



## i-Game

Building a community for the co-creation of games with high impact on innovation, sustainability, social cohesion, and growth

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## D2.6

### Initial Policy Brief

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<b>Abstract</b> This deliverable presents a strategic policy framework to support a more inclusive, sustainable, and ethically-grounded European gaming sector. Building on insights from legal and ethical mappings,	

stakeholder engagement, and ecosystemic impact analysis, it outlines initial recommendations for aligning the video game industry with EU values and regulatory priorities. By integrating perspectives on digital rights, content moderation, accessibility, and innovation financing, the document identifies key areas where policy intervention is needed. These include gaps in the harmonisation of AI and IP frameworks, the lack of sector-specific age-appropriate design standards, and the need for coordinated financial support for SMEs and cultural co-creation initiatives. The deliverable also explores gaming's transformative potential in cultural, educational, and creative contexts, particularly through cross-sectoral collaboration. The policy directions proposed here are designed to inform future dialogues with European institutions, support the design of the i-Game platform, and contribute to the creation of a responsible innovation culture in the gaming ecosystem.

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## Executive Summary

This deliverable presents the initial policy reflections developed under the i-Game project to support a more inclusive, sustainable, and ethically aligned European gaming sector. Based on preliminary analyses, legal mapping, and early ecosystemic findings, the document identifies key areas for policy intervention and outlines how gaming intersects with wider European policy agendas, including digital innovation, culture, social cohesion, and education. The analysis confirms that while the video game industry plays a central role in Europe's creative and digital economies, it continues to operate within a fragmented policy environment. Although relevant legislative instruments exist—such as the General Data Protection Regulation, the Digital Services Act, and the Audiovisual Media Services Directive—these frameworks often lack the sector-specific clarity needed to guide the development of games in areas such as age-appropriate design, algorithmic transparency, and ethical monetisation. The complexity of the regulatory environment is particularly challenging for small and independent developers who struggle to navigate evolving compliance demands while also striving for innovation and cultural relevance. At the same time, the potential of video games extends well beyond the economic domain. Increasingly, games are being used in educational settings, cultural institutions, and civic initiatives. Museums, for example, are adopting game-based approaches to reach wider audiences and facilitate informal learning experiences, while schools and training providers are using serious games to enhance engagement and improve learning outcomes. Furthermore, gaming environments are increasingly recognised as important spaces for community-building, creativity, and intercultural dialogue, particularly among young people. Multiplayer games and online communities enable social interaction and collaborative play, contributing to digital citizenship, peer learning, and in some cases, the development of civic and political engagement. This broader social role of gaming remains underacknowledged in current EU policy frameworks, and there is a need for greater alignment between digital, cultural, and educational strategies to fully realise the public value of games. By bringing together legal analysis, ecosystem insights, and cultural perspectives, this deliverable aims to inform future policy development and dialogue at EU level. It sets the stage for a more integrated and responsive approach to gaming policy—one that recognises the sector's dual role as a cultural force and a driver of technological innovation. The findings presented here will be further validated through stakeholder consultations and pilot activities, contributing to the development of a full policy package.

## Abbreviations and Acronyms

<b>AI</b>	Artificial Intelligence
<b>AR</b>	Augmented Reality
<b>AVMSD</b>	Audiovisual Media Services Directive
<b>BIK+</b>	Better Internet for Kids Plus Strategy
<b>CCI</b>	Cultural and Creative Industries
<b>CDSM</b>	Copyright in the Digital Single Market Directive
<b>CRD</b>	Consumer Rights Directive
<b>DSA</b>	Digital Services Act
<b>DPIA</b>	Data Protection Impact Assessment
<b>ECFR</b>	European Charter of Fundamental Rights
<b>EU</b>	European Union
<b>GDPR</b>	General Data Protection Regulation
<b>HRIA</b>	Human Rights Impact Assessment
<b>IP</b>	Intellectual Property
<b>ISFE</b>	Interactive Software Federation of Europe
<b>KPI</b>	Key Performance Indicator
<b>NFT</b>	Non-Fungible Token
<b>PPP</b>	Public-Private Partnership
<b>R&amp;D</b>	Research and Development
<b>RITEC</b>	Rights-Respecting Technology Design Framework
<b>SDG</b>	Sustainable Development Goals
<b>SME</b>	Small and Medium-sized Enterprise
<b>UCPD</b>	Unfair Commercial Practices Directive
<b>UGC</b>	User-Generated Content
<b>VR</b>	Virtual Reality
<b>VLOP</b>	Very Large Online Platform
<b>XR</b>	Extended Reality



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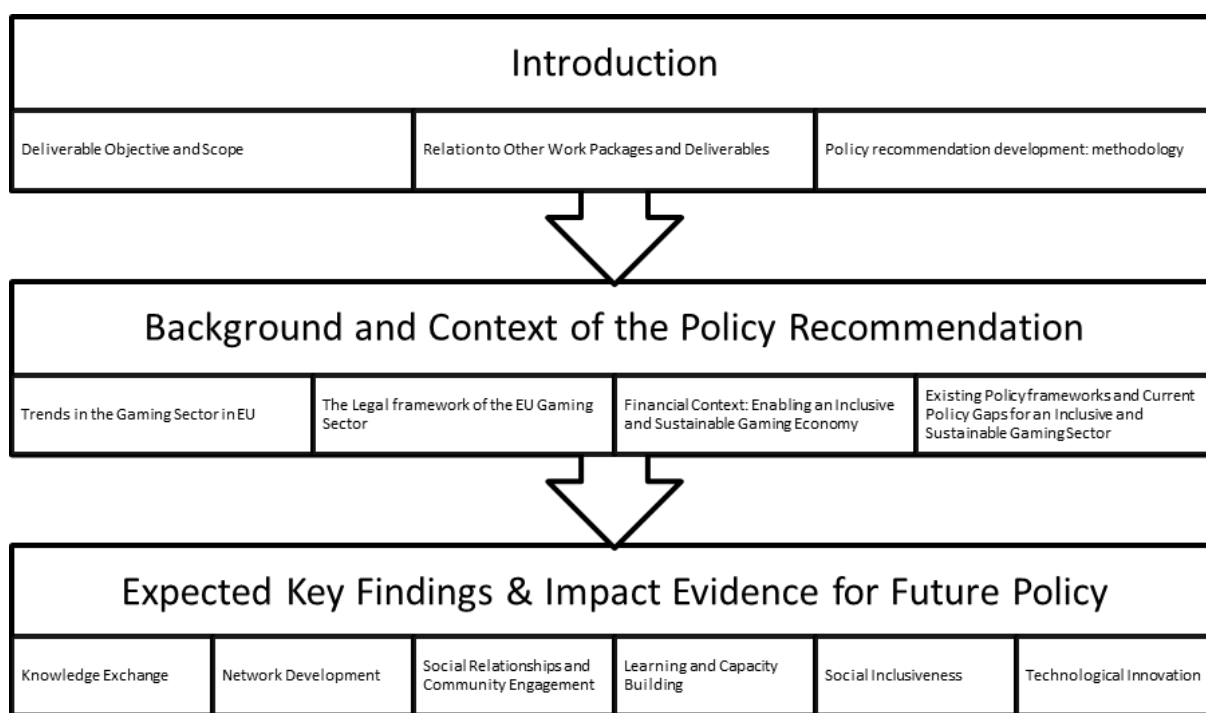
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# 1 INTRODUCTION

This document provides an in-depth analysis of the current context, challenges, and opportunities linked to the development of policy frameworks supporting the European gaming sector. The work is situated within the broader objectives of the i-Game project, which aims to explore the transformative role of games in relation to innovation, sustainability, and social cohesion. Through legal analysis, policy mapping, and interdisciplinary reflection, the document contributes to the ongoing debate on **how games can be better supported and governed within the European Union**.



**Figure 1. Outline of the document**

The deliverable begins by setting out its specific **objective and scope**, explaining the rationale behind the work and identifying the thematic boundaries within which the analysis takes place. This includes a focus on legal and regulatory issues, as well as social, economic, and technological dimensions that influence the development of games and gaming communities across Europe. Following this, the text explains how this work relates to other elements of the i-Game project. In the section on **relation to other work packages and deliverables**, attention is given to the complementarity with other research streams—such as those focusing on technological development, user engagement, and co-creation practices—which help situate the policy analysis within a wider ecosystemic perspective. The **methodology** used to develop the policy recommendations is described in a dedicated section. This includes a combination of desk research, policy document review, and the integration of relevant findings from previous project activities. The approach is qualitative and interpretive, with attention given to both the formal structure of existing frameworks and the practical realities experienced by stakeholders in the gaming sector.



In order to understand the rationale for policy development, the deliverable then presents a **detailed background and context section**. This begins with a discussion of **current trends** in the gaming sector in the EU, highlighting the evolution of the market, the diversification of game formats and business models, and the increasing relevance of mobile platforms, virtual environments, and user-generated content. The following subsections examine the **legal framework** that governs gaming in Europe. While the sector has traditionally been regulated through a patchwork of horizontal legislation—such as data protection, consumer rights, and intellectual property—there is increasing recognition of the need for more targeted and coherent regulatory strategies. The analysis considers the implications of both primary and secondary EU law, as well as the role of soft law instruments and self-regulation.

The **financial dimension** is also addressed, with a focus on how funding opportunities, market access, and public support mechanisms can influence the inclusiveness and sustainability of the sector. Particular attention is given to the challenges faced by independent developers and small studios, as well as to the potential of European programmes to support innovation and diversity in game production. The final part of the contextual analysis identifies a number of **policy gaps** and areas where further development is needed to respond to emerging challenges, such as online safety, inclusivity, and the ethical use of AI in games. Building on this foundation, the deliverable concludes by outlining a set of **expected impacts and areas of relevance for future policy development**. These include the role of games in promoting knowledge exchange, enabling network development, and fostering community engagement. The document also explores the potential of games to support learning processes, capacity building, and technological innovation, while addressing issues related to social inclusion and accessibility.

