

ARTICLE

Peñíscola: From beach to film set—film tourism, sustainability, and cultural affinity in the Mediterranean

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Abstract

The growing influence of audiovisual media on destination image has positioned film-induced tourism as a strategic tool for the diversification and cultural repositioning of coastal destinations. This article examines the evolution of film-induced tourism in Peñíscola (Valencian Community, Spain) as a key element in the transition from mass tourism models toward hybrid and culturally sustainable configurations. Through a qualitative case study, it explores the interaction between cultural identity, tourism governance, and technology in the destination's transformation process. The research combined documentary analysis, empirical indicators, and interpretive methods to assess the integration of audiovisual heritage into tourism planning and its alignment with the Sustainable Development Goals. Findings revealed significant progress in digital innovation, product diversification, and community participation, alongside persistent challenges related to data interoperability, unequal benefit distribution, and institutional fragility. Moving beyond overly optimistic narratives of screen tourism, the study adopted a critical stance on its cultural sustainability, identifying risks of fictionalization and dependence on external imagery. Peñíscola thus emerges not as a fixed model but as an experimental site of creative governance, whose practices contribute to understanding the complex interrelations between art, territory, and sustainability in Mediterranean cultural destinations.

Keywords: Film-induced tourism; Peñíscola; Cultural identity; Cultural affinity; Sustainability; Screen tourism; Audiovisual heritage; Smart tourism destinations

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1. Introduction

Tourism has served as Spain's fundamental economic pillar since the mid-20th century, particularly in the Valencian Community, where it has driven profound transformations in territorial landscapes, urban morphologies, and socio-productive structures.¹⁻⁴ The specialization in "sun-and-beach" tourism, dominant from the 1960s onward, generated sustained economic growth but exposed destinations to persistent structural vulnerabilities: marked seasonality, environmental degradation, dependence on price-sensitive markets, and the commodification of coastal areas.^{3,5-7} These limitations prompted, at the end of the 20th century, a strategic shift toward diversification, positioning cultural and creative tourism as a key avenue for revitalization.^{4,5,8,9} Contemporary tourism increasingly emphasizes hybrid and participatory experiences

that offer authenticity and symbolic value, appealing to more critical and culturally engaged audiences.⁸ The new tourist profile prioritizes intangible cultural heritage, significant connections with local traditions, and co-creation of experiences over passive consumption.^{10,11} Within this context, new tourism modalities emerge that merge leisure, learning, and audiovisual mediation.

Three analytical notions underpin the present study:

- (i) Film-induced tourism: Understood in a broad sense that encompasses cinema, television, and streaming productions. This usage aligns with what is often referred to as screen tourism, meaning travel motivated by audiovisual representations of places that generate imaginaries stimulating the desire to visit destinations.¹² Beeton¹¹ conceptualized film-induced tourism as a dynamic phenomenon that extends from spontaneous visitor flows to strategically managed cinematic tourism products, highlighting both its economic and cultural implications. Tooke and Baker¹³ provided early empirical evidence that screen productions can significantly affect visitor numbers at filmed locations.
- (ii) Cultural affinity: Defined as the empathic link between audiences and mediated places, which fosters curiosity toward local culture, including gastronomy and language.¹⁴
- (iii) Smart destinations: Characterized by digital and data-driven systems that support sustainable, accessible, and evidence-based management.¹⁵ In this article, smart is understood not only as the deployment of technological infrastructure but also as a model of data-enabled governance that integrates data capture, interoperability, analytics, and decision-making into destination management.^{16,17} This approach links real-time monitoring with strategic planning and collaborative governance, facilitating more adaptive and evidence-based responses to sustainability and visitor management challenges.

