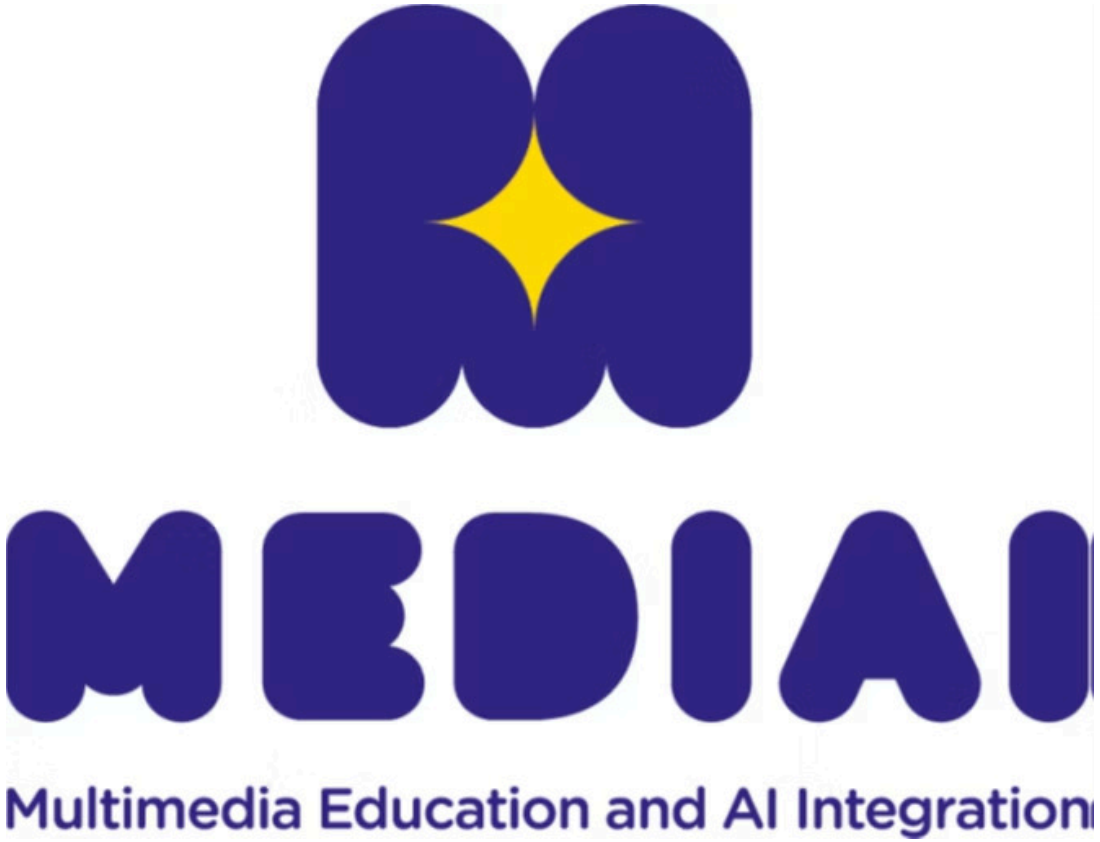


MEDIAI General Report

AI Integration in Multimedia VET and Creative Professions (Germany & Italy)

SECTION 1

Introduction: AI as a Structural Transformation in VET and Media

Artificial Intelligence is no longer an emerging trend but a structural driver of transformation in both vocational education and multimedia professions. Across Europe, the demand for hybrid skill profiles—combining creativity, technical expertise, and AI literacy—is rapidly increasing, fundamentally reshaping how content is produced, distributed, and consumed.

European Commission Digital Education Action Plan (2021–2027)

Over **90%** of future jobs will require at least basic digital skills, while advanced digital competencies are becoming a prerequisite in high-value sectors such as media, design, and communication.

CEDEFOP Estimate

Up to **44%** of core skills in creative professions will be significantly transformed or partially automated by AI technologies within the next five years, particularly in content generation, editing, and data-driven marketing.

54%

Basic Digital Skills

Only around 54% of EU citizens currently possess basic digital skills, highlighting a significant skills gap.

60%+

AI Skills Growth

Demand for AI-related skills in job postings has grown exponentially — LinkedIn data shows growth rates above 60% in digital and creative sectors.

44%

Skills Transformed

Share of core creative profession skills expected to be significantly transformed or partially automated by AI.

AI Already Embedded in Multimedia Workflows

In multimedia professions specifically, AI is already embedded in daily workflows. However, this rapid technological adoption is not matched by equivalent developments in vocational education and training (VET).