## 1.1 Deliverable Objective and Scope

Building on the analytical foundations laid in previous tasks—particularly the legal and ethical mappings conducted under Deliverable D2.8—this document serves as a strategic tool to support the i-Game community and platform in embedding regulatory compliance, responsible innovation, and user-centric design from the outset. The objectives are twofold. First, the document translates complex legal frameworks and ethical considerations into actionable insights for a diverse range of stakeholders, including game developers, platform providers, policymakers, and civil society organisations. Particular emphasis is placed on safety-by-design, the promotion of children’s and human rights, and the need for balanced content moderation practices that uphold freedom of expression while mitigating harm.

Second, the deliverable aims to contribute to the evolving policy discourse at the EU level by highlighting the sector-specific needs of the gaming industry, which often falls between established regulatory categories. It advocates for a more harmonised and coherent approach to the governance of games, recognising their dual identity as both technological artefacts and cultural products. The scope of this document extends across multiple layers of analysis. It consolidates findings from regulatory reviews (including GDPR, DSA, AVMSD, and sectoral self-regulation initiatives), ecosystem engagement (e.g. the Gaming and Regulation Working Group), and exploratory use cases, particularly those involving heritage-driven co-creation. The recommendations address structural barriers to innovation and inclusion, offer guidance for ethical design and accessibility, and suggest policy levers to support SMEs, independent

developers, and marginalised communities.

## 1.2 Relation to Other Work Packages and Deliverables

This deliverable is deeply interconnected with other components of the i-Game project, ensuring coherence and mutual reinforcement across the project's lifecycle:

- D2.1 (Research report) maps the needs, barriers, and expectations of key stakeholders across cultural, fashion, and gaming sectors. It identifies critical issues—such as limited technical capacity, regulatory uncertainty, and the need for inclusive and accessible design—that directly inform the policy gaps addressed by D2.6. Furthermore, it establishes the stakeholder typologies, research areas, and methodological framework that structure the project's broader ecosystemic analysis. The insights from D2.1 feed directly into the scoping of policy priorities by highlighting cross-sectoral opportunities for co-creation, as well as structural conditions for innovation. By defining the practical and ethical considerations around game adoption and development in diverse contexts, D2.1 ensures that the policy reflections presented here are rooted in the lived experiences and strategic needs of the project's primary user groups.
- D2.4 (Initial Impact Report) outlines the methodological approach for data collection and defines the macro-outcome areas—knowledge exchange, network development, social relationships, capacity building, inclusiveness, and technological innovation—that form the analytical basis of this deliverable. The policy recommendations developed here specifically build on these defined outcomes, ensuring alignment with the broader project objectives.
- D2.8 (Legal analysis IT with policy recommendations) provides a comprehensive legal and ethical framework, meticulously analysing existing EU legislative instruments relevant to gaming. D2.8 addresses key regulatory areas including data protection, age-appropriate design, algorithmic transparency, and digital rights. The detailed legal assessments from D2.8, drawing from Tasks T2.6 (data protection and digital rights), T3.5 (IP frameworks in co-creation), and T4.5 (AI and IP/IT legal considerations), establish foundational guidance essential for the policy proposals presented here.
- Additionally, WP2 (Exploring the ecosystemic impact of i-Game) provides ongoing analytical support and will integrate insights from WP3 (Co-creating games), WP4 (Platform and solutions integration), and WP5 (Pilot case implementation) as these activities progress. This iterative and collaborative approach ensures that policy recommendations are both robust and responsive to emerging empirical evidence and practical insights.
- WP6 (Dissemination, communication and exploitation): the policy recommendations outlined will serve as a key input for targeted policy engagement activities. These recommendations will be presented and discussed through one-to-one meetings with relevant policymakers at EU, national, and local levels. These interactions will provide an opportunity to validate the proposed directions, collect feedback, and identify pathways for policy uptake, ensuring that the project outcomes contribute meaningfully to ongoing regulatory and strategic agendas concerning video games,

cultural innovation, and digital inclusion.

- D2.7 (Final Policy Package): the recommendations and directions presented here will be further refined and expanded through stakeholder feedback, results from the pilot cases, and policy validation activities foreseen in the second half of the project. D2.7 will consolidate these insights into a comprehensive and actionable set of final policy guidelines, aligned with the evidence gathered across WPs 2, 4, and 5, and tailored to support the systemic integration of inclusive gaming practices within EU policy frameworks.

### 1.3 Policy recommendation development: methodology

This section outlines the preliminary methodology employed for developing policy recommendations. The aim is to ensure that legal, ethical, and societal considerations are robustly integrated into the emerging policy framework supporting inclusive and sustainable innovation in the European video game sector. At the current stage, the approach is based on an **extensive desk review and conceptual mapping**. In later phases of the project, these findings will be complemented by **direct stakeholder engagement, participatory validation, and empirical feedback from co-creation and pilot activities**. The methodology reflects the interdisciplinary nature of i-Game and is designed to ensure regulatory relevance, social responsiveness, and sectoral specificity.

#### Desk Analysis: Scope and Structure

The desk-based phase of the methodology forms the analytical foundation of this deliverable. It consisted of a structured and multilayered review of **normative sources, institutional strategies, and academic discourse** relevant to the regulation and governance of digital games in the European context. Four key knowledge domains were examined:

- EU Primary and Secondary Legislation: This includes horizontal frameworks such as the General Data Protection Regulation (GDPR), the Unfair Commercial Practices Directive (UCPD), the Consumer Rights Directive (CRD), and the Digital Services Act (DSA), which govern user data, platform responsibility, and consumer protection in online environments. The analysis also considers sector-specific instruments such as the Audiovisual Media Services Directive (AVMSD), which partially applies to game-related services, and the emerging EU AI Act, which has implications for algorithmic content generation, adaptive gameplay, and profiling in games.
- Strategic Policy Documents and Soft Law Instruments: The review covered recent EU strategies and initiatives, including the Better Internet for Kids (BIK+) Strategy, the European Parliament Resolution on Esports and Video Games, the European Commission's vision for Web 4.0 and virtual worlds, and communications on the European Education Area and New European Bauhaus. These documents offer insights into the evolving policy discourse on digital transformation, youth empowerment, cultural innovation, and cross-sector integration—all of which are relevant to the i-Game objectives.

- **Industry Standards and Self-Regulatory Frameworks:** The analysis incorporated documents and position papers developed by key industry stakeholders, including the Pan-European Game Information (PEGI) system, the Interactive Software Federation of Europe (ISFE), and Video Games Europe. These sources provided valuable perspectives on market trends, compliance challenges, age classification practices, and industry-led efforts to promote safe and responsible gaming environments. The role of voluntary codes of conduct, trust marks, and age verification tools was also examined in this context.
- **Academic and Legal Scholarship:** A wide range of interdisciplinary literature was consulted to ground the analysis in normative and conceptual rigour. Topics included digital rights and platform governance, the ethics of persuasive and emotional game design, intellectual property in the context of user-generated and AI-generated content, and the application of human rights principles to online interactive media.
- **D2.1 (Research Report)** played a foundational role by providing the conceptual and methodological basis for understanding the structure, needs, and dynamics of the i-Game stakeholder ecosystem. It consolidates findings from both desk research and field research involving over 150 stakeholders from museums, the textile and fashion industry, and the game development sector.

Together, these components have enabled the document to map the current legal and ethical landscape **shaping the European gaming sector, identify key regulatory and normative gaps, and frame priority areas for future policy intervention.**

### **Stakeholder Engagement (Forthcoming)**

The desk-based findings will be validated and enriched through a structured **stakeholder engagement process**, to be conducted in the next phases of the project. This process will target a diverse group of actors including game developers, legal and ethical experts, platform operators, civil society organisations, educators. The objective is to triangulate the legal analysis with experiential knowledge and practice-based insights from within the sector. The goal is not only to collect feedback on preliminary findings but also to co-develop actionable, realistic, and context-sensitive policy recommendations that reflect the lived realities of stakeholders. Special attention will be given to ensuring that underrepresented voices—including small studios, marginalised communities, and youth perspectives—are meaningfully included in the formulation of policy options.

### **Impact Assessment (Preliminary Stage)**

A full impact assessment will be carried out in the final phase of the i-Game project. At this stage, the deliverable does not include empirical data from fieldwork or pilot implementation. However, a **methodological framework for impact evaluation has already been adopted and validated**. The final assessment will integrate:

- Feedback and lessons learned from i-Game’s pilot activities and co-creation sessions, including cross-sector initiatives with museums, fashion designers, and educational institutions.
- Insights from the stakeholder consultations, with particular attention to areas of legal uncertainty, ethical tensions, practical implementation barriers and interactive learning and skill acquisition.
- A reflective analysis of how ethical and legal concerns manifest in real-world game development processes, including issues related to accessibility, monetisation, inclusion, and digital rights.
- Broader systemic effects, including potential contributions to economic growth, through SME support and new market development; to social cohesion, through inclusive participation and community-building practices; and to wellbeing, via games’ capacity to enhance cultural engagement, informal learning, digital skills, and emotional resilience.

The integration of these empirical and participatory elements will support a comprehensive, iterative, and context-sensitive approach to policy recommendation development.

### Pilots

The three pilot strands—focused respectively on museums and cultural heritage, fashion and textiles, and cross-sectoral co-creation—**will provide critical empirical evidence on how the i-Game co-creation platform functions in real-world settings**. They will test not only the technical capabilities of the platform but also its capacity to deliver meaningful outcomes in terms of accessibility, inclusion, cross-sector collaboration, and user empowerment. By observing how games are co-created, implemented, and received across these diverse contexts, the pilots will offer tangible insights into the operational, institutional, and regulatory challenges that may arise.

In particular, the pilots will inform:

- the feasibility of inclusive game development across different sectors,
- the interplay between legal, ethical, and cultural considerations in co-design processes,
- and the specific enabling or limiting conditions for broader adoption of co-creation models.

These insights will be systematically captured and analysed to update the current policy guidance. In turn, this will allow D2.7 – Final Policy Package to deliver a concrete, context-informed policy framework that reflects the actual capacities and constraints of institutions, developers, and citizens engaging with the i-Game platform.

