

AVENUE: EARLY FINDINGS FROM A PAN-EUROPEAN CENTRE OF VOCATIONAL EXCELLENCE ON EMERGING SKILLS IN THE CREATIVE VISUAL INDUSTRIES

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Abstract

Rapid technological change across the creative visual industries is increasingly misaligned with the update cycles of vocational education and training (VET). AVENUE is a four-year Erasmus+ Centres of Vocational Excellence initiative connecting five European ecosystems: animation, games, extended reality (XR), virtual production, and visual storytelling. This paper presents early findings from the first year of the project, which focused on establishing a repeatable evidence-to-action research loop. Using ecosystem-specific literature reviews, semi-structured interviews, and stakeholder consultations, the research identified converging skill patterns across sectors. These include the normalisation of hybrid technical-creative roles, a strong preference for short-cycle and modular upskilling formats, and the growing importance of transversal competences alongside software proficiency. As these findings represent an initial snapshot within a four-year programme, the paper also outlines forthcoming research and implementation phases through which insights will be iteratively tested via pilot training offers, micro-credentials, and curriculum adaptation.

Keywords: *Vocational excellence, creative visual industries, emerging skills, micro-credentials, modular learning paths.*

1. Introduction and background

The creative visual industries (e.g., video games, animation, extended reality, virtual production and visual story telling) are characteristic of persistent skill gaps, and saturated job markets (Hassreiter et al., 2024). These pressures are now compounded by rapid technological transformations driven by real-time technologies, immersive media, and increasingly data-driven production pipelines (StoryFutures Academy, 2023; XR4Europe, 2025). As such, game engines, virtual production workflows, XR platforms, and AI-assisted tools are no longer experimental but embedded in everyday professional practice.

While these developments expand creative and economic possibilities, they also challenge the capacity of vocational education and training (VET) systems to remain aligned with such rapidly evolving industry transformations. Consequently, industry tools and workflows change within months (Davies et al., 2025), however, the systemic review and accreditation cycles of educational programmes typically operate across multi-year cycles potentially widening the skill-gaps. This systemic mismatch, risks producing graduates whose skills could become outdated upon entry to the job market, thus exacerbating the skill gaps within creative visual industries. The AVENUE project aims to address this challenge by treating skills development not as a static curricular problem, but as a continuous alignment process between education, industry, and regional innovation ecosystems.

1.1. The AVENUE project

AVENUE is a four-year Erasmus+ Centres of Vocational Excellence (CoVE) initiative bringing together five European creative ecosystems: animation, games, extended reality, virtual production, and visual storytelling. The project aims to improve the responsiveness and relevance of the VET provision by embedding structured collaboration between education providers, industry partners, and researchers.

In its first year, AVENUE prioritised the design and validation of a repeatable “evidence-to-action” loop. This framework supports annual cycles in which emerging skill needs are identified, translated into educational interventions, and evaluated through practice-based feedback. A central premise of the project is that skills increasingly oscillate across creative sectors, making cross-ecosystem analyses essential for

understanding workforce development in contemporary production contexts.

Accordingly, this paper aims to synthesise skill needs within creative visual industry landscapes. We draw from sector-specific industry and academic publications, reflection reports from educational institutions (subsequently referred to as educational reports), and qualitative semi-structured interviews with industry experts to develop evidence-informed training programmes tailored towards upskilling the creative visual industry workforce.

2. Methodology and analysis framework

Informed by both academic and industry publications, each AVENUE ecosystem synthesised overviews of emerging skills and workforce development priority areas, in relation to technological changes. This desk-based research was supplemented by a series of 28 semi-structured interviews with industry professionals representing each AVENUE ecosystem, and educational reports produced by the project's educational partners (Avenue 1st Year Report, in preparation).

Interviews addressed the balance between technical and soft skill needs, perceived impacts of technological advances on workforce needs and the (mis)/alignment between educational provisions and industry needs. The educational reports provided overviews outlining the key challenges faced by the project's educational partners, and potential mitigation strategies in response to emerging skill gaps.

All data were thematically coded and triangulated across ecosystems. This identified converging patterns and near-term skill pressures across the five AVENUE ecosystems.

3. Findings

Despite differences in production culture and technological maturity, three consistent patterns were identified across all five ecosystems (Avenue 1st Year Report, in preparation).

3.1. Hybrid technical-creative roles

Across ecosystems, hybrid profiles combining technical competence with creative and production literacy were increasingly considered baseline rather than a niche requirement. Interviewees consistently emphasised that software proficiency alone was insufficient without an understanding of storytelling, pipeline dependencies, and collaborative workflows (Boutellier & Raptis, 2023).

For example, in virtual production (VP), roles such as VP supervisors and real-time technical directors have emerged as coordination points within productions spanning previously separate disciplines (Bennett et al., 2023). According to the AVENUE project's first year report (in preparation, 2026), interview data reinforced this pattern, with industry experts explaining that candidates need foundational 3D software understanding (for example), combined with capacities for rapid iteration though importantly, they "don't need to be the best" in any single area. This demonstrates the need for hybrid skill profiles encompassing technical proficiency alongside creative problem-solving abilities, without needing deep expertise in specific domains.

The games and XR ecosystems also demonstrated parallel shifts highlighting the industry's prioritisation of adaptable team players over exceptional individual performers (Hassreiter et al., 2024). Skill gaps were particularly noted with respect to the recruitment of artists combining creative, technical, and business awareness (Saluveer & Abay, 2025). Indeed, the XR ecosystem articulated this need explicitly by characterising the sector as "not by isolated technical specialisms, but by hybrid skill sets" (Avenue 1st Year Report, in preparation).

