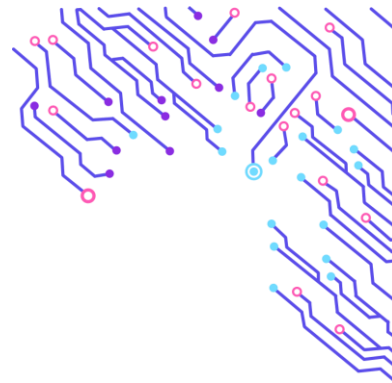




UPSKILL**ED**

Upskilling for the Educational Technological Transformation



WP2 Development of Competency Matrices

COMPETENCYMATRIX for "AI Integration in Learning
Micro-Credential" (EQF4) for Youth Trainers and AE

Project: AI-UpSkilled – 2025-1-ES01-KA220-HED-000355590

Date: May 2026

Version: FINAL

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Document Number	WP2_2.4
Deliverable Name	Competency Matrix (Youth Trainers and AE - EQF4
Work Package (WP)	WP2
Lead Beneficiary	INNOPARES (M. Begoña Arenas)
Deliverable Type	R – Document, report
Dissemination Level	PU – Public
Due Date (month)	May 2026
Description	Proposal of AI master and 6 Units competence matrices for educators at EQF level 4. It directly supports: OBJ2: Upskilling educators to use AI tools ethically and critically. OBJ3: Providing teachers with engaging digital teaching strategies using AI.
Corresponding AIUpskilled Objective(s)	It also contributes to: OBJ5: Facilitating collaboration and transferability of AI competencies across HE, AE, VET, and Youth sectors. OBJ6: Raising awareness by establishing clear, inclusive AI learning standards.

EXECUTIVE SUMMARY

This document presents the final, publication-ready EQF Level 4 Competency Matrix developed under Work Package 2 (WP2) of the AI-UpSkilled Erasmus+ project (2025-1-ES01-KA220-HED-000355590). The matrix is the outcome of a multi-stage process combining systematic desk research, structured focus-group consultations, and iterative validation across three partner countries: Spain, Greece, and Portugal. It provides a coherent framework of AI-related competencies tailored to the needs of Youth Trainers, Adult Educators, and VET practitioners, enabling them to integrate artificial intelligence safely, ethically, and effectively in everyday teaching and learning contexts.

The framework is organised into six (6) Competency Units: Digital Teaching, Assessment, Ethics, Gamification, Accessibility, and Collaboration. Each unit is articulated through knowledge, skills, and autonomy/responsibility descriptors aligned with European Qualifications Framework (EQF) Level 4 and written in accordance with internationally recognised guidance on learning-outcome formulation. In particular, the descriptors follow the principles set out in the EASO Guide to Writing Learning Outcomes, ensuring clarity, measurability, and applicability for both training design and assessment (European Asylum Support Office, 2018).

The matrix is explicitly designed to support educators operating in predictable, practice-based professional contexts, who require structured, actionable guidance for the pedagogical use of AI rather than technical or specialist-level depth.

The evidence base draws on the WP2 Desk Research Report (AI-UpSkilled Consortium, 2026), which synthesises European regulatory and pedagogical frameworks including the EU AI Act (European Parliament & Council of the EU, 2024), GDPR (2016), DigCompEdu (Redecker & Punie, 2017), the UNESCO AI Competency Framework for Teachers (Miao & Cukurova, 2024), the OECD-EC AI Literacy Framework (OECD & European Commission, 2025), Universal Design for Learning (CAST, 2018), WCAG 2.1 (W3C, 2018), and the Digital Education Action Plan (European Commission, 2021). These sources were complemented by insights from three focus groups facilitated by MEDEA Lab (Greece), Innopares (Spain), and ISQe (Portugal), involving 28 educators from adult, youth, and VET sectors.

Consultation findings confirmed that the six competency areas are highly relevant for EQF Level 4 practitioners, who require practical, accessible, and ethically grounded approaches to AI use. These findings were first refined through an internal peer-review process involving experts from consortium partner institutions, which confirmed the overall coherence of the framework and led to targeted improvements in clarity, terminology, and EQF alignment across all units.

The revised matrix was subsequently subjected to external validation by 41 independent stakeholders from vocational, adult, and youth education contexts across Europe. External validators strongly endorsed the framework, emphasising the need for

ethics to function as a cross-cutting principle rather than a standalone topic, highlighting the central role of human judgement in AI-supported assessment, and confirming that accessibility and inclusion must guide all AI-mediated teaching and learning activities. Validators also stressed the importance of clear institutional guidance and safe, user-friendly workflows to prevent uncritical reliance on AI tools.

All quantitative and qualitative validation results were systematically integrated into the final EQF4 competency matrix, strengthening the autonomy and responsibility descriptors, reinforcing transversal ethical and inclusive principles, and sharpening the practical orientation of the assessment, accessibility, and collaboration units.

The validated EQF4 matrix serves as the foundation for Work Package 3 (WP3), which will develop a 30-hour (1 ECTS) micro-credential aligned with Europass and the Council Recommendation on Micro-credentials (2022). WP3 will translate the validated competencies into a structured training programme, including applied learning activities, assessment tasks, and SCORM-compliant digital resources, ensuring that educators build AI capability that is ethical, inclusive, and pedagogically sound.

GLOSSARY

Term	Definition
AI Literacy	Basic ability to understand what AI tools do, recognise their benefits and risks, and use them responsibly in familiar teaching contexts. At EQF4, this emphasises <i>practical use, bias awareness, and safe application</i> , not technical understanding.
AI Act (Regulation (EU) 2024/1689)	EU regulation establishing rules for the safe and transparent use of AI systems, including obligations for fairness, human oversight, and basic AI literacy for users.
Algorithmic Bias	Unfair or inaccurate outputs generated by AI tools due to limitations in training data or model design. EQF4 educators must be able to <i>identify</i> and <i>correct</i> biased AI content before using it with learners.
Autonomy and Responsibility (EQF4)	The EQF dimension describing how learners apply skills in predictable contexts, follow established procedures, and take responsibility for completing tasks safely and ethically.
Co-design Workshop	A structured session in which educators and stakeholders collaboratively refine competencies, learning outcomes, or training content. Used in WP2 to validate the EQF4 matrix.
Competency Matrix	A structured framework defining what educators should <i>know, be able to do, and take responsibility for</i> at a specific EQF level. The EQF4 matrix includes six competency units.
DigCompEdu	The European Digital Competence Framework for Educators, outlining digital teaching competencies across six areas. Used as a key reference for EQF4 competency development.
Digital Education Action Plan (2021–2027)	The EU's policy framework promoting digital skills, digital teaching capacity, and safe adoption of emerging technologies, including AI, in education.
EQF (European Qualifications Framework)	The EU reference framework defining eight levels of learning outcomes across knowledge, skills, and responsibility/autonomy. Used to calibrate the EQF4 matrix.
Europass	The EU platform for issuing, storing, and sharing digital credentials, including micro-credentials aligned with the EQF4 training pathway developed in WP3.

Term	Definition
External Validation	Review of draft materials by educators or experts outside the consortium to confirm clarity, relevance, and feasibility before final approval.
Focus Group	A guided small-group discussion used to gather qualitative insights on educators' needs, experiences, and priorities during the co-design of the EQF4 matrix.
GDPR (General Data Protection Regulation)	EU regulation governing privacy, consent, data protection, and appropriate handling of personal data, including when using AI tools.
Inclusivity	The practice of removing barriers so all learners can participate fully. At EQF4, this includes checking AI outputs for accessibility, cultural appropriateness, and bias.
Learning Outcome	A clear, assessable statement describing what a learner should <i>know, be able to do, and take responsibility for</i> after completing a learning activity. All outcomes follow EASO guidance.
Micro-credential	A short, structured learning programme whose outcomes are assessed and recognised using standard EU quality principles. The EQF4 matrix underpins the WP3 micro-credential.
SCORM	A technical standard used to package and track e-learning materials. WP3 will produce SCORM-based modules aligned with the EQF4 matrix.
UDL (Universal Design for Learning)	A framework for creating flexible learning environments that support all learners. Forms the basis for the Accessibility competency unit.
UNESCO AI Competency Framework for Teachers	An international reference describing essential AI competencies for educators; used as a supporting source in the EQF4 matrix design.
WCAG 2.1	International accessibility standards used to ensure digital and AI-generated content is usable by learners with diverse needs.
WP2 (Work Package 2)	The work package responsible for designing and validating the EQF4 competency matrix.
WP3 (Work Package 3)	The work package that develops the training programme and micro-credential based on the EQF4 matrix.

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1. INTRODUCTION: The AIUPSKILLED PROJECT

Programme: Erasmus+ KA220-HED

Duration: October 2025 – March 2028

Budget: €400,000

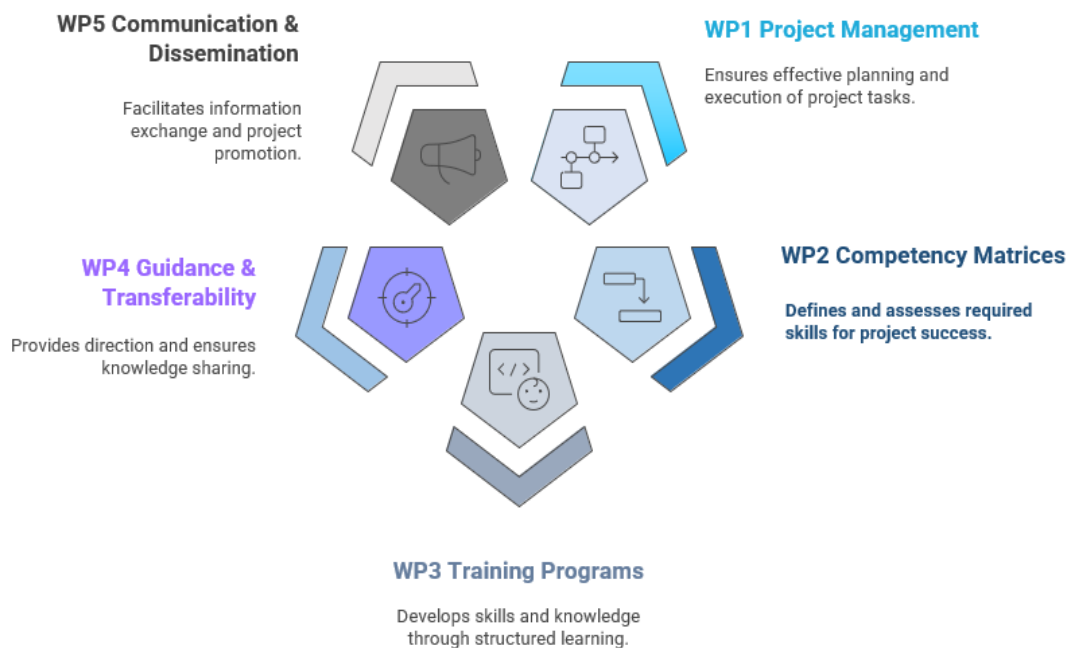
Coordinator: Universitat de les Illes Balears (Spain)

Partners: ISQe (Portugal), Innopares (Spain), Masaryk University (Czechia), Frederick University (Cyprus), Medea Lab (Greece)

The project responds directly to the EU Digital Education Action Plan (2021–2027) (European Commission, 2021), which identifies AI literacy for educators, ethical digital pedagogy, and inclusive learning design as priority areas for action. It is further anchored in the EU AI Act's Article 4 literacy obligations (European Parliament & Council of the EU, 2024), which establish institutional responsibilities for ensuring that education providers and deployers of AI systems possess adequate competence to operate them responsibly and critically.

