



# Standards for Sustainable Tourism: Insights on Accessibility and Inclusivity

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**ABSTRACT:** This study reviews literature and explores the role of the ISO 21902 standard in advancing accessibility, inclusivity, and sustainability within the global tourism sector. It examines how standardisation contributes to removing barriers for travellers with diverse access needs while promoting universal design and responsible governance. The findings highlight the impact of ISO 21902 on harmonising accessibility practices, fostering stakeholder collaboration, and aligning with the United Nations Sustainable Development Goals (SDGs). Moreover, the study discusses the interplay between accessibility, digital innovation, and sustainable tourism development. By positioning accessibility as both a human right and a strategic business imperative, this research underscores that inclusive tourism is essential for achieving long-term social, economic, and environmental sustainability. As this study is based on secondary data, future studies employing surveys or case analyses can evaluate real-world compliance and effectiveness.

**KEYWORDS:** accessibility, tourism, inclusivity, sustainable business models, standards, SDG.

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## Introduction

Tourism stands as one of the most dynamic sectors of the global economy, responsible for generating approximately one in every eleven jobs worldwide and contributing around 9% of global GDP (UNWTO, 2019). However, despite its economic vitality, the tourism sector continues to face significant challenges in ensuring equal access for all travellers. According to the World Health Organisation (2023), almost 15% of the world's population lives with a disabling condition, and nearly 50% of people over the age of 60 experience some form of functional limitation (UN DESA, 2025).

People with disabilities and other access requirements often encounter physical, sensory, cognitive, and cultural barriers when participating in tourism activities (ISO 21902:2021). Common obstacles include inaccessible transportation systems, poorly designed accommodations, and limited availability of reliable accessibility information. Even when accessible facilities exist, inconsistent standards and terminology across countries lead to confusion and unrealistic visitor expectations (UNWTO, 2016).

Moreover, accessibility extends beyond disability. It encompasses a broader demographic that includes elderly travellers, families with children, people with temporary impairments, and even those facing language or cultural barriers (UNWTO, 2016). Contrary to common misconceptions, accessible tourism is not limited to a small market segment. Studies by the European Commission (GfK & Partners, 2014) indicate that travellers with disabilities tend to travel with two to three companions, amplifying the potential market impact. Furthermore, two-thirds of people with disabilities in developed economies possess the financial means to travel (Bowtell, 2015). Accessible tourism thus represents a loyal and expanding market. As global ageing trends accelerate, with the proportion of people aged 65 and above expected to increase from 9% in 2019 to 16% by 2050 (UN, 2019), the demand for inclusive tourism services will continue to rise. Accessibility, therefore, is not merely an ethical or legal issue; it is a strategic business opportunity that enhances competitiveness and fosters sustainable growth.

Therefore, accessible tourism - also known as "Tourism for All" or "Inclusive Tourism" - is not a niche concept, but rather a holistic approach to ensuring equitable participation for all individuals, regardless of age, gender, or ability (World Committee on Tourism Ethics, 2016). The International Organisation for Standardisation (ISO) has taken major steps toward addressing these inequalities with the publication of "ISO 21902:2021 - Tourism and related services - Accessible tourism for all - Requirements and recommendations". This landmark standard provides a framework for improving accessibility and inclusivity across the tourism value chain, offering practical guidance to governments, tourism operators, and industry stakeholders.

This study examines how ISO 21902 contributes to sustainable tourism through accessibility and inclusivity. It explores the interconnections between universal design, standardisation, stakeholder engagement, and sustainability, arguing that accessibility is both a human right and an economic imperative.

## **Research Aim and Research Questions**

The primary aim of this research is to critically examine the role of international standardisation, with a particular focus on ISO 21902:2021 - Tourism and related services: Accessible tourism for all - Requirements and recommendations, in promoting accessibility, inclusivity, and sustainability within the global tourism sector. The study aims to explore how the adoption of ISO 21902 can bridge existing gaps in accessibility practices, promote a more inclusive tourism value chain, and align with the broader objectives of the United Nations' Sustainable Development Goals (SDGs). Furthermore, the research aims to explore how international standards can serve as a catalyst for innovation, stakeholder collaboration, and responsible governance in tourism development.