## 2 BACKGROUND AND CONTEXT OF THE POLICY RECOMMENDATIONS: THE GAMING SECTOR IN EU

The video game sector in Europe has significantly evolved, becoming a major component of the digital and creative economies (ISFE, 2022; European Commission, 2023a). Historically viewed primarily through an entertainment lens, this industry has **increasingly intersected with critical societal domains, including cultural heritage preservation, education, technological innovation, and active social participation**. With a workforce exceeding 90,000 professionals across the EU, the sector plays a pivotal role in advancing technological capabilities such as artificial intelligence, virtual and augmented reality, and interactive digital design. The economic importance of video games is evidenced by steady market growth, which substantially supports small and medium-sized enterprises (SMEs), independent creative professionals, and various digital service providers. Beyond traditional entertainment, games are being applied effectively in diverse practical contexts including professional training, cultural mediation, public engagement, and sustainability education. These multifaceted uses underscore the broad applicability and societal value of gaming technologies.

Nonetheless, the gaming sector remains **only partially integrated into overarching EU policy frameworks**. Existing regulatory measures such as the General Data Protection Regulation (GDPR), the Digital Services Act (DSA), and the Better Internet for Kids (BIK+) Strategy touch upon relevant gaming issues like data security, child protection, and platform accountability. However, there is currently **no comprehensive policy strategy specifically designed to harness the sector's unique potential or address its distinct challenges comprehensively**.

Recent policy developments reflect increased EU-level attention to the sector. The European Parliament's 2022 Resolution on Esports and Video Games highlighted critical areas requiring clarity, notably monetisation practices, consumer protection standards, and working conditions. Additionally, the sector's recognition within programs such as Creative Europe and participation in high-level forums, including the Games Policy Summit, demonstrate an **evolving policy interest** and acknowledgment of the sector's expansive contributions. Beyond economic impacts, video games are increasingly relevant in other significant policy domains. Cultural institutions, notably museums, have adopted gaming and gamification methods to enrich audience experiences, enhance interpretation and communication of collections, and drive broader digital transformation initiatives. Museums are actively exploring interactive and immersive gaming technologies to foster deeper engagement, attract diverse audiences, and promote inclusive accessibility and educational outreach.

Similarly, within the fashion and textile industries, gaming and immersive virtual environments are creating new possibilities for digital creativity, interactive consumer engagement, and innovative sustainability education. Digital gaming platforms and tools are being leveraged for virtual prototyping, showcasing sustainable fashion practices, and facilitating user-driven co-creation processes. These practices align closely with EU strategic priorities on sustainable development, circular economy, and digital innovation. Despite these

promising developments, structural challenges persist:

- Fragmented funding and support structures for game development, particularly affecting SMEs and independent studios.
- Ongoing legal ambiguities surrounding AI-generated content, user intellectual property rights, and the protection of minors in interactive and immersive digital environments.
- Limited prominence and strategic integration of the gaming sector within broader EU cultural and digital policy frameworks relative to other creative industries.

This context underscores the necessity of formulating targeted policy approaches that align cohesively with existing EU legislation, while effectively addressing the unique needs of the gaming sector. The i-Game project directly contributes to achieving these objectives by examining the transformative potential of inclusive and ethically designed games. It seeks to enhance cultural participation, expand educational opportunities, and foster digital equity across various sectors, notably within museum contexts and creative industries such as fashion and textiles.

## 2.1 Trends in the Gaming Sector in EU

The video game industry stands at the intersection of several transformative megatrends, reshaping not only how games are produced, distributed, and experienced, but also how they interact with broader societal, technological, and regulatory dynamics. The following megatrends are particularly relevant for the i-Game initiative and the European digital policy landscape.

### Gamification and the Hybridisation of Digital Spaces

The convergence of gaming elements with other sectors has led to the emergence of pervasive gamification practices that reshape how individuals interact with digital services, public infrastructure, and even civic processes. In education, gamified learning environments enhance motivation and retention by embedding progress mechanics, narrative elements, and instant feedback loops. In healthcare, serious games are increasingly deployed for rehabilitation, cognitive training, and mental health support—offering immersive, non-stigmatizing methods of engagement. In the public sector, gamification has been used to drive behavioural change, such as encouraging sustainable mobility choices or enhancing public participation in policymaking through interactive platforms.

At the same time, **the physical and digital realms are becoming increasingly intertwined**. Extended reality (XR), encompassing virtual reality (VR), augmented reality (AR), and mixed reality (MR), is catalysing a new wave of spatial computing. These technologies extend game design principles into real-world contexts, where digital overlays can enhance museum visits, urban exploration, or cultural storytelling. Such experiences are not only entertaining—they can also foster heritage engagement and local identity, particularly when co-developed with communities.



This hybridisation aligns closely with the European Commission’s “Web 4.0 and Virtual Worlds” strategy, which calls for human-centric, interoperable, and inclusive virtual ecosystems. The potential benefits are significant: immersive environments may promote digital literacy, cross-generational learning, and social inclusion. However, this transformation also raises pressing concerns around user safety, data governance, and psychological well-being. Children and vulnerable users, in particular, require robust safeguards to prevent manipulation, over-engagement, and exposure to harmful content. The absence of harmonised safety-by-design standards for these hybrid experiences remains a critical gap.

### AI and Procedural Generation

Artificial Intelligence (AI) is rapidly redefining the creative and operational processes within the video game industry. Beyond traditional applications such as non-player character (NPC) behaviour and pathfinding, **AI is now a driver of dynamic content generation, narrative evolution, and real-time player adaptation.** Procedural generation—where AI systems autonomously produce vast, complex game worlds—has significantly increased scalability and replayability, while reducing development costs. AI-driven dialogue engines, powered by large language models, are enabling more immersive and responsive storytelling, giving players a sense of genuine agency and emotional engagement.

Moreover, AI supports operational efficiencies such as automated testing, content moderation, and player profiling. Through behavioural analytics, games can tailor challenges, tutorials, and in-game economies to individual user preferences. However, these personalisation mechanisms raise ethical concerns, particularly when they verge on exploitative practices or fail to meet transparency and consent standards—especially in games targeted at children or vulnerable users.

As the European Union finalises the AI Act, the gaming sector must prepare to align with new obligations around transparency, risk classification, and data governance. While the regulation primarily targets high-risk applications, the adaptive and immersive nature of AI-powered games—particularly those involving biometric data, emotional analysis, or automated decision-making—may trigger heightened scrutiny. Additionally, the lack of clarity around the intellectual property (IP) status of AI-generated or AI-assisted content poses challenges for co-creation platforms and user-generated content ecosystems.

### Platformisation and the Power Asymmetry

The video game industry has become increasingly shaped by the phenomenon of platformisation—the **growing dominance of large digital intermediaries in the distribution, monetisation, and discoverability of games.** Major app stores, cloud gaming services, and social streaming platforms now control critical access points to audiences, shaping not only which games are played, but how they are monetised, promoted, and updated. This transformation brings both efficiencies and dependencies, as developers rely on platform infrastructures for user acquisition, analytics, compliance, and payments. However,



platformisation has entrenched significant asymmetries of power within the industry. Small and medium-sized enterprises (SMEs), independent studios, and niche cultural producers often lack the bargaining leverage to negotiate equitable terms with dominant platforms. This imbalance manifests in opaque ranking algorithms, restrictive content moderation policies, high commission fees, and limited avenues for dispute resolution. Furthermore, **platform gatekeeping can suppress experimental or socially valuable games that fall outside mainstream commercial interests.**

From a policy perspective, the EU has taken critical steps to address these imbalances through instruments such as the Digital Markets Act (DMA) and Digital Services Act (DSA). The DMA targets large “gatekeeper” platforms with new obligations to ensure interoperability, fairness, and data portability. Meanwhile, the DSA introduces due diligence obligations for online intermediaries, including content moderation transparency and risk mitigation measures. However, these frameworks are often generic and lack tailored guidance for the gaming sector, where platform dynamics differ markedly from those of social media or e-commerce. In this context, the i-Game initiative has a pivotal role to play. First, it can foster a community of practice among smaller developers to share experiences, build collective voice, and articulate sector-specific needs in relation to digital regulation. Second, it can support the development of alternative, decentralised distribution models and co-creation platforms that reduce reliance on commercial gatekeepers.

### Monetisation Models and Ethical Design Tensions

The evolution of monetisation in the video game industry has fundamentally altered the economic dynamics between developers, players, and platforms. Moving beyond the traditional one-time purchase model, games increasingly rely on freemium frameworks, in-game purchases (microtransactions), season passes, downloadable content (DLC), and more recently, blockchain-based “play-to-earn” ecosystems. While these models support innovation and business sustainability—especially for mobile and free-to-play titles—they also introduce complex ethical tensions, particularly when embedded in gameplay loops or targeting young users.

A key concern is **the use of dark patterns**: interface design strategies that manipulate user behaviour to maximise spending or prolong playtime. Examples include obfuscated real-money costs, pressure-inducing countdowns, difficulty spikes designed to trigger purchases, and exploitative reward systems. When deployed without safeguards, such techniques can compromise user autonomy, encourage compulsive behaviours, and disproportionately affect children or individuals with vulnerabilities. These risks are further exacerbated by loot boxes and gambling-like mechanics, which have prompted scrutiny from consumer protection authorities and child welfare advocates across several EU Member States. The European Parliament’s 2022 Resolution on Esports and Video Games highlights the urgency of these issues. It calls for the protection of minors, ethical monetisation, and greater transparency in game mechanics and data practices. Yet, **a harmonised EU-level framework for fair and child-safe monetisation is still lacking.** Fragmented national approaches complicate compliance

and reduce legal certainty for developers operating across borders. Furthermore, as digital assets become increasingly tradable—whether through secondary markets, blockchain items, or interoperable cosmetics—the development of safeguards against speculative risks, fraud, and digital exclusion is critical. Aligning monetisation with ethical, legal, and developmental standards is not merely a compliance requirement; it is a strategic imperative for building trust, ensuring user loyalty, and fostering a resilient European game ecosystem.

### **Inclusion, Accessibility, and Player Diversity**

The European gaming landscape is undergoing a profound transformation in terms of who plays, how they play, and what they expect from gaming experiences. No longer a niche demographic, **today's player base spans all ages, cultural backgrounds, genders, and abilities**. This diversification not only reflects broader societal shifts but also demands a recalibration of how games are conceived, designed, and delivered. In this context, inclusion and accessibility are no longer optional design considerations—they are foundational to both market relevance and ethical responsibility. A growing body of research and advocacy has documented the exclusionary barriers that persist in many mainstream games. These include visual and auditory obstacles for players with disabilities, gender stereotypes that alienate female and non-binary users, and a lack of localisation or cultural sensitivity that marginalises linguistic and ethnic minorities. Digital poverty—manifested through limited access to hardware, broadband, or digital literacy—further compounds these issues, disproportionately affecting lower-income and rural populations.