AI-UpSkilled's is organised in 5 Work Packages as illustrated in the figure below. The central deliverables are two EQF-aligned competency matrices (WP2) and corresponding SCORM-based training programmes (WP3 and 4): a EQF Level 6 course (60 hours, 2 ECTS) targeting higher education professors and academic staff, and an EQF Level 4 micro-credential (30 hours, 1 ECTS) for adult education, VET, and youth educators. Both courses are designed to be interoperable with Europass digital credentials and the 2022 Council Recommendation on Microcredentials (Council of the EU, 2022), enabling formal recognition and cross-border transferability of AI-related competencies across the European Education Area (European Commission, 2023).

Figure 1: AI-Upskilled organisation in Work Packaged



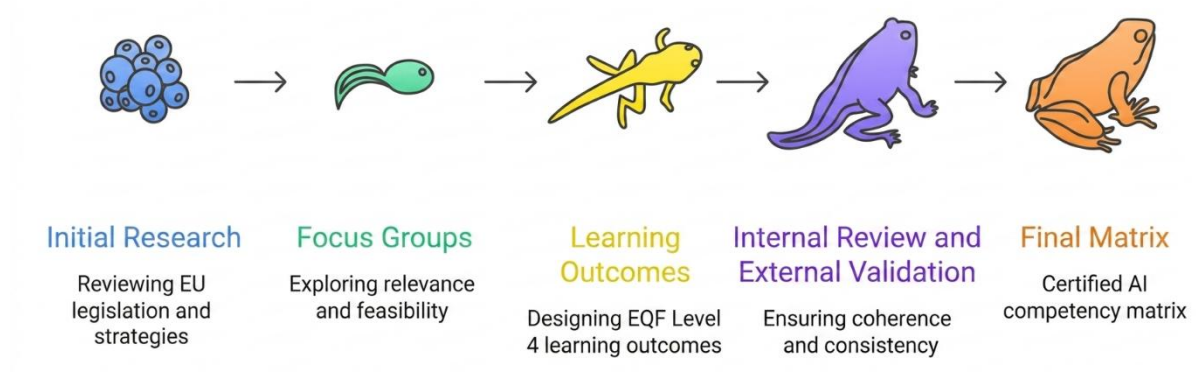
This document presents the final, validated EQF Level 4 Competency Matrix, produced through Work Package 2 (WP2). It combines systematic desk research, co-design workshops, and structured focus group consultations to ensure that the framework is simultaneously grounded in European policy and regulatory imperatives and responsive to the lived realities of academic professional practice. The competency framework targets six domains: AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy and Governance, identified as the most critical areas for HE professors navigating the transformation of their teaching and institutional roles in an AI-mediated educational landscape (AI-UpSkilled Consortium, 2026).

Following the Executive Summary and Glossary, Section 1 introduces the AI-UpSkilled project; Section 2 describes the methodology; Section 3 synthesises findings across the desk research and focus-group reports; Section 4 presents the EQF-4 master competency matrix; Section 5 details the six competency units (Digital Teaching, Assessment, Ethics, Gamification, Accessibility, and Collaboration) each with EQF-aligned learning outcomes; and Section 6 provides conclusions and next steps, followed by the References and Annexes.

2. METHODOLOGY

This section describes the four-stage methodology through which the AI-UpSkilled EQF Level 4 Competency Matrix was developed. The methodology is grounded in principles of evidence-based curriculum design and participatory co-design, ensuring that the resulting framework is simultaneously anchored in European policy and research evidence and validated by the professional realities of practising higher education academics. Each stage is described below in terms of its purpose, procedures, and contribution to the final matrix.

Figure 2: AI-UpSkilled EQF4 Competency Matrix Development Methodology.



2.1 Stage 1: Systematic Desk Research

The development process began with a systematic desk research review. The purpose of this stage was to map the existing landscape of European and international frameworks, legislative instruments, and pedagogical standards relevant to AI competency development in higher education, and to identify transferable evidence and persistent gaps that should inform the matrix design.

The review was structured around five categories of sources:

(1) binding EU legislation, specifically the AI Act (Regulation (EU) 2024/1689) and GDPR (Regulation (EU) 2016/679)

(2) pan-European policy instruments, including the Digital Education Action Plan (2021–27), the EQF Recommendation, the Council Recommendation on microcredentials (2022), and the Europass framework

(3) competency and digital literacy frameworks, namely DigCompEdu (Redecker, 2017), the UNESCO AI Competency Framework for Students and Teachers (2024), and the OECD/EC AI Literacy Framework (2025)

(4) accessibility and inclusion standards, principally WCAG 2.1 and Universal Design for Learning (CAST, 2018); and

(5) national AI and education strategies from the five partner countries (Spain, Portugal, Greece, Cyprus, and Czechia).

The review applied an inclusion criterion focusing on sources published between 2018 and 2025 that explicitly address AI, digital skills, or microcredentials in formal education contexts.

The key output of this stage was an evidence-to-competency synthesis that proposed six thematic clusters for EQF Level 6 (AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy) each supported by a crosswalk against EQF Level 6 knowledge, skills, and responsibility/autonomy descriptors. This synthesis also documented notable gaps in the existing literature, including insufficient attention to assessment integrity in AI contexts, underrepresentation of accessibility and inclusion in HE AI courses, and limited Recognition of Prior Learning mechanisms, all of which have been addressed in the matrix design.

2.2 Stage 2: Focus Group Consultations

Following the desk research, three focus group sessions were conducted between December 2025 and February 2026, involving a total of 28 stakeholders engaged by three partner institutions (MEDEA Lab, Innopares and ISQe). The sessions were designed as structured qualitative consultation activities grounded in principles of Experience-Based Co-Design (Bate & Robert, 2007), enabling participants to critically examine, refine, and prioritise the proposed competency framework based on their professional experience.

Below we have included a table summarising the key information from the focus groups:

Table 1: Summary of focus groups key information

Partner	Focus groups: Date & Time	Number of participants
MEDEA	05 th December 2025	8
Innopares	14 th January 2026	14
ISQe	9-12-18 th February 2026	6
Total		28

Each session followed a common protocol developed by the consortium: a brief presentation of the six proposed competency areas; a structured discussion guided by seven question themes (agreement check, prioritisation, context-based reflection, challenges, feasibility, support needs, and future trends); and a post-session evaluation combining five-point Likert-scale items with open-ended reflective questions. All sessions were conducted online, recorded with participant consent, and subsequently transcribed and anonymised for analysis.

Participants were recruited through each partner institution's networks to ensure a broad mix of professional backgrounds, teaching contexts, and levels of experience with AI tools. The final group included educators from Adult Education, Youth programmes, VET settings, and Secondary Education, alongside educational designers and digital-skills specialists. This diversity was intentional: because the EQF Level 4 matrix is designed to support practitioners working across a wide range of non-formal and formal learning environments, the consultation process needed to reflect this heterogeneity to ensure that the resulting competency framework would be relevant, inclusive, and transferable across sectors.

Qualitative data from the focus group discussions were analysed thematically, with attention to convergences and divergences across sessions, areas of strong consensus, contested or underrepresented competencies, and specific proposed modifications to the draft framework. The findings of this analysis are presented in full in Section 3 (Cross-Document Synthesis) and have been incorporated into the rationale narratives that precede each unit table in Section 4.

Note: All participants provided informed written consent prior to their session. No personally identifiable data are included in this report. Session recordings were used solely for internal analysis and are stored in compliance with GDPR provisions. Session evaluation data are aggregated across participants.

2.3 Stage 3: Learning Outcome Design and EQF Alignment

Once the focus group evidence had been synthesised, the project team proceeded to translate the identified competency areas into formally specified learning outcomes aligned with EQF Level 4 descriptors. This process was guided by two primary methodological references: the practical framework for writing learning outcomes described in Kennedy, Hyland, and Ryan (2009), and the revised Bloom's Taxonomy (Anderson & Krathwohl, 2001).

Each learning outcome was written following the three-part structure recommended by Kennedy et al. (2009):

- an observable action verb drawn from Bloom's revised taxonomy, specifying the cognitive level of the expected performance.
- an object, identifying what the learner acts upon
- and a contextual qualifier, situating the performance within the specific domain of AI-integrated higher education.

Vague or unmeasurable terms ("understand", "know", "appreciate") were systematically excluded in favour of verbs that signal observable, assessable behaviour.

In calibrating outcomes to EQF Level 4, the team applied a two-stage verification process. First, each outcome was mapped against the EQF Level 4 descriptors for Knowledge (*Understands basic AI concepts and their application in teaching practice*), Skills (*Applies AI tools to enhance learning activities and assessment in practical contexts*), and Autonomy and Responsibility (*operates AI tools responsibly in routine contexts, ensuring fairness and data protection*). Second, each outcome was classified according to Bloom's revised taxonomy level, with a design rule that no EQF Level 4 outcome should sit below the 'Apply' level, and that the majority should be concentrated in the 'Analyse', 'Evaluate', and 'Create/Synthesise' domains. The Bloom level column included in each unit table in Section 5 makes this calibration transparent and auditable by curriculum developers, external assessors, and quality assurance bodies.

In line with Kennedy et al.'s (2009) guidance that learning outcome tables should be clear, uncluttered, and readable for all audiences, including students and employers, in-text references have been deliberately excluded from the table cells. Full evidential sources are provided in the narrative sections preceding each unit and in the References section of this document.

