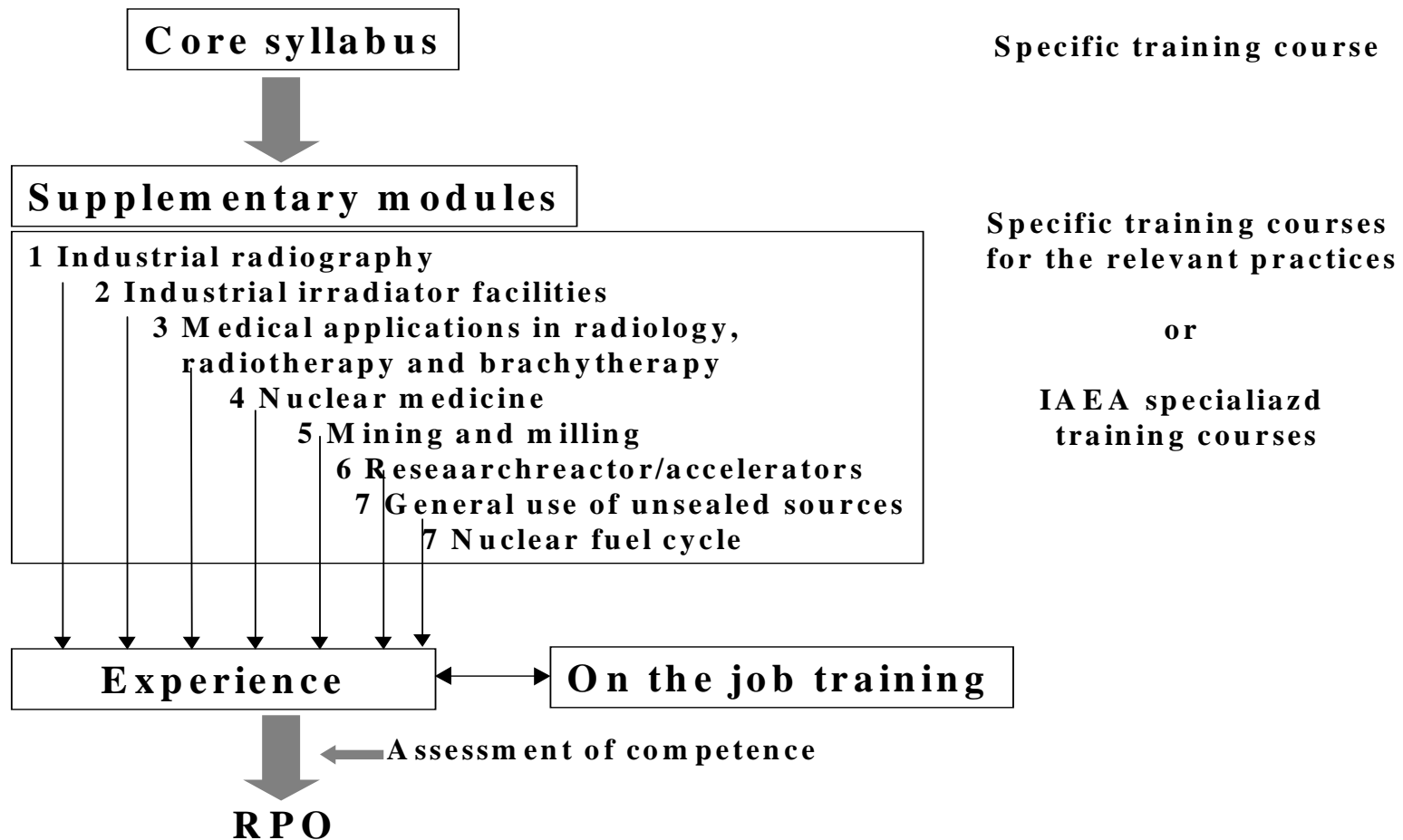
- Quality Management Systems for Technical Services in Radiation Safety (E,S) \*