Automated Content Generation

Text, image, and video generation powered by AI tools is now standard in multimedia production environments.

Real-Time Data Analysis

Audience targeting and performance analytics are increasingly driven by AI-powered data interpretation tools.

Workflow Automation

Editing, transcription, and localisation processes are being automated, reducing manual effort and accelerating delivery.

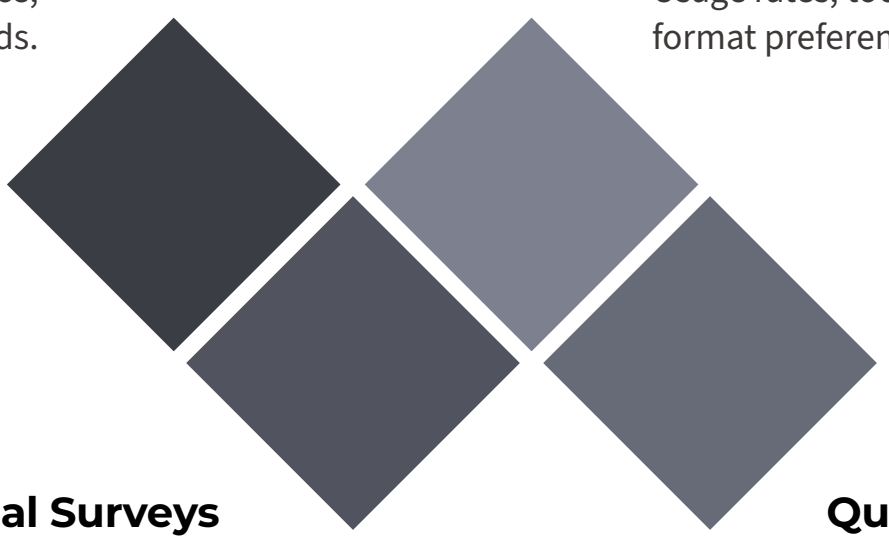
⚠ Many VET systems across Europe still lack structured curricula integrating AI competences, didactic frameworks for teaching AI in applied contexts, and access to up-to-date tools and infrastructure.

This creates a systemic gap between labour market demands and training provision, particularly visible when comparing Germany (strong VET system, slower implementation) and Italy (high practical adoption, weaker training structures). The MEDIAI project directly addresses this gap by analysing real needs in both countries and translating them into practical, scalable, and transferable training solutions.

SECTION 2

Methodology and Data Sources

The report is based on a mixed-method research approach, combining empirical data collection with comparative analysis across two national contexts, Germany and Italy. This approach ensures both depth of insight and cross-context relevance, allowing for a comprehensive understanding of how Artificial Intelligence is influencing multimedia professions and vocational education.



Questionnaire Design

Items on AI competence, barriers, training needs.

Quantitative Analysis

Usage rates, tool frequency, format preferences analyzed.

National Surveys

Germany and Italy representative samples collected.

Qualitative Insights

Open responses exploring expectations and challenges.

The data was collected through national surveys conducted in Germany targeting VET trainers and Italy targeting creative and multimedia professionals. This dual perspective enables the report to capture both the educational dimension and the labour market dimension.

Quantitative Data

- Usage rates and frequency of tool application
- Preferences for training formats
- Statistical insights into trends and patterns

