AILEEN

Resource Labs: Step-by-step resources development

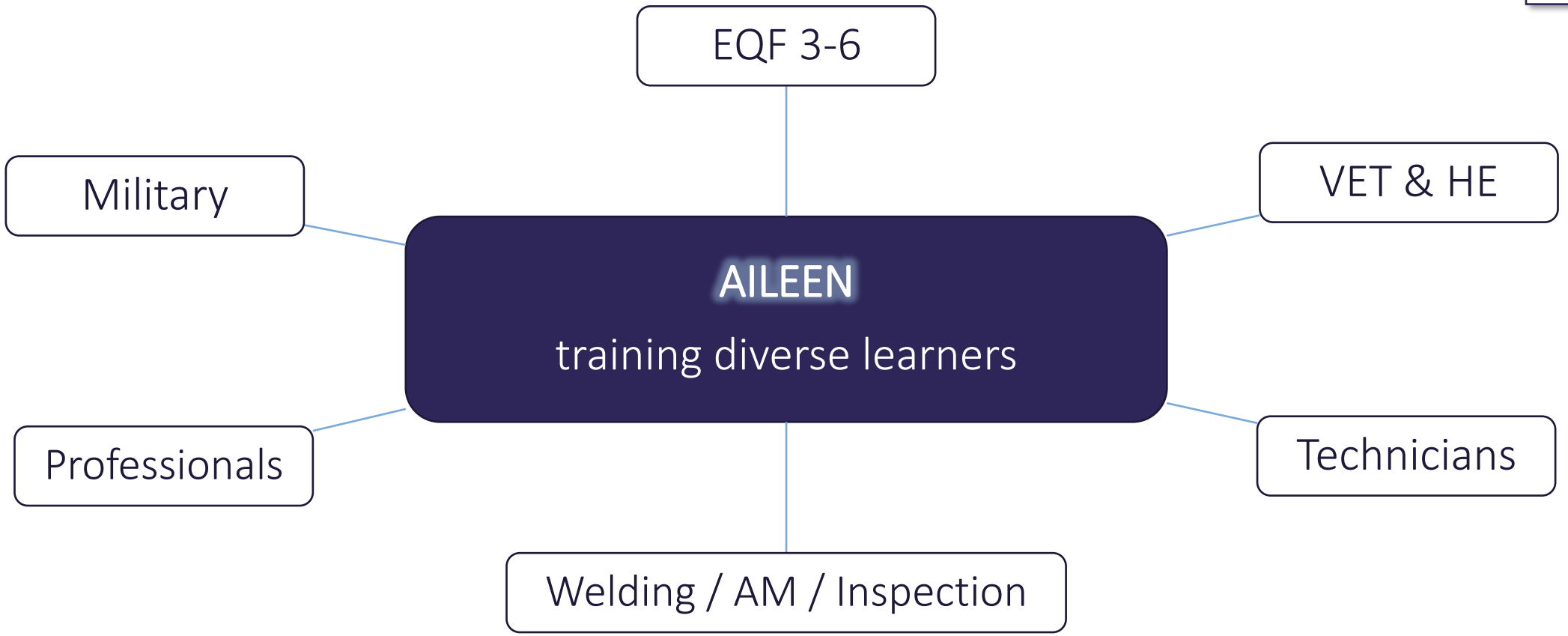
Exercise and queries to engage students in training

