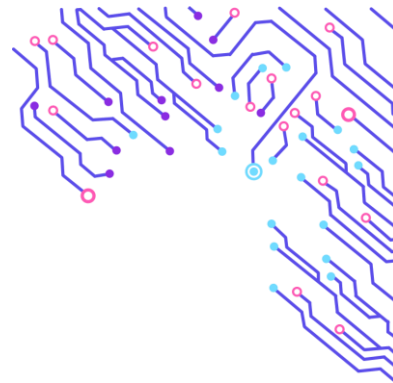




UPSKILL**ED**

Upskilling for the Educational Technological Transformation



## WP2 Development of Competency Matrices

COMPETENCY MATRIX - for "AI Integration in Higher Education"  
(EQF6) for HE Professors

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

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|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>Due Date (month)</b>                       | M5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>                            | <p>Proposal of AI master and 6 Units competence matrices for educators at EQF level 6.</p> <p>It directly supports:</p> <p>OBJ1: Enhancing HE institutions' ability to offer AI-integrated online learning tailored to societal and student needs.</p> <p>OBJ2: Upskilling educators to use AI tools ethically and critically.</p> <p>OBJ3: Providing teachers with engaging digital teaching strategies using AI.</p> <p>It also contributes to:</p> <p>OBJ4 &amp; OBJ5: Facilitating collaboration and transferability of AI competencies across HE, AE, VET, and Youth sectors.</p> |
| <b>Corresponding AIUpakilled Objective(s)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## EXECUTIVE SUMMARY

This document constitutes the final, publication-ready EQF Level 6 Competency Matrix produced under Work Package 2 (WP2) of the AI-UpSkilled Erasmus+ project (2025-1-ES01-KA220-HED-000355590). It represents the culmination of a rigorous, multi-stage co-design and validation process combining systematic desk research, three structured focus-group consultations, iterative internal peer review across a consortium of six European partner institutions, and external expert validation.

The matrix defines a competency framework for higher-education professors and academic staff seeking to integrate artificial intelligence responsibly, critically, and effectively into their roles in teaching, assessment, curriculum design, and institutional governance. It is structured around six Competency Units (CUs): AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy and Governance, reflecting both individual teaching practice and broader professional responsibility at EQF Level 6. Each unit is articulated through learning outcomes mapped to the EQF Level 6 dimensions of Knowledge, Skills, and Autonomy and Responsibility, in accordance with the European Qualifications Framework Council Recommendation (Council of the EU, 2017) and the EASO Guide to Writing Learning Outcomes, thereby ensuring observable, assessable, and level-appropriate descriptors.

The evidence base for the matrix draws on the WP2 Desk Research report (AI-UpSkilled Consortium, 2026), which synthesised key European and international policy and reference frameworks, including the EU AI Act (European Parliament & Council of the EU, 2024), GDPR (European Parliament & Council of the EU, 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 (UDL) (CAST, 2018), WCAG 2.1 (W3C, 2018), and the Digital Education Action Plan (European Commission, 2021). This documentary foundation was stress-tested and refined through three focus-group consultations conducted at Masaryk University, the *Universitat de les Illes Balears*, and Frederick University, engaging 50 higher-education professionals with diverse disciplinary, institutional, and national backgrounds.

Key findings from the consultation phase, internal peer review, and external expert validation confirm that the six competency areas are relevant, timely, and conceptually robust for EQF Level 6 educators. Initial focus-group evidence was systematically reviewed and consolidated through an internal peer-review process across the consortium, ensuring coherence, EQF Level 6 alignment, and consistency of terminology and scope across all competency units.

Subsequent external expert validation confirmed and strengthened these findings. Both focus-group participants and external validators consistently emphasised that ethics must function as a transversal principle, embedded across all AI-related competencies rather than confined to a single unit; that AI literacy at EQF Level 6 should prioritise critical,

applied, and reflective understanding over technical system development; and that assessment-related competencies must explicitly preserve human judgement, accountability, and transparency in AI-mediated evaluation. External validators further reinforced the expectation that EQF6 educators should be equipped not only to use AI tools, but to justify pedagogical and ethical choices, evaluate educational impact, and contribute to institutional culture and policy-aligned practice. All feedback from internal peer review and external validation was systematically integrated, and the competency matrix was revised accordingly.

The final EQF Level 6 competency matrix is aligned with Europass digital credentials and European micro-credential standards (Council of the EU, 2022; European Commission, 2023), ensuring portability, transparency, and recognition across higher-education systems. It provides the formal, validated foundation for Work Package 3 (WP3), which will translate the framework into advanced training pathways and micro-credentials targeting higher-education staff. In this sense, WP2 not only precedes WP3—it establishes the conceptual, methodological, and validation-based core upon which subsequent capacity-building activities are built.

## GLOSSARY

| Term                                                   | Definition                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AI Literacy</b>                                     | The capacity to understand, critically evaluate, and responsibly apply artificial intelligence tools and concepts in professional and educational contexts. At EQF Level 6, this extends to advanced comprehension of ML models, algorithmic bias, generative AI, and the governance implications of AI deployment in HE (Miao & Cukurova, 2024; OECD & European Commission, 2025). |
| <b>AI Act (Regulation (EU) 2024/1689)</b>              | Regulation (EU) 2024/1689. The EU's binding legislation establishing a risk-based regime for AI systems and Art. 4 AI literacy obligations for providers and deployers (European Parliament & Council of the EU, 2024).                                                                                                                                                             |
| <b>Algorithmic Bias</b>                                | Systematic and unfair discrimination produced by AI systems due to flawed training data, model design, or deployment decisions. Recognition and mitigation is a core EQF Level 6 competency (European Parliament & Council of the EU, 2024).                                                                                                                                        |
| <b>Autonomy and Responsibility</b>                     | The third EQF descriptor dimension: capacity to manage complex, unpredictable professional situations with independence, exercise leadership, and take accountability for outcomes — including those mediated by AI tools (Council of the EU, 2017).                                                                                                                                |
| <b>Bloom's Taxonomy</b>                                | A hierarchical framework for classifying educational learning objectives across cognitive levels (remember, understand, apply, analyse, evaluate, create), used to calibrate depth of outcomes at EQF Level 6.                                                                                                                                                                      |
| <b>Co-design Workshop</b>                              | A structured, participatory session in which stakeholders collaboratively develop, critique, and refine frameworks. Three such sessions were conducted in WP2 (Havlíček & Foltýnek, 2026; Pavlakis, 2026; Universitat de les Illes Balears, 2026a, 2026b).                                                                                                                          |
| <b>Competency Matrix</b>                               | A structured framework articulating the knowledge, skills, and autonomy/responsibility required for a specific qualification level or professional role, calibrated against EQF descriptors (Council of the EU, 2017).                                                                                                                                                              |
| <b>DigCompEdu</b>                                      | The European Digital Competence Framework for Educators (Redecker & Punie, 2017), organising digital competencies into six domains. Provides the baseline taxonomy to which AI-specific competencies in this matrix are mapped.                                                                                                                                                     |
| <b>Digital Education Action Plan (DEAP, 2021–2027)</b> | The European Commission's (2021) strategic framework for digital education, providing a policy scaffold for all six competency areas in this matrix.                                                                                                                                                                                                                                |

| Term                                                          | Definition                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EQF (European Qualifications Framework)</b>                | European Qualifications Framework — EU meta-framework enabling comparison of qualifications across countries, defined by eight levels of knowledge, skills, and responsibility/autonomy (Council of the EU, 2017).                                                                    |
| <b>EQF Level 6</b>                                            | Bachelor's-level descriptor: advanced knowledge with critical understanding; skills for complex and unpredictable problem-solving; management of professional activities with autonomy and responsibility (Council of the EU, 2017).                                                  |
| <b>ESCO</b>                                                   | European Skills, Competences, Qualifications and Occupations — multilingual EU classification system for skills and occupations (European Commission, 2024).                                                                                                                          |
| <b>Europass</b>                                               | European Commission platform for recording, presenting, and verifying qualifications and credentials. Microcredentials issued under AI-UpSkillED will align with Europass digital credentials (European Commission, 2023).                                                            |
| <b>External Validation</b>                                    | Review and confirmation of a draft output by <b>stakeholders outside the authoring consortium</b> (e.g., educators, QA experts, policymakers) to test clarity, feasibility, and transferability before finalisation. Typically implemented via surveys, interviews, and focus groups. |
| <b>Focus Group</b>                                            | A <b>structured, small-group qualitative method</b> in which a trained facilitator leads discussion to surface perceptions, needs, and priorities that inform design decisions. Outputs include thematically analysed transcripts and action points.                                  |
| <b>Generative AI</b>                                          | A <b>category of AI that can create new content</b> —such as text, images, audio, code, or video—based on patterns learned from data (e.g., large language models, text-to-image systems).                                                                                            |
| <b>GDPR (General Data Protection Regulation, EU 2016/679)</b> | The EU's <b>data-protection regulation</b> setting principles, rights (e.g., access, erasure, portability), and obligations (e.g., DPIA), including safeguards on <b>automated decision-making</b> (Art. 22).                                                                         |
| <b>Inclusivity</b>                                            | An educational stance that <b>proactively removes barriers</b> so all learners can access, participate, and succeed—often operationalised with <b>UDL</b> and <b>accessibility</b> practices in course and assessment design. (See UDL and WCAG entries.)                             |
| <b>Learning Outcome</b>                                       | A <b>clear, assessable statement</b> of what a learner is expected to <i>know, understand and be able to do</i> at the end of a learning process; used to align teaching, learning, and assessment across EQF levels.                                                                 |
| <b>Micro-credential</b>                                       | A <b>credential certifying the learning outcomes of a short learning experience</b> (e.g., a short course), described with <b>standard elements</b> and aligned with <b>EU quality and transparency principles</b> under the 2022 Council Recommendation. [eur-lex.europa.eu],        |
| <b>SCORM</b>                                                  | <b>Sharable Content Object Reference Model</b> —a technical specification from <b>ADL</b> that enables <b>interoperability and tracking</b> of e-learning content across compliant LMSs (packaging and run-time communication).                                                       |
| <b>UDL (Universal Design for Learning)</b>                    | A <b>research-based framework</b> that improves and optimises teaching and learning for all by providing <b>multiple means of engagement, representation, and action/expression</b> (UDL Guidelines v2.2).                                                                            |
| <b>UNESCO AI Competency Framework for Teachers (2024)</b>     | A <b>global reference</b> defining teacher AI competencies across <b>five dimensions</b> (human-centred mindset, ethics, AI foundations, AI pedagogy, AI for professional learning) with <b>Acquire–Deepen–Create</b> progression.                                                    |
| <b>WCAG 2.1</b>                                               | <b>Web Content Accessibility Guidelines 2.1</b> —W3C's technical recommendation for making web content accessible; adds success criteria beyond WCAG 2.0 and is the <b>advised baseline</b> for current accessibility policies.                                                       |
| <b>WP2 (Work Package 2)</b>                                   | In AI-UpSkillED, the work package responsible for <b>co-design and validation</b> of the EQF Level 6 and Level 4 competency matrices, feeding into curriculum development (WP3).                                                                                                      |
| <b>WP3 (Work Package 3)</b>                                   | In AI-UpSkillED, the work package that <b>translates matrices into training</b> , producing modular, SCORM-packaged learning resources and micro-credential pathways for HE teaching staff.                                                                                           |