Qualitative Insights

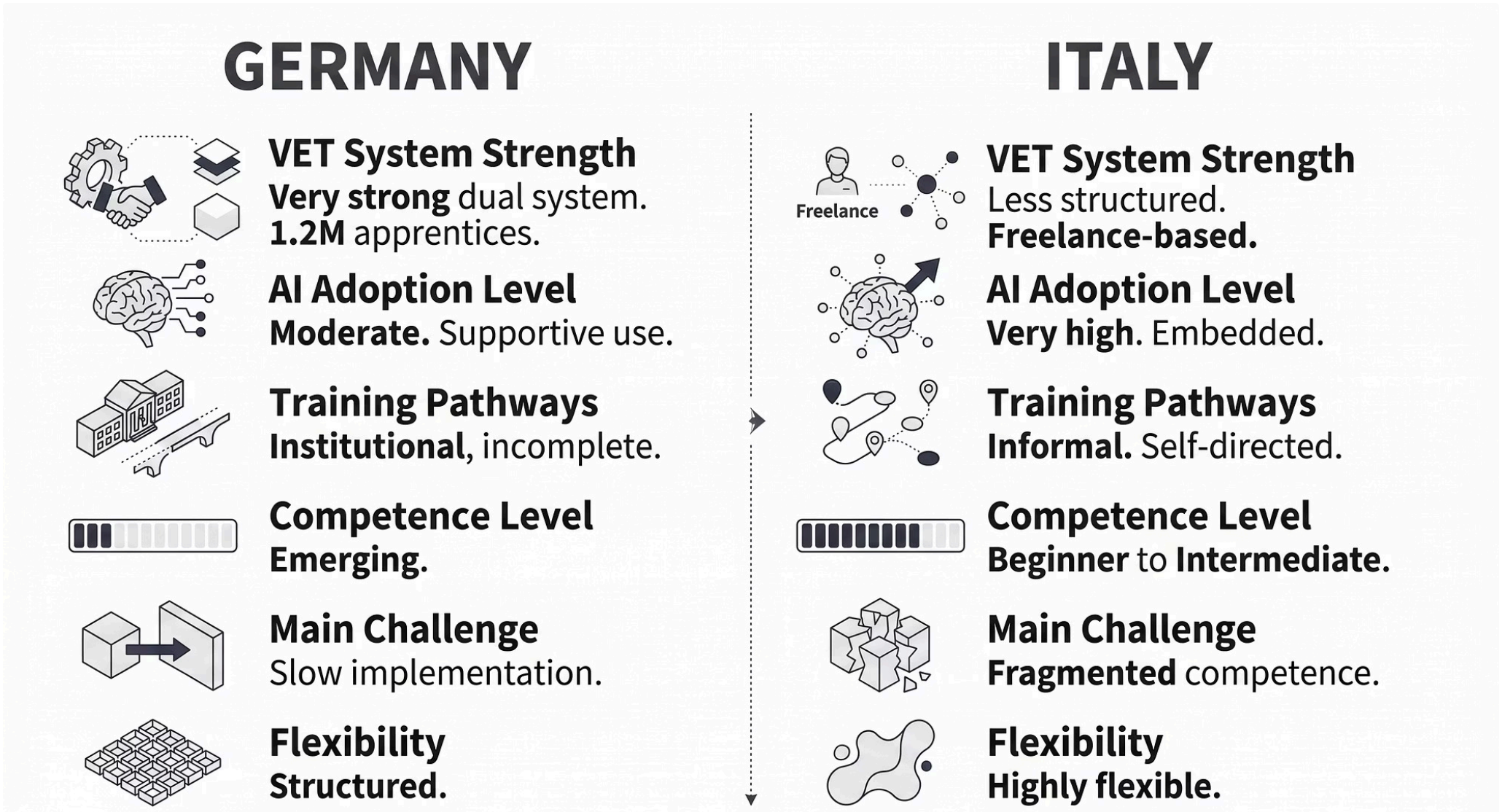
- Open-ended responses for deeper understanding
- Expectations and challenges regarding AI integration
- Perceptions of AI in professional and educational contexts

In addition, the analysis incorporates a contextual interpretation of regional and national differences, particularly between the German VET system and the Italian creative sector. This comparative perspective is essential for identifying transferable solutions and ensuring that the project outcomes are adaptable across different European contexts.

SECTION 3

Context: Germany and Italy in the Transformation of VET and Multimedia Professions

Germany and Italy represent two complementary but structurally different contexts within the European landscape of vocational education, creative industries, and digital transformation. Their comparison provides valuable insights into the challenges and opportunities of integrating Artificial Intelligence into both education systems and professional practice.



Germany: Strong VET System with Emerging AI Integration

Germany has one of the largest and most well-established VET systems in Europe, with over **1.2 million apprentices enrolled**. The system is built on the dual education model, combining theoretical instruction in vocational schools with practical training in companies. This structure ensures a strong alignment between education and labour market needs.

Digital Strategy 2030

Germany is increasingly adapting its VET system through initiatives emphasising the integration of digital and AI-related competencies into training programmes.

Limited AI Curricula

Despite the strong institutional framework, the integration of AI into multimedia VET remains incomplete and uneven, with limited availability of AI-specific curricula and teaching materials.

Structural Barriers

Insufficient didactic frameworks for applied AI learning, infrastructure gaps, and limited institutional support slow down integration.

Regional Perspective: Chemnitz as a Transition Region

The regional context of Chemnitz illustrates these challenges at a more granular level. With a population of approximately **251,000 inhabitants** and an unemployment rate of around **9%**, the city reflects a transitioning economic landscape. Traditionally shaped by mechanical engineering, electrical engineering, and media production, Chemnitz is undergoing a shift toward a more digital and innovation-driven economy.

VET providers in Chemnitz face a dual challenge: strong technical foundations and openness to innovation, but a clear need to modernise training structures, particularly in AI-related fields. This positions Chemnitz as a transition region where successful integration of AI into VET is critical for regional competitiveness.