Isabel Alonso Gomes
FAN3D

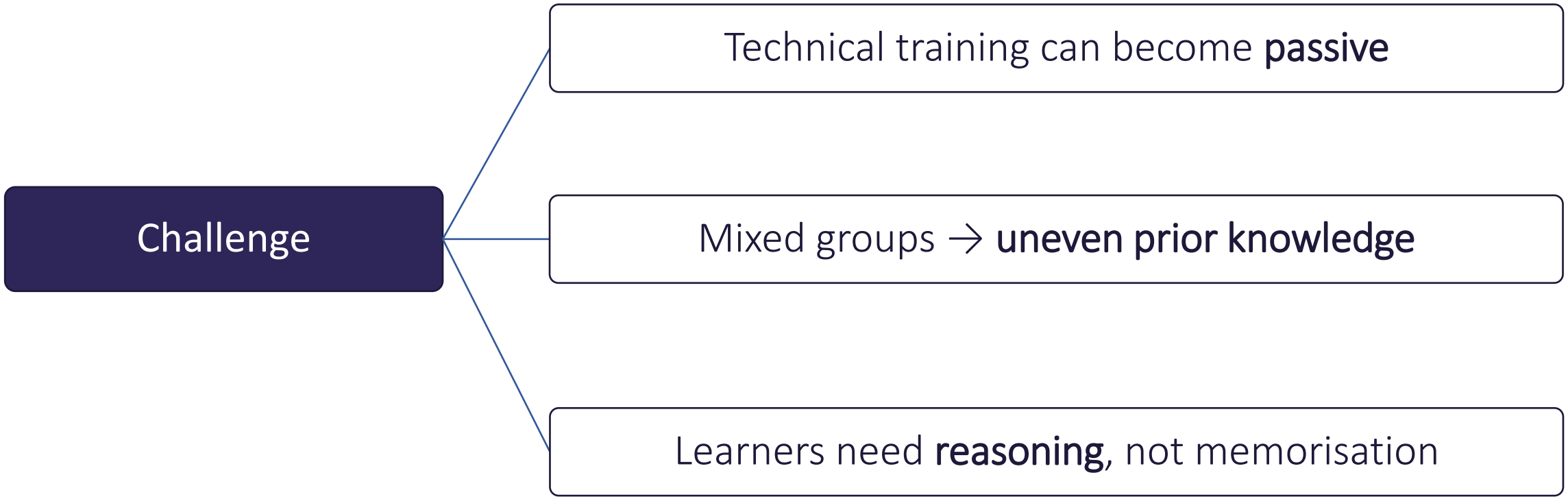
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them. PROJECT REFERENCE NO. 101103507

Co-funded by the European Union

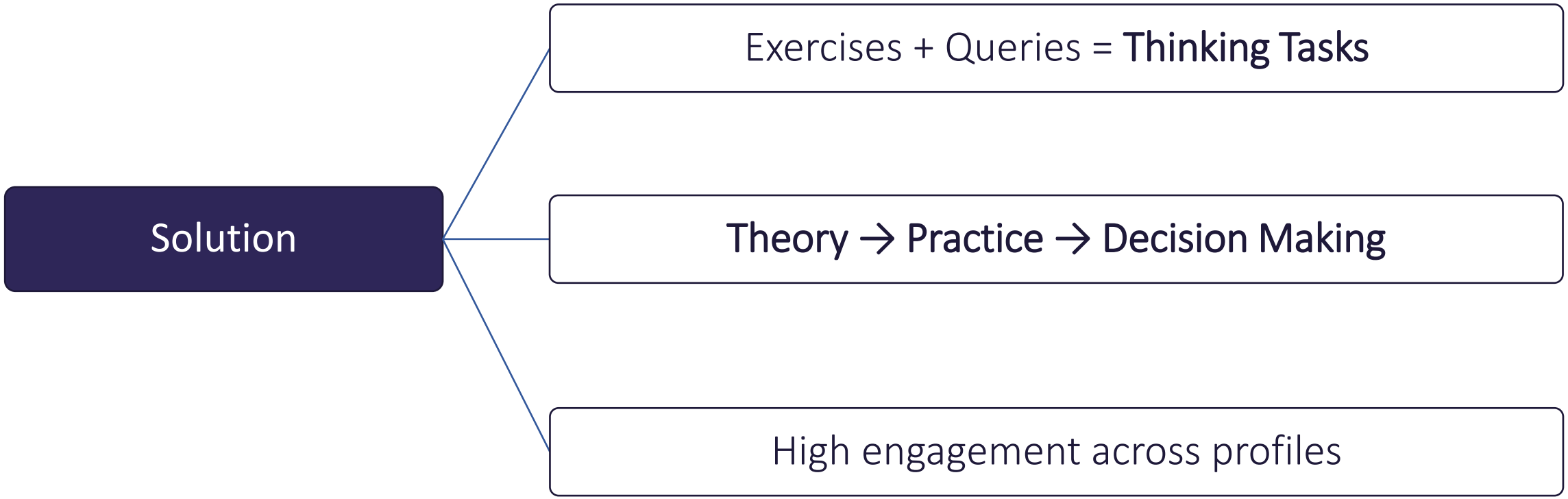
Exercise and queries to engage students in training
Context