Film-induced tourism has consolidated as a global phenomenon of growing relevance in the Mediterranean region. Empirical evidence confirms its capacity to reshape destination images, generate emotional bonds, and project symbolic representations onto international audiences.^{12,18} Within the analytical frame proposed by Riley *et al.*¹⁹, film exposure operates as both a catalyst for visitor flows and a symbolic resource that reconfigures the perceived authenticity of places. Macionis²⁰ expanded this understanding by emphasizing both the visitor's performative dimension and how tourists reenact cinematic narratives to negotiate identity and emotional connection. In the Spanish context, Mestre *et al.*²¹ highlighted film

tourism as a cultural interface linking heritage preservation with audiovisual representation, thereby contributing to the reimagination of national and regional destinations. Consequently, the phenomenon's impact transcends visitor numbers: it transforms cultural perception, reinforces the sense of place, and enhances the visibility of local cultures in global circuits.²²

Audiovisual content thus functions as a cultural mediator. Media exposure fosters cultural affinity and nurtures both cognitive and emotional recognition of alterity, strengthening interest in local gastronomy, language, and customs.²³ This process encourages sustainable tourist flows and community resilience while sustaining authentic and adaptive local identities.^{14,23,24} Following Hall's theoretical perspective, contemporary cultural identity is fluid and relational, defined through a dialogic interplay between local narratives and global mediations. In tourist destinations, this interplay generates hybrid identities that are at once authentic and staged, anchored in history yet open to external interpretation. Peñíscola exemplifies this dynamic by merging historical authenticity with cinematic projection, producing a mediated identity recognized both locally and internationally.²⁵ Recent discussions on cultural sustainability argue that tourism models must transcend strictly environmental approaches to incorporate symbolic, social, and heritage dimensions.^{26,27} Sustainability is thus conceived as a systemic balance integrating ecological preservation, social cohesion, economic equity, and cultural continuity. Analyses of audiovisual tourism routes in Spain highlight institutional disparities and governance challenges, evidencing the need for collaborative frameworks and coherent intersectoral coordination.²⁸ Technological innovation adds a new analytical layer. Smart tourism destinations integrate sustainable tourism indicators within the smart city/destination approach, enabling real-time monitoring, dynamic regulation of carrying capacity, and data-driven governance that links sustainability, accessibility, and visitor experience across strategic-relational, instrumental, and applied levels.²⁹ These systems measure performance across nine key dimensions, including connectivity, online marketing, and accessibility, revealing disparities where technological infrastructure often outpaces sustainability initiatives, as evidenced by Peñíscola's *Destino Turístico Inteligente* (DTI; Smart Tourist Destination) Level 3 certification.²⁹⁻³¹

The article proceeds as follows: Section 2 describes the methodology; Section 3 outlines Peñíscola as a multidimensional tourism product; Section 4 analyzes its century-long trajectory as a film location and examines the *Peñíscola de Película* immersive experience; Section

5 explores sustainable governance frameworks; Section 6 presents a comparative and transferability analysis; and Section 7 draws conclusions on the interrelation between cultural tourism, digital innovation, and sustainability. Together, these sections address a relatively underexplored field: the nexus between film-induced tourism, cultural identity, and smart governance in Mediterranean destinations, providing both empirical evidence and critical reflection on how such models negotiate the balance between economic development, sustainability, and cultural authenticity.

2. Methodological framework and theoretical basis

This study adopted a qualitative case study of Peñíscola, a representative site of the transition from mass tourism to hybrid and sustainable cultural experiences. The research applied an interpretive-documentary strategy, integrating the following components:

- (i) Primary sources: Institutional documents (DTI Plan 2024–2026, Biosphere reports, *Sistema de Inteligencia Turística* [SIT; Tourism Intelligence System] statistics for Peñíscola), official portals (peniscola.org, Sociedad Estatal para la Gestión de la Innovación y las Tecnologías Turísticas [SEGITTUR; State Company for the Management of Innovation and Tourism Technologies], and promotional materials (*Feria Internacional de Turismo* [FITUR; International Tourism Trade Fair] Screen 2025).
- (ii) Secondary sources: Academic literature on film tourism,^{12,18} cultural and territorial sustainability,^{14,17} and smart-tourism intelligence systems.^{15,32}

The study articulates three analytical axes:

- (i) Hybrid cultural identity: Examine the dialectic between local narratives and mediated representations.²⁴
- (ii) Multidimensional sustainability: Evaluate environmental, cultural, social, economic, and institutional impacts in relation to the Sustainable Development Goals (SDGs).
- (iii) Experiential progression: Explore the shift from passive viewing of film locations to active, co-creative experiences.^{33,34}