Responding to these gaps, a number of initiatives have emerged at the European and international level. The BIK+ Strategy recognises children's right to participate safely and inclusively in digital environments, while the RITEC Framework developed by UNICEF and LEGO offers actionable guidance for designing well-being-oriented digital experiences for children aged 8–12. Campaigns such as Seize the Controls provide parents and educators with tools to manage gameplay environments and support healthy interactions. Nevertheless, the industry still lacks comprehensive, sector-specific accessibility standards akin to the Web Content Accessibility Guidelines (WCAG) for websites. Moreover, inclusive design must go beyond technical accessibility to encompass representational diversity and participatory development. This includes integrating inclusive narratives, allowing for avatar customisation across genders and cultures, and engaging underrepresented communities in design processes—not as end-users, but as co-creators.

The i-Game platform is distinctively positioned to model this approach. By embedding inclusive co-creation as a core principle, it can provide infrastructure for collaboration between developers, players with disabilities, DEI experts, and cultural organisations. Toolkits, training modules, and design templates can support inclusive innovation from concept to deployment. i-Game can also act as a knowledge hub, documenting good practices, facilitating peer learning, and contributing to policy dialogues on digital inclusion in gaming. Ultimately, games are not only cultural artefacts—they are social spaces. Designing for inclusion ensures that these spaces reflect the diversity of Europe's populations and uphold the EU's values of

equality, dignity, and participation.

### Sustainability and Green Innovation

As the digital sector comes under increased scrutiny for its environmental footprint, the video game industry must confront its dual role as both a contributor to and a potential enabler of sustainability. While often overlooked in environmental debates, gaming's energy consumption—from high-performance hardware to cloud-based streaming—can be significant. Server infrastructures, GPU-intensive graphics, and persistent online worlds contribute to rising emissions, while the rapid obsolescence of gaming consoles and peripherals adds to the growing challenge of electronic waste (e-waste). Addressing these impacts is now essential, particularly as the European Green Deal and the upcoming Digital Product Passport framework redefine expectations around environmental accountability for digital products.

The energy implications of gaming are multi-faceted. The increasing popularity of always-online games, multiplayer infrastructures, and cloud gaming services (e.g. Google Stadia, NVIDIA GeForce Now) leads to sustained and often invisible energy use. Streaming games can consume as much electricity as video streaming platforms, and in some cases, more. Moreover, the life cycle of game development itself—encompassing resource-intensive art production, testing, and marketing—carries a substantial ecological burden. Packaging, logistics, and physical distribution still play a role, particularly in console markets.

In response, leading studios and platforms have begun to explore mitigation strategies. These include carbon offsetting, eco-friendly packaging, adaptive frame-rate technologies, and green cloud hosting. Yet, **these efforts remain voluntary, fragmented, and difficult to verify**. There is currently no consistent methodology for assessing the environmental impact of game products, nor a harmonised standard for eco-design in the gaming sector.

Beyond environmental considerations, the concept of social sustainability is also gaining prominence. Games are increasingly understood not only as entertainment, but as complex social environments where behaviours, values, and norms are negotiated. Toxicity, harassment, exclusion, and addictive mechanics undermine the long-term health of game communities and affect both mental wellbeing and societal cohesion. Conversely, well-designed games can promote empathy, collaboration, resilience, and pro-social behaviour. The Digital Thriving Playbook and similar initiatives advocate for “wellbeing-by-design” principles that support healthy play patterns, including mechanisms for self-regulation, community governance, and positive reinforcement. By linking environmental and social sustainability, games can position not as part of the problem, but as part of the solution—leveraging the medium's reach and engagement potential to support the EU's green and digital transitions.

### Games as Cultural Agents and Textile Innovation Drivers

Video games are increasingly recognised not only as entertainment, but as powerful cultural

artefacts that reflect, preserve, and reinterpret heritage. They act as dynamic vehicles for storytelling, enabling users to engage with history, memory, and identity in deeply immersive and interactive ways (Bollo et al., 2017; Mortara et al., 2014; UNESCO, 2021). Museums, cultural institutions, and heritage organisations are progressively adopting game-based strategies to reach wider audiences, especially younger generations. Through gamified experiences and digital narratives, heritage is made accessible, participatory, and emotionally resonant.

This cultural function extends into the creative economy—where games intersect with sectors such as design, fashion, and the textile industry. Traditionally grounded in material craftsmanship and regional know-how, the textile sector is undergoing a digital transformation driven by sustainability demands, personalisation trends, and new consumer experiences. Games are emerging as a relevant platform to engage with these shifts, offering virtual environments where textile narratives, techniques, and aesthetics can be reimaged. For instance, simulation games, cultural reconstruction projects, and co-creation platforms can model traditional weaving patterns, historic clothing styles, or regional production practices. These representations can foster appreciation for local craft heritage, promote intergenerational knowledge transfer, and support the visibility of artisanal practices at risk of disappearing. Moreover, collaborative projects between game developers and textile designers can result in the digital preservation of textile archives and the reinterpretation of motifs through interactive media.

Beyond preservation, games can serve as experimental laboratories for sustainable innovation in textiles. Eco-conscious design scenarios embedded within gameplay—such as circular fashion systems or low-impact dyeing techniques—can educate players about sustainable consumption and production. In parallel, educational games co-developed with vocational training institutions may support skill development for future textile professionals, aligning with the objectives of the European Skills Agenda and the New European Bauhaus initiative.

The i-Game initiative can serve as a catalyst for deeper collaboration between the gaming and textile sectors, particularly within the broader European creative and cultural industries. By integrating textile heritage and innovation themes into game co-creation challenges, it can generate cross-sectoral prototypes, storytelling modules, and engagement toolkits. In this context, video games are not only a medium to express culture but also an engine to co-create it—linking intangible heritage and industrial reinvention in a forward-looking, participatory, and inclusive way.

## **2.2 The Legal framework of the EU Gaming Sector**

The legal aspects of video games within the European context have been thoroughly examined in Deliverable D2.8, which offers an in-depth legal and ethical analysis relevant to the i-Game project. For the sake of clarity and readability, this section provides a synthesis of the key findings and highlights the most relevant legal dimensions. The European legal framework governing video games is multifaceted, encompassing primary and secondary legislation, policy strategies, and industry self-regulation. This structure reflects the sector's evolution

from mere entertainment to a significant cultural, technological, and economic domain with wide-ranging societal impacts.

### **Data Protection & Privacy**

Video games increasingly rely on extensive data collection, including behavioural tracking and AI-driven personalization. The General Data Protection Regulation (GDPR) mandates strict guidelines for the collection, processing, and storage of personal data, emphasizing transparency and user consent. Particularly concerning is the data collection from minors, necessitating enhanced measures such as age verification and age-appropriate design. Recent initiatives, like the proposed EU Code of Conduct on Age-Appropriate Design, aim to establish commitments related to age verification and the provision of age-appropriate information.

### **Consumer Protection**

Consumer rights within the gaming industry are governed by directives such as the Consumer Rights Directive (CRD) and the Unfair Commercial Practices Directive (UCPD). The Digital Services Act (DSA) further reinforces obligations for platforms, including those offering games-as-a-service and online marketplaces. Issues like dark patterns, in-game monetization, and loot boxes—especially when targeted at minors—have raised concerns. The European Parliament has called for enhanced regulation on loot boxes and gambling-like mechanisms to protect consumers from manipulative practices.

### **Content Moderation & Online Safety**

The Audiovisual Media Services Directive (AVMSD) and the DSA provide a regulatory framework for content governance in digital spaces. While not originally designed for gaming, these frameworks are increasingly relevant due to the convergence of games with social platforms and user-generated content. The importance of trust and safety design is underscored by the risks of harassment, hate speech, and grooming in multiplayer or virtual environments. The DSA mandates platforms to implement effective content moderation tools, reporting mechanisms, and community standards that balance freedom of expression with protection from harmful content.

### **Intellectual Property (IP) & AI in Gaming**

The rise of AI-generated content and user-created assets has introduced complex intellectual property challenges. Existing legislation, such as the Directive on Copyright in the Digital Single Market (CDSM), provides a foundation, but may not fully address emergent practices in AI-driven game design and modding communities. The European Parliament has called for a European strategy for IP in video games that promotes existing European creations and recognizes the unique creative value of video games as complex works.

## Fundamental Rights Considerations

Video games intersect with core human rights, including freedom of expression, privacy, and non-discrimination. While games serve as platforms for creative expression and identity building, they also raise issues around manipulative mechanics, toxicity, and gender-based violence. The freedom of thought is also a concern, particularly regarding algorithmic nudging and immersive experiences that could impact users' autonomy. Ensuring non-discrimination, particularly regarding gender, race, disability, and access to digital infrastructure, is critical. Inclusive game design and collaboration with accessibility experts are recommended to foster diverse and equitable gaming environments.

### 2.3 Financial Context: Enabling an Inclusive and Sustainable Gaming Economy

The European video game sector holds considerable promise as a driver of economic resilience, cultural innovation, and digital transition. Yet, the financial foundations of the sector remain **unevenly distributed and structurally fragile**, particularly for smaller developers and emerging creative ecosystems. As the i-Game project aims to foster an inclusive, co-creative, and ethically grounded game development environment, understanding the financial enablers and barriers shaping the industry is critical.

#### Funding Opportunities for Innovation, Inclusion, and Resilience

Public funding mechanisms at both EU and national levels play a central role in supporting the development of interactive digital content that aligns with broader European policy goals—ranging from digital inclusion and green transition to creative diversity and cultural heritage valorisation. However, the funding landscape is fragmented and highly competitive, requiring significant strategic alignment and capacity from applicant organisations.

At the EU level, several major programmes contribute directly or indirectly to supporting innovation in the video game sector.