Exercise and queries to engage students in training
Context



Exercise and queries to engage students in training
Context



Exercise and queries to engage students in training
Examples

Example 1 (CU AI_02, EQF 4)

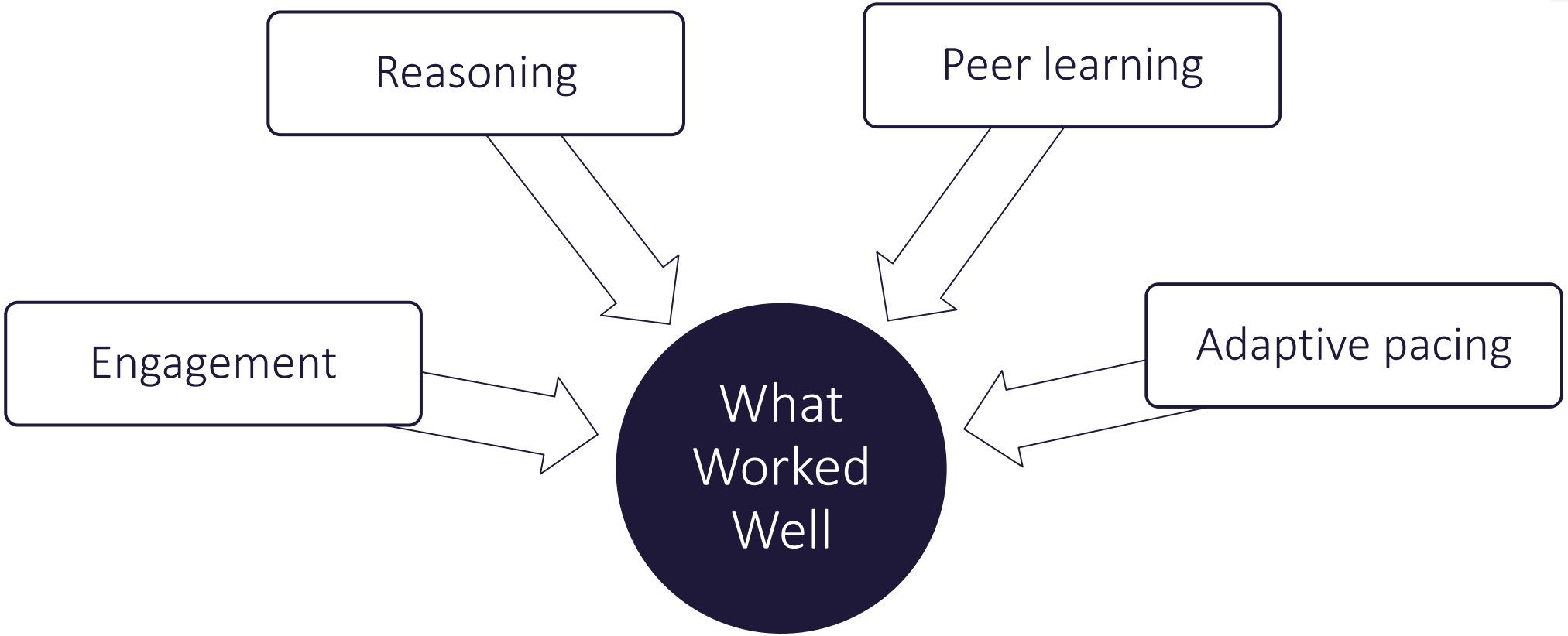
Decision-making exercise	Three AM parts: metal • polymer • lattice	
	Task:	choose the measurement system
	Pedagogical value:	structured reasoning
		learner experience
		trainer facilitates, does not validate