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# 1. INTRODUCTION: The AIUPSKILLED PROJECT

**Programme:** Erasmus+ KA220-HED

**Duration:** October 2025 – March 2028

**Budget:** €400,000

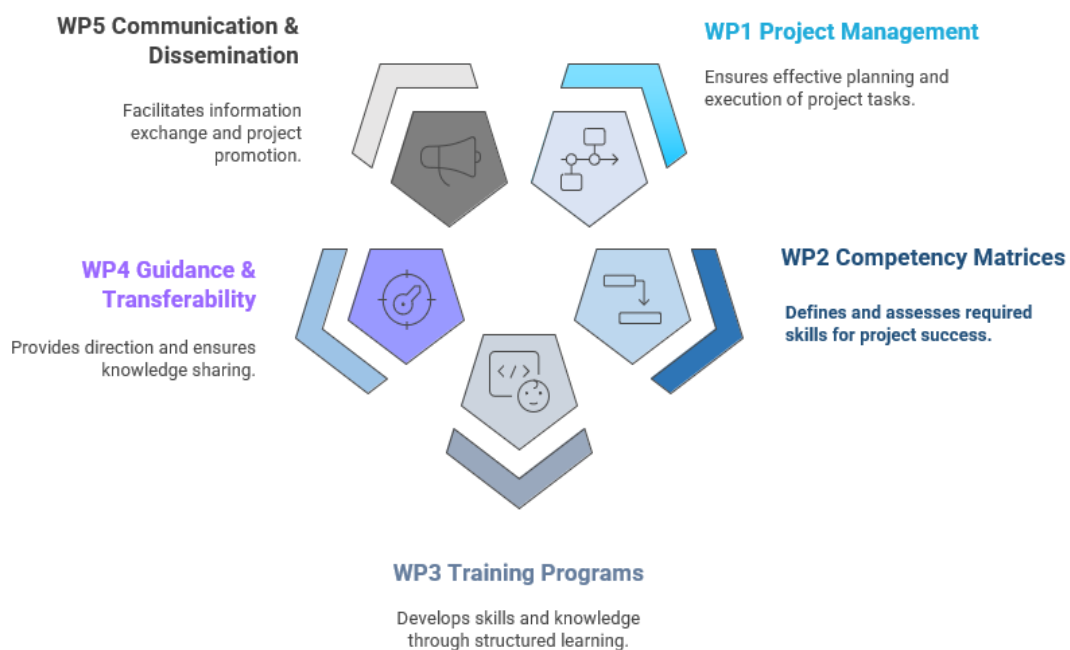
**Coordinator:** Universitat de les Illes Balears (Spain)

**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



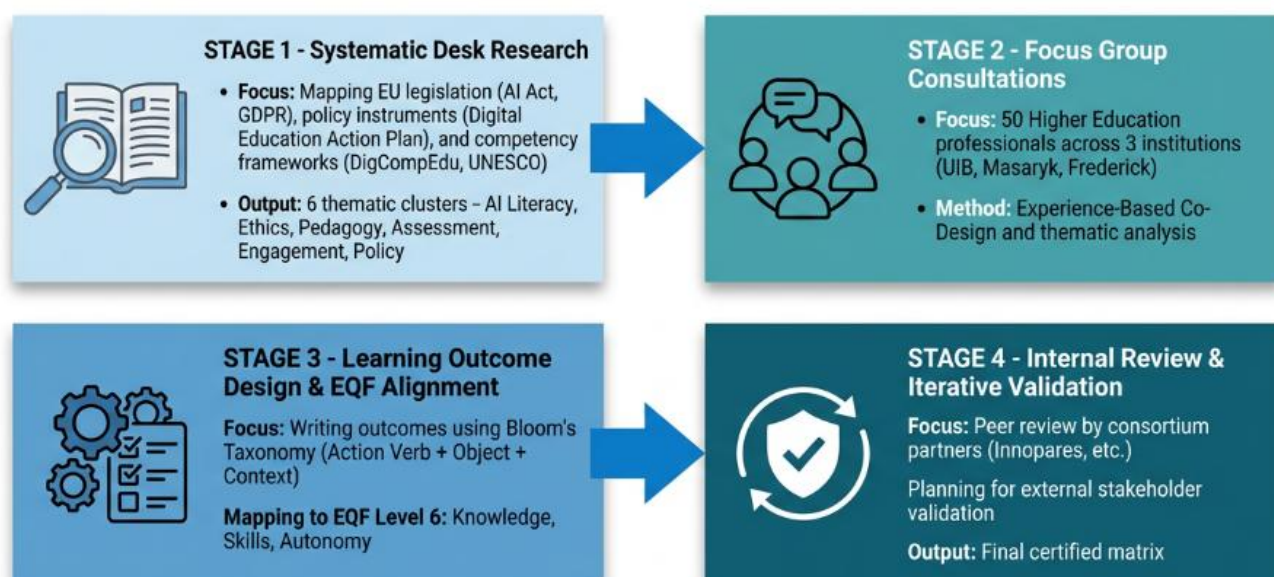
This document presents the final, validated EQF Level 6 Competency Matrix, produced through Work Package 2 (WP2). It combines systematic desk research, co-design workshops, and structured focus group consultations to ensure that the framework is simultaneously grounded in European policy and regulatory 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-6 master competency matrix; Section 5 details the six competency units (AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy & Governance) 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 used to develop the AI-UpSkilled EQF Level 6 Competency Matrix. 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 EQF6 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 14 and 27 January 2026, involving a total of 50 higher education professionals across three partner institutions (UIB, Masaryk University, and Frederick University). 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 |
|------------------------------|---------------------------------------------------------|------------------------|
| <b>Frederick University</b>  | 26 <sup>th</sup> January 2026, 18:00 – 19:30            | 9                      |
| <b>Masarykova University</b> | 20 <sup>th</sup> January 2026, 14:00–15:10              | 18                     |
| <b>UIB</b>                   | 14 <sup>th</sup> Jan 2026 and 27 <sup>th</sup> Jan 2026 | 12+11                  |
| <b>Total</b>                 |                                                         | <b>50</b>              |

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 institutional contacts to ensure diversity of disciplinary backgrounds, seniority levels, and degrees of prior experience with AI tools. The combined participant profile included HE professors, educational designers, quality assurance specialists, digital literacy experts, and institutional policymakers. This diversity was deliberate: the EQF Level 6 matrix is intended to serve a broad academic professional population, and the consultation process needed to reflect the heterogeneity of that audience.

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 before their session. No personally identifiable data is 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 6 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 6, the team applied a two-stage verification process. First, each outcome was mapped against the EQF Level 6 descriptors for Knowledge (advanced, at the forefront of a field), Skills (ability to gather and interpret relevant data; manage complex activities), and Autonomy and Responsibility (managing and transforming work contexts; taking responsibility for contributing to professional knowledge and practice). Second, each outcome was classified according to Bloom's revised taxonomy level, with a design rule that no EQF Level 6 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 Iterative Validation

The draft matrix developed in Stage 3 was subjected to an iterative internal peer-review process prior to finalisation. Coordinated by Innopares as WP2 lead, this review involved all six consortium partners and focused on ensuring methodological coherence, consistency of language across competency units, alignment with EQF and Europass

requirements, and fidelity to focus-group evidence. The process enabled the framework to be stress-tested against diverse higher-education contexts across Spain, Portugal, Greece, Cyprus, and Czechia.

Following internal consolidation, the matrix entered an external validation phase, forming part of a sequential, multi-stakeholder co-design methodology grounded in systematic evidence review, participatory consultation, established learning-outcome writing frameworks, and structured quality assurance. This approach reflects international best practice in developing EQF-aligned competency frameworks and supports the production of outcomes that are both rigorous and applicable in practice.