Each argument is contrasted against quantitative indicators (spending, satisfaction, and DTI metrics) and qualitative evidence (fiction–reality tensions and community perceptions), balancing achievements with ongoing constraints.^{33,34} Methodological limitations are acknowledged: the absence of field interviews and the single-case design reduce generalizability while deepening interpretive insight.³⁵

3. Peñíscola as a multidimensional tourist product

Peñíscola, located on the northern coast of the Valencian Community, lies on a tombolo-shaped peninsula, a rare geological formation where marine sediments connect an ancient island to the mainland.¹ This distinctive topography, combined with a mild Mediterranean microclimate, freshwater resources, and a naturally defensive position, has favored continuous human settlement since antiquity and underpins the cultural value of the site. However, those same geographical conditions also shaped an initially unregulated pattern of tourism growth typical of mature coastal destinations in the second half of the 20th century.

Over the centuries, Iberian, Roman, Muslim, and Christian cultures left tangible traces in the town's layout, architecture, and traditions.¹ The Castle of Pope Luna, built by the Knights Templar between the 13th and 14th centuries and later inhabited by Benedict XIII, remains the destination's most iconic heritage landmark.⁵ As one of only three papal residencies established outside Rome and Avignon during the Western Schism, it represents a valuable cultural asset and a narrative cornerstone for heritage tourism and educational programming. Nonetheless, management of the site reveals tensions between preservation and commercial use: the 342,556 visitors recorded in 2024 generated € 1.2 million in revenue but required urgent structural reinforcement, illustrating the risk of over-commodification despite its symbolic potential.³⁶ The medieval old town retains a remarkably well-preserved urban fabric of cobbled lanes, defensive walls, and whitewashed Mediterranean houses with panoramic sea views, creating an immersive environment evocative of earlier centuries.¹ Local festivals such as *Moros y Cristianos*, *Cavallets*, and *Llauradors* reactivate this living heritage and reinforce social authenticity within contemporary contexts. Yet, summer congestion regularly reaches 85% of total capacity, and resident satisfaction during peak season averages 7.8 out of 10, reflecting pressure typical of highly visited heritage sites.³⁷ Natural surroundings enhance both attractiveness and sustainability credentials. The Serra d'Irta Natural Park, protecting 15 km of coastal habitat with Mediterranean scrublands, endemic flora, archaeological sites, and secluded coves, supports low-impact nature tourism.¹ Coastal wetlands host migratory birds and perform key ecological functions as buffers against urbanization. However, rising trail erosion and a 42% exceedance of recommended visitor capacity reveal weaknesses in managing recreational pressure.³⁵ Institutional recognition further strengthens Peñíscola's positioning as a quality destination. Since 2000, it has

held the status of Tourist Municipality, ensuring access to funding and technical assistance, and maintains *Sistema Integral de Calidad Turística en Destinos* (SICTEC; Integral System for Tourism Quality in Destinations) and *Sistema de Inteligencia y Desarrollo Tecnológico Turístico* (SIDTED; Tourism Technology and Intelligence Development System) certifications covering 62 % of local businesses.^{5,37} The Biosphere Certification, obtained in 2024 as the first Valencian destination accredited by the Responsible Tourism Institute (RTI),³¹ demonstrates alignment with the SDGs through participatory governance frameworks and strategic planning.

Peñíscola's tourism trajectory can be divided into three phases:

- (i) Expansion of mass tourism (1960–1980) centered on North Beach, generating economic growth alongside environmental strain;
- (ii) Diversification since the 1990s toward cultural, family, gastronomic, and off-season segments;
- (iii) The current stage, in which the destination operates as a multidimensional tourism product combining historical heritage, natural resources, innovation, and audiovisual culture.¹

Within this framework, film-induced tourism has emerged as a strategic axis of international visibility. With more than a century of film production, Peñíscola actively participates in FITUR Screen and other national film-friendly networks.¹ International productions, such as *Game of Thrones* (HBO, 2011–2019), specifically Season 6, episodes 1 and 4 filmed on location in Peñíscola in 2015, increased tourist arrivals by 23% in 2016, although subsequent research recorded an 8% drop in 2017 due to the absence of consolidated experiential products.^{33,38}

As shown in Table 1, audiovisual investment between 2021 and 2025 totaled €800,000, generating an estimated €10.6 million in induced tourism expenditure, demonstrating a significant multiplier effect associated with screen-based promotion.

