Overlapping of mapped competence profiles

Overlapping means finding intersections between the various vocational training occupations in Europe by overlap the mappings. Overlapping makes it possible to identify the areas of competence in which intersections between the individual occupations can be found and to highlight relevant cross-cutting competences. Based on the overlaps and the descriptions in the competence matrix, the following overlaps have been identified (which have led to the development of interdisciplinary learning modules):

Module 1: Planning, commissioning and operation of a solar thermal system

Used Mappings: Germany = 3; Spain = 8; Finland = 11

Competence areas 1 and 8 / unit 1 (both)

In which way does the module enrich the content of one profession with qualification requirements from previously unrelated areas?
✓ Learners learn how to use the correct symbols for the technical communication of technical systems from the perspective of another trade.
✓ Electricians gain more expertise in solar thermal systems.
✓ Installers gain more expertise about the electrical requirements of the solar thermal system and the necessary cabling.
✓ Students understand the needs of other trades in relation to solar thermal systems.
✓ The trainees communicate effectively with trainees from other professions.

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Module 2: Customer request for a photovoltaic system

Used Mappings: Germany = 1 + 2; Netherlands = 9

Competence areas 1, 7 and 8 / unit 1 (both)

In which way does the module enrich the content of one profession with qualification requirements from previously unrelated areas?
• The module enriches eletricians' training with the perspective of working at heights and specifically on roofs of buildings. • The module enriches roofers' training with the aspect of working with hazardous voltages and general principles of electronics. • It introduces new safety rules and protective gear to both electricians and roofers. • The module introduces sustainable aspects like carbon emission reduction to the current curriculums. • It enriches roofers' training by the aspect of calculating energy yield and dealing with aspects which lead to reduced output power.

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Module 3: Reducing the energy consumption of a residential building with a smart home system

Used Mappings: Germany = 3; Italy = 5

Competence areas 5 (unit 2), 8 and 10 / unit 1 (both)

In which way does the module enrich the content of one profession with qualification requirements from previously unrelated areas?
Plant mechanic for sanitary, heating and air conditioning systems: • Internet of Things (IoT) technology to manage interconnected smart home systems Electronics technician for energy and building technology: • Operation and functionality of different heating systems and the respective control options • Internet of Things (IoT) technology to manage interconnected smart home systems IoT-Specialists: • Operation and functionality of different heating systems and the respective control options All: • Possibilities of the reduction of the energy consumption of a residential building • Professionals learn how to educate clients about energy savings, ROI (Return on Investment) of smart systems, and the environmental benefits, transitioning from technical roles to advisory capacities.

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Module 4: Troubleshooting – a costumer reports a cold room

Used Mappings: Germany = 1 + 2; Italy = 5; Spain = 6

Competence areas 2 + 8 /unit 2 (both)

In which way does the module enrich the content of one profession with qualification requirements from previously unrelated areas?

Plant mechanic for sanitary, heating and air conditioning systems

- Structure of the insulation of the outer wall, ceiling and floor
- Possible sources of errors in insulation; thermal bridges etc.
- Professional sealing of windows and doors and possible sources of faults
- Checking the power supply to the heating system
- Checking the temperature control

Electronics technician – specializing in energy and building technology

- Structure of the insulation of the outer wall, ceiling and floor
- Possible sources of errors in insulation; thermal bridges etc.
- Professional sealing of windows and doors and possible sources of faults
- Components of a gas heating system and their importance for the operation of the heating circuit
- Adjusting and checking the function of a thermostatic valve and replacing the thermostatic head
- Professional venting of a heating system
- Filling the water in the heating circuit correctly

Roofer, Window maker, drywall builder and similar branches

- Components of a gas heating system and their importance for the operation of the heating circuit
- Adjusting and checking the function of a thermostatic valve and replacing the thermostatic head
- Professional venting of a heating system
- Filling the water in the heating circuit correctly
- Checking the power supply to the heating system
- Checking the temperature control

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