Italy: Flexible Creative Sector with High AI Adoption

Italy is characterised by a strong creative and freelance-based multimedia sector, where professionals often work in small enterprises, project-based environments, or as independent contractors. This structure fosters high flexibility and rapid adoption of digital tools, including AI technologies.

High AI Adoption

AI is already widely integrated into everyday workflows, particularly in content creation, design, video production, and social media communication.

Informal Learning

Strong reliance on informal, self-directed learning and peer-based knowledge exchange rather than structured training pathways.

Fragmented Competence

Adoption is high, but systematic competence development remains fragmented, creating a gap between usage and professional mastery.

> The comparison between Germany and Italy reveals a broader European pattern: Germany provides strong institutional frameworks but shows slower implementation, while Italy demonstrates high flexibility and rapid technological adoption but lacks structured training systems. **Both face the same structural gap.**

SECTION 4

Key Findings: AI Adoption vs. Competence Gap

4.1 Adoption: AI as a Daily Working Tool

The evidence from both Germany and Italy confirms that Artificial Intelligence has already moved beyond the experimental phase and is now a standard component of professional and educational environments. However, the way AI is used differs significantly between the two contexts.

Italy — Production-Oriented Use

AI is deeply embedded in daily production workflows. Professionals actively integrate AI into almost every stage of their work process—from initial concept development to final content delivery.

- Faster ideation and content generation
- Automation of repetitive tasks
- Increased efficiency in editing and post-production
- Improved responsiveness to client demands

Germany — Supportive Use

AI is increasingly present in the daily work of VET educators, but its use remains largely supportive rather than transformative.

- Preparation of teaching materials
- Simplification of complex content
- Support in administrative tasks
- Initial experimentation with AI-assisted learning

4.2 The Illusion of Competence: High Usage, Limited Competence

Despite the high level of adoption, both contexts reveal a critical paradox: **frequent use of AI does not automatically lead to professional competence.** In Italy, although AI is widely used, most professionals classify their skills as beginner or intermediate, and a clear majority explicitly state the need for further training. Similarly, in Germany, educators demonstrate strong interest and willingness to use AI, yet lack structured training opportunities, pedagogical frameworks, and institutional guidance.

⊗ This creates a situation in which AI is present, but not fully understood, controlled, or strategically applied.

Fragmentation of AI Use and the Path to Professionalisation

4.3 Fragmentation of AI Use

A deeper analysis reveals that the use of Artificial Intelligence is often fragmented and inconsistent, lacking integration into coherent systems of work or structured learning processes. In many cases, AI is applied primarily to isolated tasks rather than being embedded within comprehensive workflows. Typical applications include generating texts, editing images, or summarising information.

Isolated Task Use

AI is applied to single tasks (text generation, image editing, summarisation) without integration into end-to-end processes.

Trial-and-Error Approaches

Many users rely on trial-and-error when interacting with AI tools, without established prompting strategies, structured workflows, or defined quality standards.

Inconsistent Output Quality

The quality of outputs can vary significantly, and the expected gains in efficiency are not consistently realised, limiting effective and sustainable integration.

4.6 From Adoption to Professionalisation

The findings clearly indicate that the next phase of AI integration is no longer centred on increasing access to or frequency of use, but rather on deepening competence, strengthening system integration, and ensuring sustainable application.

Workflow-Based Learning

Integrate tools into repeatable team workflows.

Structured Repeatable Application

Formalise methods into documented practices.

Tool-Based Learning

Experiment with isolated AI tools and features.

Quality-Controlled Integrated Systems

Embed QA and governance across systems.

Professionalisation also requires the development of meta-competencies: the ability to select appropriate tools for specific tasks, critical thinking and evaluation of AI outputs, understanding of ethical, legal, and copyright implications, and adaptability to rapidly evolving technologies.

SECTION 5

AI in Multimedia Integration

AI is already integrated across key professional workflows. Professionals use ecosystems of tools rather than single applications — combining platforms such as ChatGPT, Adobe AI, and Canva depending on the task at hand.

Research & Ideation

AI supports brainstorming, concept development, and research acceleration across creative projects.

Content Creation

Text, image, and video generation powered by AI tools is now standard in multimedia production environments.

Automation

Subtitles, transcription, and localisation processes are automated, reducing manual effort and accelerating delivery timelines.

Data Analysis & Optimisation

Audience targeting, performance analytics, and content optimisation are increasingly driven by AI-powered data tools.