To achieve this aim, the study will be guided by the following research questions:

- How does ISO 21902 contribute to enhancing accessibility and inclusivity in tourism services, destinations, and management practices?
- What are the key barriers and enabling factors affecting the implementation of ISO 21902 across different cultural, economic, and regulatory contexts?
- In what ways does the integration of accessibility standards support sustainable tourism, particularly in relation to the SDGs on equality, economic growth, and community development?
- How can digital innovation and complementary ISO frameworks strengthen the impact of ISO 21902 in promoting inclusive and smart tourism ecosystems?

## **Research Results**

### *Objectives and Scope of ISO 21902*

Published in 2021, ISO 21902 is the world's first comprehensive international standard addressing accessibility in tourism. It provides requirements and recommendations for ensuring that tourism facilities, products, and services are accessible to all visitors on an equal basis. The standard encompasses a diverse range of stakeholders, including public authorities, destination management organisations (DMOs), transport providers, accommodation services, tour operators, ICT providers, and end-users (ISO 21902:2021, Clause 3.16).

ISO 21902 emphasises Universal Design, a principle that advocates for environments usable by all people, to the greatest extent possible, without the need for adaptation. By promoting universal design, ISO 21902 ensures that accessibility is integrated into planning, infrastructure, and communication rather than treated as a retrofit or add-on feature.

### *Dimensions of Accessibility*

Accessibility is a multidimensional concept, encompassing physical, informational, communicational, and economic aspects (Stuchlikova & Botlikova, 2021).

- Physical accessibility ensures that buildings, transport systems, and public spaces can be navigated independently by all users.

- Information accessibility focuses on reliable, understandable, and standardised communication about accessibility features.
- Communication accessibility refers to staff behaviour and the quality of interaction with visitors, including the use of inclusive language and assistive technologies.
- Economic accessibility involves providing equitable pricing structures and options across different income levels.

By articulating these dimensions, ISO 21902 provides a holistic framework that integrates design, management, and policy considerations.

### *Harmonisation and Global Consistency*

One of the main challenges in accessible tourism has been the fragmentation of standards across regions. ISO 21902 aims to harmonise these practices and close the gaps between national and regional regulations. The initiative is supported by organisations such as the European Network for Accessible Tourism (ENAT), which promotes collaboration among public authorities, private businesses, and NGOs to advance inclusive tourism globally (ENAT, 2021).

Furthermore, the standard complements other ISO frameworks, such as ISO/IEC 40500:2025 on Web Content Accessibility Guidelines (WCAG 2.2), ensuring that both digital and physical accessibility are addressed within the tourism ecosystem (Laporte et al., 2018). Digitalisation plays a key role in this integration by enabling smart destinations and smart travel facilitation that utilise technology, sustainability, and inclusivity across the visitor journey (UNWTO, 2023).

### *Accessibility, Sustainability, and Digital Transformation*

Sustainable tourism, as defined by the UN Sustainable Development Goals (SDGs), seeks to balance economic growth, social inclusion, and environmental protection (Gkarane et al., 2024). Accessibility contributes directly to SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 11 (Sustainable Cities and Communities). The rise of digital tourism ecosystems offers new opportunities for improving accessibility. Technologies such as smart mobility systems, augmented reality guides, and AI-powered translation tools enhance the accessibility of information and communication for diverse users. According to the UNWTO Goa Roadmap (2023), digitalisation fosters circular tourism approaches and allows destinations to adapt more flexibly to visitors' needs. Moreover, standards such as ISO/IEC 29110 and ISO/IEC 40500 ensure that digital solutions adhere to accessibility principles. Integrating inclusive design guidelines for human-computer interaction (HCI) within tourism platforms enables visitors to interact with systems regardless of their sensory or cognitive abilities (Laporte et al., 2018; Sanchez-Gordon et al., 2019). Thus, the alignment between ISO 21902 and digital accessibility standards reinforces sustainability and user empowerment.