Smart-destination technologies, including artificial intelligence (AI)-based information systems, free Wi-Fi connectivity, mobile apps, and augmented reality tools, enable real-time monitoring of tourist flows, sentiment analysis, and adaptive capacity management.^{15,30} These tools advance an immersive tourism model integrating landscape, heritage, and narrative experiences, while reinforcing evidence-based and sustainable governance.

In summary, Peñíscola operates as a territorial laboratory of smart tourism, where historical, environmental, and audiovisual dimensions converge into a complex, adaptive, and competitive product. Nevertheless, the

main challenge persists in maintaining authenticity and social balance amid growing media exposure. This tension between visibility and sustainability situates Peñíscola at the center of current debates on identity, governance, and creativity in heritage destinations.

4. Peñíscola as a cinematic setting: A century of audiovisual heritage

The relationship between Peñíscola and the film industry spans more than a century, positioning the town among Spain's pioneering film tourism destinations.

From *Ana Kadova* (1913, Fructuós Gelabert) onward, Peñíscola has served as a privileged film set, valued for its distinctive coastal atmosphere and visual appeal.^{1,39} A major turning point occurred with *El Cid* (1961, Anthony Mann), starring Charlton Heston and Sophia Loren. The superproduction projected an image of the Templar castle and the old town onto international screens, fusing the destination with the medieval and heroic imaginary of Spain. This cinematic exposure transformed Peñíscola into a global reference under the symbolic label of the “City of El Cid.”^{25,40} Within Spanish cinema, *Calabuch* (1956, Luis García Berlanga) occupies an equally significant place for its humanistic portrayal of coastal life and its implicit critique of modernization. Later works such as *Tierra* (1996, Julio Medem) and *París-Tombuctú* (1999, Luis García-Berlanga) extended these representations toward poetic and introspective readings of the region, showcasing both the region's landscapes' versatility and their narrative potential.^{38,39}

At the turn of the century, the expansion of serial and streaming production further enhanced the destination's global visibility. *Game of Thrones* (HBO, 2016) transformed Peñíscola into the fictional city of Meereen, using locations such as Portal Bosc, Santa María Square, and Felipe II Ramp to recreate a hybrid architectural universe. The phenomenon generated widespread set-jetting, raising arrivals by 23% and confirming the emotional pull of screen imagery. Other prominent series, including *El Ministerio del Tiempo*, *El Barco*, and *El Chiringuito de Pepe*, continued linking Peñíscola's coastal urban fabric to diverse audiovisual narratives.^{38,39} Nevertheless, the visibility derived from international productions also revealed a certain dependence on exogenous narratives for local promotion, raising questions about the capacity of destinations to maintain equilibrium between global exposure and control over their own identity discourses.^{33,38}

Media success prompted local authorities to institutionalize film heritage as a tourist attraction. The *Peñíscola de Película* program encompasses guided routes, augmented-reality apps, interactive panels, and

Table 1. Economic impact and audiovisual investment (2021–2025)

Year	Audiovisual investment (€)	Induced-tourism expenditure (€ million)	Source
2021	120,000	1.2	Turisme CV ³⁶
2022	150,000	1.8	Turisme CV ³⁶
2023	180,000	2.3	Turisme CV ³⁶
2024	200,000	2.5	Turisme CV ³⁶
2025	150,000	2.8	Turisme CV ³⁶
Total	800,000	10.6	Turisme CV ³⁶

Abbreviation: CV: Comunitat Valenciana.

public reenactments that allow visitors to “re-live” iconic scenes on location.⁴¹ These initiatives mark a conceptual transition from passive content consumption to immersive participation, supported by collaboration among the City Council, the Peñíscola Film Commission, and private stakeholders.