👉 Professionals use ecosystems, not single tools — combining platforms like ChatGPT, Adobe AI, and Canva depending on the specific task and workflow stage.

SECTION 6

Main Barriers to AI Integration

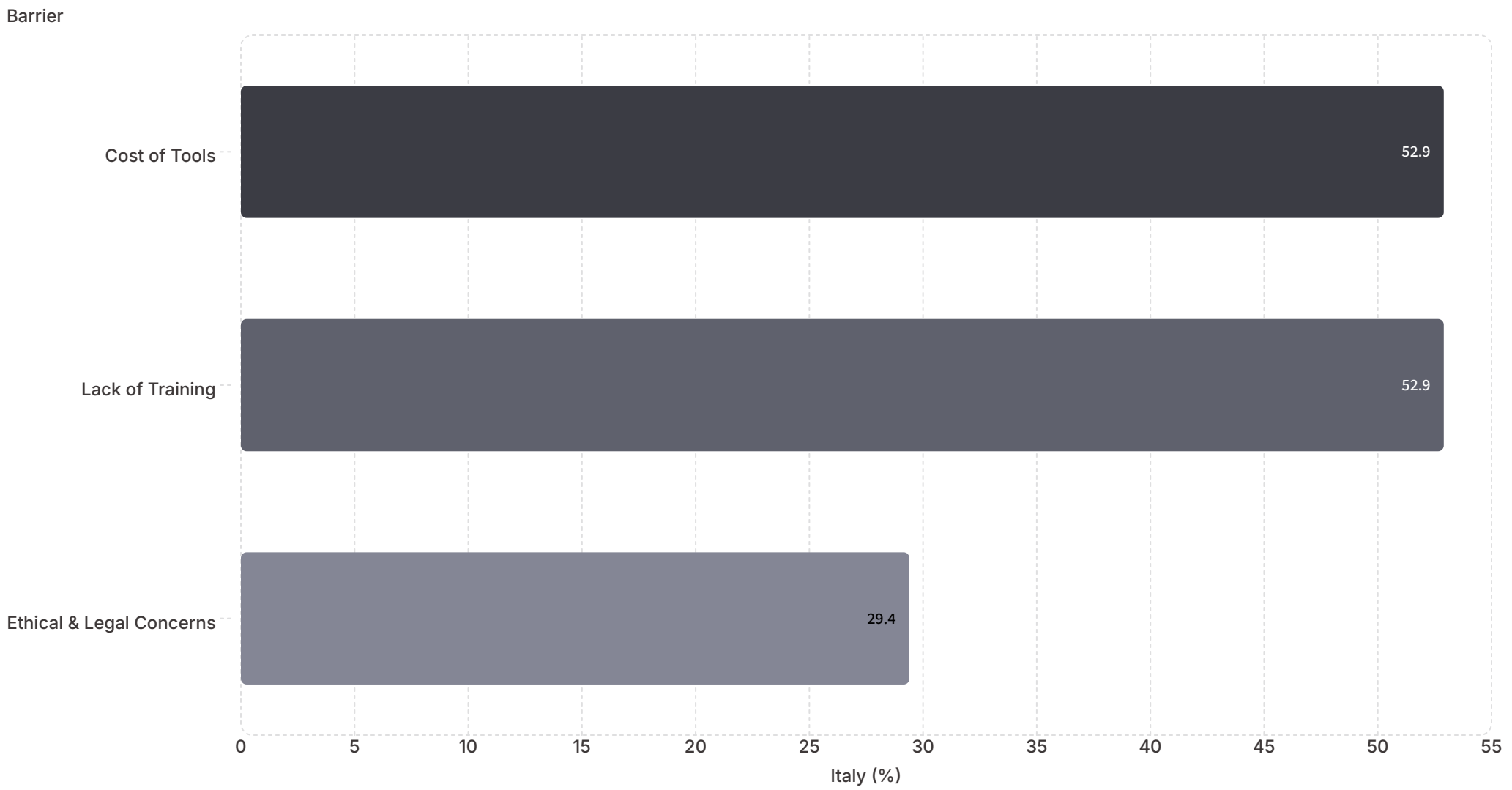
The analysis of both national contexts reveals that the barriers to Artificial Intelligence integration are not primarily related to resistance or rejection, but rather to structural, economic, and pedagogical limitations that hinder effective and sustainable implementation.