3.2. Preference for short-cycle and modular learning

Industry experts expressed preferences for short, task-oriented upskilling formats. Indeed, rapid iterations in tools and workflows reduces the perceived value of long training programmes, particularly for employed professionals. Therefore, modular learning units and micro-credentials were identified as effective mechanisms for addressing near-term skill gaps (CresCine, 2025). For example, the visual story telling ecosystem noted how the Institute of Art design + Technology, through their Creative Futures Academy partnership, offers over forty accredited micro-credentials, including certificates in Real-Time Virtual Production and Professional Skills for the Creative Industries (Avenue 1st Year Report, in preparation). The animation ecosystem research similarly recommended "improving flexible and agile curriculum frameworks" and "implementation of Micro Credentials" as key strategies. In games, the EGDF White Paper emphasises that "learning cannot stop at graduation" and that self-training currently dominates skill development, though often without adequate institutional support (EGDF, 2024).

3.3. Soft skills and transversal competences

Beyond technical skills, soft skills emerged as decisive for employability. For example, insights from the game's ecosystem demonstrated how nearly 74% of professionals ranked communication, collaboration, and resilience above software proficiency (Hassreiter & Thorning, 2025). AI literacy was also identified as a specific transversal competence across multiple ecosystems. For example, the animation ecosystem identified that AI “fundamentally changes how students approach cognitive work” and may leave them “less prepared for unexpected tasks that require independent judgement” (Avenue 1st Year Report, in preparation). Addressing this dependency, the XR ecosystem highlighted the importance of ethical awareness and policy literacy as emerging requirements, and familiarity with standards such as OpenXR and evolving accessibility requirements now embedded in professional practice (Avenue 1st Year Report, in preparation).

4. Discussion

These early findings support AVENUE's goal that skills development in the creative visual industries require flexible and adaptive educational structures. The normalisation of hybrid roles challenges disciplinary silos within VET, while demand for modular learning aligns with broader European discussions on lifelong learning and stackable qualifications (European Commission, 2024). The prevalence of hybrid profiles suggests that programme structures separating technology, business, and art into distinct tracks no longer align with industry requirements, hence universities must adopt holistic approaches combining these elements within integrated programmes (EGDF, 2024). There was preference for short-cycle learning challenges such as micro-credential validation within weeks rather than months traditional degree structures. However, effective implementation requires institutional adaptation and sustained industry partnership mechanisms.

5. Upcoming research and implementation phases

In the coming project years, AVENUE will translate these early findings into concrete educational actions, including pilot training programmes, micro-credential frameworks, and curriculum adaptations across partner institutions.

Year Two research (March-October 2026) will examine perceived relevance of tools and skills through structured surveys and collection of autobiographical accounts from professionals, educators, and students, addressing experiences of technological change and self-directed learning. Years Three and Four will track how identified patterns evolve and evaluate interventions developed in response to earlier findings, enabling refinement of the Oscillations framework and development of recommendations for institutions beyond the consortium.

6. Conclusions

This paper has presented early findings from the first year of the AVENUE project, highlighting converging skill patterns across five European creative ecosystems. The results underline the growing importance of hybrid technical-creative roles, modular learning formats, and transversal competences in contemporary production contexts.

These capabilities appear not as supplementary attributes but as integral requirements for effective practice in technologically complex, collaborative production environments. While preliminary, these findings validate AVENUE's core methodological premise: that continuous, evidence-based alignment between industry and VET is both necessary and achievable. Future project phases will extend this work through implementation and evaluation.

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References

- AVENUE Project. (2026). *First-Year Report on Hybrid Skills, AI and the Education-Industry Alignment in Creative Visual Industries: Games, Animation, Visual Storytelling, XR, and Virtual Production* [in preparation].
- Bennett, P. J., Heath, C., Kilkelly, F., & Richardson, P. P. (2023). *StoryFutures Virtual Production Skills Report 2023*. London: Royal Holloway University of London.
- Boutellier, S., & Raptis, G. (2023). Teaching virtual production in higher education. *Journal of Media Practice and Education*, 26, 1-19.
- CresCine. (2025). *European Industry Skills Report*. Brussels: Tallinn University & EU Creative Europe Programme.
- Davies, R., Siddique, R., McEvoy, F., Cantekin, H., & Hellings, J. (2025, June). *AI and the creative industries* (LSE Growth Lab report). Economics Observatory. Retrieved from https://www.economicsobservatory.com/wp-content/uploads/2025/12/AI_Creative_Industries.pdf
- EGDF. (2024). *White Paper on Game Education and Skill Building*. Brussels: European Game Developers Federation.
- European Commission. (2024). *A European approach to micro-credentials*. European Education Area. Retrieved from <https://education.ec.europa.eu/education-levels/higher-education/micro-credentials>
- Hassreiter, S., Haggis-Burridge, M., Clavero, T., & Bouwels, L. (2024). *Work environment dynamics and soft skills in animation, games, and VFX industries*. Retrieved from <https://www.paneurama.eu/research/>
- Hassreiter, S., & Thorning, M. (2025). *PANEURAMA: Guidelines and recommendations – Towards maturity*. The Animation Workshop/VIA University College. Retrieved from <https://www.paneurama.eu/paneurama-guidenlines-and-recommendations-key-insights-from-towards-maturity/>
- Saluveer, M., & Abay, E. (2025). *European Industry Skills Report*. Brussels: CresCine/Tallinn University.
- StoryFutures Academy. (2023). *Virtual Production Skills Report*. London: Royal Holloway University of London.
- XR4Europe. (2025). *European XR Industry Report 2025*. Brussels: XR4Europe.