Film Commissions in Spain have consolidated as key institutional agents that facilitate production logistics while strategically linking audiovisual activity to destination management.⁴² Beyond permits and scouting services, they coordinate training programs and sustainability guidelines that bridge film production with tourism governance.⁴³ Reports by official Spanish government plans document tangible outcomes of film-induced tourism, including increased production that drives visitor expenditure, extended stays, and economic diversification across hospitality, transport, and retail sectors. Audiovisual activity has also incentivized heritage conservation through the restoration of the walled precinct and has contributed to improving the international reputation of the destination.

From a cultural standpoint, the cinematic phenomenon enriches Peñíscola’s social ecology by encouraging intercultural interaction and revaluation of local traditions through cosmopolitan references. However, such processes simultaneously introduce challenges related to sustainability: managing visitor capacity, preventing excessive fictionalization, and ensuring equitable distribution of economic benefits.^{15,34} To address these issues, the Peñíscola Film Commission collaborates with the Valencian and Spanish Film Commissions, offering location-scouting services, permits, environmental good-practice guidelines, and technical training.⁴¹ At the

same time, AI-based applications have been incorporated into tourism monitoring, analyzing sentiment on social networks, predicting visitor demand, and dynamically managing crowd flows.^{15,32} The integration of these instruments positions Peñíscola as a film-friendly smart destination committed to sustainability and creative governance. Its historical and technological evolution establishes the foundation for the experiential model analyzed in the following section, which examines how audiovisual heritage, data analytics, and participatory design converge to produce immersive and culturally grounded tourism experiences.

4.1. *Peñíscola de Película*: A paradigmatic immersive experience

Launched in 2017 and consolidated as an annual tourism product by 2019, *Peñíscola de Película* represents the culmination of a cultural development strategy that integrates heritage, technology, and community participation.⁴¹ The program converts the town’s long cinematic legacy into an immersive experience structured around four interconnected dimensions: heritage interpretation, scenic reenactment, educational practice, and intelligent management of tourist flows.

4.2. Structure and components

Interactive guided routes, thematic itineraries titled *El Cid*, *Game of Thrones*, and *Spanish Cinema of the Twentieth Century*, host groups of 25 participants and last 2.5 h. Each includes eight emblematic locations (e.g., Santa María Square, Portal Bosc, Felipe II Ramp, the City Walls, and the Castle), each equipped with QR panels that activate original film scenes through free augmented-reality applications.⁴¹ Certified guides complement the visual content with shoot

anecdotes and historical-context explanations, blending mediated and local narratives.

The “Actor for a Day” film tourism experience (October 4–9, 2024) invites visitors to participate as extras in professionally-staged reenactments of *Game of Thrones*, *El Cid*, and *Caribbean Buccaneers* scenes across key filming locations, including Plaza de Toros, Playa Sur, and Plaza Santa María, featuring authentic props and technical direction by local film professionals.⁴⁴ This format transcends scenic visitation and advances the notion of screen tourism toward the broader experience-economy paradigm, where visitors act as co-producers of meaning rather than consumers of imagery. Observational studies suggest that the program fosters feelings of local belonging and enhances the perception of cultural authenticity among participants.^{39,41}

4.3. Performance and limitations

Peñíscola’s augmented-reality film tourism routes achieve high experiential satisfaction through innovative technologies such as the “Peñíscola Live the Game” app, which was recognized as a national best practice by SEGITTUR in 2021. These immersive experiences face scalability challenges typical of premium film tourism offerings, while experiential programs like “Actor for a Day” (October 4–9, 2024) deliver strong symbolic branding value for destination marketing despite potentially limiting accessibility for budget-conscious travelers.⁴¹

As detailed in Table 2, key performance indicators between 2019 and 2024 show strong comparative growth versus general tourism, particularly in visitor numbers, repeat visitation, and off-season travel. However, structural limitations remain regarding carrying capacity, accessibility, and data representativeness.

