



Design, Implementation & Evaluation of Competencies

Working Session 1 · 15:00–17:00



SESSION OVERVIEW

What We'll Achieve Today

Shared Terminology

Familiarize with constructive alignment — translating competencies into learning activities and assessment criteria

Collect Ideas

Gather perspectives on common terminology and approaches to competency design in radiation protection education

Build Consensus

Explore best practices in learning design and evaluation across member states

Building a Common Language

Role

A position with assigned responsibilities in a specific context

e.g. RPE, RPO, MPE,
emergency worker, lab
responsible...

Duty

A specific task or function performed within that role

e.g. oversee practical implementation,
give advice, inspect on...

Competence

The demonstrated ability to perform a duty to a defined standard, integrating knowledge, skills, and attitudes (KSA)

Qualification

Formal recognition that a person has achieved a defined competence level

e.g. by the training provider, by the
regulatory authority, by a professional body

Learning Pathway

The structured combination of education, training, and experience that builds a competence

Six example tasks

Consider these duties as examples across radiation protection contexts.



Radionuclide lab

As an RPE: inspect a controlled area and advise on improvements



Nuclear Facility Worker

Take appropriate measures in case of surface contamination



Risk Communication

Inform workers and the public on radiation risks related to their tasks



Emergency Response

Make a preliminary risk assessment in early-phase response to a traffic incident involving radioactive sources



Industrial Radiography

Verify safe encapsulation of a gamma source used in radiography



Public Engagement

Inform the public to participate in measurement campaigns



Group 2

DISCUSSION QUESTION 1

Designing Competencies

Choose one task. Define a learner profile — then work through these prompts:

→ International References

Which standards help design competencies for this duty?

→ Bloom's Taxonomy

Are competencies already formulated? Can they be improved using Bloom's verbs? What is lacking?

→ Assessability & Scope

Is this competence assessable? Role-specific or generic? Does complexity match the role?



Group 1



Group 2

DISCUSSION QUESTION 2

Designing Learning Activities

Using the same task as Q1 — what learning pathway best develops this competence?

1

Activity Design

What activities train this competence to the right level and detail? (Theory, lab, role-play,

2

Sequence & Format

How should activities be sequenced? Consider E-learning vs Training vs OJT, assessment points, and prerequisites.

3

Feasibility & Future Needs

What is needed to develop these activities? Are they feasible now, or are specific resources required for the future?



Group 1

Evaluating Competencies



Group 2



Group 1