Germany — System-Driven Constraints

- **Lack of didactic materials** — without structured content and pedagogical guidance, AI remains an optional add-on rather than a core component of learning
- **Insufficient infrastructure** — limited access to appropriate hardware, software, and licensed tools restricts practical implementation
- **Lack of institutional support** — AI is not yet embedded in curricula, strategic frameworks, or teacher training programmes

Italy — Market-Driven Constraints

- **Cost of tools (52.9%)** — significant constraint for freelancers and small enterprises balancing innovation with limited financial resources
- **Lack of training (52.9%)** — professionals lack structured opportunities to develop advanced, workflow-oriented skills
- **Ethical and legal concerns (29.4%)** — questions related to copyright, authorship, data protection, and responsibility for AI-generated outputs remain insufficiently clarified



A key insight from the analysis is that the main issue is not resistance to AI. On the contrary, both educators and professionals show a high level of openness, curiosity, and willingness to engage with new technologies. The real challenges are structural.

Implications: Addressing Structural Barriers

Addressing these barriers requires a coordinated approach that goes beyond simply providing tools. Effective AI integration must include investment in accessible and scalable infrastructure, development of practice-oriented teaching materials and frameworks, creation of structured modular training pathways aligned with real-world needs, and inclusion of ethical and legal guidance as an integral part of training.

01

Invest in Infrastructure

Accessible and scalable infrastructure enabling practical application across institutions and regions.

02

Develop Teaching Materials

Practice-oriented frameworks, lesson plans, and pedagogical guidance for meaningful AI integration in education.

03

Create Training Pathways

Structured, modular training pathways aligned with real-world professional needs and competence levels.

04

Include Ethical Guidance

Ethical, legal, and copyright guidance integrated as a core component of all AI training programmes.

Only by addressing these systemic barriers can AI move from being an experimental or supportive tool to becoming a reliable and fully integrated component of multimedia professions and vocational education.

SECTION 7

Skills Demand and Competence Development

The analysis of both national contexts highlights a clear shift in the types of skills required in multimedia professions, driven by the increasing integration of Artificial Intelligence into creative and production processes. The most demanded competences are no longer limited to traditional creative abilities, but extend toward a broader set of AI-related and data-oriented skills.

AI-Assisted Creativity

Design, content creation, and visual production where AI tools support ideation and accelerate creative workflows.

Data-Driven Communication

Interpreting user behaviour, optimising content strategies, and making informed decisions based on performance data.

Automated Media Production

AI for video editing, transcription, and content optimisation, significantly increasing efficiency in production processes.

Prompt Engineering

Emerging core competence — the ability to interact effectively with AI systems directly influences the quality and relevance of outputs.

Quality Control of AI Outputs

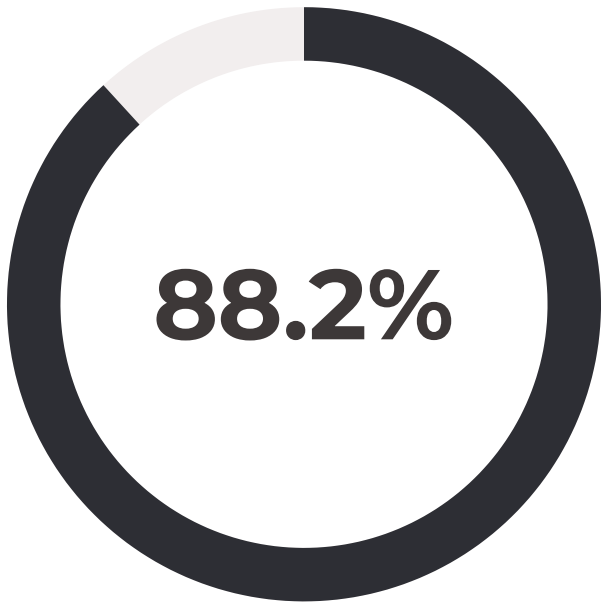
Ensuring reliability, accuracy, and alignment with professional standards for AI-generated results.

> 👉 Skills are shifting toward **hybrid profiles** that integrate creative competences, technical skills, analytical abilities, and AI-based decision-making. This reflects a broader transition from traditional role-based professions toward more flexible, interdisciplinary profiles.

SECTION 8

Learning Needs and Training Formats

The findings from both Germany and Italy clearly indicate that the effectiveness of AI integration depends not only on access to tools, but primarily on the availability of appropriate learning formats and training approaches. Across both contexts, there is a strong preference for practical, application-oriented learning that directly reflects real professional and educational scenarios.



Hands-On Workshops

Most preferred training format — selected by 88.2% of participants, highlighting demand for interactive and guided learning environments.

From the German VET perspective, the demand is particularly focused on practical tools that can be directly implemented in teaching and training contexts, ready-to-use templates reducing preparation time, and real-world project-based learning approaches connecting AI use to authentic professional tasks.

