

STRENGTHENING EXPERTISE IN NUCLEAR SAFETY AND RADIATION PROTECTION TO SUPPORT REGULATORY SYSTEMS

Anna Benattar – ENSTTI Admin & Finance Manager



The Challenge

- Facilities & activities using ionizing radiation are complex
- expert judgments based on up-to-date research and assessment of highly specific technical issues within a holistic view of complete systems
- A know-how in assessment in nuclear safety, nuclear security and radiation protection to transfer over generations .
 - Through practical training and tutoring
 - Accompanying the harmonization of EU methodologies and practices
- A EU safety expert network to further develop and strengthen

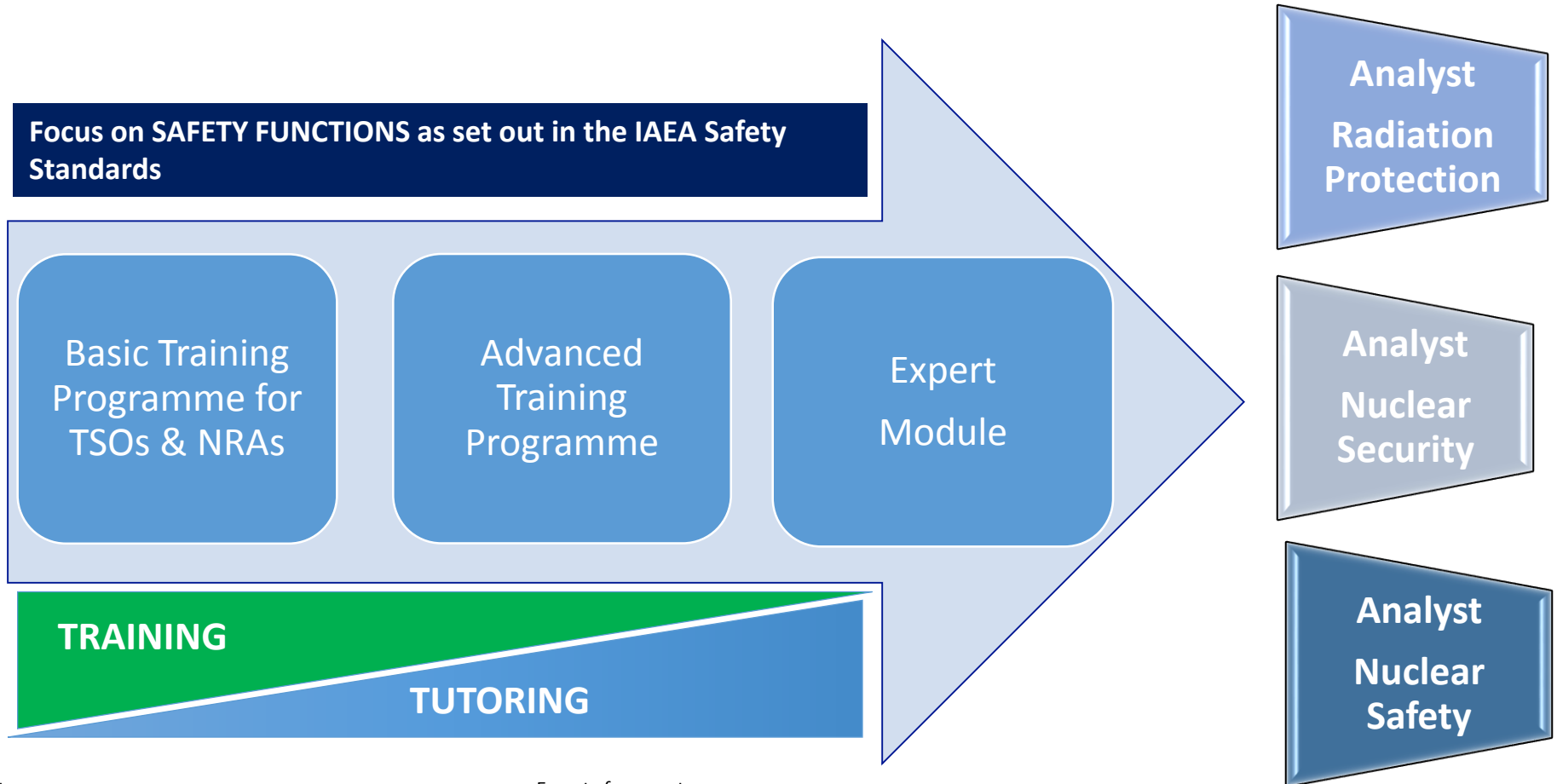
enstti basics

- A 2010 initiative of European Technical Safety Organizations to optimize the training of their professionals.
- Vocational training and tutoring on assessment in nuclear security, nuclear safety and radiation protection.
- Calls on European TSOs' expertise to maximize the transmission of knowledge, practical experience and culture.
- A curriculum structured in learning pathways for analysts, inspectors, researchers.