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 peer review**. This approach is consistent with international best practice in developing EQF-aligned qualification frameworks and ensures that the resulting matrix is 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 five focus group reports (UIB 14 and 27 January 2026, Frederick University 26 January 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, 2026), 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 Masaryk University (Havlíček & Foltýnek, 2026), the Universitat de les Illes Balears — first session (Universitat de les Illes Balears, 2026a) and second session (Universitat de les Illes Balears, 2026b), and Frederick University (Pavlakís, 2026), collectively representing 50 participants across Spain, the Czech Republic, and Cyprus.
- 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: The primacy of critical and applied AI literacy over technical expertise**

Across all three focus groups, participants cautioned against conflating AI literacy with technical or programming competence. At Masaryk University, participants recommended 'further clarifying and narrowing the scope of the AI literacy domain, including reconsideration of the term itself, which was perceived as overly broad'

(Havlíček & Foltýnek, 2026). Frederick University participants similarly proposed shifting the focus toward 'AI principles and applied understanding, with an emphasis on understanding how AI systems function at a conceptual level' (Pavlakis, 2026). UIB participants reinforced this, calling for 'understanding AI systems at a conceptual level, recognising the capabilities and limitations of generative AI tools, critically interpreting AI-generated outputs, and being aware of how data quality, bias, and uncertainty influence results' (Universitat de les Illes Balears, 2026a). This convergence directly aligns with the desk research finding that the OECD-EC AI Literacy Framework (OECD & European Commission, 2025) and UNESCO AI Competency Framework (Miao & Cukurova, 2024) emphasise critical engagement and responsible application rather than technical production.

## **Theme 2: Ethics as a cross-cutting dimension, not an isolated unit**

All three focus groups identified ethics as foundational to every other competency area, not merely a standalone domain. Frederick University participants 'strongly recommended positioning ethical competence as a cross-cutting dimension embedded across all competency areas rather than as an isolated topic' (Pavlakis, 2026). Masaryk University participants emphasised 'the need to integrate ethical and legal considerations as a strongly practice-oriented, cross-cutting dimension' addressed through 'concrete, in-depth examples reflecting real situations educators may encounter' (Havlíček & Foltýnek, 2026). UIB participants recommended 'embedding ethics as a core cross-cutting principle' (Universitat de les Illes Balears, 2026a). This consensus has been operationalised in the present matrix by ensuring that ethical considerations — particularly regarding GDPR compliance, algorithmic bias, and academic integrity — are embedded within each of the six competency units rather than confined to CU2 alone.

## **Theme 3: Human judgement as non-negotiable in assessment**

Assessment integrity and the preservation of human judgement in AI-mediated evaluation were contested areas in all three focus groups. Masaryk University participants 'recommended refining assessment-related competencies to clearly articulate the central role of human judgement in AI-supported evaluation processes' (Havlíček & Foltýnek, 2026). Frederick University participants called for 'stronger focus on assessment integrity and human oversight' (Pavlakis, 2026). UIB participants cited the risk of over-reliance on AI-generated outputs, particularly students 'trusting these outputs without verifying or cross-checking them' (Universitat de les Illes Balears, 2026b). These concerns align with GDPR Art. 22 safeguards against automated decision-making (European Parliament & Council of the EU, 2016) and AI Act provisions for human oversight in high-risk AI applications (European Parliament & Council of the EU, 2024).

## **Theme 4: Institutional context and support structures as prerequisites**

A fourth theme that emerged consistently — though less prominently in the initial framework — concerns the enabling conditions for competency development. Masaryk University highlighted 'a significant gap between the rapid development of AI tools and the current level of institutional preparedness in higher education', noting 'inconsistencies across faculties and disciplines' and 'the lack of shared reference points' (Havlíček & Foltýnek, 2026). UIB participants noted that 'in the absence of clear institutional guidelines, it is often unclear which uses of AI are appropriate, and which may be problematic' (Universitat de les Illes Balears, 2026a). Frederick University participants emphasised that competency implementation requires 'adequate support structures' and 'modular and flexible course design' (Pavlakis, 2026). This theme informed the strengthening of the Autonomy and Responsibility descriptors in CU6, which explicitly address institutional leadership and governance responsibilities.

### **3.3 Points Where Focus Groups Confirm the Desk Research**

The desk research identified six competency areas as the primary structure for the EQF Level 6 framework: AI literacy, ethics, pedagogy, assessment, learner engagement, and policy and governance (AI-UpSkilled Consortium, 2026). All three focus groups confirmed the overall relevance and conceptual appropriateness of this architecture. UIB participants stated that 'the six proposed competency areas (AI Literacy, Ethics, Pedagogy, Assessment, Engagement, Policy) are relevant for AI integration in the context of higher education' (Universitat de les Illes Balears, 2026a). Similarly, Frederick University participants confirmed 'the necessity of structured AI-related competences for educators' (Pavlakis, 2026), and Masaryk University participants affirmed the framework's 'conceptual coherence, practical relevance, and feasibility within real university contexts' (Havlíček & Foltýnek, 2026).

Focus groups also confirmed the desk research's emphasis on compliance with the GDPR and the EU AI Act as foundational non-negotiable requirements. Participants across all three sessions independently raised data protection, transparency, and risk governance as competencies that higher education professors must develop — fully consistent with the desk research's identification of GDPR Arts. 5–6, 9, 22, and 35 and AI Act Arts. 4 and 6 as the primary legislative anchors for the framework (AI-UpSkilled Consortium, 2026).

The desk research's emphasis on accessibility and Universal Design for Learning principles (CAST, 2018; W3C, 2018) was similarly validated, particularly in the context of pedagogy and engagement. UIB participants highlighted 'the importance of in-person interaction, tacit and situated learning, and the risk of student isolation' (Universitat de les Illes Balears, 2026a), reinforcing the desk research finding that inclusive AI integration requires adherence to UDL principles to ensure equitable learning experiences for all students (AI-UpSkilled Consortium, 2026).

### 3.4 Points Where Focus Groups Challenge the Desk Research

The desk research presented the six competency areas as structurally equivalent and independently bounded. **Focus groups challenged this assumption in two significant ways:**

1. First, as noted above, participants consistently argued that ethics should be a transversal principle permeating all units rather than a discrete CU. This challenges the original modular structure and has been addressed in the revised matrix by embedding ethical descriptors within the Autonomy and Responsibility column of each unit.
2. Second, UIB participants suggested 'integrating Pedagogy and Assessment' into a single competency area (Universitat de les Illes Balears, 2026a), arguing that their separation in the framework could produce redundancy and inconsistent language. While the present matrix retains them as separate units for structural clarity and alignment with DigCompEdu (Redecker & Punie, 2017), the overlap has been minimised and cross-references between CU3 and CU4 have been strengthened.

The desk research drew heavily on international frameworks (UNESCO, OECD-EC) that are primarily designed for pre-university or generic educator audiences. Focus groups challenged the applicability of these frameworks to the specific disciplinary and institutional conditions of higher education. Masaryk University participants noted 'inconsistencies across faculties and disciplines', suggesting that the framework must more explicitly acknowledge disciplinary diversity (Havlíček & Foltýnek, 2026). This challenge has been addressed by formulating learning outcomes that are "discipline-agnostic" in their core descriptors but explicitly acknowledge contextual and institutional variation in the Autonomy and Responsibility column.

### 3.5 Contested and Underrepresented Competencies

Three competency areas generated substantive debate or received less validation evidence than others:

1. First, the scope of AI Literacy was contested in all three sessions. Participants disagreed about whether the unit should include any treatment of machine learning architecture and model mechanics, or whether all technical content should be removed entirely in favour of conceptual and ethical framing. The present matrix adopts a middle position, retaining conceptual machine learning literacy at the level required for informed critical evaluation, without requiring implementation-level technical knowledge — consistent with the UNESCO AI Competency Framework's 'Acquire' level descriptors for AI foundations (Miao & Cukurova, 2024).
2. Second, Policy and Governance was the least elaborated area in the focus group discussions. UIB participants proposed renaming it 'Governance' to

distinguish institutional from national policy dimensions (Universitat de les Illes Balears, 2026a), while Masaryk University noted the importance of copyright and data protection as concrete policy competencies (Havlíček & Foltýnek, 2026). The desk research provided the strongest evidence base for this unit through its systematic analysis of the EU AI Act governance provisions, the EQF Council Recommendation, and the Europass Microcredentials framework (Council of the EU, 2017, 2022; European Commission, 2023).

3. Third, Learner Engagement received strong support in principle but limited practical elaboration from participants. UIB participants raised concerns about platform-driven 'social AI' and the erosion of in-person learning dimensions (Universitat de les Illes Balears, 2026a), which constitute important critical perspectives not fully addressed in the desk research. These concerns have been incorporated into the Autonomy and Responsibility descriptors for CU5.

### 3.6 Summary of Evidence Sufficiency

Table 2: Summary of focus groups key information

| COMPETENCY UNIT                      | DESK RESEARCH COVERAGE                  | FOCUS GROUP COVERAGE                                         | EVIDENCE ASSESSMENT                                       |
|--------------------------------------|-----------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|
| <b>CU1 — AI Literacy</b>             | Strong (OECD–EC, UNESCO, AI Act Art. 4) | Strong (all 3 FGs, contested scope)                          | Sufficient. Minor terminological tension managed.         |
| <b>CU2 — Ethics</b>                  | Strong (HLEG, GDPR, AI Act)             | Strong (all 3 FGs, unanimous cross-cutting recommendation)   | Sufficient. Consensus on cross-cutting approach.          |
| <b>CU3 — Pedagogy</b>                | Strong (DigCompEdu, UDL, UNESCO)        | Strong (pedagogy prioritised in all FGs)                     | Sufficient.                                               |
| <b>CU4 — Assessment</b>              | Strong (DigCompEdu 4, GDPR Art. 22)     | Strong (all FGs, some tension re: integration with Pedagogy) | Sufficient. Boundary with CU3 refined.                    |
| <b>CU5 — Engagement</b>              | Moderate (OECD–EC AILit, DEAP)          | Moderate (less detailed, UIB raised platform risks)          | Adequate. Platform risk dimension added from FG evidence. |
| <b>CU6 — Policy &amp; Governance</b> | Strong (AI Act, EQF, Europass, DEAP)    | Limited FG depth (desk research primary source)              | Adequate. Flagged: FG evidence thinner for this unit.     |

### 3.7 Peer review analysis

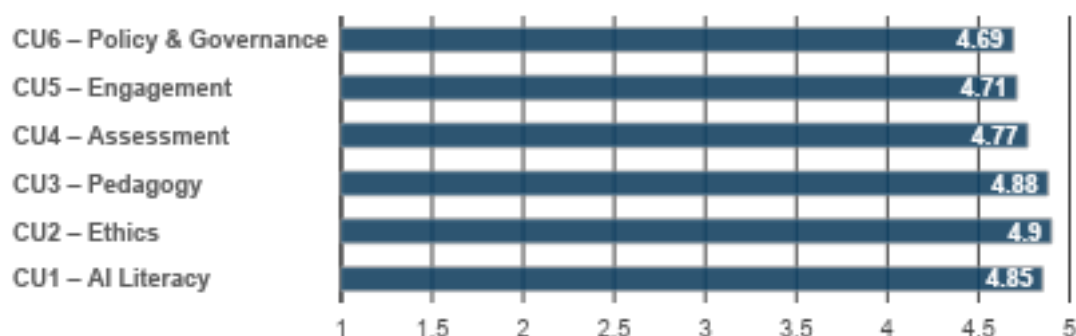
Across the six reviewers representing Innopares (ES), ISQe (PT), and Medea Lab (GR), the overall evaluation of the EQF6 Competency Matrix is exceptionally positive. Reviewers consistently stated that the framework is coherent, well aligned with European policy, and highly relevant to current AI integration challenges in Higher Education.