2.4 Stage 4: Internal Review and External Validation

The draft competency matrix produced in Stage 3 underwent an iterative **internal review process** conducted by the full AI-UpSkilled consortium prior to finalisation. This peer-review phase, coordinated by Innopares as WP2 lead, involved all six partner institutions and focused on ensuring methodological coherence, consistency of

terminology across competency units, alignment with EQF Level 4 and Europass requirements, and fidelity to evidence gathered during the focus-group consultations. Partners contributed national and sector-specific perspectives, enabling the matrix to be systematically stress-tested across diverse higher-education and adult-learning contexts in Spain, Portugal, Greece, Cyprus, and Czechia.

Following internal consolidation, the revised matrix was subjected to **external validation with 41 independent stakeholders**, exceeding the minimum targets defined in the WP2 work plan. External validators included educators, teacher trainers, institutional managers, AI and digital-learning specialists, and policy-informed practitioners recruited through professional networks and advisory bodies across partner countries. The validation process took place between February and April 2026 and combined structured quantitative feedback with qualitative commentary.

External validation confirmed the relevance, clarity, and practical applicability of all six competency units for EQF Level 4 practitioners. Validators strongly endorsed the emphasis on ethics as a transversal principle, the centrality of human judgement in AI-supported assessment, and the integration of accessibility and inclusion across all AI-mediated teaching and learning activities. Feedback also highlighted the importance of clear institutional guidance, safe and transparent workflows, and pedagogically grounded use of AI tools to avoid automation bias and uncritical reliance on generative systems.

All internal review insights and external validation findings were systematically analysed and directly incorporated into the final EQF4 competency matrix, resulting in strengthened autonomy-and-responsibility descriptors, clearer assessment orientation, and reinforced transversal principles of ethics, inclusion, and professional accountability.

The validated and revised matrix constitutes the final certified EQF4 competency framework and is delivered as WP2 Deliverable 2.4 (Final Competency Matrices in all languages, June 2026). It provides the formal foundation for Work Package 3, which will translate the validated competencies into a 30-hour (1 ECTS) micro-credential aligned with Europass and the Council Recommendation on Micro-credentials (2022).

The overall methodology can thus be characterised as a **sequential, multi-stakeholder co-design process: grounded in a systematic evidence review, validated through participatory consultation, specified through established outcome-writing frameworks, and quality-assured through iterative internal peer review and external validation**. This approach is consistent with international best practice for the development of EQF-aligned qualification frameworks and ensures that the resulting matrix is simultaneously rigorous, practical, and transferable.

3. CROSS-DOCUMENT ANALYSIS AND SYNTHESIS

Before presenting the final matrix, this section offers a structured analysis of the convergences and divergences identified across the three focus group reports (UIB 14 January 2026, UIB 27 January 2026, and Masaryk University 20 January 2026) and their relationship to the desk research findings. This synthesis provides the evidential foundation on which each competency unit rests.

3.1 Overview of the Evidence Base

The competency framework presented in this document is grounded in four primary source categories:

- The first is the WP2 desk research report (AI-UpSkilled Consortium, 2025), which provides a systematic mapping of European policy instruments, international standards, and academic literature relevant to AI integration in education.
- The second comprises three focus group reports from MEDEA Lab, Innopares and ISQe collectively representing 28 participants across Spain, Portugal and Greece.
- The third source category consists of authoritative European regulatory and framework documents: the EU AI Act (European Parliament & Council of the EU, 2024), GDPR (European Parliament & Council of the EU, 2016), the EQF Council Recommendation (Council of the EU, 2017), the Microcredentials Council Recommendation (Council of the EU, 2022), DigCompEdu (Redecker & Punie, 2017), and the Digital Education Action Plan (European Commission, 2021).
- The fourth source category includes international frameworks: the UNESCO AI Competency Framework for Teachers (Miao & Cukurova, 2024), the OECD-EC AI Literacy Framework (OECD & European Commission, 2025), WCAG 2.1 (W3C, 2018), and Universal Design for Learning guidelines (CAST, 2018).

3.2 Recurring Themes Across All Three Focus Groups

Four major themes emerged with notable consistency across all three consultation sessions, regardless of institutional context or disciplinary composition.

Theme 1: Educators Need *Practical and Applied* AI Literacy, Not Technical Expertise

Participants in all three countries stressed that AI literacy at EQF4 must be practical, contextual, and grounded in everyday teaching tasks.

Across settings:

- Educators want “simple, real examples that fit my classroom reality” (PT).
- Greek trainers emphasised conceptual understanding and human supervision, not algorithms.

- Spanish participants highlighted the need to distinguish “AI literacy” from “teaching AI”.

This confirms the Desk Research finding that at EQF4, AI competencies should emphasise applied use, critical interpretation, and safe classroom integration, not model mechanics.

Implication for the Matrix: Competency Unit 1 (Digital Teaching with AI) must remain task-based, example-driven, and aligned with EQF4’s “applied” cognitive level.

Theme 2: Ethics, Privacy and Transparency are Non-Negotiable Foundations

All three groups expressed concern about:

- student data exposure,
- the opacity of AI tools,
- neurodiversity-sensitive or inclusive language,
- bias in generative AI,
- and the absence of institutional clarity on permitted AI uses.

Portuguese participants (especially from inclusion backgrounds) raised the most detailed concerns about neuroaffirmative language and bias in generated content, while Greek educators highlighted trust erosion and the danger of “cognitive atrophy”. Spanish participants stressed practical GDPR application (consent flows, acceptable tools, operational risks).

Implication for the Matrix: Ethics must be fully embedded across all six Competency Units, not treated as a silo.

This justifies strengthening the “Responsibility & Autonomy” column for every CU.

Theme 3: Preserving Human Judgement in AI-Supported Assessment

All three groups shared strong worries about:

- students outsourcing work to AI,
- educators being pressured to use AI feedback uncritically,
- the erosion of formative assessment quality,
- and the risks of inequitable evaluation.

Greek trainers spoke extensively about the risk of dehumanising evaluation, while Spanish VET teachers insisted on transparency statements and rubrics defining acceptable AI use. Portuguese transcripts highlight concerns that AI feedback can unintentionally marginalise neurodivergent learners.

Implication for the Matrix: Competency Unit 2 (Assessment) must explicitly include:

- transparency statements,
- AI-use declarations by learners,
- triangulation of evidence,
- and human validation of AI outputs.

Theme 4: Accessibility, Inclusion and Equity Must Guide All AI Use

In all three sessions, educators raised the same concern: AI can reinforce inequalities if not managed carefully. Common issues across countries:

- linguistic bias,
- limited digital access in rural or low-bandwidth contexts,
- need for alternative formats (text/audio),
- the risk that AI amplifies stereotypes,
- neurodiversity accessibility gaps.

Portugal provided the richest evidence: educators discussed AAC tools, neurodivergent communication needs, and the importance of plain language and inclusive prompting. Greece emphasised accessibility as the #1 priority, especially in special education. Spain highlighted institutional constraints blocking access to approved AI tools.

Implication for the Matrix: CU5 (Accessibility & Inclusion) must remain a core competency and must include UDL + WCAG alignment but also neuroaffirmative language and bias mitigation.

Theme 5: Institutional Readiness Determines Success (Not Individual Competence Alone)

A shared frustration across all countries was the absence of clear policies, approved tools, training support, and governance structures. Common educator reflections:

"We want to use AI, but we don't know what we are allowed to do." (ES)

"Top-down policy is too slow; teachers are improvising." (GR)

"We need concrete institutional guidelines and templates." (PT)

This aligns with desk research identifying institutional readiness as a critical bottleneck for AI integration in Adult/VET/Youth education.

Implication for the Matrix: Competency Unit 6 (Collaboration & Digital Citizenship) and the Responsibility/Autonomy descriptors across all units should reflect:

- shared responsibility,
- institutional governance,
- educator–manager communication,
- and safe tool selection within organisation policies.

3.3 Points Where Focus Groups Confirm the Desk Research

Across all three EQF4 consultation sessions participants consistently validated the overall structure and relevance of the six proposed competency areas in the Desk Research. Educators across countries agreed that Digital Teaching, Assessment, Ethics, Gamification, Accessibility, and Collaboration reflect the real domains where support is urgently needed. Spanish participants emphasised that the six areas “are relevant and fit for purpose in VET/adult education contexts,” confirming the Desk Research finding that EQF4 educators require applied, practice-oriented competencies rather than theoretical or technical mastery of AI systems. Greek educators reinforced this alignment, noting that AI competencies must reflect both pedagogical needs and ethical constraints in real-world classrooms, which directly mirrors the Desk Research synthesis of DigCompEdu, UDL, and UNESCO frameworks.

A second strong point of convergence was the **affirmation that ethics and privacy are core, cross-cutting pillars, not optional components.** All country groups echoed the Desk Research assertion that GDPR, transparency, fairness, and bias awareness should permeate all competency areas. Portuguese participants focused heavily on neuroaffirmative language, bias risks, and consent practices, complementing the Desk Research emphasis on responsible AI use and alignment with EU regulations such as the AI Act and GDPR. Spanish participants also underscored the need for “clearer operational guidance on GDPR and responsible AI use,” directly confirming WP2 findings that educators require practical mechanisms (templates, examples, workflows) to operationalise these principles.

Focus groups further confirmed the Desk Research’s identification of AI-supported **assessment as a high-risk**, high-priority domain requiring explicit competence. All three sessions expressed concern about over-reliance on automated feedback, validity of AI-generated outputs, and the need to preserve human judgement—all themes highlighted in the Desk Research’s analysis of GDPR Art. 22 safeguards and the ethical limitations of automated assessment. Greek educators in particular stressed that AI might undermine higher-order learning if used uncritically, while Spanish participants requested detailed examples of how to design fair, transparent, human-validated assessment workflows, precisely the gaps identified in the Desk Research benchmarking of existing EU initiatives.

Finally, the focus groups strongly validated the Desk Research conclusion that accessibility and inclusion must be systematically integrated into every stage of AI use in education. Participants from Greece highlighted accessibility as the most urgent priority, especially for learners with disabilities or varied literacy levels, while Portugal contributed rich insights on the use of assistive technologies, AAC tools, and plain language approaches. These concerns fully align with the Desk Research’s identification of WCAG, UDL, and inclusive design as essential foundations for EQF4. Spanish participants also confirmed that institutional inequalities, tool restrictions, and uneven digital readiness

must be acknowledged in the competency model, reinforcing the Desk Research emphasis on contextual constraints and the need for scalable, low-bandwidth, and accessible AI practices across Europe.