- Horizon Europe, the EU's flagship programme for research and innovation, has increasingly opened calls that invite serious games, simulation-based learning tools, and AI-enhanced user experiences aimed at addressing societal challenges. Projects funded under this programme may address areas such as health literacy, civic engagement, sustainability behaviour, or cultural education—often using gamified and immersive formats. However, successful applications require strong consortium-building, high levels of technical maturity, and alignment with policy priorities.
- Creative Europe – MEDIA, while more targeted to the audiovisual sector, includes support for video game development projects with strong narrative or cultural relevance. This programme is essential for small and medium-sized studios aiming to develop original intellectual property (IP) rooted in European values and stories. Despite its importance, the annual budget dedicated to video games remains limited compared to the potential demand.

- Digital Europe and the European Digital Innovation Hubs (EDIHs) support capacity building and digital transformation in SMEs, including game studios. Their emphasis on AI, extended reality (XR), cybersecurity, and data management is particularly relevant for game developers working at the frontier of technological innovation. These programmes can provide training, testing facilities, and access to technological infrastructure, but often require matchmaking between sectors, which can be a barrier for smaller or less networked developers.

National and regional schemes across Member States provide a valuable complement to EU-level support, including tax credits, grants, and R&D incentives. However, access to these schemes remains uneven, affected by disparities in language, awareness, administrative capacity, and alignment with creative sector needs. This fragmentation particularly affects independent developers working on experimental or socially impactful games, who may not have the resources to engage with complex application procedures or transnational partnerships.

### Economic Challenges for SMEs and Independent Creators

Despite the availability of targeted funding schemes, the financial ecosystem supporting game development in Europe remains fragile, especially for small and medium-sized enterprises, start-ups, and indie developers. These actors are at the core of creative innovation in the sector but often operate under resource-constrained conditions. Game development is characterised by high upfront costs, long development cycles, and considerable uncertainty regarding market success. Many independent developers lack access to early-stage venture capital or risk financing, relying instead on self-financing, revenue from previous projects, or crowdfunding. These models are often insufficient for sustaining long-term innovation or enabling teams to take creative risks.

Furthermore, monetisation remains a structural challenge. The rise of free-to-play and in-game monetisation models has changed revenue dynamics, placing increasing pressure on developers to design for engagement and retention rather than narrative or cultural value (Brignull, 2023; European Parliament, 2020). **Ethical, educational, or niche games may struggle to achieve visibility or revenue under such conditions.** Developers must navigate complex monetisation frameworks and platform rules, which are typically set by dominant global intermediaries such as Apple, Google, or major console manufacturers. This power asymmetry reduces the bargaining power of European developers and may disincentivise alternative or values-driven business models. Visibility is another barrier, as independent creators must compete for user attention in saturated marketplaces with limited access to marketing budgets or platform promotion. Without strategic support or coordinated promotion strategies, many culturally or socially valuable games remain undiscovered by their potential audiences.



## **The Role of Public–Private Partnerships for Strategic Investment**

Public–private partnerships (PPPs) have increasingly been recognised as a vital mechanism to bridge structural gaps in the financing and innovation ecosystem for games. By bringing together public authorities, research institutions, private companies, and civil society actors, PPPs enable the co-creation of initiatives that serve both public interest goals and industry development objectives. In the context of i-Game, PPPs are particularly relevant for enabling cross-sector collaboration and the responsible scaling of inclusive and culturally impactful games. For instance, a partnership between a public museum, a game studio, and an academic centre can co-develop a game that translates intangible heritage into interactive experiences. Through joint funding, shared infrastructure, and integrated evaluation frameworks, such partnerships reduce financial risks and strengthen the potential for societal impact.

PPPs also create opportunities for embedding legal and ethical expertise into the early stages of game design. Through structured cooperation, game developers can gain access to expert input on data protection, children’s rights, accessibility standards, and inclusive design principles. This supports the development of games that are not only compliant with EU law but proactively aligned with the values of digital inclusion, democratic participation, and cultural diversity. Moreover, PPPs can facilitate access to physical and digital infrastructure, such as XR laboratories, motion capture facilities, accessibility testing environments, and co-creation platforms like i-Game. These resources are otherwise inaccessible for many SMEs and can serve as catalysts for experimentation and quality enhancement.

## **Towards a Cohesive and Future-Oriented Financial Strategy**

Looking forward, there is a need for a more coherent and strategic financial framework at EU level that fully recognises the video game sector as both a high-growth industry and a medium of cultural and civic relevance. Current funding instruments, while valuable, are dispersed across programmes with different entry points, evaluation criteria, and policy targets. A unified European approach could maximise synergies and reduce administrative burdens for developers.

Such a strategy could include the creation of dedicated funding lines for:

- Ethical-by-design games that reflect European values and fundamental rights.
- Accessibility innovations in both game design and user interfaces.
- Cultural and heritage-driven games developed in collaboration with museums and cultural institutions.
- Experimental or slow development formats, which require longer incubation times but yield high societal value.

In parallel, access to blended finance—including a combination of public grants, soft loans, equity investments, and guarantees—could provide more sustainable financing pathways for early-stage and high-risk projects. Technical assistance should also be provided to help SMEs



navigate complex application processes and build successful cross-sectoral partnerships.

Finally, green game development should be integrated into funding criteria, encouraging developers to adopt energy-efficient technologies, low-carbon infrastructure, and content that supports environmental awareness. This would align the gaming industry with broader EU objectives under the Green Deal and twin transition strategies. Overall, a coordinated EU approach to financial support would enable a more diverse, resilient, and socially relevant gaming ecosystem—where innovation thrives not only for profit, but for the public good.

## 2.4 Existing Policy frameworks and Current Policy Gaps for an Inclusive and Sustainable Gaming Sector

The European Union has taken notable steps to modernise its digital policy frameworks, increasingly recognising the multifaceted role of video games in cultural, technological, and economic domains. Recent and emerging policy instruments reflect a growing awareness of these challenges and opportunities:

- **Better Internet for Kids (BIK+) Strategy:** Launched in May 2022, the BIK+ Strategy builds on the original BIK framework to address new challenges in the rapidly evolving digital landscape. The strategy sets out ambitious goals to create a digital environment that is not only safe for children and young people but also empowering and enriching. It emphasises key pillars including access to high-quality digital content, digital literacy, and the protection of minors from harmful online practices. For the gaming sector, BIK+ offers a relevant, though indirect, foundation for developing policy tools that address age-appropriate game design, online interaction safety, and parental control systems. However, implementation in the gaming sector remains inconsistent across Member States. Stronger alignment between BIK+ goals and regulatory standards for games—especially those with social and monetised features—could ensure more equitable protections for minors across digital platforms.
- **European Citizens' Initiative – "Stop Destroying Videogames":** This grassroots initiative reflects growing public concern about consumer rights in the digital age. It calls for binding legislation to prevent the remote disabling of games after purchase, ensuring that consumers can continue accessing digital products they have paid for. While framed as a consumer protection issue, the initiative also underscores the cultural relevance of games as long-term digital artefacts. Preserving access to games contributes to Europe's digital heritage and aligns with broader efforts to safeguard cultural content in the digital transition. If adopted, such a measure would set a precedent in recognising the cultural and archival value of games—placing them alongside books, films, and music in terms of preservation and accessibility.
- **Industry Advocacy for Sector Recognition:** In recent years, industry stakeholders have become more organised and vocal in calling for EU-level recognition of the gaming sector's specific regulatory and financial needs. Industry manifestos for the 2024–2029 EU mandate emphasise the unique characteristics of game development, such as rapid iteration cycles, cross-platform distribution, and user-driven innovation. Key demands

include bespoke funding schemes, regulatory clarity on monetisation and AI integration, and stronger visibility in cultural policy initiatives. The sector's call for inclusion in industrial strategies—akin to those for audiovisual and creative industries—reflects its growing maturity and ambition to contribute to Europe's twin transitions.

However, despite this progress, significant policy gaps remain. While several EU initiatives already address specific issues relevant to the gaming ecosystem—such as platform accountability, data protection, and child safety—the sector continues to be governed indirectly through a patchwork of broader digital and audiovisual legislation. The absence of a comprehensive, game-specific strategy has led to gaps in coherence, visibility, and targeted support, particularly in areas of innovation, ethics, and accessibility.

### **Lack of Age-Appropriate Design Standards for Games**

While the Better Internet for Kids Plus (BIK+) Strategy sets out an ambitious vision to protect, empower, and respect children in the digital environment, its operationalisation in the gaming sector remains underdeveloped. Critically, BIK+ does not establish clear, enforceable, or game-specific design standards. Despite the inclusion of online games in the strategy's first pillar, which recognises the potential of age-appropriate digital experiences, there is currently no EU-level instrument offering practical guidance or mandatory compliance mechanisms tailored to the unique characteristics of interactive game design. Games frequently include advanced and dynamic features such as adaptive difficulty systems, real-time behavioural analytics, immersive multiplayer chat functionalities, in-game purchasing mechanisms, and elements derived from persuasive design. These features, while central to the gaming experience, can also create significant risks, particularly for younger users. Concerns have been raised around issues such as excessive engagement, exposure to inappropriate content, exploitation through dark patterns, and manipulation via nudging or profiling techniques—all of which are difficult to regulate in the absence of sector-specific standards.

The D2.8 deliverable from the i-Game project underscores this regulatory gap. It notes that while numerous legal frameworks touch upon child protection (e.g. GDPR, DSA, AVMSD), they are not purpose-built for gaming. The reliance on self-regulatory mechanisms—such as PEGI age-rating systems—while valuable, is not sufficient in the face of increasingly complex game mechanics and data-intensive personalisation. Moreover, existing frameworks such as the ICO's Age-Appropriate Design Code in the UK, although influential, are not directly transposed into EU law and have proven difficult to implement across different types of interactive media, including video games. Therefore, there is an urgent need for a harmonised EU-level Code of Conduct or Standard for Age-Appropriate Game Design, developed in close collaboration with stakeholders such as PEGI, UNICEF, and child rights organisations. Such a framework should move beyond static age-labelling and address developmental appropriateness, cognitive and emotional accessibility, consent mechanisms for children and parents, transparency in data practices,

and the avoidance of exploitative monetisation strategies.