Members: Belgium (Bel V), France (IRSN), Lithuania (LEI)
Contributor TSO's: Germany (GRS), Czech Republic (CVR), Finland (VTT), Slovakia (VUJE), Ukraine (SSTC), Italy (ENEA), Spain (CIEMAT)
Cooperation with ETSO: Japan (NRA), Russia (SEC NRS), Switzerland (PSI)
Cooperation with NRA's: Belgium (FANC), France (ASN), Spain (CSN), Finland (STUK), Slovakia (UJD)

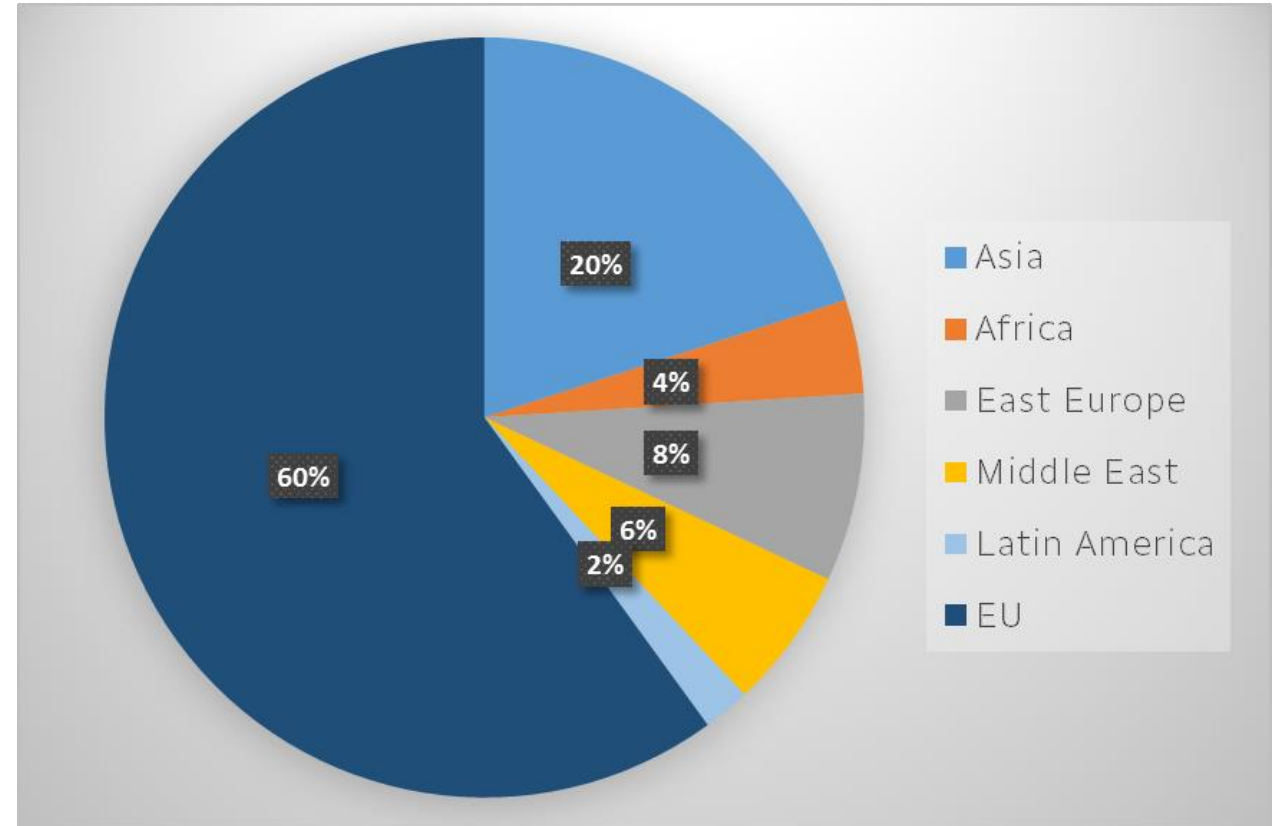


Approach to build-up & strengthen competences



Audience

- Around 1000 participants every year
- 40% coming from outside EU
- 250 lecturers and tutors every year
- 2000 hours of training & 1000 hours of tutoring every year



enstti



TRAINING GUIDELINES

June 2016

Experts
for experts

enstti



GUIDELINES FOR PLANNING AND IMPLEMENTING A TUTORIAL



Basic Training Programme for NRAs & TSOs

4 Modules over a period of 12 months

- Module I: Nuclear Law and Regulatory Frameworks (1 week)
- Module II: Technical Concepts governing Nuclear and Radiation Safety and Nuclear Security (3 weeks) with 1day on decommissioning safety
- Module III: Regulatory Oversight of Safety Culture (1 week)
- Module IV: Structured Tutoring (min. 3 months in 'home organization')

Training Module “Decommissioning Safety”

- Introduction to Decommissioning of Nuclear facilities
- International standards, safety requirements and recommendations
- Examples of decommissioning for NPPs
- Examples of decommissioning of fuel cycle facilities
- Licensing process for decommissioning
- International approach to Safety Assessments for decommissioning
- International approach to regulatory review of safety assessment
- Preliminary review process for safety assessment
- Decommissioning key issues and hazards
- Risks related to handling activities during decommissioning
- Fire protection aspects during decommissioning and related experience feedback
- Containment design for decommissioning
- Radiation protection during decommissioning
- Test case on radiation protection optimization during decommissioning
- 3D Simulation code for decommissioning
- Contaminated site characterization
- Human factors aspects and experience feedback
- Radiological characterization vs waste management

Tutoring Module “Decommissioning Safety”

SAFETY OF DECOMMISSIONING OF NUCLEAR FACILITIES

To review the safety aspects related to the decommissioning of nuclear reactors and related to radioactive waste management aspects and safety issues.

The tutoring is divided in 3 steps:

- Final shutdown of nuclear facilities;
 - Decommissioning and dismantling activities;
 - waste management during decommissioning.
-
- Duration 3 months