Risk control measures align with Peñíscola’s DTI Level 3 certification, featuring capacity management protocols and local community integration through tourism revenue redistribution.³¹ The “Peñíscola Live the Game” AR app, recognized by SEGITTUR among Spain’s 50 best digital tourism practices, enhances film routes with augmented reality recreations of *Game of Thrones* dragons and Calabuch pyrotechnics, presented at FITUR 2023.⁴⁵ Peñíscola employs DTI protocols for congestion management at film locations, balancing high *Game of Thrones* demand with sustainable visitor capacity.²⁰ The “Actor for a Day” experiential program further demonstrates sustainable visitor management practices.⁴⁴

4.4. Differentiated impacts

The differentiated impacts can be categorized as:

- (i) Economic: Annual direct expenditure of €2.5 million (45% accommodation, 32% food services, and 23% retail).
- (ii) Social: 120 direct jobs created and an average resident satisfaction of 8.4 out of 10.
- (iii) Cultural: 92% of visitors reported an enhanced appreciation of the town’s historical reality after participating.^{36,41}

Experiential products generate more durable forms of visitor loyalty than isolated media events, with AI and Film Commissions serving as key operational tools in implementing smart film tourism models. Despite its achievements, the long-term viability of *Peñíscola de Película* depends on continuous monitoring of cultural, environmental, and social effects, distinguishing short-term media impacts from structural transformations in destination sustainability. The initiative currently serves as a reference for medium-scale cultural destinations with emerging audiovisual heritage, though replicability must be evaluated on a case-by-case basis, depending on institutional capacity and local resources.

5. Governance of sustainable tourism in Peñíscola

Sustainability constitutes the structural axis of contemporary tourism governance in Peñíscola. The city’s strategy is organized through its integration into the Spanish DTI Network, an initiative led by the Ministry of Industry and Tourism and SEGITTUR, structured around five dimensions: governance, innovation, technology, sustainability, and accessibility.³¹ This network operates as a cooperative improvement system that monitors progress through indicators of data interoperability, citizen participation, product diversification, and sustainable flow management, recognizing film tourism as a strategic component of the cultural axis. Peñíscola currently participates in the DTI Network at Level 3 of Advancement, reflecting notable institutional progress yet leaving space for greater maturity. Data interoperability has reached 68% (the target is 85 %), while citizen participation involves 23% of the population, highlighting positive but incomplete engagement mechanisms.

This framework aligns with current theories of integrated sustainability, which approach tourism as a complex interaction of environmental, social, and economic dynamics.^{25,27} The achievement of Biosphere Certification 2024 marked Peñíscola as the first Valencian city to obtain this international recognition, granted by the RTI and aligned with the United Nations SDGs.⁴⁶ The process involved technical audits, participatory

Table 2. Key indicators (2019–2024)

Indicator	Value	Comparison with general tourism	Limitation	Source
Annual visitors	28,500	+320% vs. 2016	Capacity 1,200 pax/day	peniscola.org ⁴¹
Average spending per visitor	€87	42%	High price reduces accessibility	SIT ³⁰
Average stay	2.8 days	+1.8 days	Data focused on guided visits	Turisme CV ³⁶
Repeat visitation (2+ trips)	34%	+19 pp	62% GoT fan	peniscola.org ⁴¹
Satisfaction (NPS)	9.1/10	+1.4 points	Self-selected digital sample	SIT ³⁰
Off-season travel	42%	+28 pp	DTI target 60%	Turisme CV ³⁶

Abbreviations: CV: Comunitat Valenciana; DTI: Destino turístico inteligente (Smart tourist destination); GoT: Game of hrones; NPS: Net promoter score; pp: Percentage point; SIT: Sistema de inteligencia turística (Tourism intelligence system).

actors, and progressive learning cycles designed to instill an adaptive institutional culture. The initial assessment identified gaps in 12 of 17 SDGs, especially in water and waste management, while the 2025 monitoring cycle reports “green compliance” in 72% of indicators.^{5,31} The destination has achieved notable improvements in hydric efficiency (45% reuse, target 70%), recycling (62%, target 80%), and renewable-energy transition, alongside ecosystem restoration in Serra d'Irta Natural Park (23% of trails showing erosion).³⁰ Although these advances denote measurable environmental progress, their long-term consolidation depends on sustained funding and external verification systems or monitoring policy continuity.

