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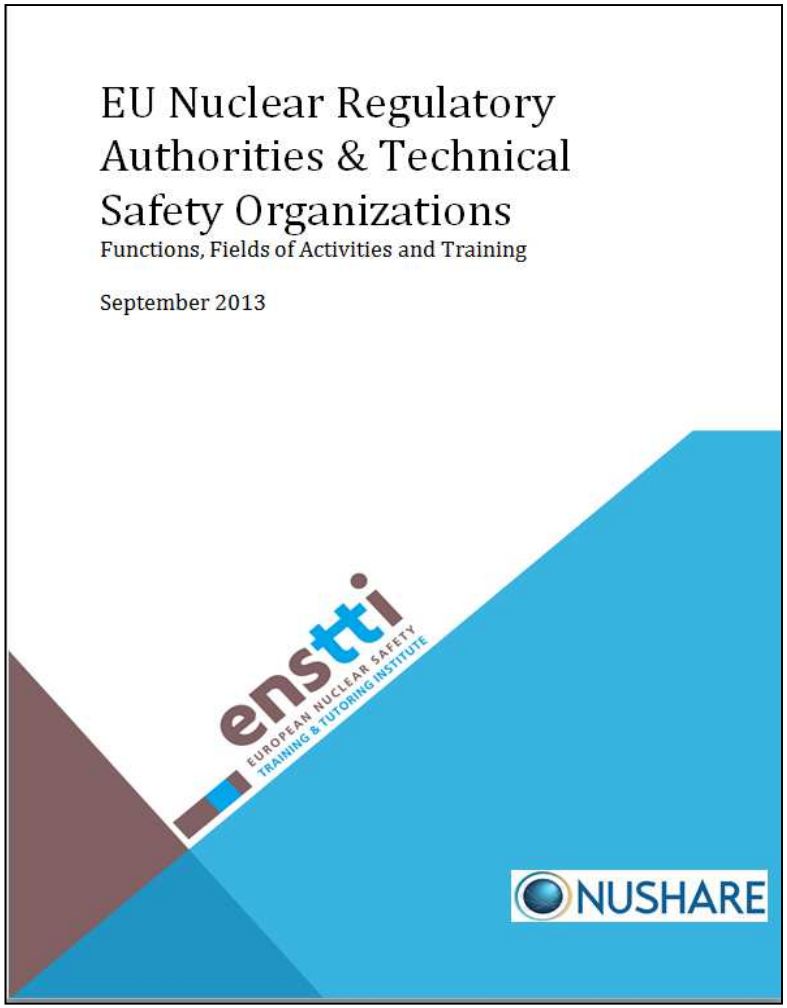
EUROPEAN NUCLEAR SAFETY
TRAINING & TUTORING INSTITUTE

Experts for experts

Meeting challenges of professional development of Safety Organisations experts in the EU: Harmonising training in safety assessment

DESK RESEARCH IN THE FRAME OF THE NUSHARE PROJECT
identify basic requirements & specify training needs