To support this, inspiration can be drawn from the UNICEF RITEC framework, which outlines eight dimensions of digital play supportive of children's wellbeing—including autonomy, emotional security, and inclusive design. Similarly, the i-Game project's policy recommendations call for the development of "design for disengagement" strategies, which would counteract mechanics that unduly prolong engagement and disrupt family dynamics.

### **Fragmented AI and Intellectual Property Frameworks**

The increasing deployment of Artificial Intelligence (AI) technologies across the video game development pipeline—spanning from procedural world generation to dynamic narrative engines and adaptive non-player character (NPC) behaviour—presents a significant regulatory challenge. Existing legal frameworks on intellectual property (IP) are primarily predicated on human authorship and do not adequately account for the complexities introduced by algorithmic and machine-generated content. This legal uncertainty affects the protection, licensing, and commercial exploitation of AI-assisted or AI-generated creative assets.

Furthermore, although the EU Artificial Intelligence Act (AI Act) aims to establish a harmonised framework for trustworthy AI, the current legislative discourse has only marginally addressed the unique dynamics of AI in the creative and cultural sectors, including gaming. This oversight risks exacerbating regulatory fragmentation, as national interpretations and sector-specific adaptations may proliferate in the absence of targeted guidance.

There is, therefore, an urgent need for sector-specific legal and policy instruments that can accommodate the co-creative nature of AI in game design and development. These should include:

- Clarifications on authorship and ownership for works that result from human–AI collaboration, especially where AI operates autonomously or semi-autonomously.
- Model licensing schemes that define the rights and responsibilities of developers, players, and AI tool providers in relation to co-created assets.
- Ethical and governance standards that ensure the use of AI in game production respects core European values, including transparency, fairness, and the protection of fundamental rights.

These measures would not only address legal uncertainty but also foster a more inclusive and innovative ecosystem. By aligning AI regulation with the operational realities of game development, European policy can empower both large studios and independent creators, while safeguarding the rights of users as co-creators in participatory game environments.

Future i-Game deliverables (notably D3.6 on intellectual property and D4.8 on artificial intelligence) will further explore these intersections, contributing to a coherent and future-proof regulatory vision for the digital creative economy.

### **Insufficient Consumer Protection for In-Game Monetisation**

The proliferation of monetisation models in digital games—particularly those based on microtransactions, loot boxes, and other chance-based mechanics—raises significant concerns from a consumer protection perspective. While in-game purchases represent an

important revenue stream for developers and publishers, their design and deployment often lack adequate safeguards, especially for younger or vulnerable users.

Loot boxes and similar mechanics, which offer randomized rewards in exchange for real or in-game currency, blur the lines between entertainment and gambling-like practices. These mechanisms frequently operate with limited transparency regarding the probability of obtaining specific rewards and without meaningful limits on expenditure. Such practices can foster compulsive spending behaviours, erode user trust, and disproportionately impact children and adolescents, who may not have the cognitive maturity to grasp the financial implications of these features. Although several EU Member States—such as the Netherlands, Belgium, and more recently Spain—have initiated national-level regulatory actions, a harmonised EU-wide framework remains absent. The lack of coherence across jurisdictions contributes to legal uncertainty for developers and fragmented protection for consumers.

To address these gaps, a comprehensive consumer protection framework for in-game monetisation should encompass:

- Mandatory disclosure of probability rates for randomized purchases, ensuring transparency and informed decision-making.
- Robust age verification tools to prevent underage access to monetised game features.
- Spending caps and budget management tools, particularly for minors or accounts with linked parental controls.
- Granular consent mechanisms, including opt-in features for any payment-related functionality and clear withdrawal options.
- Plain-language interfaces that explain costs, risks, and terms of in-game purchases, aligned with the principles of fairness and accessibility.

These measures should be integrated and aligned with the broader body of EU consumer rights legislation, including the Unfair Commercial Practices Directive (UCPD) and the Digital Services Act (DSA). A unified and enforceable EU framework would not only strengthen consumer rights but also support industry innovation within clearly defined ethical boundaries. As i-Game seeks to promote a responsible and inclusive approach to game development, these consumer protection imperatives are central to the ethical design principles that will underpin the co-creation platform.

### **Low Integration into Cultural and Educational Policy Agendas**

Despite their growing relevance as instruments of cultural expression, historical memory, and participatory learning, video games remain peripheral in most national and EU-level cultural and educational strategies. As interactive and narrative-driven artefacts, games possess a unique capacity to convey complex societal themes, promote critical engagement, and bridge intergenerational and intercultural divides. Nevertheless, their potential remains underleveraged in the mainstream policy frameworks governing culture, education, and digital transformation.

Major EU flagship initiatives—such as the New European Bauhaus, the European Education Area, or the Digital Education Action Plan—rarely position video games as core tools for educational innovation or cultural mediation. Where mentioned, references to games are often limited to gamification or serious games, with little recognition of the broader ecosystem of artistic, narrative, and design practices embedded in game development. This oversight stands in stark contrast with the demonstrable impact of games in fostering digital skills, creativity, media literacy, and civic participation.

Moreover, cultural funding instruments under Creative Europe and Horizon Europe have only sporadically supported video game initiatives, often favouring traditional audiovisual formats. As a result, there is a disconnect between the dynamism of the European gaming sector and the policy mechanisms meant to support cultural and creative innovation.

To fully realise the social and cultural value of video games, a more strategic and integrated approach is required. This should include:

- Explicit recognition of video games as cultural artefacts within EU and national cultural policy frameworks.
- Inclusion of game design and game-based learning methodologies in formal and informal education settings, supported by updated teacher training and curriculum development.
- Integration of games into digital literacy and media education policies, particularly targeting youth engagement and critical digital citizenship.
- Dedicated calls for game-based cultural innovation in Creative Europe, Erasmus+, and Horizon Europe, fostering interdisciplinary partnerships among developers, educators, researchers, and cultural institutions.

Such efforts would position video games not only as entertainment products but as vehicles for public value, artistic exploration, and inclusive societal engagement. For i-Game, this agenda is central: the project exemplifies how game co-creation can contribute to community empowerment, civic dialogue, and the valorisation of cultural heritage, especially through inclusive and participatory digital practices.

### 3 EXPECTED KEY FINDINGS & IMPACT EVIDENCE FOR FUTURE POLICY

The preliminary desk research and legal mapping undertaken during the early phases of the i-Game project have laid a solid foundation for understanding the structural, regulatory, and societal dynamics influencing the European video game ecosystem. These early insights have revealed **both the transformative potential of games as tools for cultural, educational, and technological innovation, and the persistent gaps in policy coherence, sectoral integration, and ethical guidance**. In the next stages of the project, this analysis will be substantiated and extended through a multi-method impact assessment, which will include stakeholder consultations, co-creation outputs, and empirical observations from pilot initiatives.

The impact assessment will adopt a multidimensional perspective aligned with the i-Game impact framework, focusing on six interrelated outcome areas: knowledge exchange, network development, social relationships, capacity building, inclusiveness, and technological innovation. Below is an overview of the anticipated findings, with specific attention to their implications for the museum and fashion/textile sectors.

#### Knowledge Exchange

i-Game is positioned to demonstrate the potential of video games as critical interfaces for cross-sectoral knowledge production, translation, and circulation. Games are not only tools for entertainment but are increasingly recognised as multimodal environments capable of embedding, disseminating, and co-creating knowledge across diverse sectors and user groups. Within the museum sector, digital games have been shown to support interactive storytelling, enhance visitor engagement, and promote inclusivity by enabling access to heritage in both physical and virtual spaces. They are particularly effective in overcoming cognitive and emotional access barriers, fostering empathetic engagement with historical narratives and cultural artefacts. In parallel, the fashion and textile industries are beginning to exploit the affordances of virtual game environments to explore new forms of sustainable design, digital prototyping, and interactive consumer engagement. These environments allow for scenario testing and rapid iteration, contributing to circular economy objectives and digital innovation strategies.

The i-Game project catalyses these developments by fostering collaboration between game developers, curators, educators, and designers. It facilitates knowledge exchange through co-creation methodologies, workshops, and the platform that operationalises legal and ethical design principles from the outset. The project's evaluation will assess **the extent to which these cross-sectoral collaborations have enabled new forms of knowledge production**, especially around complex themes such as cultural inclusion, digital rights, and sustainable innovation. Moreover, the impact assessment will explore whether participants report increased understanding and application of ethical, legal, and cultural considerations in the design and deployment of game-based interventions. This includes familiarity with frameworks such as the Fundamental Rights Impact Assessment (HRIA), children's rights in digital environments, and responsible innovation principles (e.g. the RITEC-8 framework).

Evidence from the project **may inform the structuring of future EU-supported transdisciplinary research programmes that embed game-based methodologies as legitimate tools for innovation and inclusion**. It also offers insights for integrating games into

cultural diplomacy agendas, where they can serve as vehicles for intercultural dialogue, reconciliation, and memory work, particularly in the context of transitional justice. Furthermore, the findings can support the expansion of digital cultural heritage funding streams by demonstrating the effectiveness of games in engaging diverse audiences and producing meaningful socio-cultural impacts.

## Network Development

i-Game seeks to catalyse the formation of durable, cross-sectoral networks that foster long-term collaboration beyond the project's formal duration. These networks are conceived not only as operational partnerships but as dynamic ecosystems for innovation, mutual learning, and sustainable cultural production. By bringing together actors from cultural institutions (museums, design centres), small and medium-sized game studios, legal scholars, accessibility experts, civil society organisations, professionals from the creative sector, freelance fashion designers and micro and small textile business, i-Game establishes a transdisciplinary space for knowledge integration and collective experimentation.

The project's impact assessment will monitor the emergence and evolution of these networks through both quantitative and qualitative indicators. This includes mapping new collaborations, analysing co-authorship, co-ownership and co-design in game prototypes and toolkits, and capturing narratives of joint problem-solving in areas such as ethical game design, interpretation of EU regulatory frameworks, and inclusive innovation practices. Particular attention will be paid to how these interactions are operationalised within the i-Game community and co-creation platform, and how they evolve into shared governance structures or institutional strategies.