5.1. Participatory governance and social capital

Participatory governance represents the cornerstone of the model. Co-creation mechanisms, including workshops, community consultations, and collaborative planning, were especially relevant in shaping *Peñíscola de Película*. These processes enable residents to co-design routes and regulations based on collective memory and heritage awareness.^{14,41} These mechanisms strengthen social capital and institutional legitimacy by promoting co-responsibility between administration and community.³⁸ Still, only 14% of resident associations are actively involved, and participation in historic-district consultations reaches just 28%, revealing the need for broader inclusion and representation.¹⁴

5.2. Environmental sustainability and resource management

Municipal environmental policy relies on resilience and resource management plans.³⁷ Actions prioritize reducing single-use plastics, improving energy efficiency, and protecting biodiversity within Serra d'Art Natural Park. Impact indicators from the SIT inform seasonal capacity adjustments and monitor environmental stress.^{15,31} Culturally, sustainability extends beyond physical preservation to safeguard intangible heritage (traditions, gastronomy, and craftsmanship) through digital interpretation and critical mediation. For example, a recent survey reported that 34% of visitors mistook the fictional city of Meereen for Peñíscola's true history, supporting the need for interpretive signage and educational layers in film-tourism products.³⁷

5.3. Local economy and digital strategy

The economic dimension seeks to diversify target markets (family, cultural, nature, audiovisual, senior, and MICE [meetings, incentives, conferences, and exhibitions]), promote decent employment (+12%), and offer financial support to small and medium-sized enterprises through training and micro-credit initiatives.³⁷ Urban mobility has been optimized by pedestrianizing the old town, expanding cycling networks, and installing electric charging stations. Digitalization of services via portals, mobile apps, interactive routes, and gamification has enhanced accessibility and data-based decision-making.^{15,30}

As summarized in Table 3, key risks identified in 2024 are addressed through specific mitigation measures, with measurable performance indicators demonstrating progress in occupancy control, social perception, employment generation, and off-season demand management.

5.4. Technological integration and adaptive governance

Technological integration and adaptive governance enhance sustainable tourism indicators in smart destinations through real-time monitoring and data-driven policies across strategic-relational, instrumental, and applied levels, revealing technology–sustainability gaps in nine key dimensions.³² AI-powered tourism intelligence systems anticipate visitor flows, analyze online sentiment, and enable dynamic policy adjustments. DTI frameworks foster adaptive management models that balance accessibility, economic efficiency, and environmental protection. This alignment boosts resilience and supports data-informed local governance. Overall, Peñíscola's tourism governance combines strategic vision, digital innovation, and social participation to pursue an equilibrium between profitability, sustainability, and quality of life. Notwithstanding progress, environmental and institutional gaps remain, indicating that further policy validation and external evaluation will be required to achieve mature sustainability.

6. Comparative evaluation and transferability of the Peñíscola model

The Peñíscola experience represents a relevant instance of convergence between sustainable tourism, digital governance, and audiovisual heritage management. Its trajectory demonstrates how a mid-sized destination can integrate innovation, community participation, and cultural sustainability while maintaining territorial specificity.^{37,38}

From an analytical standpoint, the model can be situated within the broader framework of adaptive multi-level governance, wherein local, regional, and national actors interact with the private sector and the resident community to co-produce territorial value.^{1,5} Integration into the DTI Network serves as a coordinating platform that connects technological innovation with participatory and evidence-based management.³⁷

In comparative terms, Peñíscola shares certain affinities with hybrid destinations such as Bilbao, focused on cultural smart tourism, and Benidorm, developed under the DTI urban model, yet it differs in the centrality assigned to audiovisual heritage and in the incorporation

of immersive experiences into local governance.^{31,39} This position between the technologically advanced models of Málaga and Valencia and the small-scale cultural approaches of Morella and Jávea allows for an intermediate perspective on adaptation and transferability. In terms of performance, Peñíscola presents an intermediate level of verified sustainability (72% green SDG compliance, 68% data interoperability) and notable improvements in digitalization and community engagement, though its scale and institutional dependence limit replicability.^{5,37} Comparison with more mature cases (Málaga and Valencia) suggests that its strength lies less in technological capacity and more in its ability to connect cultural identity with data-driven management within the same governance framework.³⁸