# TRAINING PACKAGES AVAILABLE

## Medical Applications

- IAEA Training Course on Radiation Protection in Diagnostic and Interventional Radiology (E,A)\*
- IAEA Training Course on Radiation Protection in Nuclear Medicine (E,S)\*
- IAEA Training Material on Radiation Protection in Radiotherapy
- IAEA Training Material on Radiation Protection in Cardiology
- IAEA Training Material on Prevention of Accidental Exposures in Radiotherapy

# Radiation Protection Officer Training

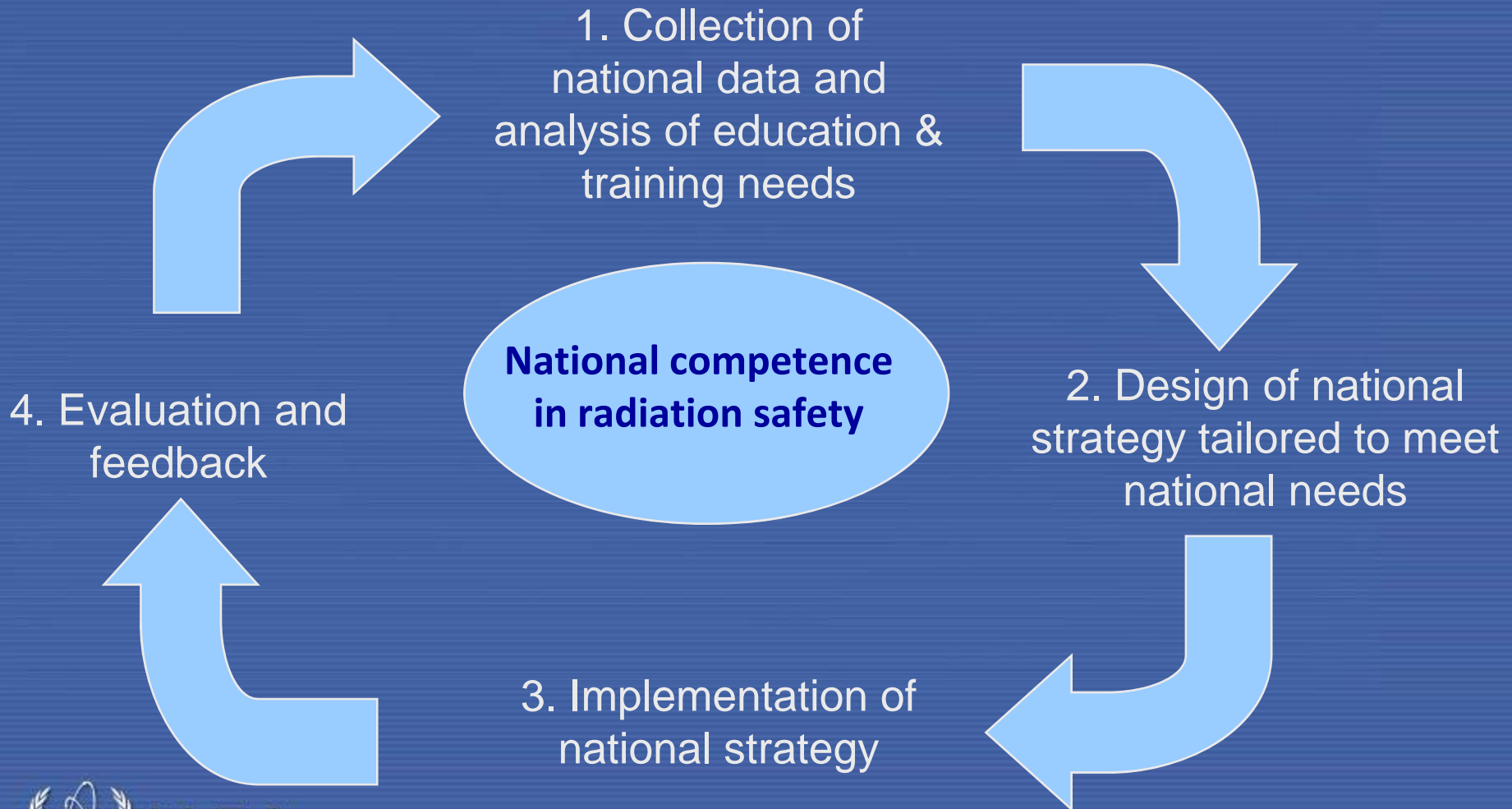


# Strategy for the years 2011-2020

- Development and Implementation of national strategies for building competence,
- Competence building tools,
- Effective use of RTCs.