3.4 Points Where Focus Groups Challenge the Desk Research

While the Desk Research provided a strong conceptual and regulatory foundation for the EQF4 competency model, participants across Spain, Greece, and Portugal raised four challenges that prompted important refinements:

- The most significant point of divergence concerned the **practicality and accessibility of the proposed competencies. Educators** (particularly those in Adult Education and VET) emphasised that many desk-research formulations assumed a higher level of institutional maturity and digital infrastructure than exists in real practice. Spanish participants noted that institutional restrictions and uneven tool availability create a large discrepancy between “what the frameworks assume and what teachers can actually do day-to-day”, challenging the desk research’s implicit expectation that AI tools are consistently available and approved for use. Greek participants echoed this, stressing that any competency must remain operational even in low-resource, low-bandwidth contexts, whereas the desk research benchmarks (e.g., EU frameworks, UNESCO, OECD) tend to presuppose stable infrastructure.
- A second challenge concerned the **positioning of ethics as a standalone competency unit**. While the Desk Research treated ethics as one of six discrete areas, all three focus groups argued that **ethics should instead be fully transversal, informing every aspect of AI use**. Portuguese contributors especially highlighted situations where AI-generated text introduces bias or inappropriate language for neurodivergent learners, demonstrating that ethical considerations are inseparable from classroom practice rather than an isolated knowledge domain. Greek participants also insisted that ethics should be embedded “everywhere” rather than treated as an add-on, challenging the structural separation found in the desk research synthesis. This feedback directly countered the desk research’s assumption that ethics could be compartmentalised as a single unit.
- A third area where focus group insights challenged the desk research relates to **assessment**. The Desk Research identified assessment as a key competency but treated it largely as a pedagogical-technical task. Focus groups, however, insisted **that the assessment domain needs far stronger emphasis on human oversight, academic integrity, and transparency**. Both Greek and Spanish educators argued that assessment competencies must explicitly articulate the risks of over-automation and the requirement for teachers to validate AI outputs. Participants also stressed the need for learner-facing transparency measures (e.g., AI-use declarations, guided examples), which the Desk Research mentioned only implicitly. Because many EQF4 educators work with vulnerable or low-literacy populations, participants challenged the Desk Research assumption that students can readily understand or critically evaluate AI-generated feedback.

- Finally, the focus groups challenged the Desk Research by emphasising the centrality of emotional, relational, and motivational factors in AI-supported learning, elements that appear subdued in the more policy-driven desk research. Greek educators warned that AI-mediated learning risks reducing human connection, motivation, and tacit pedagogical cues, particularly in adult learning contexts. Portuguese educators added concerns about “robotic” interactions and the danger of cognitive over-reliance on automated tools among learners with fewer metacognitive strategies.

These perspectives challenge the desk research’s assumption, drawn mainly from high-level frameworks, that AI-supported engagement is universally beneficial. Instead, participants pushed for explicit competencies addressing healthy use, critical reflection, and safeguarding learner agency, prompting recalibration of the Engagement and Digital Teaching units.

3.5 Contested and Underrepresented Competencies

Across all three focus groups, several competency areas generated substantive debate or were flagged as insufficiently developed when compared to the practical realities of youth training, adult education, and VET contexts. The most contested area was **AI Literacy**, specifically the *scope* and *depth* required at EQF4. While the Desk Research positions AI Literacy as a foundational domain, educators challenged the inclusion of any content that appears “too technical” or disconnected from day-to-day practice. Participants across Spain, Greece, and Portugal agreed that EQF4 educators do not need algorithmic or architectural knowledge, instead calling for a narrowed focus on *conceptual understanding*, *interpretation of AI outputs*, and *practical classroom use*. This challenges the broader formulations in the Desk Research, which integrate elements from UNESCO and OECD frameworks that many educators viewed as more aligned with EQF6 than EQF4.

A second contested area was **Assessment**, which the focus groups considered simultaneously crucial and underdeveloped. The Desk Research highlights assessment integrity and GDPR safeguards, but participants emphasised that these issues become far more complex in applied, vocational, or adult-learning settings. Greek and Spanish educators expressed uncertainty about how to design assignments that remain valid when learners can access generative AI, while Portuguese participants stressed the risk of unintentional bias in AI-generated feedback, particularly for neurodivergent learners. Educators also noted that the Desk Research underestimates the emotional, relational, and motivational dimensions of assessment in adult education—dimensions that become critical when AI enters the process. This indicates that the assessment competency requires deeper operational guidance than originally captured

Accessibility and Inclusion also emerged as an underrepresented area. While the Desk Research highlights WCAG and UDL as essential frameworks, participants, especially in Portugal, provided extensive additional insight into inclusive communication,

neuroaffirmative language, assistive technologies, and the need for AI-supported adaptations for learners with diverse profiles. Greek educators similarly stressed that accessibility must be treated as a *baseline requirement*, not an optional enhancement. Spanish participants added that institutional constraints (tool restrictions, inconsistent infrastructure) further limit accessible implementation. These inputs revealed a gap between the conceptual framing in the Desk Research and the granular accessibility needs experienced in practice, resulting in strengthened requirements within CU5.

Finally, **Collaboration and Institutional Digital Citizenship** was identified as the competency area with the *thinnest* evidence base. Although the Desk Research cites interoperability, governance, and cross-sector transferability as priorities, the focus groups provided limited practical examples or clarity on what collaboration with AI looks like at EQF4. Portuguese and Greek participants highlighted peer learning, co-creation, and AI-supported group facilitation as emerging practices, but noted that institutional ambiguities and uneven policy environments limit their current feasibility. This suggests that the Desk Research overestimated the maturity of institutional structures and underestimated the need for concrete, low-threshold collaboration practices that educators can implement immediately.

3.6 Summary of Evidence Sufficiency

Table 2: Summary of focus groups key information

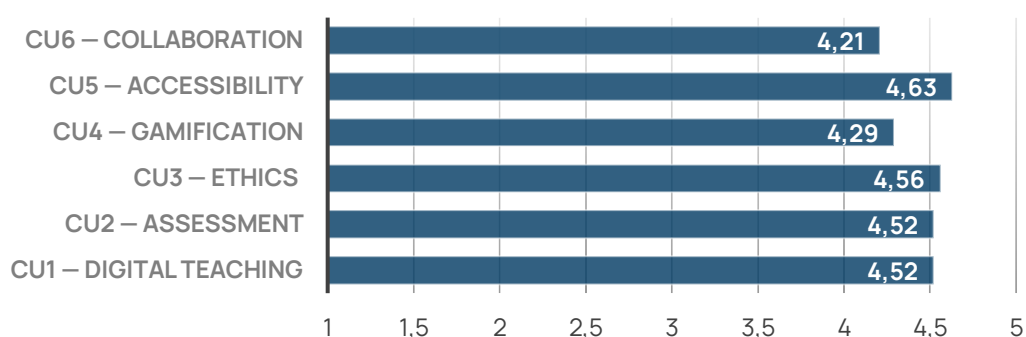
COMPETENCY UNIT	DESK RESEARCH COVERAGE	FOCUS GROUP COVERAGE	EVIDENCE ASSESSMENT
CU1 — Digital Teaching	Strong coverage from OECD–EC AI Literacy Framework, UNESCO AI Competencies, and AI Act Article 4.	Strong confirmation across all three focus groups, though educators questioned the scope and terminology (need for more practical, applied focus)	Sufficient. Minor terminological and scope tensions resolved.
CU2 — Assessment	Strong coverage from HLEG Ethics Guidelines, GDPR, and AI Act.	Strong evidence across all focus groups, with unanimous emphasis on human oversight and transparency.	Sufficient. Clear consensus that assessment ethics must permeate multiple units.
CU3 — Ethics	Strong alignment with DigCompEdu, UDL, UNESCO.	Strong FG support: educators emphasised ethics as central to practice and cross-cutting (especially GR & PT).	Sufficient. Confirmed ethics integrated across all units.
CU4 — Gamification	Strong coverage from DigCompEdu Area 4 and GDPR Article 22.	Strong FG feedback: some concerns about overlap with pedagogy and motivation.	Sufficient. Boundaries clarified in revision.
CU5 — Accessibility	Moderate coverage from OECD–EC AI Literacy and DEAP; strong normative anchors (WCAG, UDL).	Moderate FG depth: PT and GR raised platform risks, neurodiversity issues, and structural digital inequalities.	Adequate. FG insights strengthened accessibility descriptors.
CU6 — Collaboration	Strong theoretical basis (AI Act, EQF, Europass, DEAP).	Limited FG detail—collaboration with AI less developed in practice	Adequate. Evidence thinner; flagged for future validation.

3.7 Summary of results of the peer review exercise

The peer-review process involved **six expert reviewers from three partner universities (UIB, Masaryk University, Frederick University)**, each providing structured feedback and scoring on the six Competence Units (CUs) within the EQF4 Competency Matrix.

The results demonstrate strong overall validation of the competence framework, with all units receiving **average scores above 4.2/5**, reflecting a high level of coherence, clarity, and relevance of the proposed learning outcomes.

Figure 3: Peer review averages by competence units – EQF4



Across all three institutions, reviewers agreed that the competency units are well aligned with WP2 objectives and provide a clear, accurate, and well-structured foundation for practical AI integration at EQF4. They emphasised the strong ethical, inclusive, and accessibility-oriented approach embedded throughout the matrix, as well as its relevance across youth, adult-education, and VET settings. Overall, the feedback indicates that the matrix is robust, well-constructed, and well suited to the needs of educators working in predictable, practice-based learning environments.

Analysis by Competence Unit:

- CU1 – Digital Teaching (4.52): This unit received uniformly strong ratings across all reviewers, reflecting high coherence, relevance, and applicability. Reviewers emphasised that the learning outcomes strike a correct balance between promoting basic AI literacy and ensuring practical, classroom-ready implementation. Several reviewers suggested clarifying interdependencies with CU3 (Ethics) and reinforcing references to learner-level tool familiarity. Overall, CU1 is viewed as a strong cornerstone unit.
- CU2 – Assessment (4.52): Reviewers rated this unit highly, recognising its importance for ensuring transparency and integrity in AI-supported assessment. UIB and Frederick reviewers validated the clarity of outcomes and the practical orientation. Masaryk reviewers offered constructive suggestions, including refining language around privacy-related competencies and reconsidering overly technical expressions (e.g., “prompts”). The emphasis on

human oversight and fairness aligns very well with focus-group recommendations and strengthens the unit's value.