The reviewers note that the six Competency Units (AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy) form a solid, interconnected structure that reflects

real teaching and governance needs in HE institutions. Ethical and pedagogical issues were described as transversal, often re-appearing across units even when not explicitly labelled.

The results demonstrate strong overall validation of the competence framework, with all units receiving average scores above 4.7/5, reflecting a high level of coherence, clarity, and relevance of the proposed learning outcomes.

Figure 3: Figure 3: Peer review averages by competence units – EQF6



The strongest recurring themes include:

- The need for critical AI literacy rather than technical mastery
- Ethics as a cross-cutting principle
- The centrality of human judgment in assessment
- The importance of inclusion, accessibility, and institutional support

Analysis by Competence Unit:

- **CU1 – AI Literacy (Average Rating: 4,85/5):** AI Literacy emerges as one of the most consistently strong and well-received units, praised for its conceptual clarity, solid alignment with the EU AI Act, OECD–EC AI Literacy Framework, and UNESCO guidance, and its effective calibration to EQF6 cognitive demands. Reviewers highlighted its precise distinction between foundational understanding and the advanced critical-application skills expected of higher-education staff. The unit's structure was noted as coherent and methodologically rigorous, offering a clear progression from knowledge to applied autonomy. Recommendations mainly focused on adding discipline-specific examples, refining autonomy descriptors, and increasing the cognitive challenge of some verbs to “critically appraise.” Overall, CU1 is considered a robust pillar of the matrix requiring only enrichment through practical examples and enhanced clarity around responsibility levels.
- **CU2 – Ethics (Average Rating: 4,90/5):** Ethics stands out as the highest-rated unit, widely regarded as exemplary in structure, relevance, and depth. Reviewers noted its strong integration of GDPR, the AI Act’s risk-based framework, fairness and bias mitigation strategies, and academic integrity concerns. They praised its applied nature, highlighting its grounding in practical scenarios and its clear orientation toward supporting responsible AI use in academic contexts. Across companies, reviewers converged on the idea that ethics should be addressed as a transversal

dimension rather than treated in isolation, as its themes permeate all other CUs. Suggested improvements include adding more scenario-based dilemmas, strengthening explicit links to inclusiveness, and clarifying how EQF6 ethical reasoning differs from lower levels. CU2 is already robust and impactful, with refinement mostly aimed at expanding real-world applications.

- **CU3 – Pedagogy (Average Rating: 4,88/5):** The Pedagogy unit is recognised as a core strength of the matrix, offering a well-aligned, evidence-based framework for AI-enhanced teaching grounded in UDL, WCAG 2.1 accessibility principles, and constructive alignment. Reviewers praised its comprehensive treatment of AI-supported learning design, its attention to inclusion, and its balanced approach to leveraging AI while maintaining human pedagogical agency. They acknowledged the unit's strong conceptual structure and its effective mapping to EQF6 descriptors. Recommendations centred on expanding practical examples for hybrid and low-bandwidth environments, incorporating explicit accessibility audits for AI tools, and sharpening autonomy/responsibility descriptors to ensure they reflect EQF6-level pedagogical leadership. CU3 is viewed as pedagogically rigorous and nearly complete, requiring mainly contextual examples and enhancements to technical inclusivity.
- **CU4 – Assessment (Average Rating: 4,77/5):** Assessment is both a strong unit and the most debated one, reflecting the complexity of AI's impact on academic evaluation. Reviewers highlighted its success in emphasising human judgment, assessment integrity, and clear distinctions between formative and summative functions. They also appreciated its grounding in foundational frameworks such as Black & Wiliam and constructive alignment. However, challenges remain as reviewers noted that some descriptors blur the boundaries between designing AI-supported assessments and evaluating AI-generated student work, and they consistently requested more operational tools such as sample rubrics, multimodal evidence matrices, and updated references reflecting post-2022 literature. Overall, CU4 is conceptually well-developed but requires concrete, implementable materials and clearer differentiation of AI's various assessment roles.
- **CU5 – Engagement (Average Rating: 4,71/5):** Engagement is seen as a promising but comparatively less developed unit, with solid intentions around inclusion, equity, and student motivation but lacking the clarity and practical specificity of other CUs. Reviewers appreciated its strong alignment with UDL and inclusiveness principles, yet noted that the unit currently provides limited examples of how AI can concretely enhance participation or support diverse learners. They also pointed out the need to distinguish between student engagement with AI tools and faculty engagement with institutional processes. Additional concerns include addressing digital anxiety, ensuring psychological safety, and monitoring equity in participation. To reach the level of maturity expected at EQF6, CU5 requires more concrete scenarios, strategies, and practical guidance for designing AI-mediated engagement in diverse educational contexts.
- **CU6 – Policy & Governance (Average Rating: 4,69/5):** Policy & Governance, while conceptually important and aligned with major EU frameworks, is considered the least fully developed of the six units. Reviewers acknowledged its relevance to institutional leadership and compliance but noted gaps in practical detail such as

policy gap analysis methods, procurement guidelines, data governance workflows, and institutional implementation strategies. They also emphasised the need to distinguish EQF6 policy leadership from mere policy awareness, suggesting additions such as resistance-management strategies and tools for leading organisational change. While CU6 provides a solid structural basis, reviewers felt it lacks the practical specificity and actionable frameworks necessary for higher-education staff to contribute meaningfully to AI governance. Strengthening this unit will significantly enhance the matrix's institutional impact.

Peer review of the EQF Level 6 Competency Matrix shows strong consensus that the framework is methodologically rigorous, policy-aligned, and well-grounded in the realities of AI integration in higher education. Reviewers across six experts and three organisations confirmed that the matrix offers a clear and forward-looking structure anchored in European policy expectations, ethical standards, and evidence-based pedagogical principles. Overall ratings (4.69–4.90) indicate a mature framework requiring refinement rather than structural change.

Reviewers agreed that the matrix positions higher-education professionals not merely as users of AI, but as critical, responsible, and autonomous actors capable of evaluating, integrating, and governing AI use within institutional contexts. Units on AI Literacy, Ethics, and Pedagogy were identified as particularly strong and ready for direct translation into training, requiring only minor enhancements. Units on Assessment, Engagement, and Policy & Governance were positively evaluated but identified as needing greater operational detail, primarily to be addressed during WP3 course design rather than through changes to the matrix itself.

Across all units, reviewers emphasised the need to embed ethics as a transversal principle, preserve human judgement and critical oversight, and integrate inclusiveness and accessibility consistently within training activities. They also highlighted the importance of addressing the institutional dimension of AI integration and recommended that WP3 support educators in understanding governance processes alongside individual competencies. Overall, peer review confirmed that no modifications were required to the EQF6 matrix, which was deemed coherent, robust, and fully ready to progress to external validation.

### 3.8 Summary of External Validation

The external validation phase aimed to verify the relevance, EQF Level 6 alignment, clarity, and practical applicability of the AI-UpSkilled competency matrix following internal peer review and consolidation. The revised matrix was validated by **51 independent external experts**, exceeding the targets defined in the WP2 work plan. Validators included higher-education educators, AI and digital-learning specialists, academic leaders, and policy-informed practitioners drawn from professional networks and advisory bodies across partner countries. The validation process was conducted between March and April 2026 and combined structured quantitative ratings with qualitative feedback.

Overall, external validation confirmed a high level of agreement regarding the structure, scope, and conceptual soundness of the six competency units. Validators particularly endorsed the decision to position ethics as a transversal principle, to frame AI literacy at EQF Level 6 around critical, applied, and reflective understanding rather than technical system development, and to preserve human judgement, accountability, and transparency in AI-supported assessment practices. Accessibility, inclusion, and policy awareness were also identified as essential dimensions of professional responsibility at this level.

Qualitative feedback further highlighted the importance of equipping EQF6 educators not only to deploy AI tools, but to justify pedagogical and ethical decisions, evaluate educational impact, and contribute to institutional and policy-aligned practices. Suggestions from validators primarily concerned clarification of terminology, strengthening links between competencies and institutional responsibilities, and reinforcing evaluative and reflective elements—all of which were addressed through a final revision cycle.

All external validation findings were systematically analyzed and integrated alongside internal peer-review feedback, resulting in the final certified EQF Level 6 competency matrix delivered under WP2. The validation process confirms the framework's readiness for implementation and its suitability as the foundation for the advanced training pathways and micro-credentials to be developed in Work Package 3.

## 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 6 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 5.1 to 5.6.