Within the museum and fashion/textile domains, the project supports innovative forms of collaboration such as game-jam residencies, co-curated digital exhibitions, and interactive storytelling platforms. These initiatives serve both as vehicles for audience engagement and as mechanisms for institutional transformation. Their success will be evaluated not solely on outputs, but on their capacity to create enduring infrastructures for dialogue and joint action, particularly around issues of accessibility, diversity, and digital cultural expression.

Moreover, the project contributes to the consolidation of what may be termed *cultural-creative clusters*, whereby creative practice, technological development, and legal/ethical insight converge within territorially and thematically bounded networks. These clusters are expected to enhance regional innovation capacity, support skills development across disciplines, and embed responsible design cultures within cultural and creative ecosystems.

Outcomes from i-Game's network development efforts will provide empirical grounding for policy recommendations aimed at reinforcing the EU's support for transdisciplinary cultural-creative ecosystems. In particular, the project will advocate for:

- **Expanded eligibility of co-creation activities** under Horizon Europe and Creative Europe, recognising game-based collaboration as a valid research and innovation methodology.



- **Formal recognition of museums, archives, and other cultural institutions** as full actors within European innovation frameworks, capable of contributing to digital transformation, social inclusion, and sustainability.
- **Support for cultural-creative clusters** at the regional and European levels, including measures for infrastructure, mobility, and shared governance that sustain collaborations beyond project cycles.

The i-Game experience will offer a scalable model for how networks rooted in co-creation and cultural engagement can drive inclusive innovation and contribute to the EU's digital, social, and cultural agendas.

### **Social Relationships and Community Engagement**

i-Game positions games not solely as cultural artefacts but as *social infrastructures*—digitally mediated environments that enable interaction, identity expression, and community formation. Through participatory and inclusive design processes, the project seeks to cultivate digital spaces that respect users' rights, amplify diverse voices, and foster a sense of collective ownership. These ambitions are operationalised via co-creation methodologies that bring together stakeholders from across demographic, cultural, and disciplinary spectra.

In the museum sector, this commitment translates into a reconfiguration of the visitor experience—from passive reception to active co-creation. Games and interactive media enable visitors not only to consume heritage content, but to reinterpret, remix, and co-author it. Initiatives such as collaborative storytelling platforms or on-site digital game creation workshops can foster new modes of engagement that are participatory, intergenerational, and identity-affirming.

In the fashion and textile sectors, similar dynamics are emerging around participatory design. By integrating player feedback and lived experience into virtual garment prototyping or avatar-based identity exploration, game environments can serve as spaces where users' values, cultural affiliations, and aesthetic preferences are not only acknowledged but incorporated into design decisions. This enables a shift from consumer passivity to cultural agency, aligning with broader movements in inclusive and ethical innovation.

The evidence generated by i-Game in this domain will support strategic policy developments at the intersection of culture, digital rights, and social cohesion. In particular, the project aims to inform:

- **The integration of participatory game design** within youth, cultural, and civic engagement strategies, recognising its capacity to foster empathy, dialogue, and democratic participation.
- **The development of EU-level standards and guidelines** for safe and inclusive virtual environments, contributing to ongoing regulatory frameworks (e.g. Digital Services Act implementation, AI ethics guidelines, children's rights in the digital age).
- **Support mechanisms for community-led digital content creation**, particularly within marginalised or underrepresented groups, as part of broader cultural inclusion and



innovation agendas.

In multi-stakeholder environments—such as those fostered by the i-Game platform—shared authorship and collaborative creation raise **complex challenges regarding rights attribution, licensing, and exploitation**. Future policy recommendations will need to address these aspects explicitly, with a view to promoting fair, transparent, and sustainable co-ownership models, particularly for smaller actors, public institutions, and citizen participants engaged in collaborative game development. By reframing games as community-oriented infrastructures, i-Game proposes a model where digital culture is not merely consumed, but collectively shaped—anchoring social cohesion in shared creativity, representation, and mutual respect.

### Learning and Capacity Building

One of the key findings emerging from the i-Game desk research phase is the widespread **need for enhanced capacity across the European game development ecosystem to effectively navigate the increasingly complex regulatory and ethical landscape**. This is particularly pronounced among SMEs, independent game developers, and cultural institutions engaging with game-based media for the first time. Many such actors operate without dedicated legal expertise or structured mechanisms for ethical foresight, leaving them vulnerable to compliance risks and reputational challenges. The assessment will evaluate the uptake, usability, and institutional impact of the learning materials developed through i-Game. Special attention will be paid to their role in capacity building within smaller museums, design centres, and grassroots innovation hubs, where such resources may substitute for in-house legal or policy teams.

The outcomes in this domain will provide a robust basis for EU-level policy actions that aim to equip cultural and creative actors with the tools needed for responsible innovation. Specifically, i-Game’s results may contribute to:

- **The design of European training schemes and digital literacy initiatives** targeting the cultural and creative sectors, in line with the Digital Europe Programme and New European Bauhaus goals.
- **Support materials for digital cultural operators**, especially those engaging with emerging technologies like AI, VR, or blockchain in heritage or artistic contexts.
- **EU-level guidelines for embedding legal and ethical foresight** into creative R&D processes, with a view to enhancing compliance readiness, reducing design risks, and promoting innovation aligned with European values.

By investing in targeted capacity building, i-Game fosters a more resilient and ethically aware innovation ecosystem—where creators are empowered not only to comply with existing regulations but to shape the cultural futures of digital Europe.

### Social Inclusiveness

i-Game directly addresses structural inequalities within the gaming and cultural innovation

ecosystems by embedding social inclusion as a foundational principle of its methodology. Rather than treating inclusiveness as an outcome, the project operationalises it as a *design logic*, shaping how games are conceived, developed, and deployed. The project promotes inclusivity along multiple vectors—socioeconomic background, gender identity, ethnicity, age, and (dis)ability—**recognising that digital culture can both reproduce and remediate exclusion**. Within the i-Game platform, inclusive design frameworks such as RITEC-8 and Human Rights Impact Assessment (HRIA) are deployed to foreground accessibility, participation, and fairness from the earliest stages of ideation and prototyping.

In the museum sector, i-Game contributes to the diversification of curatorial practices and cultural narratives. This includes expanding whose stories are told, how they are told, and who is involved in the process of telling them. Through co-created game-based experiences, museums are supported in moving beyond traditional audience categories and engaging with communities historically underrepresented in heritage discourse.

In the fashion and textile sector, the project creates space for new forms of ethical storytelling and cultural representation. Game-based interfaces allow users to explore identity, memory, and aesthetics in ways that challenge extractive or stereotypical approaches to cultural production. Practices such as participatory avatar design, virtual try-ons reflecting diverse body types, and narrative-driven design justice projects are anticipated to emerge as innovative outcomes.

The i-Game project offers a valuable testbed for future EU policies aiming to mainstream inclusion and accessibility in digital culture and innovation. In particular, the following contributions are anticipated:

- **Development of inclusion and accessibility indicators** for the evaluation of EU-funded cultural and creative projects, reinforcing alignment with the European Pillar of Social Rights and the EU Disability Strategy 2021–2030.
- **Incentivisation of inclusive content creation** through funding schemes and procurement standards that reward participatory and justice-oriented design approaches.
- **Adoption of universal design standards** across digital cultural initiatives, ensuring that accessibility is not a retrofit but a core design principle from inception.

By treating inclusiveness as a systemic condition rather than an individual accommodation, i-Game positions itself at the forefront of a transition toward a more just, diverse, and representative European digital culture.

## Technological Innovation

Through its integrated legal mapping and design experimentation activities, the project tackles key regulatory uncertainties that currently limit responsible innovation in the European gaming sector. These include challenges related to generative AI, user-generated content moderation, platform governance, intellectual property rights, and algorithmic

decision-making. Rather than treating regulation as a constraint, i-Game approaches legal and ethical frameworks as **enablers of trustworthy, rights-based innovation**.

The impact assessment will evaluate the project's contribution to creating and disseminating *responsible innovation models*—frameworks that promote transparency, accountability, and inclusion in the design and deployment of interactive digital experiences. Pilot implementations in the museum and fashion/textile domains will serve as demonstrators for how cutting-edge technologies can be leveraged in transparent and socially responsive ways.

The empirical and practice-based findings from i-Game will contribute to shaping the regulatory landscape around digital creativity and technological innovation in Europe. Specific policy implications include:

- **Evidence to inform refinements to the EU AI Act**, particularly regarding cultural and creative applications of generative AI, and the protection of human agency, transparency, and non-discrimination.
- **Inputs for future discussions on EU intellectual property reform**, including provisions for fair attribution, remix culture, and rights in co-created co-owned and co-designed products and services or AI-enhanced content.
- **Creation of targeted guidance materials** to support creative actors (e.g. museums, studios, cultural labs) in implementing AI and immersive technologies in compliance with EU law and fundamental rights principles.

## 4 NEXT STEPS

The development of the final policy recommendations within the i-Game project will follow an iterative, evidence-based, and multi-stakeholder approach, building on the foundations laid by the current deliverable. The next steps will focus on three interconnected strands: **validation through pilot activities, consolidation through cross-sectoral analysis, and dissemination to relevant policy arenas** at both EU and Member State levels.

A critical source of evidence for the refinement of policy recommendations will be the **outcomes and lessons learned from the project's pilot cases**. The pilots will operationalise the co-creation platform and demonstrate its capacity to generate high-impact games across diverse thematic and institutional contexts—particularly in the fields of cultural heritage, education, and fashion and textiles.

In parallel, these pilot experiences will feed into a full impact assessment to be conducted in the final phase of the project. This assessment will incorporate feedback from users and stakeholders, lessons learned on inclusion, accessibility, co-ownership, and digital rights, and a reflective analysis of how ethical and legal principles are applied in practice. It will also explore the broader contribution of games to economic growth, social cohesion, and wellbeing—including their potential to strengthen community ties, support digital and creative skills, and enhance cultural participation. These insights will be instrumental in shaping realistic and future-oriented policy measures.

The final policy deliverable (D2.7), to be completed at a later project stage, will thus present a consolidated, empirically grounded, and practically oriented set of policy proposals. These will reflect the lessons learned from implementation, respond to identified policy gaps, and provide actionable guidance for promoting a vibrant, fair, and future-ready European video game ecosystem.