- CU3 – Ethics (4.56): This is one of the best-rated units, consistently scoring high across all criteria. Reviewers confirmed that the unit is comprehensive, well aligned with AI-related regulatory expectations, and appropriately adapted to EQF4. Feedback emphasised the strong integration of ethical principles, though some reviewers noted the need to ensure overlap with other units is managed explicitly (especially CU1 and CU2).

- CU4 – Gamification (4.29): Gamification received solid approval, though scores were slightly lower than other units. Reviewers appreciated its pedagogical value but raised concerns related to accessibility, potential over-motivation, competition bias, and the need for further clarification of pedagogical purpose. A few reviewers suggested adding references to the research base and ensuring gamified elements remain learner-centred and inclusive.

- CU5 – Accessibility (4.63): With the highest average score, CU5 was strongly validated by all institutions. Reviewers praised the alignment with UDL principles, respect for diverse learner needs, and the clarity of learning outcomes. Frederick and Masaryk reviewers especially valued the practical orientation and completeness of accessibility considerations. Some minor suggestions included explicitly referencing UDL and WCAG in the narrative and strengthening guidance for AI-assisted adaptations.

- CU6 – Collaboration (4.21): Although still well-rated, CU6 received the lowest relative score, indicating room for refinement. Reviewers noted that AI-mediated collaboration is still an emerging practice and that examples may need further development. Concerns centred on ensuring equitable participation, avoiding overreliance on AI suggestions in group contexts and clarifying institutional expectations for safe digital collaboration. Nonetheless, the competency unit is considered valuable and relevant across educational sectors.

Across reviews, several themes emerged:

- Ethics as a transversal dimension: Reviewers consistently stressed that ethical considerations underpin all units and recommended making these connections more explicit throughout the matrices.

- Avoid unnecessary technical terminology: Some reviewers noted that certain terms may be too specialised for EQF4 educators and suggested simplifying them where appropriate.

- Prioritise plain-language communication around AI use: Clarity is especially important in relation to assessment, transparency, and accessibility.

- Ensure visual and terminological consistency: Reviewers encouraged closer alignment with the project's templates and formatting conventions.

- Clarify transferability across AE, VET, and youth sectors: Several units could highlight these cross-sector links more explicitly.

The peer-review exercise confirms that the revised EQF4 Competency Matrices are methodologically sound, contextually appropriate, and ready for external validation. Most feedback relates to minor wording refinements intended to enhance clarity and publication readiness. More forward-looking suggestions, primarily concerning the design of training activities (e.g. collaborative scenarios, ethical case studies, and gamification examples), will be addressed in the subsequent course-development phase. Overall, the feedback demonstrates strong validation of the matrices' coherence, completeness, and readiness to progress.

3.8 Summary of External Validation

The external validation phase aimed to assess the relevance, clarity, EQF Level 4 alignment, and practical applicability of the draft AI-UpSkilled competency matrix. Following the completion of internal peer review, the revised matrix was **validated by 41 external stakeholders**, exceeding the targets (30) established in the WP2 work plan. Participants represented a balanced mix of educators, teacher trainers, institutional managers, digital and AI specialists, and policy-informed practitioners from vocational, adult, and higher-education contexts across partner countries.

Overall feedback confirmed a high level of agreement regarding the relevance and usefulness of the six competency units for practitioners operating at EQF Level 4. Validators particularly valued the matrix's practice-oriented structure, clear learning-outcome formulation, and focus on realistic educational scenarios rather than technical AI development. The differentiation between knowledge, skills, and autonomy/responsibility was considered appropriate and consistent with EQF expectations.

Several key qualitative insights emerged from the validation process. Stakeholders strongly endorsed the positioning of ethics as a transversal principle embedded across all competency units, rather than as an isolated domain. The importance of safeguarding human judgement in AI-supported assessment was repeatedly highlighted, alongside the need to mitigate risks related to automation bias and over-reliance on generative tools. Validators also emphasised that accessibility and inclusion should inform all AI-mediated pedagogical activities, particularly regarding diverse learner needs and institutional capacities. In addition, external validators stressed the need for clear institutional frameworks, transparent workflows, and user-friendly guidance to support responsible AI adoption in educational practice. These insights reinforced the role of the competency matrix as a tool for professional empowerment rather than technological prescription.

All quantitative ratings and qualitative comments were systematically analysed and directly incorporated into the final EQF4 competency matrix, resulting in strengthened autonomy-and-responsibility descriptors, clearer assessment-related outcomes, and reinforced transversal principles of ethics, inclusion, and professional accountability. The external validation therefore confirmed both the soundness of the framework design and its readiness for implementation in subsequent project phases.

4. MASTER COMPETENCY MATRIX SUMMARY

The following table presents a consolidated overview of all six Competency Units, providing a single navigational reference for the full EQF Level 4 framework. Each row summarises the unit's central competency claim and its primary descriptors across the three EQF dimensions. Detailed unit tables and narrative rationales follow in Sections 4–9.

Table 3: EQF 4 Master Competency Matrix

EQF 4 MASTER COMPETENCY MATRIX				
Upon completion of the training experience, the learner will be able to				
COMPETENCY UNIT	COMPETENCY	KNOWLEDGE	SKILLS	RESPONSIBILITY & AUTONOMY
CU1 — Digital Teaching	Use AI tools safely and effectively in everyday teaching	Identify commonly used AI tools for lesson planning, content creation, and learner support, including their main affordances and limitations.	Apply AI tools to prepare and adapt learning materials, performing basic accuracy, privacy, and appropriateness checks before use.	Exercise self-management within institutional guidelines, clearly disclose AI use to learners, and ensure continuous human oversight in routine teaching tasks.
	Support digital engagement through AI	Identify key functionalities of AI-enabled educational platforms (e.g. quizzes, generators, adaptive suggestions).	Integrate AI-supported activities to enhance engagement and understanding in predictable learning scenarios.	Monitor learner participation and tool use, intervening to ensure fair, transparent, and inclusive engagement.
CU2 — Assessment	Apply responsibly AI in formative assessment	Identify types of AI-assisted formative assessment and explain their limitations and risks.	Generate AI-assisted formative checks and feedback, verifying outputs against learning objectives before sharing with learners.	Retain full human judgement in assessment decisions and communicate transparently about the role of AI in feedback processes.
	Protect assessment integrity	Identify risks related to plagiarism, automation bias, and unfair advantage arising from AI use.	Apply agreed rubrics, verify learner submissions, and guide learners on acceptable and ethical AI use in assessment.	Uphold assessment fairness and integrity, taking responsibility for preventing misconduct and supporting ethical learner behaviour.
CU3 — Ethics	Apply ethical and legal principles in AI-supported education	Identify core ethical principles (fairness, privacy, transparency, accountability) and relevant organisational rules.	Apply ethical guidelines, including consent, data protection, and respect for learner diversity, when integrating AI tools.	Act consistently with ethical and legal expectations, report concerns, and safeguard learner rights in routine practice.
	Identify and mitigate bias and risk	Identify common forms of bias, inaccuracy, or inappropriate content generated by AI tools.	Review, edit, adapt, or reject AI-generated outputs that are misleading or harmful.	Take responsibility for ensuring that AI-supported content remains safe, respectful, and appropriate for diverse learner groups.

EQF 4 MASTER COMPETENCY MATRIX				
Upon completion of the training experience, the learner will be able to				
COMPETENCY UNIT	COMPETENCY	KNOWLEDGE	SKILLS	RESPONSIBILITY & AUTONOMY
CU4 — Gamification	Use AI-supported gamification to motivate learning	Identify key principles of gamification and ways AI can personalise motivation and feedback.	Design and implement simple AI-supported gamified activities (e.g. badges, challenges, adaptive tasks).	Ensure gamified activities remain inclusive, proportionate, and aligned with learning goals.
	Apply gamification ethically and inclusively	Identify risks of excessive competition, exclusion, or learner manipulation.	Adapt gamified activities to accommodate different learner needs and contexts.	Monitor learner engagement and take responsibility for mitigating motivational or ethical risks.
CU5 — Accessibility	Apply accessibility and UDL principles in AI use	Identify core accessibility and UDL principles (clarity, alternative formats, flexibility).	Use AI tools to produce accessible learning resources (e.g. captions, simplified language, audio support).	Take responsibility for ensuring that AI-supported materials are accessible to all learners, including those with additional needs.
	Support diverse learners with AI	Identify examples of assistive AI technologies and their appropriate use cases.	Select and apply AI supports suited to learners' language, literacy, bandwidth, or neurodiversity needs.	Promote equitable access and intervene where AI use risks excluding learners with limited digital skills or resources.
CU6 — Collaboration	Support collaboration and communication with AI	Identify commonly used AI-supported collaborative tools and their functions.	Facilitate AI-supported peer-learning and teamwork activities, ensuring balanced participation.	Promote respectful collaboration and guide learners in responsible AI use during group work.
	Contribute to organisational digital practice	Identify institutional rules regarding approved tools, privacy, data protection, and risk management.	Apply organisational workflows and share validated good practices with colleagues.	Act responsibly within established procedures, seeking guidance when encountering new or ambiguous AI-related risks.

This summary table functions as a high-level orientation tool for the EQF Level 4 competency framework and should be read in conjunction with the full unit-level matrices presented in Section 5, where complete learning-outcome descriptors are specified. These detailed tables provide the full articulation of knowledge components, skill applications, and responsibility and autonomy expectations, developed and validated in line with EQF Level 4 requirements.

All descriptors emphasise practical and factual knowledge, the application of standard methods in familiar and predictable teaching contexts, and the ability to work autonomously within established organisational procedures. In response to validation feedback, particular weight is given to the exercise of human judgement, adherence to ethical and legal responsibilities, and the consistent application of inclusive and accessible practices in the use of AI-supported educational tools.

5. DETAILED COMPETENCY UNITS

This section presents six detailed competency-unit tables—one for each identified area of AI-integration competency for EQF Level 4 educators working in Adult Education, Youth, and VET contexts. Each unit is preceded by a brief narrative that summarises the rationale, synthesises relevant evidence from the focus-group consultations, and cites the documentary sources that informed the design. The learning outcomes in each table are written using clear, observable action verbs, following the writing principles in the EASO Guide to Writing Learning Outcomes and the taxonomic structure provided by the revised Bloom’s taxonomy; together these guidelines ensure that outcomes describe measurable learner performance and are usable by curriculum developers, trainers, and assessors (European Asylum Support Office -EASO, 2018; Anderson & Krathwohl, 2001).