Table 3: EQF 6 Master Competency Matrix

| EQF 6 MASTER COMPETENCY MATRIX                                          |                                                    |                                                                                             |                                                                                       |                                                                                                                        |
|-------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Upon completion of the training experience, the learner will be able to |                                                    |                                                                                             |                                                                                       |                                                                                                                        |
| COMPETENCY UNIT                                                         | COMPETENCY                                         | KNOWLEDGE                                                                                   | SKILLS                                                                                | RESPONSIBILITY & AUTONOMY                                                                                              |
| CU1 AI Literacy                                                         | Critically evaluate AI tools for HE use            | Analyse AI paradigms, model lifecycles, data dependencies, and sources of algorithmic bias. | Evaluate and configure AI tools; interpret analytics to inform pedagogical decisions. | Maintain human oversight, justify AI use transparently, and intervene where risks or bias are identified.              |
|                                                                         | Ensure ethical and legal compliance                | Analyse GDPR obligations, EU AI Act risk categories, and recognised ethical frameworks.     | Apply data-protection and ethical requirements in teaching, assessment, and research. | Assume responsibility for learner rights, equitable outcomes, and regulatory compliance within institutional contexts. |
| CU2 Ethics                                                              | Apply ethical frameworks to AI-supported education | Analyse principles of fairness, accountability, transparency, and proportionality.          | Apply ethical frameworks to authentic HE scenarios; identify bias and mitigate harm.  | Advise peers and contribute to shared ethical AI practices within the institution.                                     |
|                                                                         | Safeguard academic integrity                       | Evaluate AI-related risks to academic honesty and disclosure obligations.                   | Design integrity safeguards and transparent AI assessment approaches.                 | Exercise independent professional judgement in integrity-related decisions and policy interpretation.                  |
| CU3 Pedagogy                                                            | Design inclusive AI-enhanced learning              | Analyse AI-supported instructional design models, UDL principles, and WCAG requirements.    | Design inclusive learning experiences using AI aligned with pedagogical intent.       | Champion student-centred pedagogy and actively resist inappropriate automation.                                        |
|                                                                         | Align AI use with learning outcomes and level      | Analyse constructive alignment in AI-mediated curricula.                                    | Select and justify AI tools aligned with intended learning outcomes and EQF level.    | Take autonomous responsibility for the quality and coherence of pedagogical innovation.                                |
| CU4 Assessment                                                          | Develop a valid AI-supported assessment            | Evaluate AI-enabled assessment methods, including validity, reliability, and bias risks.    | Design transparent rubrics and calibrate AI feedback to support fair evaluation.      | Prioritise fairness, transparency, and formative development in assessment decisions.                                  |
|                                                                         | Triangulate evidence for robust judgement          | Analyse principles of multimodal evidence collection in AI-mediated assessment.             | Triangulate diverse evidence sources to support defensible judgement.                 | Assume full professional responsibility for the integrity of assessments and learner equity.                           |

| EQF 6 MASTER COMPETENCY MATRIX                                          |                                           |                                                                               |                                                                                        |                                                                                         |
|-------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Upon completion of the training experience, the learner will be able to |                                           |                                                                               |                                                                                        |                                                                                         |
| COMPETENCY UNIT                                                         | COMPETENCY                                | KNOWLEDGE                                                                     | SKILLS                                                                                 | RESPONSIBILITY & AUTONOMY                                                               |
| CU5 Engagement                                                          | Use AI to support learner engagement      | Analyse AI-driven analytics for engagement monitoring and adaptive feedback.  | Personalise feedback and identify learners at risk while avoiding surveillance bias.   | Foster belonging, trust, and psychological safety in AI-mediated environments.          |
|                                                                         | Facilitate collaborative AI use           | Analyse AI-supported collaborative tools and digital facilitation principles. | Facilitate peer collaboration and co-creation using AI while ensuring equity.          | Promote shared responsibility and inclusive participation in digital learning cultures. |
| CU6 Policy                                                              | Contribute to institutional AI governance | Interpret EU and institutional AI policies (AI Act, GDPR, EQF, Europass).     | Align teaching with institutional AI policies and contribute to guideline development. | Demonstrate leadership through policy-aligned, ethical AI practice.                     |
|                                                                         | Support quality assurance of AI use       | Analyse quality-assurance frameworks for AI procurement and educational use.  | Evaluate AI tools against institutional QA criteria prior to adoption or scaling.      | Model transparent, accountable governance in AI-related decisions.                      |

This summary table is provided as a navigation and reference aid. Full learning-outcome descriptors, including detailed knowledge statements, skill applications, and indicators of autonomy and responsibility, are presented in the unit-level tables in Sections 5–10.

All descriptors are formulated at EQF Level 6, reflecting the requirement for advanced knowledge with critical understanding, the ability to solve problems in complex and unpredictable educational contexts, and the capacity to manage and improve professional processes with a high degree of autonomy and responsibility. In line with validation findings, particular emphasis is placed on professional judgement, ethical accountability, and institutional awareness in AI-supported teaching and governance.

## 5. DETAILED COMPETENCY UNITS

This section presents six detailed competency-unit tables, corresponding to the identified areas of AI-integration competence for EQF Level 6 higher-education professors. Each unit is introduced by a concise narrative (2–3 paragraphs) outlining its rationale, synthesising relevant evidence from focus-group consultations, and referencing key documentary sources that informed its design.

The learning outcomes in each table are expressed using clear, observable action verbs, following established outcome-writing guidance (Kennedy *et al.*, 2009; Anderson & Krathwohl, 2001). Explicit Bloom’s taxonomy level classifications are provided to support curriculum developers, trainers, and assessment designers in applying appropriate cognitive demand and alignment.

The EQF Level 6 descriptors require advanced knowledge with critical understanding, the ability to gather, interpret, and evaluate relevant data, and a level of autonomy and responsibility associated with managing complex professional activities. All learning outcomes in this section have been carefully calibrated to meet these requirements, while remaining applicable to authentic higher-education teaching, assessment, and governance contexts.

### 5.1 COMPETENCY UNIT 1 — AI LITERACY

AI Literacy at EQF Level 6 extends well beyond the operational use of AI tools. It requires higher-education professors to develop a critical, conceptually grounded understanding of AI systems, including machine-learning paradigms, training-data dynamics, evaluation metrics, and generative-AI architectures, in order to make informed and defensible decisions about AI adoption in teaching and research. This requirement is grounded in the project’s desk research and aligned with the EU AI Act’s AI-literacy obligations (Article 4) and the OECD–EC AI Literacy Framework (2025), both of which identify conceptual understanding as a prerequisite for responsible and ethical AI use.

Evidence from the focus-group consultations, internal peer review, and external expert validation consistently confirmed AI Literacy as a foundational competency underpinning all other units in the matrix. Participants and validators emphasised that AI literacy at this level should not be construed as a primarily technical skill: institutional risk most often stems from uncritical adoption of AI systems without adequate awareness of model limitations, bias risks, or data-governance implications (*Universitat de les Illes Balears*, 2026a). This finding directly informed the matrix’s emphasis on critical evaluation, interpretation, and professional judgement, rather than operational familiarity alone.

The learning outcomes for this unit draw on DigCompEdu Area 6, the UNESCO AI Competency Framework for Teachers (2024), and the EU AI Act compliance framework, and are aligned with the principle of constructive alignment (Biggs, 2003). Validation

feedback further reinforced the need for EQF Level 6 educators to retain clear human oversight, interpret AI-generated analytics responsibly, and justify pedagogical and ethical choices. Accordingly, the competencies defined in this unit address three interrelated dimensions: data protection and GDPR compliance; AI-Act-related risk governance and transparency; and academic integrity in the context of generative AI, reflecting the full scope of ethical and professional challenges faced by higher-education professors (Havlíček & Foltýnek, 2026).

Table 5: EQF Level 6 Learning Outcomes — AI Literacy

| <b>UNIT 1: AI LITERACY</b><br><b>EQF 6 COMPETENCY MATRIX</b><br><b>Upon completion of the training experience, the learner will be able to</b> |                                                                                                                                                                              |                                                                                                                                                          |                                                                                                                                                   |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| LEARNING OUTCOME                                                                                                                               | KNOWLEDGE (KNOW)                                                                                                                                                             | SKILLS (CAN DO)                                                                                                                                          | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                                  | BLOOM LEVEL        |
| <b>LO1.1 Critically explain AI paradigms and the model lifecycle</b>                                                                           | Analyse advanced AI paradigms (machine-learning models, training data, evaluation metrics, generative-AI architectures) and the AI model lifecycle.                          | Critically evaluate AI tools for teaching and research; configure settings responsibly in line with institutional and ethical requirements.              | Justify AI adoption decisions, advocate transparency, and maintain active human oversight in all AI-supported teaching and research activities.   | Analyse / Evaluate |
| <b>LO1.2 Identify and interpret algorithmic bias and system limitations</b>                                                                    | Analyse principles of algorithmic bias, variance, uncertainty, and system limitations in educational contexts.                                                               | Identify, document, and contextualise bias in AI outputs; apply mitigation strategies when selecting or designing AI-mediated activities.                | Take autonomous responsibility for recognising, communicating, and addressing AI limitations with learners and institutional stakeholders.        | Analyse / Evaluate |
| <b>LO1.3 Apply regulatory and ethical frameworks governing AI use</b>                                                                          | Analyse relevant GDPR provisions, EU AI Act risk categories (prohibited, high-risk, limited, minimal), and transparency and accountability obligations for higher education. | Apply regulatory and ethical requirements to AI-supported teaching and research workflows, including data-protection measures and impact considerations. | Assume professional responsibility for protecting learner rights, privacy, and equity, and for aligning AI practices with institutional policies. | Apply / Evaluate   |
| <b>LO1.4 Interpret AI-generated analytics to support pedagogical decision-making</b>                                                           | Analyse AI-powered learning-analytics dashboards, key indicators, and their methodological and statistical limitations.                                                      | Interpret analytics critically to inform responsive pedagogical decisions and adapt teaching strategies accordingly.                                     | Exercise independent professional judgement in the use of analytics, resisting deterministic, reductive, or purely automated interpretations.     | Analyse / Evaluate |

**Sources and evidence-based.** This unit is grounded in WP2 desk research (AI-UPSKILLED\_WP2\_DeskResearch\_FIN.docx, Sections 4 and 6) and focus-group consultations at the Universitat de les Illes Balears (January 2026) and Masaryk University (2026). These inputs were consolidated through internal peer review and confirmed by external expert validation, which endorsed the focus on critical AI literacy, ethical accountability, and human judgement at EQF Level 6. Learning outcomes follow established outcome-writing guidance (Kennedy et al., 2009; Anderson & Krathwohl, 2001).