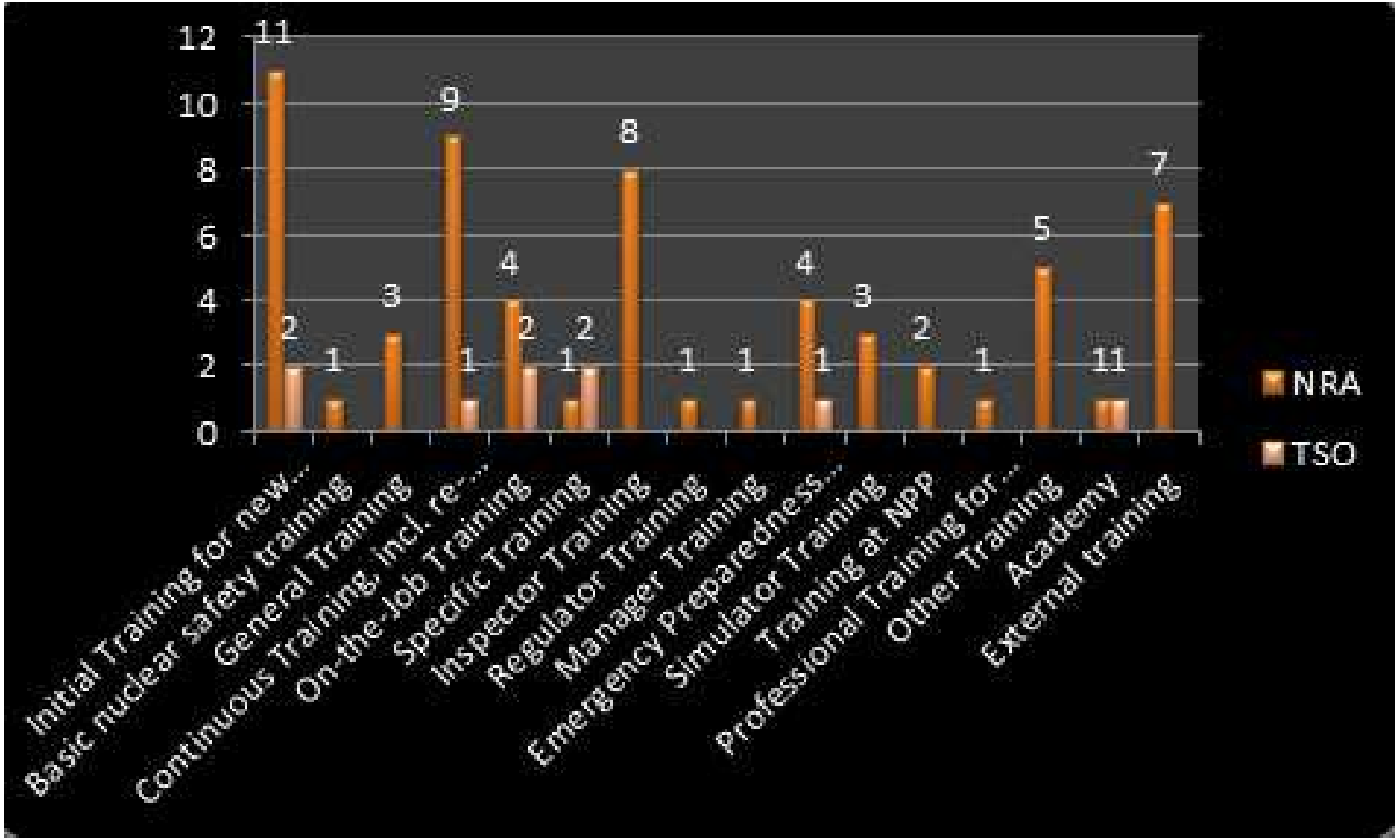


16 EU countries with nuclear power

- Belgium
- Bulgaria
- Czech Republic
- Finland
- France
- Germany
- Hungary
- Lithuania
- The Netherlands
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- UK