Descriptors have been calibrated to align with EQF Level 4, which emphasises:

- factual and practical knowledge in a field of work or study
- the ability to apply standard methods and tools to solve problems in familiar and predictable contexts
- and responsibility and autonomy in completing tasks, exercising judgement within established procedures, and ensuring safe and ethical practice.

In line with both internal review and external validation findings, the learning outcomes avoid overly technical or advanced cognitive demands and instead focus on what educators at this level are expected to do in practice. Particular emphasis is placed on the exercise of human judgement in AI-supported activities, the ethical, legal, and inclusive use of AI tools, and the educator’s responsibility to operate within institutional frameworks while supporting diverse learners. This ensures that the competency units remain pedagogically grounded, professionally realistic, and fit for direct implementation in training and assessment contexts.

5.1 COMPETENCY UNIT 1 — Digital Teaching

Digital Teaching at EQF Level 4 refers to the practical, responsible, and supervised use of AI-enabled tools to support lesson preparation, learning activities, and everyday teaching tasks in familiar and predictable educational contexts. In line with EQF Level 4 expectations, educators are not required to possess technical or theoretical knowledge of AI system design or operation. Instead, they need a basic conceptual understanding of commonly used AI tools, awareness of their benefits and risks, and the ability to apply them safely, ethically, and inclusively within routine professional practice and established organisational procedures.

This interpretation is grounded in the project’s desk research, which highlights alignment with DigCompEdu Areas 2 and 3 (Digital Resources; Teaching & Learning) and

with the EU AI Act's emphasis on AI literacy for users. In this context, AI literacy is understood as the capacity to operate AI systems responsibly, transparently, and with appropriate human oversight, rather than as technical proficiency.

Evidence from all three focus-group consultations confirmed that EQF4 educators strongly value hands-on, concrete, and non-technical guidance for integrating AI into lesson planning, differentiation, and learner engagement. Participants consistently reported that the most significant risks in practice arise not from a lack of technical expertise, but from uncritical use of AI tools, unclear institutional guidance, and limited awareness of potential bias, data-protection issues, and accessibility implications. Spanish and Greek educators highlighted the need for clearer procedures and safeguards to support responsible everyday use.

Portuguese participants further emphasised the importance of support in selecting AI tools that are accessible, inclusive, and appropriate for diverse learner profiles, especially in Adult Education and Youth work contexts, where levels of digital readiness, language proficiency, and access to technology can vary widely. These concerns were echoed and reinforced during external validation, which strongly supported the inclusion of accessibility, ethics, and human judgement as core and transversal elements of Digital Teaching competence.

In response, the learning outcomes for this unit are formulated in accordance with the EASO Guide to Writing Learning Outcomes, using clear, observable action verbs and aligning explicitly with EQF Level 4 descriptors—practical and factual knowledge, application of standard methods in familiar contexts, and responsibility exercised within set procedures. The outcomes explicitly foreground safe and transparent AI use, ethical awareness, bias recognition, basic accessibility practices, and sustained human oversight. The objective is not technical mastery, but to enable educators to use AI confidently, critically, and responsibly to enhance everyday teaching and support inclusive learning environments.

Table 5: EQF Level 4 Learning Outcomes — Digital Teaching

UNIT 1: Digital Teaching EQF 4 COMPETENCY MATRIX Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO1.1 Apply AI tools safely in routine teaching activities	Identify commonly used AI tools for lesson planning, content generation, and practice activities, and describe typical risks related to bias, accuracy, and data protection.	Use AI tools to prepare or adapt teaching materials and systematically verify outputs for accuracy, appropriateness, and relevance before use.	Work within organisational rules, openly disclose AI use to learners, and ensure continuous human oversight in routine teaching situations.	Apply
LO1.2 Select appropriate AI tools for specific learning tasks and learner profiles	Identify the main features and intended purposes of AI tools (e.g. quiz generators, text	Select AI tools that align with the learning objective, learner profile,	Take responsibility for fair access, avoiding inappropriate or exclusionary use of AI	Apply / Analyse

	simplifiers, example generators, feedback aids).	and basic accessibility requirements.	tools in teaching activities.	
LO1.3 Support diverse learners using AI-generated and AI-adapted materials	Identify basic accessibility and UDL principles relevant to AI use (e.g. plain language, captions, alternative formats, low-bandwidth options).	Use AI tools to adapt learning materials and provide at least one suitable alternative format where required.	Ensure that AI-supported materials do not disadvantage learners with different abilities, language levels, or learning contexts.	Apply
LO1.4 Review AI-generated content for safety, bias, and accuracy before use	Identify common types of errors, stereotypes, or inappropriate content that may be produced by AI systems.	Critically review AI outputs and edit, adapt, or discard content that is inaccurate, biased, or unsuitable for learners.	Take responsibility for all content shared with learners, intervening to correct unsafe, misleading, or biased material.	Analyse / Evaluate

Note: Sources: AI-UPSKILLED_WP2_DeskResearch_FIN.docx (Sections 4 & 6); Focus groups – Spain (Innopares) – need for practical, non-technical use; transparency and assessment integrity; institutional constraints. Focus groups – Greece (MEDEA Lab) – ethics as transversal; human judgement; inclusion and experiential learning priorities. Focus groups – Portugal (ISQe transcripts) – accessibility and neuro-affirmative language; checking AI outputs; plain-language resources. EQF4 matrix draft– structure and terminology alignment for CU1–CU6 at Level 4.

5.2 COMPETENCY UNIT 2 — Assessment

Assessment at EQF Level 4 focuses on supporting educators in the responsible, transparent, and pedagogically sound use of AI tools to enhance formative assessment, while explicitly preserving the central role of human judgement. Unlike EQF Level 6, where educators are expected to exercise strategic autonomy and interpret complex regulatory and quality-assurance frameworks, EQF4 educators apply AI tools within routine and predictable assessment contexts, relying on practical skills, established procedures, and clear ethical safeguards rather than advanced analytical or regulatory interpretation.

The project's desk research highlighted risks associated with uncritical reliance on AI-generated feedback, including the potential for bias, inaccuracies, erosion of learner trust, and non-compliance with basic GDPR principles. These risks were consistently confirmed and reinforced through external validation, where stakeholders emphasised that assessment integrity at EQF4 depends on educators' ability to check AI outputs, contextualise feedback, and intervene where automated responses may misrepresent learner performance.

Across all three focus-group consultations, participants expressed strong concerns regarding AI-enabled academic misconduct, over-dependence on automated feedback, and the lack of clear guidance on disclosure and acceptable AI use in assessment. Spanish and Greek participants stressed that these risks are amplified in VET, adult, and youth education contexts, where learners may have uneven digital skills or limited capacity to critically evaluate AI-generated outputs. Portuguese participants further highlighted that AI-generated feedback can unintentionally disadvantage neurodivergent learners or learners with low literacy levels if outputs are not carefully reviewed, adapted, and

explained by the educator. These insights were echoed during external validation, which strongly supported the emphasis on inclusivity, transparency, and educator accountability.

Taken together, the evidence confirms that assessment competence at EQF Level 4 must be practical, inclusive, and ethics-aware, with a clear emphasis on human oversight, transparency, and learner protection. In response, the learning outcomes for this unit are written in accordance with the EASO Guide to Writing Learning Outcomes, using observable and measurable verbs appropriate to EQF Level 4 (e.g. use, apply, check, adapt). They are explicitly aligned with EQF4 descriptors that prioritise practical knowledge, the application of standard methods, and the responsible completion of tasks within familiar contexts.

Accordingly, educators at this level are expected to:

- use AI tools to support simple, formative assessment activities;
- systematically check AI outputs for accuracy, fairness, accessibility, and appropriateness; and
- maintain learner trust through transparency, ethical practice, and adherence to basic data-protection and assessment-integrity principles.

Table 6: EQF Level 4 Learning Outcomes — CU2 — Assessment

UNIT 2: Assessment EQF4 COMPETENCY MATRIX Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO2.1 Apply AI tools to support basic formative assessment	Identify commonly used AI-supported assessment tools (e.g. quiz generators, feedback assistants) and explain their main limitations, including accuracy and bias risks.	Use AI tools to generate simple formative checks or draft feedback prompts and systematically review outputs before use.	Apply organisational rules, ensure human oversight, and make clear to learners how AI supports formative assessment activities.	Apply / Understand
LO2.2 Ensure fairness and transparency in AI-supported assessment	Identify basic principles of fairness, transparency, privacy, and learner rights relevant to AI-supported assessment.	Explain to learners when and how AI is used in assessment and adapt assessment tasks where AI use may disadvantage specific learner groups.	Take responsibility for maintaining equitable assessment conditions and transparent communication with learners.	Understand / Apply
LO2.3 Review AI-generated feedback for accuracy and appropriateness	Identify typical errors, bias, tone issues, or oversimplifications that may occur in	Critically review and edit AI-generated feedback to ensure accuracy, relevance, appropriate language,	Take full responsibility for the accuracy, safety, and suitability of all feedback shared with learners.	Analyse / Apply

UNIT 2: Assessment EQF4 COMPETENCY MATRIX Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
	AI-generated feedback.	and pedagogical value.		
LO2.4 Support academic integrity in AI-enabled assessment contexts	Identify basic risks related to AI-assisted plagiarism, over-reliance on automation, and inappropriate AI use.	Guide learners on acceptable AI use in assessment and apply simple checks to review the authenticity and appropriateness of learner work.	Promote honest learning behaviours, intervene when misuse is suspected, and act in line with institutional integrity procedures.	Apply / Evaluate

Note: Sources: This unit is informed by WP2 desk research (AI-UPSKILLED_WP2_DeskResearch_FIN.docx), national focus groups in Spain, Greece, and Portugal (highlighting transparency needs, risks of uncritical AI use, misconduct concerns, and inclusivity issues in assessment), and external expert validation involving independent educators, AI specialists, and policy-informed practitioners, which confirmed the relevance of human judgement, ethical safeguards, and accessibility at EQF Level 4. Learning outcomes follow the EASO Guide to Writing Learning Outcomes (2018), ensuring clarity, observable verbs, and alignment with EQF-level expectations..