Dissemination of the final policy recommendations will be pursued through multiple channels, in line with the strategy articulated in WP6. This will include:

- Targeted policy engagement: Bilateral meetings with relevant units of the European Commission, Members of the European Parliament, national cultural and digital agencies, and regulatory bodies (as specifically foreseen for KEPA and Open Impact).
- Cross-sectoral dialogues: Roundtables and working group sessions with representatives from the cultural, educational, technological, and creative industries to ensure that the policy proposals are both informed by and relevant to adjacent sectors.
- Public-facing materials: A formal policy brief summarising key recommendations will be produced in accessible language and visual formats, complemented by stakeholder toolkits and explainer materials designed for developers, institutions, and policy implementers.

By anchoring recommendations in practice, fostering dialogue across sectors, and prioritising inclusiveness and ethical design, the final policy package will support the emergence of a resilient, participatory, and culturally embedded gaming ecosystem—one that reflects Europe's values and responds to its digital and social ambitions.

## 5 CONCLUSIONS

The initial findings of the i-Game project underscore the urgency of rethinking how video games are understood and governed within the European policy landscape. The sector's rapid growth, cultural reach, and social relevance position it as a strategic domain for the European Union, yet current regulatory and support structures are not sufficiently adapted to its specificities.

A key insight emerging is the need to move beyond narrow understandings of games as consumer products and instead approach them as hybrid cultural-technological artefacts with wide-ranging implications for innovation, inclusion, education, and societal wellbeing. The potential of games to foster informal learning, cultural participation, and digital creativity is increasingly evident in the practices of museums, schools, and civil society organisations across Europe. However, these practices often remain peripheral to mainstream policy debates and are not adequately reflected in funding mechanisms or regulatory guidance.

The societal value of gaming is further demonstrated by its role in community-building and public engagement. Online game spaces—especially those designed with inclusive and participatory principles—can help build social capital, encourage intercultural dialogue, and support the expression of diverse identities. Games are also proving to be effective tools for addressing complex themes such as sustainability, migration, and digital rights, offering interactive formats for reflection and critical engagement. Realising this potential, however, requires targeted support for developers, particularly those working at the intersection of culture, education, and technology, as well as clearer policy frameworks that promote safety, accessibility, and ethical design.

In this context, the project recognises the importance of generating robust evidence on the broader economic, social, and cultural impacts of inclusive game development. The forthcoming pilot activities and the final impact assessment will be crucial in capturing how games contribute to economic growth—by enabling SME innovation and cross-sector value creation—as well as to social cohesion and wellbeing, through practices of co-creation, digital inclusion, and cultural engagement.

The conclusions drawn in this document point to the need for a more coherent and coordinated European strategy for the governance and support of the games sector. This includes improving regulatory clarity, strengthening cross-sectoral collaboration, and embedding gaming more deeply into cultural, digital, and educational policy agendas. The i-Game project will continue to build on these findings through participatory processes, contributing evidence-based and context-sensitive recommendations that reflect the diverse realities of game development and use in Europe. The next phase of work will involve further engagement with stakeholders and policymakers to ensure that the emerging policy proposals are both realistic and actionable.

## 6 REFERENCES

- Belfiore, E. (2006). The social impacts of the arts—myth or reality? *Cultural Trends*, 15(2–3), 41–56. <https://wrap.warwick.ac.uk/51721/>
- Belfiore, E., & Bennett, O. (2008). *The Social Impact of the Arts: An Intellectual History*. Palgrave Macmillan. <https://doi.org/10.1057/9780230227774>
- Blitz, M. J. (2021). The right to an artificial reality? Freedom of thought and the fiction of Philip K. Dick. *Michigan Technology Law Review*, 27(2), 377–432. <https://doi.org/10.36645/mtlr.27.2.right>
- Brignull, H. (2023). *Deceptive Patterns: Exposing the Tricks Tech Companies Use to Control You*. Testimonium Ltd.
- Connolly, T. M., Boyle, E. A., MacArthur, E., Hailey, T., & Boyle, J. M. (2012). A systematic literature review of empirical evidence on computer games and serious games. *Computers & Education*, 59(2), 661–686. <https://doi.org/10.1016/j.compedu.2012.03.004>
- Crossick, G., & Kaszynska, P. (2016). *Understanding the Value of Arts & Culture: The AHRC Cultural Value Project*. Arts & Humanities Research Council.
- Daykin, N., et al. (2018). *What works for wellbeing: A systematic review of wellbeing outcomes for music and singing in adults*. *Perspectives in Public Health*, 138(1), 39–46. <https://doi.org/10.1177/1757913917740391>
- Diculther. (n.d.). *Digital Culture and Heritage Journal*. <https://www.diculther.it/rivista/>
- Directive (EU) 2019/790. (2019). Copyright in the Digital Single Market (CDSM Directive). *Official Journal of the European Union*. <https://eur-lex.europa.eu/eli/dir/2019/790/oj>
- Directive 2005/29/EC. (2005). Unfair Commercial Practices Directive (UCPD). *Official Journal of the European Union*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32005L0029>
- Directive 2010/13/EU. (2010). Audiovisual Media Services Directive (AVMSD). *Official Journal of the European Union*. <https://eur-lex.europa.eu/eli/dir/2010/13/oj>
- Ducheneaut, N., et al. (2007). *The life and death of online gaming communities*. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 839–848). <https://doi.org/10.1145/1240624.1240750>
- European Commission. (2016). *General Data Protection Regulation (EU) 2016/679 (GDPR)*. <https://eur-lex.europa.eu/eli/reg/2016/679/oj>
- European Commission. (2020). *Digital Services Act – COM/2020/825 final*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2020:825:FIN>
- European Commission. (2021). *Proposal for a Regulation on Artificial Intelligence – COM/2021/206 final*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0206>



European Commission. (2022). *Better Internet for Kids (BIK+) Strategy*. <https://digital-strategy.ec.europa.eu/en/policies/better-internet-kids>

European Commission. (2023). *Web 4.0 and Virtual Worlds Strategy – COM/2023/442 final*. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52023DC0442>

European Parliament. (2020). *Loot Boxes in Online Games and Their Effect on Consumers*. [https://www.europarl.europa.eu/thinktank/en/document/EPRS\\_STU\(2020\)652727](https://www.europarl.europa.eu/thinktank/en/document/EPRS_STU(2020)652727)

European Parliament. (2022). *Resolution on Esports and Video Games (2022/2027(INI))*. [https://www.europarl.europa.eu/doceo/document/TA-9-2022-0300\\_EN.html](https://www.europarl.europa.eu/doceo/document/TA-9-2022-0300_EN.html)

ISFE. (2022). *Video Games Industry Key Facts*. <https://www.isfe.eu/wp-content/uploads/2022/10/ISFE-Key-Facts-2022.pdf>

List, R. A., Kononykhina, O., & Cohen, J. L. (2017). *Cultural Participation and Inclusive Societies: A Thematic Report Based on the Indicator Framework on Culture and Democracy*. Council of Europe. <https://edoc.coe.int/en/culture-and-democracy/7285-cultural-participation-and-inclusive-societies-a-thematic-report-based-on-the-indicator-framework-on-culture-and-democracy.html>

Mortara, M., et al. (2014). *Learning cultural heritage by serious games*. *Journal of Cultural Heritage*, 15(3), 318–325. <https://doi.org/10.1016/j.culher.2013.04.004>

Navarrete, C., & Cortez, C. (2024). *Games for Transitional Justice: A Framework for Empathy-Driven Design Inspired by Memory Studies*. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems (CHI '24)* (Paper No. 719, pp. 1–14). Association for Computing Machinery. <https://doi.org/10.1145/3651279>

New York University Stern Center for Business and Human Rights. (2022). *Gaming and Regulation – Policy Briefings*. <https://bhr.stern.nyu.edu/blogs/gaming-and-regulation>

Newzoo. (2024). *Global Games Market Report*. <https://resources.newzoo.com/hubfs/Free%20Reports/Games%20Market%20Report%20and%20Forecasts/2024%20Newzoo%20Free%20Global%20Games%20Market%20Report.pdf>

Peng, W., Lee, M., & Heeter, C. (2010). *The effects of a serious game on role-taking and willingness to help*. *Journal of Communication*, 60(4), 723–742. <https://doi.org/10.1111/j.1460-2466.2010.01511.x>

Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.

RivisteWeb. Articles on digital storytelling, museum games, and accessibility: <https://www.rivisteweb.it/>

Rovio. (2023). *Playbook for Inclusive Game Development and Marketing*. <https://www.rovio.com/wp-content/uploads/2023/11/Playbook-for-Inclusive-Game-Development-and-Marketing-2023.pdf>





Ruggiero, D. (2015). The effect of a persuasive social impact game on affective learning and attitude. *Computers in Human Behavior*, 45, 213–221. <https://doi.org/10.1016/j.chb.2014.11.062>

Smith, G., et al. (2011). Designing for Participatory Cultures in Museums. *Museum Management and Curatorship*, 26(4), 345–360. <https://doi.org/10.1080/09647775.2011.603932>

Smith, G., Parry, S., & Smith, R. (2011). Designing for participatory cultures in museums. *Museum Management and Curatorship*, 26(4), 345–360.

Steinkuehler, C., & Williams, D. (2006). *Where everybody knows your (screen) name: Online games as “third places”*. *Journal of Computer-Mediated Communication*.

Thriving in Games Group. (2023). *Cross-industry collaboration for trust and safety in gaming and beyond*. Digital Thriving Playbook. <https://digitalthrivingplaybook.org/guide/cross-industry-collaboration-for-trust-and-safety-in-gaming-and-beyond/>

UNESCO. (2024). *The Gender Equality Quest in Video Games: Exploring Representation and Creating Change*. UNESCO. <https://doi.org/10.54678/VLAG4964>

UNESCO. (2021). *Re/Shaping Policies for Creativity*.

UNICEF. (2024). *RITEC Design Toolbox: Designing for children’s well-being in digital play*. UNICEF Child Rights and Business. <https://www.unicef.org/childrightsandbusiness/workstreams/responsible-technology/online-gaming/ritec-design-toolbox>

United Nations. (2015). *Sustainable Development Goals (SDGs)*.

Wired. (2023). *Video Games Developers Struggle to Build Safe Spaces*.