1

Hands-On Application

Focus on practical use rather than abstract concepts

2

Real Workflows & Tasks

Structured around authentic professional scenarios

3

Immediate Usability

Relevant and directly transferable to practice

4

Modular & Flexible

Supports continuous learning at different levels

Only through such practice-based approaches can AI competencies be developed in a way that is both sustainable and aligned with the needs of modern multimedia professions and vocational education systems.

SECTION 9

Comparative Analysis: Germany vs. Italy

The comparison between Germany and Italy highlights two distinct yet complementary approaches to the integration of Artificial Intelligence in multimedia professions and vocational education and training (VET). While both countries demonstrate engagement with AI, they differ significantly in terms of system structure, practical application, and competence development.

Dimension	Germany	Italy
AI Adoption Level	Moderate — supportive tasks	Very high — daily workflows
VET System	Strong, well-structured dual system	Less structured, freelance-based
Competence Level	Emerging, interest-driven	Beginner to intermediate
Training Pathways	Institutional but incomplete	Informal, self-directed
Main Gap	Slow practical implementation	Lack of structured training
Environment Type	System-driven	Practice-driven

Germany = Strong System, Weak Implementation

Strong institutional frameworks but relatively slow practical implementation of AI into curricula, teaching methods, and institutional strategies.

Italy = Strong Practice, Weak Structure

High levels of real-world application but limited structural support for competence development and organised training opportunities.

> Despite these differences, both contexts point to the same fundamental issue: a **misalignment between technological development and structured competence building**. By combining Germany's structured VET framework and Italy's practical, workflow-based use of AI, it is possible to develop more effective, transferable, and balanced approaches across Europe.

SECTION 10

Impact on the Labour Market

The integration of Artificial Intelligence is significantly reshaping the labour market, particularly within multimedia and creative professions. The findings indicate a clear shift in how work is organised, executed, and valued.

1

AI-Integrated Roles

Increasing demand for professionals who combine creative or technical skills with the ability to effectively use AI tools within their workflows.

2

Decline of Manual Tasks

Basic image editing, text generation, and routine production processes are increasingly automated, shifting focus to concept development and quality control.

3

AI-Assisted Production

Human and machine collaboration becomes the standard — professionals manage AI tools, refine outputs, and ensure alignment with professional expectations.

4

Lifelong Learning

Professionals must engage in continuous upskilling; VET systems must transition toward flexible, modular, practice-oriented training models.

These developments have important implications for both individuals and education systems. Professionals must engage in continuous upskilling, while VET systems must transition toward lifelong learning models offering flexible, modular, and practice-oriented training that can respond to evolving labour market demands.

SECTION 11

MEDIAI Project Contribution

The MEDIAI project directly addresses the identified gaps between AI adoption and structured competence development by providing practical, scalable, and transferable solutions for vocational education and multimedia professions. Its contribution lies not only in the development of resources, but also in introducing new approaches to learning, teaching, and collaboration between education and industry.

AI Multimedia VET Toolkit

A practice-oriented learning resource promoting workflow-based learning. Modules reflect real-world scenarios, allowing educators and professionals to apply content directly in their daily work.

Innovative Training Approach

Interactive workshops where participants actively engage with AI tools and apply them to concrete tasks. Modular format adaptable to different levels of expertise, supporting continuous step-by-step competence development.

VET Innovation

Systematic integration of AI into learning processes, moving beyond theoretical discussions to provide concrete methods for embedding AI into curricula and teaching practices.

Education–Labour Market Bridge

Active involvement of industry professionals in the development and validation of training materials, ensuring outcomes are aligned with real professional needs and future skill demands.

Overall, the MEDIAI project plays a key role in bridging the gap between technological advancement and educational practice. By combining practical tools, innovative training methods, and cross-sector collaboration, it provides a sustainable model for integrating AI into VET systems across Europe.

SECTION 12

European Added Value

The MEDIAI project generates clear European added value by addressing shared challenges across Member States and contributing directly to key European Union priorities in education, skills development, and digital transformation. By combining perspectives from Germany and Italy, the project creates transferable solutions that can be adapted to different national and regional contexts within Europe.

Digital Transformation

Supports EU digital transformation priorities by strengthening AI readiness and digital competence development in VET and professional practice, contributing to the Digital Education Action Plan (2021–2027).

VET Modernisation

Bridges the gap between education and industry by integrating real-world practices into training materials, supporting the EU's goal of making VET systems more flexible and future-oriented.

Innovation in Education

Introduces workflow-based learning, modular training structures, and hands-on application — scalable and transferable approaches supporting wider adoption across institutions and countries.