Exercise and queries to engage students in training
Examples

Example 2 (CU AI_02, EQF 4)

Comparison Table	CMM vs Optical Scanner	
	Task:	compare measurement techniques across criteria
	Pedagogical value:	organises knowledge
		reveals misconceptions
		supports structured discussion

Exercise and queries to engage students in training
Application results



Exercise and queries to engage students in training
Application results

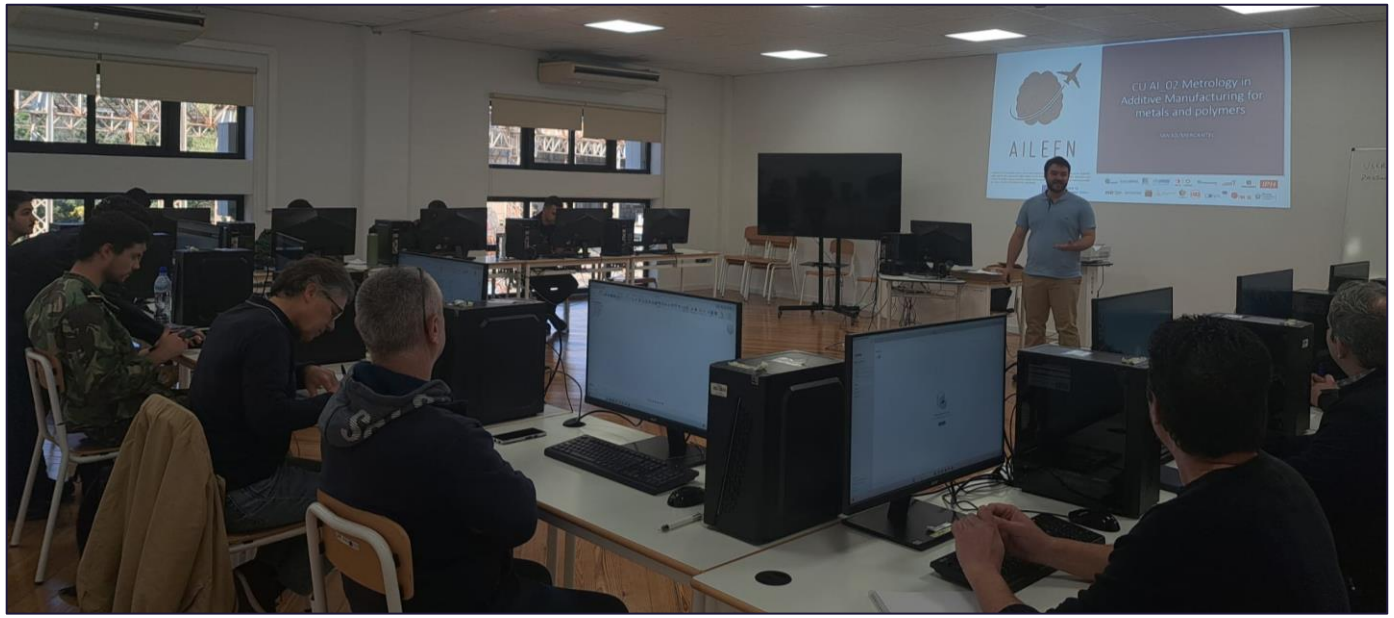
Lessons Learned

Start simple → build complexity

Use real parts/images

Encourage group reasoning

Micro-explanations



Exercise and queries to engage students in training
Key takeaways



Exercises and queries turn technical content into **thinking tasks**.



Small, well-designed questions **create big engagement** — especially in AM.

Isabel Alonso Gomes

FAN3D

iagomes@amfan3d.com



AILEEN