5.3 COMPETENCY UNIT 3 — Ethics

At EQF Level 4, Ethics refers to the practical ability of educators in Adult Education, Youth, and VET contexts to use AI tools responsibly, transparently, and safely while supporting diverse learner groups. Educators at this level are expected to apply basic ethical principles, including fairness, privacy, transparency, and inclusion, when using AI in familiar and predictable teaching situations, rather than engaging with advanced ethical theory or complex regulatory analysis. The project's desk research confirms that GDPR fundamentals, responsible AI use, and basic bias awareness constitute essential baseline obligations for all educators who deploy AI-supported tools in teaching and learning activities.

Evidence from the focus-group consultations consistently reinforced the importance of this competency and helped clarify its EQF4 scope. Spanish participants expressed concern about unclear disclosure practices and the risk of learners relying uncritically on AI-generated content, highlighting the need for simple, operational ethical guidance that educators can apply in everyday practice. Greek educators strongly emphasised that ethics must function as a transversal principle, embedded across all AI-related activities rather than treated as a standalone topic, particularly given the risks of bias, exclusion, and the erosion of human judgement. Portuguese participants further stressed that AI outputs often require careful checking for stereotypes, inappropriate language, or accessibility barriers, especially for neurodivergent learners and learners with low literacy levels.

These focus-group findings were confirmed and strengthened through external expert validation, where independent educators, AI specialists, and policy-informed practitioners consistently endorsed the emphasis on learner protection, ethical

transparency, and sustained human oversight as defining features of ethics competence at EQF Level 4. Validators agreed that ethical competence at this level is primarily about safe daily practice, adherence to institutional rules, and the educator's responsibility to intervene when AI outputs may cause harm, exclusion, or misinformation.

In line with the EASO Guide to Writing Learning Outcomes, the learning outcomes for this unit are formulated using clear, observable, and measurable action verbs appropriate to EQF Level 4 (e.g. identify, explain, check, apply, follow). Accordingly, educators are expected to be able to:

- recognise ethical risks associated with AI use in teaching;
- explain AI-related rules and expectations to learners in accessible terms;
- check AI-generated outputs for bias, safety, and appropriateness before use; and
- follow institutional guidelines to protect learner data, wellbeing, and trust.

These expectations align directly with EQF Level 4 descriptors, which emphasise practical and factual knowledge, problem solving in predictable contexts, and the responsible completion of tasks within established procedures.

Table 7: EQF Level 4 Learning Outcomes — Ethics

UNIT 3: Ethics EQF 4 COMPETENCY MATRIX Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO3.1 Apply basic ethical principles when selecting and using AI tools in education	Identify core ethical principles relevant to AI use in education (fairness, transparency, privacy, respect, inclusion).	Apply ethical principles when selecting and using AI tools to support everyday learning activities in familiar contexts.	Follow organisational rules and ensure that AI use is clearly explained to learners, maintaining transparency and trust.	Apply
LO3.2 Review AI-generated content for bias, safety, and appropriateness	Identify typical risks of AI-generated content, including bias, inaccuracies, stereotypes, and inappropriate language.	Review, edit, or reject AI-generated text, images, or suggestions before use with learners.	Take responsibility for ensuring all content shared with learners is safe, respectful, inclusive, and pedagogically appropriate.	Analyse / Evaluate
LO3.3 Support learners in using AI tools ethically and responsibly	Identify basic guidelines for acceptable AI use and common risks related to misuse or academic dishonesty.	Explain acceptable and unacceptable AI use to learners, provide practical examples, and guide learners towards responsible use.	Promote honest learning behaviours, intervene when misuse is identified, and act in line with institutional expectations.	Apply

UNIT 3: Ethics				
EQF 4 COMPETENCY MATRIX				
Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO3.4 Protect learner data and privacy when using AI tools	Identify basic data-protection requirements relevant to educational AI use (consent, privacy, sensitive data).	Use approved AI tools appropriately and avoid sharing personal or sensitive learner data with unverified systems.	Act responsibly within organisational procedures, report data-protection concerns, and safeguard learner rights and wellbeing.	Apply / Evaluate

Note: Sources: This unit draws on WP2 desk research (GDPR fundamentals, ethical and inclusive AI use, bias risks, and EQF Level 4 descriptors), focus-group consultations in Spain, Greece, and Portugal (confirming ethics as a transversal competence and highlighting concerns related to bias, privacy, disclosure, neurodiversity, and safe adaptation of AI outputs), and external expert validation, which reinforced the central role of human judgement, learner protection, and institutional responsibility. Learning outcomes are formulated in line with the EASO Guide to Writing Learning Outcomes (2018), ensuring clarity, observable action verbs, and EQF-aligned performance expectations..

5.4 COMPETENCY UNIT 4 — Gamification

At EQF Level 4, Gamification refers to the practical application of playful elements and AI-supported motivational tools to enhance learner engagement in Youth, Adult Education, and VET contexts. Rather than designing complex gamified systems or analysing theoretical gamification models, as would be expected at EQF Level 6 educators at EQF Level 4 use simple, ready-to-use AI-enabled features such as badges, quizzes, adaptive challenges, or interactive prompts. These tools are applied within familiar and predictable learning environments to support motivation, participation, and learner confidence in an accessible and proportionate manner. The WP2 desk research recognises gamification as a relevant and evidence-based strategy for AI-supported engagement, particularly in non-formal and vocational settings, where playful elements can reduce anxiety and encourage sustained participation.

Evidence from the focus-group consultations confirmed gamification as a high-value but sensitive competency area. Participants consistently highlighted that while AI-supported gamification can enhance motivation, it also poses risks when misapplied. Spanish and Greek educators noted tensions between gamification and pedagogy, particularly where AI-generated activities prioritise competition over cooperation, oversimplify complex learning processes, or undermine reflective learning. Portuguese participants raised additional concerns regarding language level, cognitive overload, and hidden bias in AI-generated playful tasks, emphasising the need to adapt content for neurodivergent learners, adult learners, and young people with low literacy levels.

These concerns were reinforced during external expert validation, where validators strongly supported including gamification at EQF Level 4 on the condition that it is framed by clear ethical, inclusive, and pedagogical safeguards. External validators emphasised that gamification competence at this level should prioritise fairness, accessibility, proportional use of motivational features, and sustained human supervision,

rather than reward-driven or automated engagement mechanisms. Validation feedback also echoed desk-research findings that data protection and transparency—including awareness of risks related to automated profiling and decision-making (e.g. GDPR Article 22)—must guide all AI-mediated gamified activities.

In response, the learning outcomes for this unit are written in line with the EASO Guide to Writing Learning Outcomes, using clear, observable verbs appropriate to EQF Level 4 (e.g. use, create, adapt, check). They align with EQF4 descriptors emphasising practical knowledge, application in familiar settings, and responsibility exercised within organisational procedures. The intention is to ensure that educators can use AI responsibly to design and deliver simple, equitable, and inclusive gamified activities that enhance motivation without reinforcing bias, exclusion, or uncritical reliance on AI-driven mechanisms.

Table 8: EQF Level 4 Learning Outcomes — Gamification

UNIT 4: Gamification EQF 4 COMPETENCY MATRIX Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO4.1 Apply simple AI-supported gamification tools to support learning goals	Identify basic gamification elements (e.g. badges, points, quizzes, adaptive challenges) and their intended motivational purpose.	Use AI tools to create simple gamified tasks aligned with defined learning objectives in familiar contexts.	Apply organisational rules to ensure safe, transparent, and inclusive use of AI-supported gamification.	Apply
LO4.2 Adapt AI-generated gamified activities for diverse learner needs	Identify common accessibility and inclusion considerations relevant to gamification (language level, sensory needs, cognitive load, neurodiversity).	Modify AI-generated gamified tasks to adjust language, pacing, challenge level, and accessibility features.	Take responsibility for ensuring adapted activities do not exclude or disadvantage any learner.	Apply / Analyse
LO4.3 Review AI-generated gamification for bias, safety, and pedagogical fit	Identify typical risks in AI-generated gamification, including bias, exclusionary reward structures, or misleading prompts.	Review and correct AI-generated prompts, tasks, and reward mechanisms to address bias, fairness, and clarity.	Ensure all gamified activities used with learners are safe, respectful, and pedagogically appropriate.	Analyse / Evaluate
LO4.4 Support learner motivation through ethical and proportionate gamification	Identify basic motivational principles relevant to adult, youth, and VET learning contexts.	Use AI-supported gamification features to encourage participation and monitor signs of exclusion, frustration, or excessive competition.	Promote healthy engagement, intervene where risks emerge, and maintain human oversight of motivational strategies.	Apply

Note: Sources: This unit is informed by WP2 desk research (DigCompEdu Area 4, the evidence base on gamification in education, GDPR Article 22 on automated decision-making, and EQF Level 4 alignment), national focus-group consultations in Spain, Greece, and Portugal (confirming gamification relevance while highlighting the need for adaptation, risks of bias, over-competition, and accessibility concerns), and external expert validation, which reinforced the importance of ethical, inclusive, and proportionate use of AI-supported gamification with sustained human oversight. Learning outcomes are formulated in line with the EASO Guide to Writing Learning Outcomes (2018), using clear, observable verbs appropriate to EQF Level 4 expectations.

5.5 COMPETENCY UNIT 5 — Accessibility

At EQF Level 4, Accessibility refers to the practical application of core Universal Design for Learning (UDL) and WCAG principles to ensure that AI-assisted teaching materials and learning activities are usable by all learners. This includes neurodivergent adults, learners with low literacy levels, multilingual groups, and participants operating in low-bandwidth or resource-constrained contexts, without requiring advanced technical or specialist accessibility expertise. The WP2 desk research identifies UDL and WCAG principles as foundational anchors for inclusive AI use in everyday educational practice and frames EQF Level 4 performance around practical knowledge, standard procedures, and responsible task completion in familiar and predictable settings.

Evidence from the focus-group consultations strongly reinforced the centrality of accessibility as a baseline professional responsibility. Across all groups, educators called for plain-language outputs and low-threshold adaptations of AI-generated materials, such as simplified texts, captions, audio versions, and visual supports, and highlighted risks when AI generates content that is overly complex, inaccessible, or biased. Portuguese participants placed particular emphasis on neuro-affirmative language, alternative and augmentative communication (AAC) options, and the need for explicit guidance in contexts where literacy levels vary widely. Greek participants stressed that accessibility should be treated as a non-negotiable baseline, rather than an optional enhancement, while Spanish participants highlighted institutional constraints and platform-level limitations that can restrict the implementation of accessible AI-supported practices.