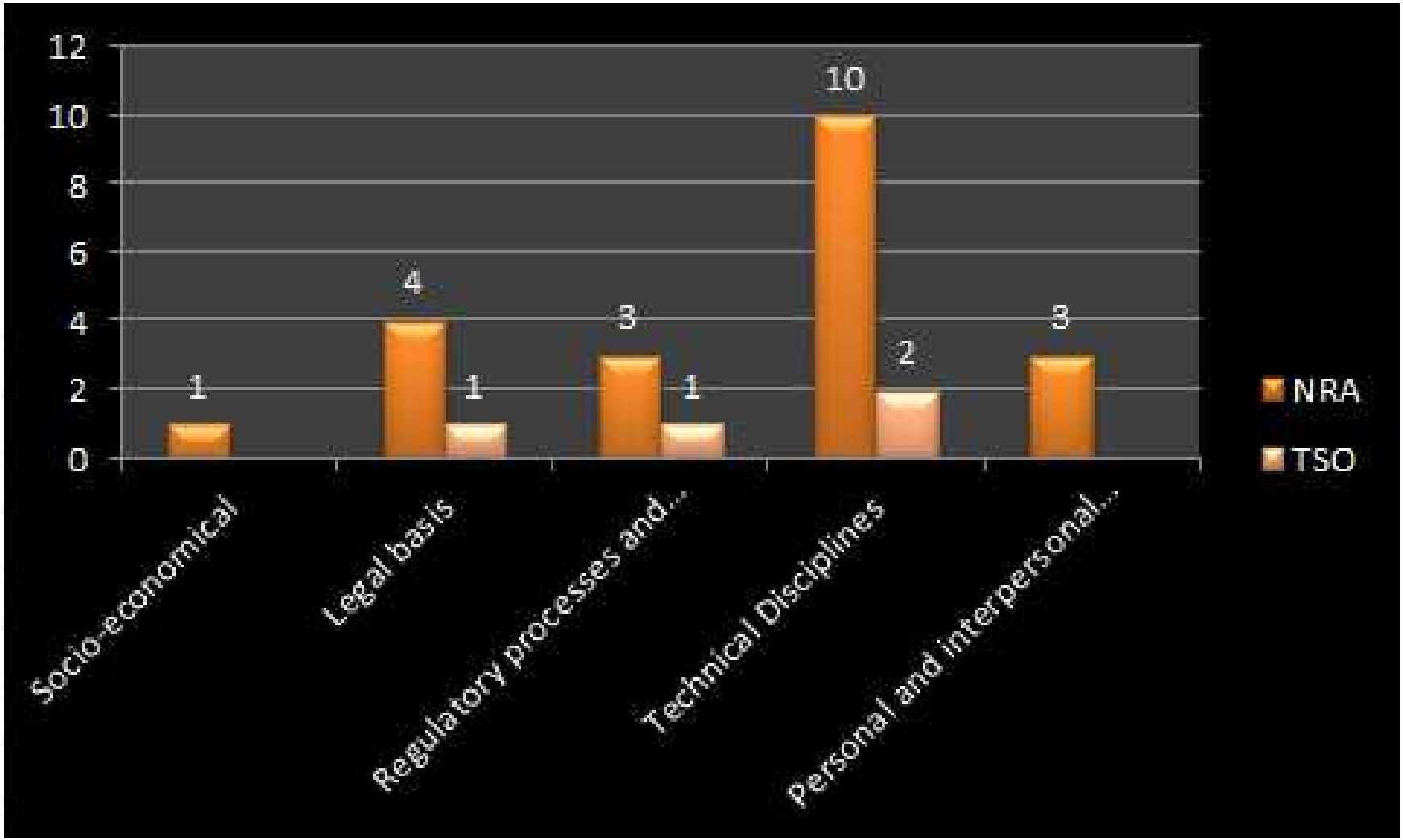
Desk Research

Internal Training



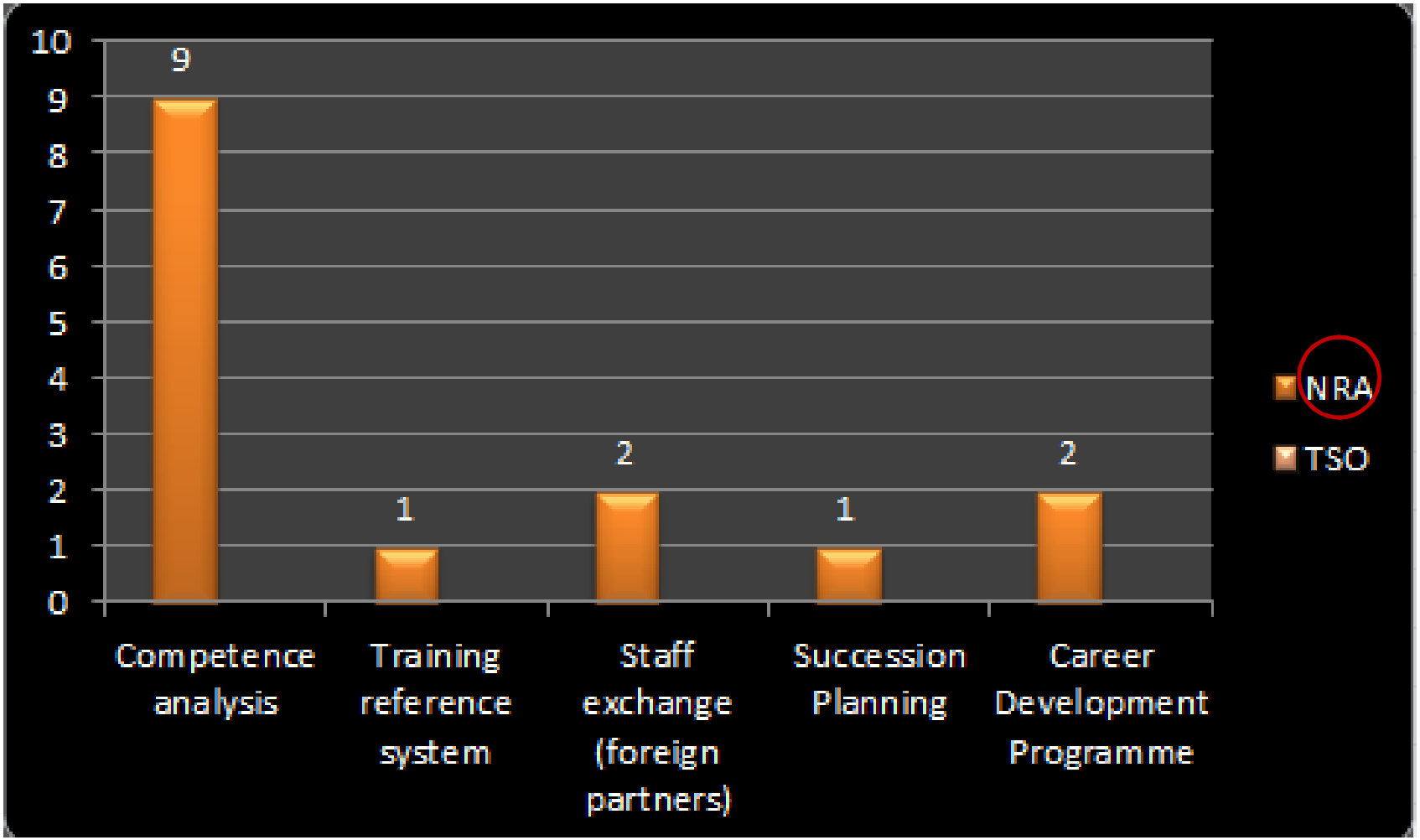
Desk Research

Competence covered in internal training



Desk Research

Other items relevant to HRD



RESULTS OF NUSHARE TG2 STAKEHOLDER MEETING
THE MEANING OF SAFETY CULTURE FOR NRAS AND TSOS

NRAs and TSOs promote Safety Culture by setting a good example in their own performance :