# IMPLEMENTATION OF THE STRATEGY

National strategy for building competence in radiation protection



# Some numbers...

- E&T activities in the Division of Radiation, Transport and Waste Safety

Year	No of Fellows	No of Scientific Visitors	No of Training Courses	No of Training Course Participants	No of Lecturers
2005	62	45	20	372	13
2006	94	72	32	548	18
2007	75	71	26	479	22
2008	58	46	31	515	23
2009	64	75	29	493	27
2010	116	49	30	461	21
<b>Total</b>	<b>469</b>	<b>358</b>	<b>168</b>	<b>2868</b>	<b>124</b>



# Division of Radiation, Transport and Waste Safety

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Good 4 3 2 1 0 Poor

**Radiation, Transport & Waste Safety**

**Current news**

 **Regulatory Supervision of Legacy Sites - IAEA hosts first Working Forum** - In order to provide regulatory organizations an opportunity to exchange ideas concerning needs for regulatory supervision of legacy sites, the IAEA ... [read more](#)

 **Occupational Exposure in Medical Applications - Regional Workshop held in Adelaide, Australia** - Under its Asia-Pacific Regional Project, the IAEA, in cooperation with the Australasian Radiation Protection Society recently ... [read more](#)

 **Latin America Regional Congress of Radiation and Nuclear Safety (IRPA)** - In cooperation with the IAEA, the IRPA regional congress for Latin America took place in Medellin, Colombia, on 11-15 October, 2010 ... [read more](#)

 **IAEA Board of Governors approves draft Safety**

**Resources**

- [IRPA-12 Conference: Full Papers](#)
- [Code of Conduct on the Safety and Security of Radioactive Sources](#)
- [Organization](#)
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**Featured Article**

Posted on September 12 2010






# Division of Radiation, Transport and Waste Safety

## Specialized training

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### Training packages for specialized events

Developed by the Division of Radiation, Transport and Waste Safety


Occupational Radiation Protection
IAEA Training on Assessment of Occupational Exposure due to Intakes of Radionuclides
IAEA Training on Assessment of Occupational Exposure due to External Radiation Sources
IAEA Training on Occupational Radiation Protection
Radiation Protection and the Management of Radioactive Waste in the Oil and Gas Industry
IAEA Training on Neutron Monitoring
IAEA Training on Work Place Monitoring
Protection of Patients
IAEA Training on Radiation Protection in <a href="#">Diagnostic and Interventional Radiology</a>
IAEA Training on Radiation Protection in <a href="#">Nuclear Medicine</a>

### Resources

- [Emergency Preparedness and Response training](#)
- [Occupational Radiation Protection training](#)
- [IAEA Publications on Training](#)

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# Division of Radiation, Transport and Waste Safety

## Specialized training: example of web resources for RPOP

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The training material on this site is available for free downloading (subject to conditions specified in 'Intended use' and 'Disclaimer' below), and are on the topics of Radiation Protection in:

**English**

- [Diagnostic and Interventional Radiology](#)
- [Radiotherapy](#)
- [Nuclear Medicine](#)
- [Prevention of Accidental Exposure in Radiotherapy](#)
- [Cardiology](#)
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# Outcomes of the E&T activities

- Strengthened radiation, transport and waste safety in MSs.
- Improved **national infrastructure** for E&T based on a national strategy for building competence.
- Increased **applications** of IAEA Safety Standards within MSs and the Regions.
- Increased **number of trained and educated** personnel with appropriate level of competence in radiation, transport and waste safety.
- Enhanced **networking** within and among MSs.



**THANK YOU**



<http://www-ns.iaea.org/home/rtws.asp>