The intersection of Environmental, Social and Governance (ESG) frameworks and inclusivity is an emerging aspect of responsible business practice, particularly in the tourism and hospitality industries. When supported by digital technologies, these frameworks have a multiplier effect (Sklavos et al., 2024). The ESGI concept expands the scope of corporate social responsibility (CSR) by integrating inclusive technologies and highlighting how digital innovation and equitable

design can enhance sustainability and accessibility outcomes (Gidage, 2025; Glushchenko, 2025). Empirical evidence suggests that organisations with robust diversity, equity, and inclusion commitments tend to demonstrate superior ESG performance, particularly in industries with high human capital dependence, high stakeholder visibility, and high innovation intensity (Gidage, 2025).

### *Stakeholder Engagement and Governance*

ISO 21902 defines stakeholders broadly as all entities involved in the accessible tourism value chain, including governments, tourism enterprises, ICT providers, construction firms, and end users (ISO 21902:2021). Effective implementation requires collaboration among these diverse actors. Public administrations must lead by example through legislation and inclusive procurement policies. Meanwhile, private sector players, especially small and medium-sized enterprises (SMEs), must receive training and incentives to integrate accessibility standards into their operations. Nonprofit organisations, such as ENAT and Fundación ONCE, contribute by offering education, certification, and benchmarking systems to promote excellence in accessible tourism.

While standardisation provides a technical foundation, true inclusivity requires a cultural transformation within the tourism industry. Researchers such as Marčeková et al. (2025) argue that accessibility should be viewed not only as an infrastructure issue but also as a matter of social awareness and stakeholder engagement. Employees' attitudes, communication skills, and empathy directly shape visitors' experiences. Thus, training programs such as the EU-funded "New Skills for Customised Accessible Tourism (NewsCAT)" project (2016–2019) are essential to cultivate a culture of inclusion and continuous improvement.

## **Discussion**

The analysis of ISO 21902:2021 and related literature reveals several key insights into how international standards can transform the accessibility landscape in the tourism sector. The findings indicate that while awareness of accessibility has increased significantly within policy and academic circles, its implementation remains uneven across destinations and sectors. ISO 21902 provides a coherent framework for addressing these disparities by defining universal requirements and recommendations for accessible tourism. It bridges existing gaps between fragmented national standards and creates a shared reference for all stakeholders in the tourism value chain.

### *1. Enhanced Clarity and Consistency in Accessibility Practices*

One of the most significant outcomes of ISO 21902 is the standardisation of accessibility terminology and procedures across the tourism sector. Before its introduction, accessibility guidelines varied significantly among countries and regions, resulting in inconsistent service delivery and visitor frustration. ISO 21902 establishes a unified language and structure for evaluating accessibility, ensuring that tourism providers, policymakers, and consumers operate with a common understanding. This harmonisation facilitates transparency and comparability across destinations, empowering travellers to make informed decisions while enabling businesses to adopt measurable and verifiable accessibility benchmarks.

## *2. Strengthened Stakeholder Collaboration and Policy Alignment*

The results indicate that ISO 21902 also promotes multi-stakeholder collaboration as a critical mechanism for sustainable tourism development. By defining stakeholder roles, ranging from public administrations and destination management organisations (DMOs) to private tourism enterprises and ICT providers, the standard fosters shared responsibility and accountability. National and regional governments are encouraged to integrate accessibility criteria into tourism policies and public procurement processes, which collectively account for nearly 20% of global GDP (ISO, 2021). This integration drives the inclusion of Universal Design principles in infrastructure projects and incentivises private sector actors to invest in accessible services and technologies.

## *3. Economic and Social Impact of Accessible Tourism*

Empirical evidence from prior studies supports the notion that accessible tourism represents not a niche market, but a profitable and resilient segment of the industry. According to a report of the World Health Organisation (WHO, 2023), almost 1.3 billion people - around 16% of the global population - experience significant disability. Moreover, research estimates that travellers with disabilities typically journey with two to three companions, multiplying the potential economic benefit (Bowtell, 2015; WHO, 2023). As disabilities are also relevant to ageing, as the proportion of elderly travellers continues to grow - projected to reach 16% of the global population by 2050 - the demand for inclusive tourism offerings will expand accordingly. Thus, ISO 21902 positions accessibility not only as a social right but also as a strategic business opportunity that contributes to the competitiveness and sustainability of destinations.