## 5.2 COMPETENCY UNIT 2: ETHICS IN AI-INTEGRATED HIGHER EDUCATION

Ethical competency at EQF Level 6 is not a peripheral or optional dimension of AI integration; it is a core professional responsibility for higher-education professors using AI in teaching, research, or administration. Desk research identifies the EU AI Act (Regulation 2024/1689), GDPR, and the UNESCO Recommendation on the Ethics of AI as the principal legislative and normative anchors for this unit, establishing binding expectations regarding transparency, accountability, fairness, and learner rights. At this level, educators are expected not only to comply with these frameworks, but to engage with them analytically and exercise independent professional judgement, actively promoting ethical practice within their institutions.

Evidence from the focus-group consultations, internal peer review, and external expert validation consistently confirmed ethics as a top-priority and cross-cutting competency. Participants highlighted concerns regarding AI-enabled academic misconduct, the lack of consistent disclosure norms, and the risk that AI systems may embed or amplify social biases, especially related to gender, socio-economic background, and neurodiversity. The Masaryk University focus group explicitly warned of the risk of perpetuating inequality and exclusion through uncritical AI adoption—an observation reinforced by external validators and aligned with desk-research findings on assessment-integrity gaps and bias risks.

In response, the learning outcomes for this unit align with the FATE principles (Fairness, Accountability, Transparency, Explainability) that underpin both the EU AI Act and UNESCO's ethics framework. Validation feedback further emphasised that EQF Level 6 educators must be equipped with the analytical capacity to identify ethical risks, the practical skills to mitigate them, and the professional autonomy to exercise ethical leadership in complex and institutionalised AI-mediated environments.

Table 6: EQF Level 6 Learning Outcomes — Ethics in AI-Integrated Higher Education

| UNIT 2: ETHICS IN AI-INTEGRATED HIGHER EDUCATION<br>EQF 6 COMPETENCY MATRIX<br>Upon completion of the training experience, the learner will be able to |                                                                                                                                       |                                                                                                                                       |                                                                                                                                         |                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| LEARNING OUTCOME                                                                                                                                       | KNOWLEDGE (KNOW)                                                                                                                      | SKILLS (CAN DO)                                                                                                                       | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                        | BLOOM LEVEL           |
| <b>LO2.1 Apply ethical frameworks to AI use in higher education</b>                                                                                    | Analyse principles of fairness, accountability, transparency, and explainability (FATE) as applied to AI systems in higher education. | Apply ethical frameworks to authentic HE scenarios; evaluate AI tools against institutional policies and EU-level ethical guidelines. | Champion ethical AI governance, justify decisions, and advise colleagues and institutional leadership on responsible AI-use principles. | Analyse / Evaluate    |
| <b>LO2.2 Detect and mitigate bias in AI applications</b>                                                                                               | Analyse sources of bias in training data, model design, deployment, and use, including                                                | Detect and document bias in AI-generated content; implement mitigation strategies in                                                  | Exercise independent professional judgement to challenge biased AI outputs and advocate for                                             | Evaluate / Synthesise |

|                                                                   |                                                                                                                                             |                                                                                                                           |                                                                                                                           |                  |
|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------|
|                                                                   | intersectional, cultural, and accessibility-related bias.                                                                                   | course design and learner interactions.                                                                                   | fair and inclusive outcomes institutionally.                                                                              |                  |
| <b>LO2.3 Safeguard academic integrity in AI-mediated contexts</b> | Analyse AI-enabled academic-misconduct risks, detection approaches, and disclosure obligations (including AI Act Art. 50).                  | Design integrity safeguards; develop transparent AI-use and disclosure frameworks for assessment and learning activities. | Assume full professional responsibility for upholding academic integrity standards in AI-integrated assessment contexts.  | Apply / Evaluate |
| <b>LO2.4 Uphold learner rights and data dignity in AI use</b>     | Analyse learner data rights under GDPR (access, erasure, portability) and ethical risks related to surveillance and profiling in education. | Implement data-minimisation and informed-consent practices for AI-assisted data collection and analytics in teaching.     | Demonstrate continuous ethical vigilance and advocate institutionally for learner dignity, privacy, and data sovereignty. | Apply / Evaluate |

Sources and evidence-based. This unit draws on WP2 desk research (AI-UPSKILLED\_WP2\_DeskResearch\_FIN.docx), focus-group consultations conducted at Masaryk University and Frederick University, and the relevant European legal frameworks, including the EU AI Act (Regulation 2024/1689) and GDPR (Regulation 2016/679). These sources were consolidated through internal peer review and subsequently confirmed through external expert validation, which endorsed the emphasis on ethical leadership, human judgement, and institutional accountability at EQF Level 6. Learning-outcome formulation follows established guidance on clear and assessable outcomes (Kennedy et al., 2009).

### 5.3 COMPETENCY UNIT 3 — PEDAGOGY AND INSTRUCTIONAL DESIGN WITH AI

The Pedagogy unit addresses the core of the higher-education professor's professional identity: the design, facilitation, and critical evaluation of learning. At EQF Level 6, this goes beyond deciding whether to use AI tools to the more demanding task of integrating AI in ways that serve intended learning outcomes, promote equity, and preserve the professional autonomy of both professor and student.

Desk research anchors this unit in established instructional-design frameworks, notably constructive alignment (Biggs, 2003) and Universal Design for Learning (CAST, 2018), aligned with EQF Level 6 expectations for independent professional judgement, innovation, and responsibility. These foundations were consolidated through internal peer review, ensuring coherence between pedagogical principles, learning-outcome formulation, and EQF descriptors.

Focus-group participants at the Universitat de les Illes Balears (January 14), a view later endorsed during external validation, proposed the term Pedagogy and Didactics to reflect teaching as an integrated cycle of design, implementation, and evaluation, rather than isolated activities. This framing informs the learning-outcome structure, covering design (LO3.1), alignment (LO3.2), differentiation (LO3.3), and critical evaluation (LO3.4). Participants and validators also identified over-automation, the delegation of pedagogical decisions to AI in ways that diminish human agency, as a significant risk, reinforcing the focus on reflective and intentional AI use.

An additional priority, highlighted by the Masaryk University focus group, peer reviewers, and external validators, concerns the inclusion dimension of AI-enhanced

pedagogy, often underrepresented in existing frameworks. Attention was given to the needs of neurodivergent learners, students in rural or low-bandwidth contexts, and those from socio-economically disadvantaged backgrounds. Learning Outcome LO3.3 directly addresses this gap by integrating WCAG 2.1 accessibility standards and UDL principles, reflecting validation feedback that inclusive pedagogical design is a core professional responsibility at EQF Level 6, not an optional enhancement.

Table 7: EQF Level 6 Learning Outcomes — Pedagogy

| <b>UNIT 3: PEDAGOGY AND INSTRUCTIONAL DESIGN WITH AI</b><br><b>EQF 6 COMPETENCY MATRIX</b><br><b>Upon completion of the training experience, the learner will be able to</b> |                                                                                                                                                       |                                                                                                                                                                |                                                                                                                                                 |                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| LEARNING OUTCOME                                                                                                                                                             | KNOWLEDGE (KNOW)                                                                                                                                      | SKILLS (CAN DO)                                                                                                                                                | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                                | BLOOM LEVEL           |
| <b>LO3.1 Design AI-enhanced learning experiences</b>                                                                                                                         | Analyse AI-supported instructional-design models (e.g. ADDIE, backward design) and Universal Design for Learning (UDL) principles.                    | Design inclusive, AI-enhanced learning experiences aligned with intended learning outcomes and WCAG 2.1 accessibility standards.                               | Promote student-centred pedagogy and actively resist over-automation that undermines learner agency and educator judgement.                     | Synthesise / Create   |
| <b>LO3.2 Apply constructive alignment when integrating AI tools</b>                                                                                                          | Analyse constructive alignment (Biggs, 2003) and how AI tools may support or disrupt coherence between learning outcomes, activities, and assessment. | Select and justify AI tools that authentically align with intended learning outcomes at EQF Level 6, communicating rationale to peers and academic leadership. | Take autonomous responsibility for the quality, coherence, and integrity of AI-enabled pedagogical innovation across modules and programmes.    | Apply / Analyse       |
| <b>LO3.3 Adapt AI-supported pedagogy for diverse learners</b>                                                                                                                | Analyse challenges related to neurodiversity, digital equity, rural access, and accessibility, and the affordances and limits of adaptive AI tools.   | Adapt AI-mediated teaching strategies for diverse learner profiles, including low-bandwidth and offline alternatives where appropriate.                        | Advocate for inclusive pedagogy and contribute to institutional dialogue and practice on equitable AI access and participation.                 | Apply / Evaluate      |
| <b>LO3.4 Critically evaluate the effectiveness of AI-enhanced pedagogy</b>                                                                                                   | Analyse evidence-based frameworks for evaluating technology-enhanced learning (e.g. TAM, SAMR, TPACK).                                                | Critically evaluate AI-enhanced pedagogical strategies using learner feedback, analytics, and peer review evidence.                                            | Continuously improve pedagogical practice through systematic reflection and evidence-based professional judgement, maintaining human oversight. | Evaluate / Synthesise |

*Sources and evidence base. This unit draws on WP2 desk research (AI-UPSKILLED\_WP2\_DeskResearch\_FIN.docx), focus-group evidence from the Universitat de les Illes Balears (January 2026), and key pedagogical frameworks (Biggs, 2003; CAST, 2018). These inputs were consolidated through internal peer review and confirmed by external expert validation, which endorsed the emphasis on inclusive design, human judgement, and critical pedagogical use of AI.*

## 5.4 COMPETENCY UNIT 4 — ASSESSMENT IN AI-INTEGRATED CONTEXTS

Assessment in the age of AI presents challenges that are simultaneously technical, ethical, and pedagogical. While AI tools can automate grading, generate feedback, support plagiarism detection, and provide predictive analytics, they also introduce new threats to validity, equity, and academic integrity. At EQF Level 6, higher-education professors must be equipped to manage these risks through informed design, critical oversight, and professional judgement. This unit builds on foundational assessment scholarship, particularly Black and Wiliam's (1998) work on formative assessment and the principle of constructive alignment, whereby assessment defines the actual curriculum (Ramsden, 2003; Kennedy *et al.*, 2009) and applies it to the specific challenges of AI-mediated assessment in higher education.