The Peñíscola case provides an observational lens for exploring how audiovisual discourse intersects with social cohesion and cultural management. While film tourism serves as a means of cultural mediation rather than a promotional tool, its long-term effectiveness depends on critical control over narrative representation and equitable distribution of economic benefits.^{15,26,30}

The model's transferability resides not in the replication of *Peñíscola de Película* as a product but in its methodology of implementation: community co-creation, informed heritage interpretation, and the strategic use of artificial intelligence for predictive capacity and demand management.³⁷ These elements may prove effective in other mid-scale cultural destinations that possess strong cultural identities and emerging audiovisual resources, provided their institutional capacities allow for adaptive governance. In a European comparative perspective, Peñíscola demonstrates that sustainable tourism does not depend solely on economic scale or technological investment, but rather on institutional maturity and the capacity to integrate data, culture, and community into decision-making processes. The case offers empirical insight for analyzing creative governance in territories transitioning toward sustainability, although its results remain context-specific and not entirely generalizable.^{14,27,38}

In summary, the Peñíscola model serves as an interpretive reference for understanding how film-heritage management can be folded into sustainable tourism planning. Rather than a fixed success formula, it constitutes an experimental, open framework whose lessons can inform debates on the evolving relationship between art, territory, and sustainability in contemporary Mediterranean destinations.

7. Conclusion

The case of Peñíscola illustrates a complex evolutionary

Table 3. Indicators and risks (2024)

Risk	Mitigation measure	2024 indicator
Overcrowding	Capacity limits and online booking systems	Occupancy < 85% (achieved 82%)
Authenticity vs. fiction	QR panels and critical interpretation programs	Positive perception 90% (surveys)
Benefit distribution	Community co-creation + 20% revenue reinvestment	150 direct jobs (+12%)
Off-season occupation	Winter programming + predictive marketing artificial intelligence	42% Oct–Mar (target 55%)

process observable in Mediterranean tourist destinations that are moving from traditional sun-and-beach models toward more diversified and culturally integrated frameworks. Its experience suggests that incorporating audiovisual heritage into tourism planning can help renew the image of mature destinations, yet it does not fully resolve the long-standing challenges of sustainability or the structural dependence on media-driven demand.

Film-induced tourism has operated as a distinctive factor in identity and differentiation, but it produces uneven effects. Initiatives such as *Peñíscola de Película* have broadened international visibility and fostered participatory practices; however, limitations persist in scalability, economic accessibility, and replicability across other contexts. Technological integration through AI and DTI systems has improved management and flow monitoring, yet empirical assessment is still required to determine their actual impact on social cohesion and sustainable capacity.

Institutionally, the Biosphere Certification 2024 and membership in the DTI Network (Level 3) reflect the construction of a more systematic governance framework, although deficits in data interoperability (68%) and public participation (23%) indicate that progress toward mature sustainability remains incomplete. Seasonal overcrowding, uneven distribution of benefits, and the blurred line between fiction and historical authenticity continue to pose relevant risks.

This analysis demonstrates how the three analytical notions: film-induced tourism, cultural affinity, and smart destinations interact to reshape destination governance, revealing both synergies and tensions in their practical implementation. Peñíscola offers a distinctive observation point for studying how audiovisual narratives reshape territorial perception and how cultural identity is managed as both a resource and a representation subject to re-interpretation. Methodologically grounded in documentary analysis and sustainability indicators rather than field interviews, these findings establish an evidential

baseline that requires longitudinal validation. The case exhibits a degree of coherence between innovation discourse and sustainability practice, yet the absence of external validation makes its long-term cultural and social impacts difficult to measure. Taken together, Peñíscola should not be regarded as a universal model but rather as an experimental setting that reveals both the potential and contradictions of intelligent cultural tourism. Progress is notable in technological and experimental dimensions; however, authenticity, equitable governance, and structural capacity remain critical challenges. These findings underscore the need for continuous monitoring and interdisciplinary research to assess the effectiveness of creative governance models in medium-scale Mediterranean cultural destinations.

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