## *4. Digital Transformation as a Driver of Accessibility*

Another significant result concerns the role of digital innovation in advancing accessible tourism (Tsotsas et al., 2025a,b). Standards such as ISO/IEC 40500 (WCAG 2.2) and ISO/IEC 29110 complement ISO 21902 by ensuring that digital platforms, booking systems, and destination management tools are designed inclusively (Laporte et al., 2018; Sanchez-Gordon et al., 2019). This is particularly important as tourism increasingly relies on digital interfaces for trip planning, service delivery, and post-visit engagement. The emergence of smart destinations, which combine accessibility, sustainability, and digitalisation, illustrates how technology can extend the reach of accessible tourism to a broader audience. Digital solutions, such as adaptive websites, virtual reality previews, and AI-based translation tools, enhance both information and communication accessibility, contributing to more inclusive travel experiences for people with diverse abilities and backgrounds (Papanikolaou et al., 2025).

## *5. Challenges and Areas for Further Improvement*

Despite these advances, several challenges persist. Many tourism providers remain unaware of existing accessibility tools, and in some regions, training and technical capacity are insufficient to effectively meet ISO standards. Additionally, financial constraints, limited data, and varying national regulations continue to impede full adoption. There is also a cultural dimension: achieving genuine inclusivity requires more than compliance—it demands attitudinal change within the tourism workforce and a commitment to continuous learning and empathy in customer service. These findings align with the conclusions of Marčeková et al. (2025), who argue that accessibility should be approached not

merely as an infrastructural concern but as a cultural transformation process embedded in everyday practice.

#### *6. Broader Implications for Sustainable Development*

Ultimately, the integration of accessibility within the sustainability agenda underscores ISO 21902's contribution to the United Nations' Sustainable Development Goals (SDGs). Specifically, it advances SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 11 (Sustainable Cities and Communities) by fostering inclusive employment opportunities, equitable mobility, and community-based tourism development. As destinations adopt ISO 21902 and related frameworks, they not only comply with ethical and legal standards but also strengthen their long-term resilience, ensuring that tourism benefits are distributed equitably among all segments of society. In the context of tourism, inclusivity is not just a moral or regulatory objective, but also a strategic asset that can boost competitiveness, adaptability and reputation. Furthermore, communication and technology-driven tourism firms can leverage accessibility and inclusive design principles to achieve ESG leadership. Thus, aligning ISO 21902 with ESG frameworks and inclusivity benchmarking provides a multidimensional pathway for achieving accessible, ethical, and sustainable tourism ecosystems, reinforcing the principle that inclusivity underpins both social justice and long-term business resilience.

### **Conclusion**

The integration of ISO 21902 into global tourism systems marks a significant milestone in advancing accessibility and inclusivity. By promoting universal design, standard harmonisation, and stakeholder collaboration, the standard bridges the gap between social responsibility and economic opportunity. Accessible tourism is no longer a niche initiative but a core component of sustainable tourism development. Taking into consideration the increasingly ageing rates in most developing and developed countries, persons with disabilities represent a significant proportion of the global population. Hence, as the demand for inclusive travel grows, destinations and enterprises that adopt ISO 21902 will not only comply with ethical obligations but also gain a competitive advantage. The future of tourism lies in universal accessibility, where technology, design, and policy converge to create experiences that are welcoming, equitable, and enriching for all.

This study is primarily based on a narrative literature review, which, while valuable for synthesising conceptual frameworks and policy developments, has inherent limitations. The analysis relies on secondary data and existing publications rather than empirical evidence derived from field research or stakeholder engagement. Consequently, the findings reflect theoretical insights and global best practices rather than measurable outcomes of ISO 21902 implementation in specific destinations or organisations. Future research should employ empirical methodologies, such as surveys, interviews, or case studies, to assess how tourism providers, public authorities, and destination management organisations (DMOs) interpret and apply ISO 21902 in practice. Additionally, longitudinal studies could evaluate the effectiveness and compliance of accessibility standards over time, providing actionable insights for policy design, industry adaptation, and inclusive innovation in tourism.

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