As reflected in the cross-document synthesis (Section 2.1), assessment emerged as the most contested competency area across all focus groups, a finding reinforced by internal peer review and external expert validation. Participants consistently reported uncertainty about how to maintain assessment validity when learners have access to generative AI, and how to ensure that AI-generated feedback remains accurate, equitable, and pedagogically meaningful, rather than merely efficient. The UIB focus group (January 14) proposed integrating assessment within the pedagogy unit to reflect its centrality; however, both internal reviewers and external validators agreed that the complexity and risk profile of AI-mediated assessment justified a dedicated unit.

External validation further reinforced concerns about over-reliance on automated judgement. Recent preregistered experimental evidence demonstrates that while accurate AI advice can improve human performance, faulty AI advice reduces accuracy below baseline while still increasing user confidence, a pattern described as “cognitive surrender” (Shaw & Nave, 2026). These findings directly support the unit's emphasis on human judgement, triangulation of evidence, explicit disclosure, and accountability in AI-supported assessment practices.

Accordingly, the learning outcomes in this unit operationalise Kennedy *et al.*'s (2009) guidance that assessment should be observable, aligned with intended learning outcomes, and extend beyond summative testing to include projects, portfolios, and rubric-based evaluation. At EQF Level 6, this translates into the expectation that professors can not only design valid and transparent AI-supported assessments, but also triangulate evidence, design formative feedback loops, and exercise leadership in shaping assessment-integrity policy within their institutions—capabilities strongly endorsed during external expert validation.

Table 8: EQF Level 6 Learning Outcomes — Assessment

| <b>UNIT 4: ASSESSMENT IN AI-INTEGRATED CONTEXTS</b><br><b>EQF 6 COMPETENCY MATRIX</b><br><b>Upon completion of the training experience, the learner will be able to</b> |                                                                                                                                                                     |                                                                                                                                                                 |                                                                                                                                               |                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| LEARNING OUTCOME                                                                                                                                                        | KNOWLEDGE (KNOW)                                                                                                                                                    | SKILLS (CAN DO)                                                                                                                                                 | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                              | BLOOM LEVEL                |
| <b>LO4.1 Design valid AI-supported assessments</b>                                                                                                                      | Analyse AI-enabled assessment methods (adaptive testing, automated grading, AI feedback) and their implications for validity, reliability, and bias.                | Develop transparent rubrics aligned with EQF Level 6 learning outcomes and calibrate AI-generated feedback to ensure accuracy, fairness, and pedagogical value. | Uphold academic fairness and assume full professional responsibility for the integrity and defensibility of AI-mediated assessment decisions. | <b>Synthesise / Create</b> |
| <b>LO4.2 Triangulate evidence to support robust assessment judgements</b>                                                                                               | Analyse principles of multimodal evidence collection, triangulation, and the limitations of single-source assessment in AI-mediated contexts.                       | Triangulate evidence from diverse sources (e.g. portfolios, peer review, performance tasks, AI analytics) to support transparent and defensible judgements.     | Exercise autonomous judgement to safeguard assessment integrity and actively resist reductive reliance on any single AI-generated metric.     | <b>Analyse / Evaluate</b>  |
| <b>LO4.3 Design formative AI-supported feedback loops</b>                                                                                                               | Analyse the distinction between formative and summative assessment (Black & Wiliam, 1998) and the role of AI in supporting feedback cycles.                         | Design AI-supported formative feedback processes that are timely, specific, and actionable, enhancing learning without displacing educator judgement.           | Foster a growth-oriented assessment culture and ensure continuous human oversight of automated feedback to protect learner well-being.        | <b>Synthesise / Apply</b>  |
| <b>LO4.4 Safeguard assessment integrity in AI-assisted contexts</b>                                                                                                     | Analyse integrity risks specific to AI-assisted assessment (e.g. ghost-writing, prompt injection, deepfake submissions) and applicable disclosure and policy norms. | Apply institutional integrity frameworks and design assessment tasks that are robust against AI-assisted misconduct.                                            | Demonstrate ethical leadership in assessment policy and advise institutional stakeholders on managing AI-specific integrity risks.            | <b>Evaluate / Apply</b>    |

Sources and evidence-based. This unit draws on WP2 desk research (AI-UPSKILLED\_WP2\_DeskResearch\_FIN.docx), focus-group evidence from the Universitat de les Illes Balears (January 2026), and foundational assessment and curriculum-design literature (Black & Wiliam, 1998; Ramsden, 2003; Biggs, 2003; Kennedy et al., 2009). These inputs were consolidated through internal peer review and confirmed by external expert validation, which endorsed the emphasis on human judgement, triangulation of evidence, and assessment integrity in AI-mediated contexts.

## 5.5 COMPETENCY UNIT 5 — LEARNER ENGAGEMENT AND AI-SUPPORTED MOTIVATION

Engagement in AI-mediated higher education encompasses a set of interconnected practices, including the use of AI to personalise feedback, identify and support at-risk students, design collaborative and motivating learning activities, and critically monitor the equity and inclusion implications of AI-enabled participation. Desk research situates this unit within DigCompEdu Area 3 (Managing Digital Learning Environments) and Area 4 (Assessment and Feedback) and aligns it with the UNESCO AI Competency Framework emphasis on learner-centered and inclusive AI use.

Focus-group participants at the Universitat de les Illes Balears (January 27) raised a substantive critique of the initial framing of Engagement, describing it as insufficiently concrete. This feedback, subsequently confirmed through internal peer review and external expert validation, led to a significant reframing of the unit. The learning outcomes are now grounded in specific, observable AI-supported practices, such as early-warning systems, adaptive feedback tools, AI-supported collaborative spaces, and mechanisms for monitoring equitable participation, rather than abstract capability statements. Participants also stressed the importance of transparent disclosure of AI use in engagement and feedback processes, summarised in the focus-group discussions as the need for “no mystery robot marking.”

Equity monitoring is treated in this unit as a core professional responsibility, not an optional enhancement. All focus groups, peer reviewers, and external validators highlighted the risk that AI-mediated engagement can inadvertently reinforce existing inequalities if differential participation and access are not actively monitored. Learning Outcome LO5.3 directly addresses this concern, responding to desk-research findings on the underrepresentation of accessibility and inclusion in higher-education practice and reinforcing validation feedback that engagement at EQF Level 6 must be intentionally inclusive, transparent, and subject to ongoing educator judgement.

Table 8: EQF Level 6 Learning Outcomes — Engagement

| UNIT 5: LEARNER ENGAGEMENT AND AI-SUPPORTED MOTIVATION                  |                                                                                                                           |                                                                                                                                                                    |                                                                                                                                                         |                  |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| EQF 6 COMPETENCY MATRIX:                                                |                                                                                                                           |                                                                                                                                                                    |                                                                                                                                                         |                  |
| Upon completion of the training experience, the learner will be able to |                                                                                                                           |                                                                                                                                                                    |                                                                                                                                                         |                  |
| LEARNING OUTCOME                                                        | KNOWLEDGE (KNOW)                                                                                                          | SKILLS (CAN DO)                                                                                                                                                    | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                                        | BLOOM LEVEL      |
| <b>LO5.1 Use AI to personalise learner feedback responsibly</b>         | Analyze AI-driven adaptive feedback systems, learner analytics dashboards and early-warning indicators for disengagement, | Use AI tools to personalise formative feedback, identify at-risk students through analytics, and intervene proactively using pedagogically appropriate strategies. | Foster psychological safety and belonging in AI-mediated environments, ensuring that no learner is reduced to a data point or automated classification. | Apply / Evaluate |

| UNIT 5: LEARNER ENGAGEMENT AND AI-SUPPORTED MOTIVATION                       |                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                     |                     |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| EQF 6 COMPETENCY MATRIX:                                                     |                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                     |                     |
| Upon completion of the training experience, the learner will be able to      |                                                                                                                                                                  |                                                                                                                                                                         |                                                                                                                                     |                     |
| LEARNING OUTCOME                                                             | KNOWLEDGE (KNOW)                                                                                                                                                 | SKILLS (CAN DO)                                                                                                                                                         | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                    | BLOOM LEVEL         |
|                                                                              | including their limitations.                                                                                                                                     |                                                                                                                                                                         |                                                                                                                                     |                     |
| <b>LO5.2 Design motivating AI-enhanced learning activities</b>               | Analyse motivational frameworks (e.g. self-determination theory, gamification principles) and their implications for AI-mediated engagement in higher education. | Design AI-enhanced activities that promote intrinsic motivation, active participation, and deep learning, while balancing automation with meaningful human interaction. | Exercise pedagogical autonomy to critically balance AI-mediated engagement strategies with dialogic, relational teaching practices. | Synthesise / Create |
| <b>LO5.3 Monitor equity and inclusion in AI-mediated engagement</b>          | Analyse digital divides, gender gaps, accessibility barriers, and participation inequalities affecting AI-enhanced learning environments.                        | Monitor participation and engagement equity using analytics; adapt AI-enabled activities to support inclusion across diverse learner profiles.                          | Advocate for systemic and institutional responses that address structural inequalities in AI-mediated learning environments.        | Analyse / Evaluate  |
| <b>LO5.4 Facilitate transparent and inclusive AI-supported collaboration</b> | Analyse AI-supported collaborative tools (e.g. shared workspaces, AI moderators, co-authoring assistants) and digital-facilitation principles.                   | Facilitate peer collaboration and group work using AI tools while ensuring equitable participation, transparent AI use, and fair attribution of contributions.          | Promote shared responsibility, transparency, and co-creation as core values in AI-mediated collaborative learning contexts.         | Apply / Evaluate    |

Sources and evidence-based. This unit is informed by WP2 desk research (AI-UPSKILLED\_WP2\_DeskResearch\_FIN.docx), focus-group consultations at the Universitat de les Illes Balears (January 2026) and Masaryk University, and the DigCompEdu framework (Areas 3 and 4). These inputs were consolidated through internal peer review and confirmed by external expert validation, which endorsed the focus on transparency, equity monitoring, and human-centered engagement in AI-mediated learning. Learning outcomes follow established guidance on observable and assessable outcomes (Kennedy et al., 2009).