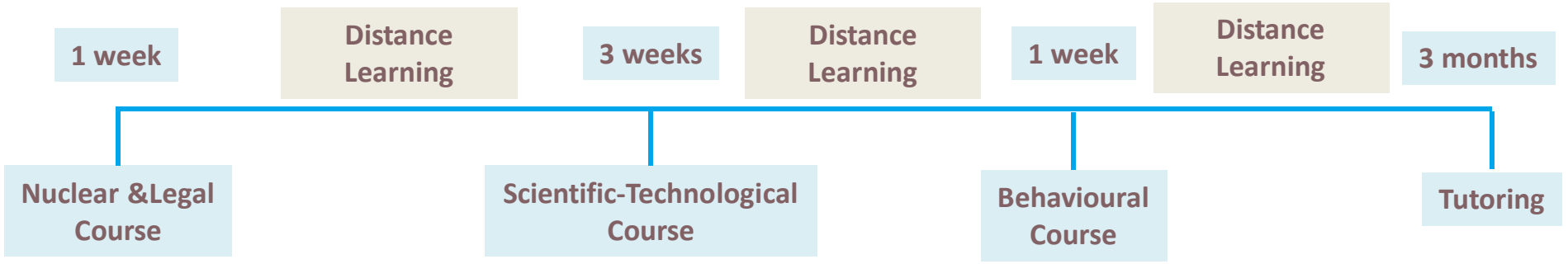
- should be technically competent;
- set high safety standards for themselves;
- conduct their dealings with operators in a professional manner;
- show good judgment in regulatory decisions.

Promotion of safety culture requires a workforce holding competences in many disciplines.

BASIC TRAINING SCHEME PROPOSAL

Basic Module Structure

- **Class Room Training – Core Competences (1 week & 3 weeks & 1 week) and Distance Learning – Generic Competences within 6 months – accredited with ECVET credits**
  - In-between: Distance learning modules (Mentors)
  - Group and individual assignments
  - Structured self-study
  - Site visits
  - Tutoring (at least 3 months)



MACRO LEARNING OUTCOMES

After the successful completion of the Basic Training Scheme, the learner will be able to:

1. Demonstrate a systemic vision of nuclear safety by understanding the explicit and implicit connections among technological, social, human and organizational features.
2. Explain the fundamental principles that form the system for the protection of human and their environment from ionizing radiation.
3. Discuss the legal basis and regulatory process that empower the NRA to govern its operation.
4. Describe the fundamentals of safety culture.
5. Explain the basics of regulatory oversight of licenses including the management of safety culture and to compare the different oversight approaches.
6. Identify the different steps of the safety culture oversight process and to differentiate between nuclear safety and nuclear security culture.
7. Discuss the basic, applied and advanced technical disciplines related to the regulatory control of facilities and activities using ionizing radiation.
8. Describe and discuss regulatory practices such as assessment and inspections technologies, investigation and auditing.
9. Demonstrate soft skills necessary to carry out regulatory functions.

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 (3 weeks)
  - Module II - A: Technical Concepts governing Nuclear Safety
  - Module II - B: Technical Concepts governing Radiation Protection
- **Module III:** Regulatory Oversight of Safety Culture (1 week-not included in the pilot study))
- **Module IV:** Structured Tutoring (min. 3 months in 'home organization')

DG-ENER PILOT STUDY
PURPOSE

To foster and evaluate, on the basis of a concrete field test case, the potential of the pilot training in establishing a level playing field of skills and competences for safety assessment carried out by safety authorities/regulators and TSOs in the EU MSs

IDENTIFIED CHALLENGES

1. Further development of scientific and technological excellence at EU level, through governance for nuclear Education and Training
2. Better qualification and transfer of knowledge, skills and competences (KSC), with the aim to continuously improve mobility of experts and nuclear safety culture at large
3. Contribution to the development and dissemination of the scientific basis necessary to allow a well-informed dialogue on nuclear systems and applications

THE TRAINEES

Young professionals working with a Regulator or a Technical Support Organisation in EU MSs

- 18 Trainees (6 women)
- 13 from EU NRAs and 5 from EU TSOs

WORK PLAN

- **2014:**
  - Basic Training Course Syllabus finalized;
  - Preparation of the 2015 pilot session of the Basic Training Course: NRAs and TSOs invited to select one young professional to follow the pilot curriculum;
- **2015:**
  - pilot courses organized all along the year;
  - Evaluation and feedback collected for each course of the pilot session for trainees and trainee's organizations and for the lecturers;
- **2016:**
  - ECVET draft scheme presented and discussed with all participants to the 2015 pilot session.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