These findings were confirmed and reinforced through external expert validation, where validators consistently emphasised that accessibility competence at EQF Level 4 requires educators to be able to create, check, and adapt AI-assisted materials quickly and responsibly, exercising human judgement and working within organisational guidance. Validators underlined that inclusive AI use at this level depends less on technical configuration and more on educators' capacity to recognise accessibility barriers, intervene appropriately, and protect learner participation and dignity in daily practice.

Accordingly, the learning outcomes for this unit are formulated in line with the EASO Guide to Writing Learning Outcomes and the EQF Level 4 emphasis on applied, routine practice. The verbs specify observable educator actions (e.g. generate, convert, check, adapt, label, disclose), the knowledge elements remain practical and factual, and the responsibility descriptors reflect adherence to organisational rules, protection of learner rights, and a sustained commitment to inclusion. The overall aim is to ensure that educators at EQF Level 4 can deploy AI tools in ways that are accessible, ethical, and inclusive, while remaining realistic and feasible in everyday educational contexts.

Table 8: EQF Level 4 Learning Outcomes — Accessibility

UNIT 5: Accessibility EQF 4 COMPETENCY MATRIX: Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO5.1 Produce accessible versions of AI-generated learning materials	Identify basic UDL and WCAG principles relevant to everyday teaching (e.g. plain language, alternative formats, captions, contrast, keyboard access).	Use AI tools to generate accessible versions of learning materials, including simplified text, captions, alt text, audio, or format adjustments.	Follow institutional accessibility guidelines and take responsibility for ensuring materials are usable by all learners.	Apply
LO5.2 Adapt AI-generated content for diverse learner profiles and contexts	Identify common learner needs related to neurodiversity, low literacy, multilingual contexts, and limited connectivity.	Adapt AI-generated outputs for readability, language complexity, media size, and access conditions, including low-bandwidth or offline use where required.	Ensure that no learner is disadvantaged due to format, language, accessibility features, or connectivity constraints.	Apply / Analyse
LO5.3 Review AI outputs for accessibility, bias, and respectful language	Identify typical risks in AI outputs, including stereotypes, insensitive language, inaccessible phrasing, or non-neuro-affirmative expressions.	Review and edit AI-generated content to ensure clarity, accessibility, respectful tone, and inclusive, neuro-affirmative language before sharing with learners.	Take full responsibility for the safety, appropriateness, and inclusivity of all shared materials.	Analyse / Evaluate
LO5.4 Provide clear and transparent guidance on AI tool use and learner options	Identify basic disclosure, accessibility, and privacy expectations related to AI tools used in teaching (what is used, why, and data considerations).	Inform learners in plain language how AI tools are used, what accessibility and data considerations apply, and how to request alternative formats or support.	Act within organisational procedures to protect learner rights, ensure informed participation, and provide accessible alternatives when needed.	Apply

Note: Sources: This unit builds on WP2 desk research (EQF Level 4 calibration, UDL/WCAG as accessibility anchors, and basic GDPR and disclosure expectations for classroom AI use), focus-group consultations in Portugal, Greece, and Spain (highlighting neuro-affirmative language, AAC and plain-language adaptations, accessibility as a baseline, low-bandwidth needs, platform risks, and institutional constraints), and external expert validation, which confirmed the need for practical, inclusive accessibility practices grounded in human judgement. Learning outcomes follow the EASO Guide to Writing Learning Outcomes (2018), using clear, observable verbs aligned with EQF4 assessment requirements.

5.6 COMPETENCY UNIT 6 — Collaboration

At EQF Level 4, Collaboration focuses on the practical ability of educators in Adult Education, Youth, and VET contexts to use AI tools to support communication, peer learning, and teamwork within predictable, familiar environments. The WP2 Desk Research highlights that while collaboration is widely recognised in frameworks such as DigCompEdu, the EU AI Act, and Europass, evidence on concrete practices in AI-mediated collaboration is more limited, particularly for EQF4 roles, where educators follow organisational procedures rather than lead institutional governance.

The focus groups confirmed this limited maturity. Spanish participants noted that collaborative AI tools (shared editors, idea generators, peer-feedback supports) are emerging but not yet consistently embedded in everyday practice. Greek participants stressed the need for clear guidance to ensure that collaboration facilitated by AI remains inclusive and does not lead to unequal participation or over-reliance on automated suggestions. Portuguese educators raised concerns related to digital inequality, pointing out that AI-supported group work must account for learners with low digital confidence, accessibility needs, or limited device availability.

In line with EASO guidance, the learning outcomes in this unit focus on observable, measurable behaviours appropriate to EQF4, such as use, organise, communicate, support, and follow. They align with EQF Level 4 expectations of practical knowledge, application of standard methods, and responsibility for completing tasks within familiar contexts. The intention is to enable educators to use AI tools to facilitate peer interaction, support group activities, ensure equitable participation, and follow organisational rules when using digital collaborative platforms.

Table 9: EQF Level 4 Learning Outcomes — Collaboration

UNIT 6: Collaboration EQF 4 COMPETENCY MATRIX: Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
LO6.1 Use AI tools to support communication and teamwork in group activities	Identify basic features and purposes of AI-supported collaboration tools (e.g. shared documents, idea generators, chat supports).	Use AI tools to support idea generation, task organisation, and communication during group learning activities.	Follow organisational rules to ensure AI-supported collaboration is safe, transparent, and respectful.	Apply
LO6.2 Facilitate equitable participation in AI-supported group work	Identify common risks in AI-supported collaboration, including unequal participation, digital skill gaps, and	Guide turn-taking and task distribution, and provide support for learners with lower digital confidence or accessibility needs.	Take responsibility for ensuring that no learner is excluded or disadvantaged during AI-supported collaboration.	Apply / Analyse

UNIT 6: Collaboration EQF 4 COMPETENCY MATRIX: Upon completion of the training experience, the learner will be able to				
LEARNING OUTCOME	KNOWLEDGE (KNOW)	SKILLS (CAN DO)	AUTONOMY & RESPONSIBILITY	BLOOM LEVEL
	over-reliance on automated prompts.			
LO6.3 Support peer feedback and co-creation using AI tools	Identify simple techniques for AI-assisted peer review and co-creation (e.g. summaries, prompts, idea suggestions).	Facilitate AI-supported peer feedback or co-creation activities, reviewing AI outputs before they are shared or adopted.	Ensure the appropriateness, fairness, and clarity of AI-assisted peer-learning tasks through active human oversight.	Apply / Evaluate
LO6.4 Apply institutional procedures for safe and responsible digital collaboration	Identify organisational expectations related to consent, privacy, approved tools, and safe communication practices.	Apply institutional procedures when selecting and using AI tools for collaboration and report risks or uncertainties via agreed channels.	Act responsibly by escalating issues when required and modelling safe, ethical digital collaboration practices.	Apply

Note: Sources: This unit draws on WP2 desk research (positioning collaboration within DigCompEdu, the EU AI Act, and EQF Level 4 descriptors, and highlighting the limited empirical evidence for AI-mediated collaboration at this level), and focus-group consultations in Spain, Greece, and Portugal, which identified emerging but uneven use of AI for group work alongside concerns related to equity, digital confidence, accessibility, and over-reliance on AI suggestions. Learning outcomes are formulated in line with the EASO Guide to Writing Learning Outcomes (2018), ensuring clarity, measurability, and EQF4-appropriate action verbs aligned with assessment practice.

6. CONCLUSIONS AND NEXT STEPS

Work Package 2 (WP2) of the AI-UpSkilled project has successfully fulfilled its mandate to co-design, consult, and validate an EQF Level 4 competency matrix for educators working in Youth, Adult Education, and Vocational Education and Training (VET) contexts. Through systematic desk research and three structured focus-group consultations conducted in Spain, Greece, and Portugal, the consortium developed a framework that is firmly grounded in European policy priorities, ethical and accessibility standards, and the practical realities of frontline teaching across diverse lifelong-learning environments.

The resulting framework is structured around six competency areas: Digital Teaching, Assessment, Ethics, Gamification, Accessibility, and Collaboration, each of which was iteratively refined through internal peer review and consultation feedback. This process ensured that the learning outcomes are practice-oriented, inclusive, and realistically implementable by EQF Level 4 educators operating in familiar and predictable professional contexts.

The consultation phase proved particularly valuable in identifying the tensions and constraints educators encounter when integrating AI into everyday teaching practice. Across all focus groups, participants emphasised the need for clear, applied guidance rather than technical depth, highlighting that practical AI competence must be accompanied by strong ethical awareness, bias checking, data-protection considerations, and a firm commitment to accessibility. Educators also consistently stressed that individual competence alone is insufficient: without clear institutional guidance, approved toolsets, and basic digital infrastructure, responsible AI use is difficult to operationalise. These insights directly informed the Autonomy and Responsibility dimension of the EQF4 matrix, which prioritises routine oversight, safe tool use, and compliance with organisational procedures over strategic leadership or high-level governance.

Following internal peer review, the competency matrix was further strengthened through external expert validation, which confirmed the relevance, clarity, and EQF Level 4 alignment of the framework. Validation feedback reinforced the transversal importance of ethics, inclusion, accessibility, and sustained human judgement, and confirmed the matrix's suitability as a foundation for training, assessment, and recognition of AI-related teaching competence.

The resulting EQF Level 4 competency matrix is intended to function as a flexible and living framework, capable of evolving alongside advances in AI technologies and emerging educational practice. Its alignment with the European Qualifications Framework, DigCompEdu, Universal Design for Learning (UDL), WCAG accessibility standards, the EU AI Act, and the Council Recommendation on Micro-credentials ensures high levels of portability, interoperability, and transparency across European adult-learning systems. The matrix provides a shared language through which institutions, trainers, and policymakers can describe, assess, and recognise AI-related teaching competences in a consistent and transferable manner.

WP2 directly informs Work Package 3 (WP3), which will translate the validated competency matrix into a modular 30-hour (1 ECTS) micro-credential for Youth, Adult-education, and VET educators. WP3 will operationalise the six competency units through structured learning activities, formative assessment tasks, and AI-supported teaching resources aligned with the knowledge, skills, and autonomy/responsibility descriptors defined in WP2. Integration with Europass Digital Credentials will support recognition, stackability, and cross-border transparency, enabling educators to build practical, ethical, and inclusive AI literacy that strengthens professional practice and enhances the quality and accessibility of learning provision.

In this sense, WP2 does not merely precede WP3, it constitutes its indispensable foundation.

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Annexes

Annex A — [Link to Focus Group Reports folders](#)

Annex B — [Link to Peer Review](#)

Annex C — [Link to the Validation report](#)