## 5.6 COMPETENCY UNIT 6 — POLICY, GOVERNANCE, AND INSTITUTIONAL AI LEADERSHIP

Policy and governance competency distinguishes EQF Level 6 academic professionals from practitioners at lower qualification levels. While a teacher at EQF Level 4 may be expected to follow institutional AI guidelines, a university professor at EQF Level 6 is expected to interpret, contribute to, and lead the development of such guidelines. This unit draws directly on the EU regulatory framework, including the AI Act (Regulation 2024/1689), GDPR, and the Digital Education Action Plan (2021–27), as well as the European Council's 2022 Recommendation on microcredentials and the EQF Handbook requirements for Level 6 responsibility and autonomy descriptors.

All three focus group reports confirm that policy literacy is widely felt to be underdeveloped among HE professors, and that this gap creates institutional risk. The UIB January 27 session participants specifically flagged 'a strong eagerness for further exploration of ethical, legal, and assessment-related issues' and noted that 'what barriers or risks do you foresee in applying these competencies?' was one of the most generative discussion questions of the session, generating sustained debate about the lack of institutional AI policies, inconsistent procurement practices, and uncertainty about how to handle AI-generated student work under existing regulations.

Learning outcome LO6.4 addresses an area flagged as underrepresented in the cross-document synthesis (Section 2.3): the capacity to lead institutional AI culture change. At EQF Level 6, professors are not merely implementers of policy; they are potential institutional champions whose professional credibility and expertise uniquely position them to build peer confidence, manage resistance, and model responsible AI adoption for colleagues. This leadership dimension is explicit in the autonomy and responsibility descriptors throughout this unit.

Table 9: EQF Level 6 Learning Outcomes — Policy, Governance, and Institutional AI Leadership

| UNIT 6: Policy, Governance, and Institutional AI Leadership<br>EQF 6 COMPETENCY MATRIX:<br>Upon completion of the training experience, the learner will be able to |                                                                                                                                                 |                                                                                                                                                          |                                                                                                                                                      |                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| LEARNING OUTCOME                                                                                                                                                   | KNOWLEDGE (KNOW)                                                                                                                                | SKILLS (CAN DO)                                                                                                                                          | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                                     | BLOOM LEVEL           |
| <b>LO6.1 Interpret EU and institutional AI policy frameworks</b>                                                                                                   | Analyse EU regulatory requirements (AI Act 2024/1689, GDPR, Digital Education Action Plan 2021–27) and national higher-education AI strategies. | Align teaching, assessment, and curriculum practices with applicable AI policies; advise course teams on regulatory and ethical compliance requirements. | Commit to continuous improvement and proactive regulatory compliance; contribute to ethical and policy-aligned AI governance within the institution. | Analyse / Apply       |
| <b>LO6.2 Contribute to the development of institutional AI guidelines</b>                                                                                          | Analyse quality-assurance frameworks for AI tool selection, procurement, deployment, and                                                        | Contribute to the development or refinement of institutional AI guidelines; critically evaluate AI tools against                                         | Model transparent, accountable governance and exercise independent professional leadership                                                           | Synthesise / Evaluate |

| <b>UNIT 6: Policy, Governance, and Institutional AI Leadership</b><br><b>EQF 6 COMPETENCY MATRIX:</b><br><b>Upon completion of the training experience, the learner will be able to</b> |                                                                                                                                                                  |                                                                                                                                                               |                                                                                                                                                     |                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| LEARNING OUTCOME                                                                                                                                                                        | KNOWLEDGE (KNOW)                                                                                                                                                 | SKILLS (CAN DO)                                                                                                                                               | AUTONOMY & RESPONSIBILITY (EQF6)                                                                                                                    | BLOOM LEVEL        |
|                                                                                                                                                                                         | monitoring in higher-education contexts.                                                                                                                         | established QA and risk-management criteria prior to adoption.                                                                                                | in institutional AI-policy contexts.                                                                                                                |                    |
| <b>LO6.3 Align AI use with EQF and European micro-credential frameworks</b>                                                                                                             | Analyse EQF Level 6 descriptor requirements, Europass standards, and the Council Recommendation on micro-credentials (2022).                                     | Design AI-integrated learning activities and assessment approaches that demonstrably meet EQF Level 6 requirements for knowledge, skills, and responsibility. | Lead curriculum-governance discussions on AI integration, ensuring alignment with European qualification and credential frameworks.                 | Apply / Synthesise |
| <b>LO6.4 Lead institutional AI culture change</b>                                                                                                                                       | Analyse change-management principles, stakeholder-engagement strategies, and evidence-based professional-development models for AI adoption in higher education. | Design and lead professional-development initiatives that support ethical, pedagogically sound, and inclusive AI integration among colleagues.                | Exercise visionary educational leadership and act as an institutional champion for responsible AI adoption at the departmental and programme level. | Evaluate / Create  |

*Sources and evidence-based. This unit is informed by WP2 desk research and focus-group consultations conducted across partner institutions, which identified significant gaps in policy literacy and governance readiness among higher-education professors. It draws on the European regulatory and strategic framework for AI in education, including the EU AI Act (Regulation 2024/1689), GDPR (Regulation 2016/679), the Digital Education Action Plan (2021–27), and the Council Recommendation on micro-credentials (2022), as well as EQF Level 6 descriptors relating to autonomy, responsibility, and professional leadership. These sources were consolidated through internal peer review and confirmed by external expert validation, which endorsed the emphasis on institutional accountability, quality assurance, and the leadership role of EQF Level 6 educators in shaping responsible AI governance.*

## 6. CONCLUSIONS AND NEXT STEPS

Work Package 2 (WP2) of the AI-UpSkilled project has successfully fulfilled its primary mandate: the co-design, consultation, and validation of an EQF Level 6 competency matrix for higher-education professors engaging with artificial intelligence in teaching and learning contexts. Through a rigorous, multi-stage methodology combining systematic desk research, three structured focus-group consultations involving a total of 50 participants at Masaryk University, the *Universitat de les Illes Balears*, and Frederick University, followed by iterative internal peer review and external expert validation, the consortium has produced a competency framework that is both firmly grounded in European policy priorities and responsive to the realities of academic practice.

The matrix is structured around six interrelated competency areas: AI Literacy, Ethics, Pedagogy, Assessment, Engagement, and Policy and Governance, which were iteratively refined through consultation, peer review, and validation feedback. Internal peer review across the six partner institutions ensured conceptual coherence, EQF Level 6 alignment, and consistent use of learning-outcome terminology, while external validation with 51 independent experts confirmed the framework's relevance, clarity, and applicability across diverse higher-education contexts. As a result, the final learning outcomes are both academically rigorous and institutionally feasible, reflecting the autonomy, judgement, and leadership responsibilities expected at EQF Level 6.

The cross-institutional consultation and validation process proved particularly valuable in surfacing the tensions that any credible AI-competency framework must address. Focus-group participants, peer reviewers, and external validators consistently stressed the need to balance technical AI literacy with pedagogical depth and ethical accountability, cautioning against approaches that reduce competence to tool familiarity without sufficient critical, reflective, and normative grounding. A second transversal finding, strongly reinforced during external validation, concerned the institutional dimension of AI integration: individual educator competence, however well defined, is insufficient in the absence of supportive policies, governance structures, and shared professional norms. These insights directly informed the strengthening of the Autonomy and Responsibility dimension across all competency units, ensuring that EQF Level 6 descriptors reflect leadership, accountability, and system-level responsibility, rather than purely individual skill acquisition.

The resulting EQF Level 6 competency matrix is conceived as a living framework: sufficiently structured to support training, recognition, and quality assurance, yet adaptable to the rapid evolution of AI technologies and emerging evidence from practice. Its alignment with the European Qualifications Framework, DigCompEdu, the EU AI Act, Universal Design for Learning, and Europass micro-credential standards ensures portability, interoperability, and transparency across European higher-education systems. The framework provides a shared language through which institutions,

educators, and policymakers can describe, assess, and recognise AI-related academic competencies in a consistent and transferable manner.

WP2 directly establishes the conceptual and curricular foundation for Work Package 3 (WP3), which will translate the validated competency matrix into a modular, SCORM-based training programme of 60 hours (2 ECTS) for higher-education teaching staff. WP3 will operationalise the six validated competency units through structured learning activities, formative assessment strategies, and applied learning scenarios aligned with the knowledge, skills, and autonomy descriptors defined in this matrix. The resulting micro-credential pathways, anchored to the EQF Level 6 outcomes articulated here, will be fully compatible with Europass and European credit frameworks, ensuring formal recognition, stackability, and transparency.

In this sense, WP2 does not merely precede WP3; it constitutes its indispensable foundation, providing the validated conceptual, methodological, and competency framework upon which all subsequent capacity-building activities are built.

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## Annexes

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

**Annex B — [Link to results of the Peer Review](#)**

**Annex C — [Link to validation excel file results](#)**