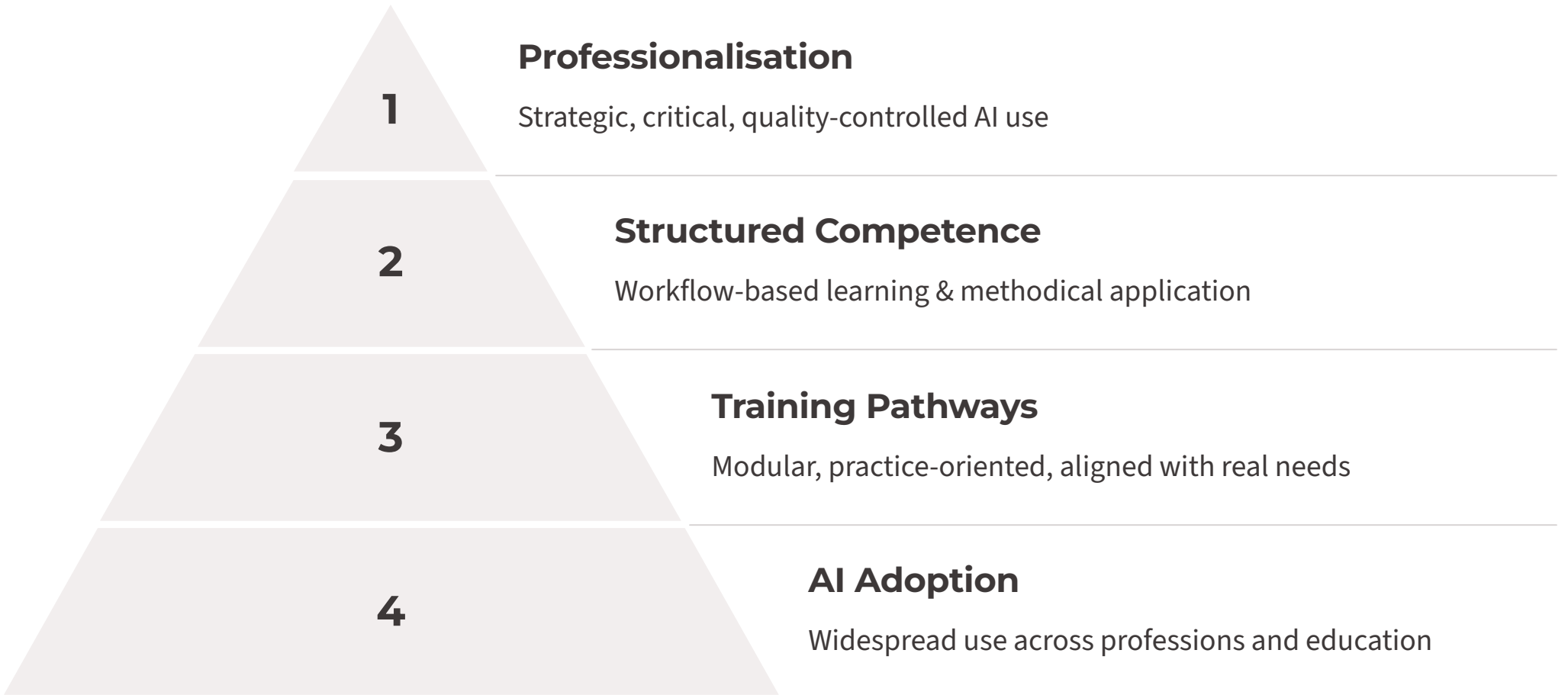
Transnational Cooperation

The combination of Germany's structured VET system and Italy's practice-driven multimedia sector enables a comparative perspective that enriches outcomes and ensures adaptability across Europe.

> Overall, the MEDIAI project contributes to a more coherent and future-oriented European approach to AI in education and professional development. It supports the transition toward a digital, knowledge-based economy by providing practical solutions that enhance skills, foster innovation, and strengthen the connection between education systems and labour market demands.

Overall Conclusion

AI is already widely used across both professional and educational contexts, but its potential remains only partially realised. The core challenge is not access to technology, but the ability to use it strategically, critically, and professionally.



Bridging the gap between usage and mastery is therefore essential—not only for individual competence development, but also for ensuring that vocational education systems remain relevant in an increasingly AI-driven labour market. Germany and Italy, while structurally different, highlight the same fundamental issue: the challenge is not adopting AI, but systematically integrating it into education and professional development.

The MEDIAI project aims to bridge the divide between education and labour market, theory and practice, and technology and competence — providing a sustainable, transferable model for AI integration in VET systems across Europe.

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